cases, the health entity often relies upon a parent or an affiliated company to provide EDP services with a resultant charge back through a management or service agreement.

Analysis of EDP assets should consist primarily of ongoing monitoring of the balances, the relative change, and the relationship of that change with what is expected based upon other trends/activity within the health entity.

Special Deposits

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
7	***9***	***8***

EXPLANATION: The procedures assist analysts in determining if the insurer is exposed to greater-than-normal liquidity risk with respect to special deposits. Special deposits are segregated into two sections: 1) for the benefit of all policyholders; and 2) all other special deposits. Both categories reflect amounts aggregated by state. Deposits for the benefit of all policyholders are held by individual states. The assets composing these deposits are held on the various investment schedules in the financial statement. However, the assets are not held in custody of the insurer, and restrictions are placed on the assets disposal. In a situation of a rehabilitating or troubled insurer, these restrictions on assets may cause concerns, particularly those not held for the benefit of all policyholders.

This procedure also assists analysts in determining if the domiciliary state may be having difficulty in calling deposits that are deemed "all other special deposits." This procedure specifically applies when the level of deposits that are not for the benefit of all policyholders as a percentage of total assets is high, or in cases when the insurer has been determined to be troubled. Analysts may consider this assessment necessary in either of those cases because, once the insurer has moved into rehabilitation, the cash flow position of the insurer may deteriorate rapidly.

Surrender and Withdrawal Activity

Property/ Casualty #	*Life/A&H/Fraternal #*	*Health #*
N/A	***10***	***N/A***

EXPLANATION: The procedures assist analysts in determining if surrenders and withdrawals on life and annuity products are significantly affecting the insurer's liquidity position and are trending negatively. In addition, significant levels of guaranteed interest contracts or amounts subject to minimal or no surrender charges can be identified as well.

Cash Flow from Operations

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
8	***11***	***9***

EXPLANATION: The procedures assist analysts in identifying situations where the insurer's operations are generating negative cash flow. By analyzing the components of net cash from operations, analysts will determine whether a fluctuation in cash inflow or cash outflow or both are resulting in a negative value. Material changes in cash inflows may be impacted by shifts in premiums collected as a result of changes in reinsurance, unearned premiums, or agents' balances, or other issues that require additional investigation. Shifts in cash outflows may be impacted by the timing of claims payments, changes in loss reserves or reinsurance recoverable, or the insurer's overall expenses, etc. In conjunction with the review of net cash from operations, it is also important for analysts to review net cash from investments, or financing and miscellaneous sources to identify any potential impact(s) to cash and short-term investments. Negative cash flow from operations should be evaluated closely for persistent negative trends by reviewing the five-year trend within the

Financial Profile Report. For life insurers, analysts should also closely evaluate significant net transfers to or from separate accounts (#11c) since this could provide insights regarding potential financial problems.

FOR HEALTH ENTITIES, PROCEDURE [#9G] measures a health entity's average number of days of unpaid claims. When the time it takes to pay claims lengthens, the liability for unpaid claims generally increases. An analyst should consider also reviewing the health entity's liability for unpaid claims balances, since an understatement of these liabilities could overstate the results of procedures 1a, 1c and 1d. An increase in current liabilities increases the health entity's current cash requirements. A longer claims payment period could indicate the health entity is holding cash for other purposes.

FOR HEALTH ENTITIES: An asset adequacy analysis is generally not required for a health entity; however, for companies filing the health blank that also write life business, this may be required. Refer to the Actuarial Opinion worksheet for more discussion on asset adequacy analysis.

Related Party Exposure in the Investment Portfolio

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
9	***12***	***10***

Explanation: This procedure assists analysts in determining related party exposure in the investment portfolio and assessing any related liquidity risk.

Related parties are entities that have common interests as a result of ownership, control, affiliation or by contract as definited in *SSAP No. 25—Affiliates and Other Related Parties* (SSAP No. 25). Refer to the *Insurance Holding Company System Model Act* (Model #440) and SSAP No. 25 for a broader definition of "affiliate," "related party" and "control".

Related party transactions are subject to abuse because reporting entities may be induced to enter transactions that may not reflect economic realities or may not be fair and reasonable to the reporting entity or its policyholders. As such, related party transactions require specialized accounting rules and increased regulatory scrutiny.

The anlayst should utilize the tools available in iSite+ to identify if the insurer has a material exposure to investments involving related parties, either on an asset category basis or in aggregate, and by the related party designation noted below. If a material exposure exists, further assessment of the [credit, market, liquidity] risk may be warranted. For example, what is the NAIC designation of investments involving related parties? Analysts may also consider the extent to which related parties are involved in securitizing or originating business for the insurer, and what differences may exist in how investments involving related parties are valued. If the role of the related party is that of a third-party advisor, factors to consider may include for example, the expertise of the related party advisor, any potential conflicts of interest, and if related parties are originating investments only for the insurer or also to the public, the latter being subject to SEC requirements. The analyst may consider utilizing suggested procedures in the "Additional Procedures" section of the repository on third-party advisors, if applicable.

Within the Annual Financial Statement investment Schedules B, BA, D, DA, DB, DL, and E (Part 2), all investments involving related parties must incude disclosure to ensure full transparency. This disclosure is in the column "Investments Involving Related Parites". It designates investments by the following roles:

1. Direct loan or direct investment (excluding securitizations) in a related party, for which the related party represents a direct credit exposure.
2. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies involving a relationship with a related party as sponsor, originator, manager, servicer, or other similar influential role and for which 50% or more of the underlying collateral represents investments in or direct credit exposure to related parties.

3. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies involving a relationship with a related party as sponsor, originator, manager, servicer or other similar influential role and for which less than 50% (including 0%) of the underlying collateral represents investments in or direct credit exposure to related parties.
4. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies in which the structure reflects an in-substance related party transaction but does not involve a relationship with a related party as sponsor, originator, manager, servicer or other similar influential role.
5. The investment is identified as related party, but the role of the related party represents a different arrangement than the options provided in choices 1-4.
6. The investment does not involve a related party.

Invested Asset Exposure to Climate Change Risk

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
10	***13***	***11***

The procedure assists analysts in identifying and assessing the potential exposure of the insurer's investment portfolio to the impact of material climate change and/or energy transition risks. Transition risks refer to stresses on certain investment holdings arising from the shifts in policy, consumer and business sentiment, or technologies associated with the changes necessary to limit climate change. A few examples of investment holdings and sectors generally subject to greater levels of transition risk include, oil/gas, transportation, heavy manufacturing, and agriculture. In assessing an insurer's exposure to these risks, the analyst is encouraged to review information disclosed by the insurer in its responses to the NAIC's Climate Risk Disclosure Survey, U.S. Securities and Exchange Commission (SEC) filings, and/or the Own Risk and Solvency Assessment (ORSA) Summary Report filings. In addition, the analyst is encouraged to review the results of basic scenario analysis conducted by the NAIC using insurers' Annual Statement filings (U.S. Insurance Industry Climate Affected Investment Analysis) to identify potential concentrations in exposure.

ADDITIONAL REVIEW CONSIDERATIONS

- Review the insurer's investment policies and strategies to assess whether material climate change, transition and asset devaluation risk considerations have been appropriately implemented into the company's investment processes.
- Review the most recent examination report and summary review memorandum (SRM) for any findings regarding climate change/energy transition risks.
- If concerns exist, consider requesting information from the insurer regarding how the insurer manages its exposure to material climate change/energy transition risk, including how it identifies and estimates current and prospective exposures and the limits (if any) in place to avoid concentrations.

Assessments Against Policy Benefits (Fraternal Only)

PROCEDURE #12 assists analysts in determining if the fraternal society has implemented assessments (i.e., liens) against policyholder benefits, generally used to increase surplus. If concerns exist, information should be gathered and assessed as to the nature and duration of the liens, and the use of the funds derived from the liens.

Additional Analysis and Follow-Up Procedures

INVESTMENT STRATEGY directs analysts to consider requesting and reviewing a copy of the insurer's formal adopted investment plan. This should be evaluated to determine if the plan appears to result in investments that are appropriate for the insurer, based on the types of business written and its liquidity and cash flow needs

and to determine whether the insurer appears to be adhering to its plan. For example, the insurer's plan for investing in noninvestment-grade bonds should be reviewed for guidelines for the quality of issues invested in and diversification standards pertaining to issuer, industry, duration, liquidity, and geographic location.

EXAMINATION FINDINGS direct the analsyt to consider a review of the recent examination report, summary review memorandum and communication with the examination staff to identify if any liquidty risk issues were discovered during the examination.

NAIC CAPITAL MARKETS BUREAU ANALYTICAL ASSISTANCE directs analysts to consider requesting the NAIC's Capital Markets Bureau (CMB) to assist with investment portfolio or investment management agreement analysis. The CMB has different levels of analysis that can be arranged to assist the state.

THIRD-PARTY ADVISORS assist analysts in determining whether concerns exist regarding the use of third-party investment advisers. As investments and investment strategies grow in complexity, insurers may consider the use of unaffiliated third-party investment advisers to manage their investment strategy. Investment advisers may operate independently or as part of an investment company. Investment advisers and companies are subject to regulation by the SEC and/or by the states in which they operate, generally based on the size of their business. In certain situations, insurers may use a broker-dealer for investment advice. Broker-dealers are subject to regulation by the Financial Industry Regulatory Authority (FINRA). Regardless, most broker-dealers and investment advisers will register with the SEC and annually update a Form ADV–Uniform Application for Investment Adviser Registration and Report Form by Exempt Reporting Advisers, which provides extensive information about the nature of the organization's operations. To locate these forms, analysts can go to *www.adviserinfo.sec.gov* and perform a search based on the company name.

Key information provided on a Form ADV includes:

a. Regulatory agencies and states in which the adviser/broker is registered.

b. Information about the advisory business including size of operations and types of customers (Item 5).

c. Information about whether the company provides custodial services (Item 9).

d. Information about disciplinary action and/or criminal records (Item 11).

e. A report of the independent public accountant verifying compliance if the investment advisor also acts as a custodian.

It is important to note that the information provided on Form ADV is self-reported and is subject to limited regulatory oversight. However, the information may be valuable to analysts in assessing the suitability and capability of investment advisers providing advisory services to insurers.

Analysts should consider any significant risks identified in the most recent risk-focused examination and whether any follow-up procedures were recommended by the examiner. The examiner may have performed steps to determine the following; whether the investment adviser is suitable for the role (including whether he/she is registered and in good standing with the SEC and/or state securities regulators); whether the investment advisory agreements contain appropriate provisions; whether the adviser is acting in accordance with the agreement; and whether management/board oversight of the investment adviser is sufficient for the relationships in place.

Analysts should determine if changes have occurred in the insurer's use of investment advisers that may prospectively impact the insurer's investment strategy and overall management of the investment portfolio. If changes have occurred, analysts may consider asking the insurer for an explanation for the change in investment advisers and obtain a copy of the new adviser agreement to gain an understanding of the provisions including the advisor's authority, specific reference to compliance with the insurer's investment strategy and/or policy statements, as well as state investment laws; conficts of interest; fiduciary responsibilities; fees; and the insurer's review of the adviser's performance. (Refer to the Financial Condition Examiners Handbook for further guidance.)

Analysts can determine if the investment advisor is in good standing with the SEC. The SEC does not officially use the term "good standing"; however, for this analysis, the term is used to mean a firm that is registered as an investment adviser with the SEC and does not report disciplinary actions or criminal records in Item 11 of the Form ADV.

If the insurer uses an external asset manager and if investments on Schedule BA Assets are invested in funds that are affiliated with the asset manager or are managed by that asset manager, analysts should consider several possible issues that may result from this scenario. A possible concern may exist when the asset manager is also managing other funds in addition to managing assets for the insurer and then invests the insurer's assets in those other funds that the asset manager manages. While those funds may be good investments, both in general and for the insurer, there are a few issues that may need to be considered. First, is the potential for a conflict of interest if the asset manager is using the insurer's available funds to provide seed money or fund the manager's other funds. Second, is if any concerns exist regarding the appropriateness of the fund for the insurer's investment portfolio and if the transactions would be considered on an arm's-length basis. Third, is the understanding that the insurer may be paying double fees as the insurer would pay the asset manager a fee for the investment and then also pay a fee within the fund investment.

INQUIRE OF THE INSURER directs analysts to consider requesting additional information from the insurer if liquidity 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 liquidity risk for specific topics where concerns have been identified.

OWN RISK AND SOLVENCY ASSESSMENT (ORSA) directs analysts to obtain and review the latest ORSA Summary Report for the insurer or insurance group (if available) to assist in identifying, assessing and addressing risks faced by the insurer.

HOLDING COMPANY ANALYSIS directs analysts to 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.

Example Prospective Risk Considerations

The table provides analysts with example risk components for use in the Insurer Profile Summary Branded Risk analysis section and a general description of the risk component. Note that the risks listed are only examples and do not represent a complete list of all risks available for the liquidity risk category.

Discussion of Quarterly Procedures

The Quarterly Liquidity Risk Repository procedures are designed to identify the following:

1. Concerns with the liquidity of the insurer's asset portfolio and overall liquidity
2. Concerns with the level of investment in Other (Schedule BA) invested assets
3. Concerns with level of affiliated investments
4. Concerns with cash flow from operations
5. Concerns with securities lending transactions
6. Concerns with furniture, equipment and supplies, and EDP equipment
7. Concerns with surrender and withdrawal activity

For additional guidance on individual procedure steps, please see the corresponding annual procedures discussed above.

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with market risk. For example:

- Investment strategy also is discussed in the Credit, Liquidity, and Strategic Risk Repositories.
- Investment assets classes (Bonds, Mortgages, etc.) also are discussed in the Credit and/or Liquidity Risk Repositories.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer.

Investment Portfolio Diversification

1. Determine whether the insurer's investment portfolio appears to be adequately diversified to avoid any undue concentration of investments by type or issue. *(See also Credit Risk Repository for diversification of other asset classes)*

"a" through "h": Shown are as a percent of total net admitted assets	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
a. Residential mortgaged-backed securities (RMBS), commercial mortgage-backed securities (CMBS) or other loan-backed and structured securities (LBaSS)	CR*	>20%	[Data]	[Data]
b. Foreign bonds		>5%	[Data]	[Data]
c. Common stocks		>20%	[Data]	[Data]
d. Mortgage loans	CR*	>5%	[Data]	[Data]
e. Real estate (before encumbrances), including home office real estate	LQ	>5%	[Data]	[Data]
f. Total derivatives (notional value)	CR	>5%	[Data]	[Data]
g. Investments in affiliates	CR*, LQ	>10%	[Data]	[Data]
h. Any one single investment in foreign bonds, common stock, real estate and derivatives (excluding affiliated investments) *Note that single investments in asset backed securities are considered in the Credit Risk Repository.*	CR	>3%	[Data]	[Data]
				Other Risks
i. Review the Percentage Distribution of Total Assets in the Financial Profile Report for significant shifts in the mix of investments owned during the past five years.				CR*
j. Compare the insurer's distribution of cash and invested assets per the Percentage Distribution of Total Assets in the Financial Profile Report and Investment Snapshot Report to industry and peer averages to determine any significant deviations from the industry averages.				CR*

k. If the insurer's investments include a significant amount of foreign bonds, review the Annual Supplemental Investment Risks Interrogatories (#4 through #11). Consider the insurer's potential foreign currency exposure from holding bonds denominated in a foreign currency.	CR
l. Review the Annual Supplemental Investment Risks Interrogatories and assess any unusual items or areas that indicate a non-diversified portfolio.	CR*

Valuation of Securities

2. Determine whether securities owned have been valued in accordance with the standards promulgated by the NAIC Investment Analysis Office and Statutory Accounting Principles.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the insurer failed to follow the filing requirements of the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*? If "yes," document the exceptions listed. [Annual Financial Statement, General Interrogatories, Part 1, #32.1 and #32.2]	OP	=YES	[Data]	[Data]
				Other Risks
b. Assess the impact of market conditions: i. Through consideration of industry and economic events (i.e., news and industry analytics), is the analyst aware of any market conditions that may threaten the value of insurers' investment portfolios? ii. Through correspondence with the insurer, is the insurer aware of any market conditions that could threaten the value of its investment portfolio?				
c. Review Annual Financial Statement, Schedule D – Part 1 and Schedule D – Part 2. Does it appear that the insurer has failed to comply with the requirement to submit securities that are not filing exempt to the Securities Valuation Office (SVO) for a valuation (i.e., there are securities which were acquired prior to the current year with a "Z" suffix after the NAIC designation and/or there is a significant number of securities which were acquired during the current year with a "Z" suffix after the NAIC designation)?				OP
d. Review Annual Financial Statement, Schedule D – Part 1, to determine whether all bonds with an NAIC designation of 3, 4, 5, 6 (non-investment grade bonds) have been valued at the lesser of book/adjusted carrying value or fair value and all other bonds have been valued at book/adjusted carrying value.				OP
e. Review Annual Financial Statement, Schedule D – Part 2, to determine whether sinking fund preferred stocks have been valued at their cost and all other stocks have been valued at their fair value.				OP
f. If securities are listed in Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2 with a "Z" suffix after the NAIC designation, and if the securities do not qualify as filing exempt, compare the price or designation actually received from the SVO to that included in the Annual Financial Statement for significant securities.				OP
g. For each of the securities listed in Annual Financial Statement, Schedule D – Part 1, Schedule D – Part 2 and Schedule DA – Part 1, compare the CUSIP number, NAIC				OP

designation, and fair value included in the Annual Financial Statement to information on the NAIC Valuation of Securities (VOS) master file using Jumpstart Reports for investment analysis. Contact the insurer to follow up on any exceptions noted.	
h. Review the Annual Financial Statement, Summary Investment Schedule. Note any unusual valuation methods or areas that indicate further review is necessary.	CR

Value of Bond & Sinking Fund Preferred Stock

3. Determine whether the statement value of bonds and sinking fund preferred stocks is significantly greater than their fair value.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Aggregate excess of the statement value over the fair value of bonds and preferred stocks to the statement value of bonds and preferred stocks owned [Annual Financial Statement, General Interrogatories, Part 1, #30]	LQ, CR	>10%	[Data]	[Data]
b. Aggregate excess of the statement value over the fair value of bonds and preferred stocks owned to surplus	LQ, CR	>20%	[Data]	[Data]
				Other Risks
c. Review available information from actuarial reporting on asset/liability matching (ALM) and cash flow testing to determine if there are any concerns regarding the impact of interest rate changes (or prolonged low interest rate environment) on long duration bonds and the potential for prospective liquidity risk to result in market risk.				
d. Review Annual Financial Statement, Schedule D – Part 1 and Schedule D – Part 2 or request additional information from the insurer to determine which individual securities have a book/adjusted carrying value significantly in excess of their fair value. For those securities: i. Verify the NAIC designation assigned and, if not filing exempt, determine whether it has been updated recently by the SVO. ii. If filing exempt, determine the current rating by a Credit Rating Provider (CRP) (e.g., Moody's Investors Service, Standard & Poor's, A.M. Best or Fitch Ratings). iii. Determine whether there has been an other-than-temporary impairment recognized.				CR

Exposure to Structured Notes

4. Determine whether there are concerns due to the level of investment in structured notes.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investments in structured notes to surplus	CR	>10%	[Data]	[Data]
				Other Risks
b. Review the Annual Financial Statement, Schedule D – Part 1 to identify the types of structured notes and the yield reported.				

Value of Common Stock

5. Review Annual Financial Statement, Schedule D – Part 2 – Section 2 to determine whether the fair value of common stock is significantly greater than or less than the cost.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Is the aggregate fair value of common stocks below the actual cost and is the difference greater than 10% of surplus?		=YES	[Data]	[Data]
b. Is the aggregate actual cost of common stocks below the fair value and is the difference greater than 10% of surplus?		=YES	[Data]	[Data]
c. Fair value to actual cost, when an investment in one issue of common stock is greater than 5% of invested assets		>30% or <-20%	[Data]	[Data]
				Other Risks
d. If concerns about sector concentration of common stocks, review Annual Financial Statement, Schedule D – Part 2 – Section 2 and consider requesting the NAIC Capital Markets Bureau to perform an analysis of the portfolio focusing on sector risk.				
e. Review Annual Financial Statement, Schedule D – Part 2 – Section 2, or request additional information from the insurer to determine which individual common stocks have a cost significantly in excess of their fair value. For those securities: i. If the stock is listed on a market or an exchange (designated by the symbol "L" or "U"), such as the New York Stock Exchange, NASDAQ, or a foreign exchange, verify the price and total market value. ii. If the stock is designated "A" (analytically determined by the SVO), determine whether it has been updated recently by the SVO. iii. Determine whether there has been an other-than-temporary decline in the fair value of the common stock.				CR
f. Request information from the insurer regarding investment strategies and short-term cash flow needs to determine whether common stock with a cost significantly in excess of its fair value will need to be sold at a loss to satisfy short-term cash flow requirements.				LQ

Exposure to Real Estate

6. Determine whether there are concerns due to the level or quality of investment in real estate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of total real estate to surplus	LQ	>10%	[Data]	[Data]
b. Increase in total real estate over the prior year, where the ratio of total real estate to surplus is greater than 10%	LQ	>15%	[Data]	[Data]
c. Determine if the insurer owns any securities of a real		=YES	[Data]	[Data]

estate holding company or otherwise hold real estate indirectly [Annual Financial Statement, General Interrogatories, Part 1, #12.1]				
				Other Risks
d. Utilizing postal codes and property type reported in Annual Financial Statement, Schedule A – Part 1, identify if real estate owned is concentrated in one or a few geographical areas.				
e. Review Annual Financial Statement, Schedule A – Part 1 to determine whether updated appraisals should be obtained for any of the properties owned based on the location of the property, the book/adjusted carrying value and reported fair value of the property, and the year of last appraisal. • Consider benchmarking against the National Council of Real Estate Investment Fiduciaries (NCREIF) index number.				
f. Review Annual Financial Statement, Schedule A – Part 1: i. Investigate any instances where a property has a book/adjusted carrying value in excess of its cost. ii. For any properties owned that have a book/adjusted carrying value in excess of fair value, determine whether the asset should be written down.				

Value of Other Invested Assets (Schedule BA)

7. Determine whether there are concerns regarding other invested assets (Schedule BA).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of BA assets to surplus	CR*, LQ*	>10%	[Data]	[Data]
b. Increase in BA assets from the prior year, where the ratio of BA assets to surplus is greater than 5%	CR*, LQ*	>10%	[Data]	[Data]
				Other Risks
c. Review Annual Financial Statement, Schedule BA – Part 1 to determine the amount and types of other invested assets owned and identify if the insurer's exposure to certain classes of BA assets are significant (e.g., hedge funds and private equity funds).				CR, LQ

Valuation of Affiliated Investments

8. Determine whether concerns exist regarding the level of exposure to investments in affiliates and if investments are properly valued in accordance with statutory accounting practices.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Total of all investments in affiliates to surplus [Annual Financial Statement, Five-Year Historical Data]	CR, LQ*	>20%	[Data]	[Data]
b. Change in total of all investments in affiliates from the prior year-end	CR, LQ*	>20% or <-20%	[Data]	[Data]

c. Change in any category of affiliated investments from the prior year-end	CR, LQ*	>10% or <-10%	[Data]	[Data]
				Other Risks
d. Review the results of the Holding Company analysis completed by the lead state. Were any concerns regarding exposure to (see diversification procedure above) or valuation of affiliated investments noted?				CR, LQ
e. If investments in common stocks of parents, subsidiaries, and affiliates (PSA) involve publicly traded securities, is the investment valued on a basis other than market valuation?				
f. If investments in PSA do not involve publicly traded securities, is the investment valued on a basis other than the Statutory Equity or GAAP Equity methods?				
g. Review the components of investment income reflected on the Annual Financial Statement, Exhibit of Net Investment Income and the Exhibit of Capital Gains (Losses). i. Calculate the return on investment for current and prior years. ii. Review the components of investment income and determine whether the source is cash or merely an increase in accrued interest income. iii. If a substantial portion of investment income relates to an increase in the accrual, determine whether such revenue recognition is legitimate and reasonable. iv. Determine whether accrued interest on investments in affiliates have grown to a significant level.				
h. Review details of affiliated investments as reported in Annual Financial Statement, Schedule A, Schedule B, Schedule BA and Schedule D, and compare with prior years. Review the trend in the value of affiliated investments to identify any negative trends that may continue in future.				
i. If concerns exist regarding an affiliate investment(s), consider the following (note that some of this information may be available in the Holding Company analysis completed by the lead state): i. Obtain an understanding of the primary business activity of the affiliate and determine that such an investment complies with regulatory requirements. ii. Obtain and review the Audited Financial Statement, Annual Financial Statement, and Statement of Actuarial Opinion of the affiliate, if available. iii. Determine the current ratings of the affiliate from the credit rating agencies, if available. iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate. Also review iSite+ data on the reinsurer (i.e., financial statements, Regulatory Information Retrieval System [RIRS] and Global Receivership Information Database [GRID]).				

Exposure to Derivative Investments

9. Determine whether there are concerns due to the use of derivative instruments.

				Other Risks
a. Determine whether there are concerns due to investments in derivative instruments. Is the insurer engaging in derivative activity? [Annual Financial Statement, Notes to Financial Statements, Note #1 and Note #8; General Interrogatories, Part 1, #26; the write-ins for assets and liabilities; Exhibit of Net Investment Income, Line 7; Exhibit of Capital Gains and Losses Line 7; Schedule DB - all parts; the MD&A; and the Audited Financial Report]				ST, OP
If a is "yes", consider the following:	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
b. Determine whether derivative holdings at year-end are significant. Review the ratio of total **book/adjusted carrying value** at year-end to surplus. [Annual Financial Statement, Schedule DB, Part A, Part B and Part C, Section 1] Total **book/adjusted carrying value** and percentage of surplus for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total derivative transactions	ST, OP	>10% or <-10%	[Data]	[Data]
c. Determine whether derivative holdings at year-end are significant. Review the ratio of total **fair value** at year-end to surplus. [Annual Financial Statement, Schedule DB, Part A, Part B and Part C, Section 1] Total **fair value** and percentage of surplus for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total derivative transactions	ST, OP	>10% or <-10%	[Data]	[Data]
d. Ratio of total off balance sheet exposure to surplus [Annual Financial Statement, Schedule DB – Part D]	ST, OP	>10%	[Data]	[Data]
				Other Risks
e. Review Annual Financial Statement, Notes to Financial Statement, Note #5 for any information regarding possible collateral calls and assess the materiality exposure to the insurer if the collateral calls were to come due.				LQ
f. Review the Annual Financial Statement, Schedule DB and for significant derivative instruments that are open at year-end, request the following information from the insurer: • A description of the methodology used to verify the continued effectiveness of the hedge provided.				

• A description of the methodology to determine the fair value. • A description of the determination of the book/adjusted carrying value.	
g. Consider having the insurer's derivative instruments and hedge program reviewed by an investment expert to determine whether the derivative instruments are providing an effective hedge.	

Derivative Instruments — Investment Income and Capital Gains & Losses

10. Determine whether there are concerns regarding investment in derivative instruments.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of gross derivative investment income to net investment income [Annual Financial Statement, Exhibit of Net Investment Income, Line 7]	OP, ST	>5% or <-5%	[Data]	[Data]
b. Ratio of realized capital loss attributed to derivatives to surplus [Annual Financial Statement, Exhibit of Capital Gains (Losses), Line 7]	OP, ST	< -3%	[Data]	[Data]
c. Aggregate net losses on derivatives to surplus [Annual Financial Statement, Schedule DB – Part A – Section 2, columns 22, 23, and 24, and Schedule DB – Part B – Section 2, columns 16, 17, and 18. If "yes," display amount and percentage of surplus of the following: • Recognized Gains/Losses of derivatives • Derivatives used to adjust basis of hedging items • Deferred gains or losses on derivatives	OP, ST	<-10%	[Data]	[Data]

Investment Portfolio Turnover

11. Determine whether concerns exist due to significant turnover of long-term bonds, preferred stocks or common stocks during the year.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Long-term bond turnover ratio	OP, CR	>50%	[Data]	[Data]
b. Stock turnover ratio	OP, CR	>50%	[Data]	[Data]
c. Total long-term bond and stock turnover ratio	OP, CR	>50%	[Data]	[Data]
				Other Risks
d. Review Annual Financial Statement, Schedule D – Part 4 and Schedule D – Part 5 to determine the amount of bonds and stocks disposed of during the current year.				CR
e. Review Annual Financial Statement, Schedule D – Part 3 to determine the quality of bonds acquired, noting any "Z" rated (not rated by the SVO) securities. Also note any NAIC designations of 3, 4, 5, or 6 (non-investment grade bonds).				CR

f. Review Annual Financial Statement, Schedule D – Part 3 to determine the quality of preferred and common stocks acquired. Evaluate any "U" (unlisted) or "A" (analytically determined) rated stocks.	CR
g. High turnover of investments can result in realized capital gains. Review the Annual Financial Statement, Exhibit of Capital Gains (Losses) to determine the degree of reliance on capital gains to increase surplus.	OP

Realized and Unrealized Capital Gains and Losses

12. Assess realized capital gains (losses), including other-than-temporary impairments (OTTI).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net unrealized capital gains/(losses) to prior year-end surplus		>10%	[Data]	[Data]
b. Ratio of net realized capital gains to net income, where the absolute value of net realized capital gains or losses is greater than 3% of surplus		>25% or <-25%	[Data]	[Data]
				Other Risks
c. Review Annual Financial Statement, Notes to Financial Statements, the Exhibit of Capital Gains (Losses) and Investment Schedules to assess the amount of OTTI have been taken in the current period for reasonableness.				

Investment Income

13. Review and assess the adequacy of net investment income.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Investment yield ratio	LQ, ST	>5.5% or <2%	[Data]	[Data]
				Other Risks
b. Review the detail of investment income in the Annual Financial Statement, Exhibit of Net Investment Income and the detail of realized gains or (losses) in the Exhibit of Capital Gains (Losses) for reasonableness.				LQ, ST
c. Review the investment yield ratio for unusual fluctuations and trends between years. [Financial Profile Report]				LQ, ST
d. Calculate and review the investment yield ratio by asset class.				LQ, ST
e. Compare the ratio of investment income to cash and invested assets to the industry average investment yield to determine any significant deviation from the industry average. [Financial Profile Report]				LQ, ST

Related Party Exposure in the Investment Portfolio

14. Assess related party exposure in the investment portfolio.

	Other Risks
a. Review the Annual Financial Statement investment schedules, as disclosed in the column "Investments Involving Related Parties" and utilizing iSite+ tools, determine if the insurer has material related party exposures in its investment portfolio. This disclosure is included in: • Schedule B • Schedule BA • Schedule D • Schedule DA • Schedule DB • Schedule DL • Schedule E, Part 2 Consider exposure by asset class and in aggregate, and by the role of the related party in the investment as designed by the "Investments Involving Related Parties" disclosure.	LQ, MK
b. If concerns exist regarding a material related party exposure in the investment portfolio, assess the credit quality of those investments involving related parties by reviewing designations, assessing historical default experience, etc.	LQ, MK

c. If concerns exist regarding a material related party exposure in investment management or advisory services, consider the following: i. Review the procedures in the "Additional Procedures" section below regarding Third Party Investment Advisors and consider their application to related party advisors in that role. ii. In addition to the additional analysis procedures regarding third party investment advisors, consider the following: 1. Review the insurer's investment policy guidelines and determine whether the related party investments follow the guidelines and are in compliance with regulatory requirements. 2. Review whether the fee structure for asset management is fair, reasonable, and appropriately recognized as investment expenses. 3. If the related party asset manager also originates/securitizes investments held by the insurer, consider requesting additional information from the insurer to determine the following: a. Whether the asset manager has adequate experience and knowledge in originating and managing the types of investments; b. Whether the asset manager follows appropriate underwriting practices and applicable regulatory requirements in originating investments; and c. Whether the fee structures embedded in securities (if applicable) are fair, reasonable, and appropriately account for potential duplication of fees or conflicts of interest.	OP

Invested Asset Exposure to Climate Change Risk

15. Assess the potential impact of material climate change and/or transition and asset devaluation risk on the insurer's invested asset portfolio.

	Other Risks
a. Review information provided in the insurer's response to the NAIC's Climate Risk and Disclosure Survey (if available) on its exposure to material climate change/energy transition risk and related mitigation activity in this area.	CR*, LQ*
b. Review relevant information provided in the Own Risk and Solvency Assessment (ORSA) Summary Report, and/or U.S. Securities and Exchange Commission (SEC) 10-K or 10-Q filings (if available) that discusses the insurer's exposure to material climate change/energy transition risk and related mitigation activity in this area.	CR*, LQ*
c. Review information provided in the NAIC's U.S. Insurance Industry Climate Affected Investment Analysis to identify potential concentrations in insurer exposure.	CR*, LQ*

Additional Analysis and Follow-Up Procedures

Request and Assess the Insurer's Investment Policies and Strategies:

If concerns exist regarding the level of market risk in the investment portfolio, request and review the insurer's investment strategy to determine if it is appropriately structured to support its ongoing business plan. Review the guidelines outlined in the plan for:

- Quality of issues invested in and diversification standards pertaining to issuer, industry, duration, liquidity, geographic location, and issues/sectors exposed to material climate change, transition, and asset devaluation risks.
- Expected rate of returns on investments (projected investment income) compared to actual results.
- Planned increases in investment types, sectors and markets, etc.
- Appropriateness of the investment plan for the liability structure of the insurer. (This may require a review of asset adequacy analysis for asset liability matching and discussion with the insurer's management to better understand its plan.)

Upon review of the investment plan, compare the plan to actual results. Does the insurer and its investment manager(s) appear to be adhering to the investment policies and guidelines in the investment plan?

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding market risks associated with:

- Investment concentration
- Exposure to riskier asset classes
- Climate change, transition, and asset devaluation
- Asset liability matching
- Adherence to investment policies and strategies
- Investment management, and use of and monitoring of external investment managers

If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

NAIC Capital Market's Bureau Analytical Assistance:

Consider requesting the following analytical reviews:

- Review of the insurer's investment portfolio
- Review of Investment Management Agreements

Third-Party Investment Advisers:

Assess and determine if any concerns exist regarding third party investment advisers and associated contractual arrangements.

- Review Annual Financial Statement, General Interrogatories, Part 1, #28.05. Does the insurer utilize third party investment advisors, broker/dealer or individuals acting on behalf of the insurer with access to their investment accounts?

If "yes", consider the following procedures:

- Review the results of the most recent financial examination work papers, follow-up and prospective risk information and the summary review memorandum provided by the examiners. Did the examination

identify any issues with regard to investment advisers and associated contractual arrangements that require follow-up analysis or communication with the insurer? If "yes", document the follow-up work performed.

- Compare Annual Financial Statement, General Interrogatories, Part 1, #28.05 for the current year to the prior year to determine if there have been any changes in advisors. If "yes",
  - Consider obtaining an explanation for the change from the insurer.
  - Consider obtaining a copy of the new investment advisor agreement and review it for appropriate provisions.
- Using the information reported in Annual Financial Statement, General Interrogatories, Part 1, #28.05, obtain and review SEC Form ADV (if available), to determine if the investment advisor is in good standing with the SEC. If not in good standing, contact the insurer to request an explanation.
- If agreements with third party investment advisers are affiliated, have the appropriate Form D–Prior Notice of Transactions been filed and approved by the department? Were any concerns noted or follow-up monitoring recommended?
- Request information from the insurer regarding the background and expertise in structured securities of its investment advisors (in-house and/or contractual) and its analytical system capabilities. Determine whether the advisors and systems are adequate to allow the insurer to continuously monitor its structured securities investments.
- If the insurer uses an external asset manager, consider if investments on Schedule BA are invested in funds that are affiliated with the asset manager or are managed by that asset manager. Consider the following issues:
  - If any conflicts of interest exist
  - If the investment is appropriate for the insurer's portfolio and is arm's-length
  - If the insurer is paying double fees

Inquire of the Insurer:

If concerns exist, consider requesting information from the insurer regarding:

General Investment Inquiries:

- If management has adequately reviewed the investment portfolio and understands the yields, underlying collateral, cash flows and investment volatility
- Any additional concentration by collateral type
- Management's process for valuing securities so as to assist analysts in assessing if the securities are valued appropriately
- Management's intended use of certain riskier investments and purpose within the insurer's portfolio
- If management has an appropriate level of knowledge and expertise with the type of securities being purchased/held
- If the insurer has controls implemented to mitigate the risks associated with this investment type
- Sources of liquidity, such as letters of credit (LOCs)
- Investment strategies and short-term cash flow needs to determine whether investments with a book/adjusted carrying value significantly in excess of their fair value will need to be sold at a loss to satisfy short-term cash flow requirements

Investment Diversification:

- Planned asset mix and diversification strategies

Investment Turnover

- In light of the level of portfolio turnover identified, inquire of the insurer regarding any changes in investment strategy or philosophy, or changes in investment managers. Assess the impact of any strategic changes on the insurer's prospective exposure to market risk.

Other Than Temporary Impairments (OTTI):

- If concerns exist that OTTI are not properly written down, request information on the insurer's investment policy for recording OTTI to determine if it aligns with statutory accounting requirements

Bonds:

- If securities are listed in Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2, with a "Z" suffix after the NAIC designation request verification from the insurer that the securities, if not filing exempt, have been submitted to, and subsequently valued by, the SVO

Real Estate:

- Increases by adjustment in book value/recorded investment during the year

BA Assets:

- Request information necessary to determine the fair value of collateral to the amount loaned to ensure the loan is adequately collateralized
- Information to support significant increases by adjustment in book/adjusted carrying value during the year
- Current Audited Financial Statements and other documents (partnership agreements, etc.) necessary to support the value of the insurer's investment in partnerships and joint ventures
- Information necessary to support the value of significant other invested assets other than partnerships and joint ventures
- Current details on cash flows and returns for the different types of investments, especially hedge funds and private equity funds

RMBS, CMBS and LBaSS

- Percentage distribution and amounts of each type of RMBS, CMBS and LBaSS held; planned amortization class (PAC), support bonds, interest only (IO) tranches, and principle only (PO) tranches to evaluate the level of prepayment risk in the portfolio
- Projected prepayment speeds on its RMBS portfolio and compare with historical prepayments, as well as the prepayment assumption at the time of purchase

Structured Note:

- If management has adequately reviewed the structured note portfolio and understands the underlying yields, cash flows and volatility
- Concentration by collateral type, subordination in the overall structure of the structured note transactions, and any trend analysis management has performed on the underlying assets to ensure appropriate valuation of the structured note
- Management's process for valuing the structured notes so as to assist analysts in assessing if the notes are valued appropriately

- Management's intended use of these structured notes and purpose within the insurer's portfolio
- If management has an appropriate level of expertise with this type of security
- If the insurer has controls implemented to mitigate the risks associated with this investment type
- What the insurer's expectations are for liquidity in the secondary market
- Ensure that the insurer understands the difference between these instruments and more traditional corporate bonds (i.e., that there is significant risk that is separate from the issuer's ability to pay)

Derivatives:

- Copy of the insurer's hedging program
- Information on how the insurer will manage any material collateral calls if they come due
- Review the Annual Financial Statement, Schedule DB for significant derivative instruments that are open at year-end, request the following information from the insurer:
  - A description of the methodology used to verify the continued effectiveness of the hedge provided
  - A description of the methodology to determine the fair value
  - A description of the determination of the book/adjusted carrying value
- Consider having the insurer's derivative instruments and hedge program reviewed by an investment expert to determine whether the derivative instruments are providing an effective hedge

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any market risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective market risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any market risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective market risks impacting the insurer?

Example Prospective Risk Considerations

	Risk Components for IPS	***Explanation of Risk Components***
1	Valuation of [name the asset class]	• The securities reported on the balance sheet may not exist or may not be free of encumbrances. • The insurer's investments reported on the balance sheet are incorrectly valued. • The insurer's bonds, stocks and short-term investments that are considered hard-to-value, high-risk and/or subject to significant price variation are incorrectly valued.
2	High exposure to real estate or	High exposure to mortgage loans, real estate and mortgage-backed

	real estate backed assets	assets could result in credit losses in the event of a housing and/or commercial real estate market downturn.
3	High/increasing exposure to foreclosed mortgage loans	The insurer is not properly identifying, handling and recording foreclosed mortgage loans.
4	Foreign security default	Material exposure to foreign investments could result in credit losses if those investments are affected by negative changes in geopolitical or foreign economic environments.
5	Structured notes cash flow volatility risk	The impact of the volatility of structured notes and the underlying asset on which its cash flows are based (e.g., the risks on structured notes are different from risks of typical corporate bonds).
6	Structured notes collateral concentration risk	Material investment in structured notes that may have collateral type concentration may result in concentration risk (lack of diversity) to the insurer's portfolio. (E.g., structures can be very complicated and cash flows very hard to predict. Cash flows can be linked to a variety of factors or indices, including those that are not capital markets-related.)
7	Structured notes default	Structured notes may be subordinated in the overall transaction, representing exposure to non-payment in event of default.
8	Adequacy of collateral of Schedule BA asset	Volatility of underlying assets (e.g., certain hedge funds and private equity funds) may result in underlying asset not adequate.
9	Economic impact on portfolio of [name the asset class]	Portfolio value affected by volatility driven by economic changes/conditions.
10	Hedge effectiveness of derivatives portfolio	The derivatives strategy may not meet hedge effectiveness for mitigating risk.
11	Exposure to derivatives market generates negative results	Derivative market volatility has a negative impact on derivative returns and generates capital losses.
12	Investment strategy contemplate higher [credit, market, liquidity…] risk	The insurer's investment strategy may not be structured to support its ongoing business plan, which could indicate the strategy enjoys higher credit, market and liquidity risks than are appropriate for the liabilities of the insurer and may lead to financial concerns in the future.
13	Investment strategy execution	Experience in execution can be a concern with more volatile and complex markets. The use of external investment managers can raise a host of other issues.
14	Investment results actual to projected variance	The insurer's actual investment portfolio and/or portfolio performance may vary significantly from projections if the insurer is not adhering to the strategy in place (e.g., higher actual credit, market or liquidity risk compared to the plan).
15	Financial solvency risk of PSA	PSA may become insolvent, resulting in a significant drop in value, which could lead to liquidity issues.
16	High investment turnover	• High turnover ratios may be an indication of unusual activity in the management of the investment portfolio. • High turnover in the portfolio may be driven by economic/market

		conditions resulting in the need to make changes to the portfolio. • High turnover in the portfolio may indicate a change in investment strategy. • High turnover ratios raise questions of whether investments are being sold at a loss, possibly creating high capital losses.
17	Negative market impact on investment income/returns	• Economic conditions, such as a low interest rate environment, reduce the expected returns on investment. • Returns on investments are not adequate to meet the business plans of the insurer.
18	Exposure to climate change, transition, and asset devaluation risk	The insurer's investment portfolio is subject to prospective devaluation of the assets/changes in the asset return associated with its holdings of climate-affected assets.

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with market risk. For example, investment asset classes (Mortgages, Affiliates etc.) also are discussed in the Credit and/or Liquidity Risk Repositories.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer.

Investment Portfolio Diversification

1. Determine whether the insurer's investment portfolio appears to be adequately diversified to avoid any undue concentration of investments by type or issue. *(See also Credit Risk Repository for diversification of other asset classes)*

"a" through "d": Shown are as a percent of total net admitted assets	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
a. Common stocks		>20%	[Data]	[Data]
b. Mortgage loans	CR*	>5%	[Data]	[Data]
c. Real estate (before encumbrances), including home office real estate	LQ	>5%	[Data]	[Data]
d. Investments in affiliates	CR*	>10%	[Data]	[Data]
				Other Risks
e. Review the Financial Profile Report for significant shifts in the mix of investments owned over last five years.				CR*

Changes in Certain Asset Exposures

2. Determine whether there are concerns due to the change in certain asset classes from the prior year-end.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Increase in real estate from the prior year-end, where the ratio of total real estate to surplus is greater than 10%	LQ	>15%	[Data]	[Data]
b. Increase in mortgage loans from the prior year-end, where the ratio of total mortgage loans to surplus is greater than 10%	CR*, LQ	>15%	[Data]	[Data]
c. Increase in affiliated investments from the prior year-end, where the ratio affiliated investments to surplus is greater than 10%	CR*	>20%	[Data]	[Data]
d. Increase in BA assets from the prior year-end, where the ratio of BA assets to surplus is greater than 5%	CR*, LQ*	>10%	[Data]	[Data]

Valuation of Securities

3. Determine whether securities owned have been valued in accordance with the standards promulgated by the NAIC Investment Analysis Office and Statutory Accounting Principles.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the insurer failed to follow the filing requirements of the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*? If "yes," document the exceptions. [Quarterly Financial Statement, General Interrogatories, Part 1, #18.1 and #18.2]	OP	=YES	[Data]	[Data]
				Other Risks
b. Assess the impact of market conditions: i. Through consideration of industry and economic events (i.e., news and industry analytics), is the analyst aware of any market conditions that may threaten the value of insurers' investment portfolios? ii. Through correspondence with the insurer, is the insurer aware of any market conditions that could threaten the value of its investment portfolio?				

Valuation of Affiliated Investments

4. Determine whether concerns exist regarding the level of exposure to investments in affiliates and if investments are properly valued in accordance with statutory accounting practices.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Total of all investments in affiliates to surplus [Quarterly Financial Statement, General Interrogatories Part 1, #14]	CR, LQ*	>20%	[Data]	[Data]
b. Change in total of all investments in affiliates from the prior year-end	CR, LQ*	>20% or < -20%	[Data]	[Data]
c. Change in any category of affiliated investments from the prior year-end	CR, LQ*	>10% or < -10%	[Data]	[Data]
				Other Risks
d. Review the results of the Holding Company analysis completed by the lead state. Were any concerns regarding exposure to (see diversification procedure above) or valuation of affiliated investments noted?				CR, LQ
e. If investments in common stocks of parents, subsidiaries, and affiliates (PSA) involve publicly traded securities, is the investment valued on a basis other than market valuation?				
f. If investments in common stocks of PSA do not involve publicly traded securities, is the investment valued on a basis other than the statutory equity or generally accepted accounting principles (GAAP) equity methods?				

g. If concerns exist regarding an affiliate investment(s) and/or material changes have occurred since the prior period analysis, consider the following (note that some of this information may be available in the Holding Company analysis completed by the lead state): i. Obtain an understanding of the primary business activity of the affiliate and determine that such an investment complies with regulatory requirements. ii. Obtain and review the Audited Financial Statement, Annual Financial Statement and Statement of Actuarial Opinion of the affiliate, if available. iii. Determine the current ratings of the affiliate from the major rating agencies, if available. iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate. Also, review iSite+ data on the reinsurer (i.e., financial statements, Regulatory Information Retrieval System [RIRS] and Global Receivership Information Database [GRID]).	

Exposure to Derivative Investments

5. Determine whether there are concerns due to the use of derivative instruments.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Determine whether derivative holdings are significant. Review the ratio of total **book/adjusted carrying value** to surplus [Quarterly Financial Statement, Schedule DB, Part A and Part B, Section 1]. Total **book/adjusted carrying value** and percentage of surplus for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total derivative transactions	ST, OP	>10% or <-10%	[Data]	[Data]
b. Determine whether derivative holdings at are significant. Review the ratio of total **fair value** at quarter-end to surplus [Quarterly Financial Statement Schedule DB, Part A and Part B, Section 1]. Total **fair value** and percentage of surplus for: • Hedging effective • Hedging other • Replication	ST, OP	>10% or <-10%	[Data]	[Data]

• Income generation • Other • Total derivative transactions				
c. Increase in derivative investments over the prior year-end where the ratio of potential exposure on futures contracts and options, caps, floors, collars, swaps and forwards to surplus is greater than 3.5%. [Quarterly Financial Statement, Schedule DB, Part A and Part B, Section 1]		>10%	[Data]	[Data]
				Other Risks
d. Review detail provided in Quarterly Financial Statement, Schedule DB columns for Description of Item(s) Hedged, Used for Income Generation, or Replicated and Type(s) of Risk(s) to determine if the insurer's detailed use of derivatives appears to be consistent with the overall strategy that the reporting entity has described elsewhere. Where the detail reported in Schedule DB differs from other information provided by the insurer, request further clarifying information from the reporting entity.				ST
e. Review detail provided in Quarterly Financial Statement, Schedule DB columns for Hedge Effectiveness at Inception and at Quarter-End. Note anything unusual or any variances from the insurer's current hedging program description.				ST

Realized and Unrealized Capital Gains and Losses

6. Assess realized capital gains/(losses), including other-than-temporary impairments (OTTI).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net unrealized capital gains/(losses) to prior year-end surplus		>10%	[Data]	[Data]
b. Ratio of net realized capital gains to net income, where the absolute value of net realized capital gains or losses is greater than 3% of surplus		>25% or < -25%	[Data]	[Data]
				Other Risks
c. Review the Financial Profile Report for significant changes or trends in capital gains (losses) by quarter over the last five years.				

Investment Income

7. Review and assess the adequacy of net investment income.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investment income to cash and invested assets (rolling year)	LQ, ST	>6.5% or <3%	[Data]	[Data]
				Other Risks
b. Review the Financial Profile Report for significant changes or trends in investment income by quarter over the last five years.				LQ, ST

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with market risk. For example:

- Investment strategy is also discussed in Credit and Strategic Risk Repository.
- Investment asset classes (Bonds, Mortgages, etc.) are also discussed in Credit and/or Liquidity Risk Repositories.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer.

Investment Portfolio Diversification

1. Determine whether the insurer's investment portfolio appears to be adequately diversified to avoid any undue concentration of investments by type or issue. *(See also Credit Risk Repository for diversification of other asset classes)*

"a" through "h": Shown are as a percent of total net admitted assets (excluding separate accounts)	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
a. Residential mortgaged-backed securities (RMBS), commercial mortgage-backed securities (CMBS) or other loan-backed and structured securities (LBaSS)	CR*	>20%	[Data]	[Data]
b. Foreign bonds		>5%	[Data]	[Data]
c. Common stocks		>10%	[Data]	[Data]
d. Mortgage loans	CR*	>20%	[Data]	[Data]
e. Real estate (before encumbrances), including home office real estate	LQ	>10%	[Data]	[Data]
f. Total derivatives (notional value)	CR	>5%	[Data]	[Data]
g. Investments in affiliates	CR*	>10%	[Data]	[Data]
h. Any one single investment in foreign bonds, common stock, real estate and derivatives (excluding affiliated investments). *(Note that single investments in asset-backed securities are considered in the Credit Risk Repository.)*	CR	>3%	[Data]	[Data]
				Other Risks
i. Review the Percentage Distribution of Total Assets in the Annual Financial Profile Report for significant shifts in the mix of investments owned during the past five years.				CR
j. Compare the insurer's distribution of invested assets per the Percentage Distribution of Total Assets in the Annual Financial Profile Report and Investment Snapshot Report to industry and peer averages to determine any significant deviations from the industry averages.				CR

k. If the insurer's investments include a significant amount of foreign bonds, review the Annual Supplemental Investment Risks Interrogatories (#4 through #11). Consider the insurer's potential foreign currency exposure from holding bonds denominated in a foreign currency.	CR
l. Review the Annual Supplemental Investment Risks Interrogatories and assess any unusual items or areas that indicate a non-diversified portfolio.	

Valuation of Securities

2. Determine whether securities owned have been valued in accordance with the standards promulgated by the NAIC Investment Analysis Office and Statutory Accounting Principles.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the insurer failed to follow the filing requirements of the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*? If "yes," document the exceptions listed. [Annual Financial Statement General Interrogatories, Part 1, #33.1 and #33.2]	OP	= YES	[Data]	[Data]
				Other Risks
b. Assess the impact of market conditions: i. Through consideration of industry and economic events (i.e., news and industry analytics), is the analyst aware of any market conditions that may threaten the value of insurers' investment portfolios? ii. Through correspondence with the insurer, is the insurer aware of any market conditions that could threaten the value of its investment portfolio?				
c. Review Annual Financial Statement, Schedule D – Part 1 and Schedule D – Part 2. Does it appear that the insurer has failed to comply with the requirement to submit securities that are not filing exempt to the Securities Valuation Office (SVO) for a valuation (i.e., there are securities which were acquired prior to the current year with a "Z" suffix after the NAIC designation and/or there is a significant number of securities which were acquired during the current year with a "Z" suffix after the NAIC designation)?				OP
d. Review Annual Financial Statement, Schedule D – Part 1, to determine whether all bonds with an NAIC designation of 6 - bonds in or near default - have been valued at lower of amortized cost or fair value and all other bonds have been valued at their amortized cost.				OP
e. Review Annual Financial Statement, Schedule D – Part 2 to determine whether sinking fund preferred stocks have been valued at their cost and all other stocks have been valued at their fair value.				OP
f. If securities are listed in the Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2, with a "Z" suffix after the NAIC designation and if the securities do not qualify as filing exempt, compare the price or designation actually received from the SVO to that included in the Annual Financial Statement for significant securities.				OP
g. For each of the securities listed in Schedule D – Part 1, Schedule D – Part 2 and Schedule DA, compare the CUSIP number, NAIC designation, and fair value included in the Annual Financial Statement to information on the NAIC Valuation of Securities (VOS) master file				OP

using Jumpstart Reports for investment analysis. Contact the insurer to follow up on any exceptions noted.	
h. Review the Annual Financial Statement, Summary Investment Schedule. Note any unusual valuation methods or areas that indicate further review is necessary.	CR

Value of Bond & Sinking Fund Preferred Stock

3. Determine whether the statement value of bonds and sinking fund preferred stocks is significantly greater than their fair value.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Aggregate excess of the statement value over the fair value of bonds and preferred stocks owned to the statement value of bonds and preferred stocks owned. [Annual Financial Statement, General Interrogatories, Part 1, #31]	LQ, CR	>10%	[Data]	[Data]
b. Aggregate excess of the statement value over the fair value of bonds and preferred stocks owned to capital and surplus plus asset valuation reserve (AVR).	LQ, CR	>20%	[Data]	[Data]
				Other Risks
c. Review available information from actuarial reporting on asset/liability matching (ALM) and cash flow testing to determine if there are any concerns regarding the impact of interest rate changes (or prolonged low interest rate environment) on long duration bonds and the potential for prospective liquidity risk to result in market risk.				
d. Review Annual Financial Statement, Schedule D – Part 1 and Schedule D – Part 2 or request additional information from the insurer to determine which individual securities have a book/adjusted carrying value significantly in excess of their fair value. For those securities: i. Verify the NAIC designation assigned and, if not filing exempt, determine whether it has been updated recently by the SVO. ii. If filing exempt, determine the current rating by a Credit Rating Provider — CRP (e.g., Moody's Investors Service, Standard & Poor's, A.M. Best or Fitch Ratings). iii. Determine whether there has been an other-than-temporary impairment recognized.				CR

Exposure to Structured Notes

4. Determine whether there are concerns due to the level of investment in structured notes.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investments in structured notes to capital and surplus plus AVR	CR	>10%	[Data]	[Data]
				Other Risks
b. Review the Annual Financial Statement, Schedule D – Part 1, to identify the types of structured notes and the yield reported.				

Value of Common Stock

5. Review Annual Financial Statement, Schedule D – Part 2 – Section 2 to determine whether the fair value of common stock is significantly greater than or less than the cost.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Is the aggregate fair value of common stocks below the actual cost and greater than 10% of capital and surplus?		=YES	[Data]	[Data]
b. Is the aggregate actual cost of common stocks below the fair value and greater than 10% of capital and surplus?		=YES	[Data]	[Data]
c. Fair value to actual cost, when an investment in one issue of common stock is greater than 5% of invested assets.		>30% or <-20%	[Data]	[Data]
				Other Risks
d. If concerns exist about sector concentration of common stocks, review Annual Financial Statement, Schedule D – Part 2 – Section 2, and consider requesting the NAIC Capital Markets Bureau to perform an analysis of the portfolio focusing on sector risk.				
e. Review Annual Financial Statement, Schedule D – Part 2 – Section 2, or request additional information from the insurer to determine which individual common stocks have a cost significantly in excess of their fair value. For those securities: i. If the stock is listed on a market or an exchange (designated by the symbol "L" or "U") - such as the New York Stock Exchange, American Stock Exchange, NASDAQ National Market System, or a foreign exchange - verify the price and total market value. ii. If the stock is designated "A" (analytically determined by the SVO), determine whether it has been updated recently by the SVO. iii. Determine whether there has been an other-than-temporary decline in the fair value of the common stock.				CR

Exposure to Real Estate

6. Determine whether there are concerns due to the level or quality of investment in real estate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of total real estate to capital and surplus plus AVR	LQ	>15%	[Data]	[Data]
b. Increase in real estate over the prior year, where the ratio of total real estate to cash and invested assets exceeds 10%	LQ	>15%	[Data]	[Data]
c. Determine if the insurer owns any securities of a real estate holding company or otherwise hold real estate		=YES	[Data]	[Data]

indirectly [Annual Financial Statements, General Interrogatories, Part 1, #12.1]				
				Other Risks
d. Utilizing postal codes and property type reported in Annual Financial Statement, Schedule A – Part 1, identify if real estate owned is concentrated in one or a few geographical areas.				
e. Review Annual Financial Statement, Schedule A – Part 1, to determine whether updated appraisals should be obtained for any of the properties owned based on the location of the property, the book/adjusted carrying value and reported fair value of the property, and the year of last appraisal. f. Consider benchmarking against the National Council of Real Estate Investment Fiduciaries (NCREIF) index number.				
g. Review Schedule A – Part 1 and: i. Investigate any instances where a property has a book/adjusted carrying value in excess of its cost. ii. Review Schedule A – Part 1 for any properties owned that have a book/adjusted carrying value in excess of fair value and determine whether the asset should be written down.				

Value of Other (Schedule BA) Invested Assets

7. Determine whether there are concerns regarding other (Schedule BA) invested assets.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of Schedule BA assets to capital and surplus plus AVR	LQ*, CR*	>10%	[Data]	[Data]
b. Increase in Schedule BA assets from the prior year where the ratio of investments in Schedule BA assets to cash and invested assets is greater than 3.5%	LQ*, CR*	>10%	[Data]	[Data]
				Other Risks
c. Review the Annual Financial Statement, Schedule BA – Part 1 – Other Invested Assets Owned to determine the amount and types of other invested assets owned and identify if the insurer's exposure to certain classes of BA assets are significant (e.g., hedge funds and private equity funds).				LQ, CR

Value of Collateral Loans

8. Determine whether there are concerns regarding investment in collateral loans.

	Other Risks
a. Compare the fair value of the collateral to the amount loaned thereon to determine whether the loan is adequately collateralized. [Annual Financial Statements, Five-Year Historical Data]	
b. Verify the rate used to obtain the fair value of the securities held as collateral for the loans by reference to the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*.	

Valuation of Affiliated Investments

9. Determine whether concerns exist regarding the level of exposure to investments in affiliates and if investments are properly valued in accordance with statutory accounting practices.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Total of all investments in affiliates to capital and surplus [Annual Financial Statement, Five-Year Historical Data]	CR, LQ*	>20%	[Data]	[Data]
b. Change in total of all investments in affiliates from the prior year-end	CR, LQ*	>20% or < -20%	[Data]	[Data]
c. Change in any category of affiliated investments from the prior year-end	CR, LQ*	>10% or < -10%	[Data]	[Data]
				Other Risks
d. Review the results of the Holding Company Analysis completed by the lead state. Were any concerns regarding exposure to (see diversification procedure above) or valuation of affiliated investments noted?				
e. If investments in common stocks of parents, subsidiaries, and affiliates (PSA) involve publicly traded securities, is the investment valued on a basis other than market valuation?				
f. If investments in PSA and affiliates do not involve publicly traded securities, is the investment valued on a basis other than the Statutory Equity or GAAP Equity methods?				
g. Review the components of investment income reflected on the Annual Financial Statement Exhibit of Net Investment Income and the Exhibit of Capital Gains (Losses). i. Calculate the return on investment for current and prior years. ii. Review the components of investment income and determine whether the source is cash or merely an increase in accrued interest income. iii. If a substantial portion of investment income relates to an increase in the accrual, determine whether such revenue recognition is legitimate and reasonable. iv. Determine whether accrued interest on investments in affiliates have grown to a significant level.				
h. Review details of affiliated investments as reported in Schedules A, B, BA, and D, and compare with prior years. Review the trend in the value of affiliated investments to identify any negative trends that may continue in the future.				
i. If concerns exist regarding an affiliate investment(s), consider the following (note that some of this information may be available in the Holding Company Analysis completed by the lead state): i. Obtain an understanding of the primary business activity of the affiliate and determine that such an investment complies with regulatory requirements. ii. Obtain and review the Audited Financial Statement, Annual Financial Statement, and Statement of Actuarial Opinion of the affiliate, if available. iii. Determine the current ratings of the affiliate from the major rating agencies, if available.				

iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate. Also, review iSite+ data on the reinsurer (i.e., financial statements, Regulatory Information Retrieval System [RIRS] and Global Receivership Information Database [GRID]).	

Exposure to Derivative Investments

10. Determine whether there are concerns due to the use of derivative instruments.

				Other Risks
a. Determine whether there are concerns due to investments in derivative instruments. Is the insurer engaging in derivative activity? [Annual Financial Statement, Notes to Financial Statements, Note #1 and Note #8; General Interrogatories, Part 1, #27; the write-ins for assets and liabilities; Exhibit of Net Investment Income, Line 7; Exhibit of Capital Gains and Losses, Line 7; Schedule DB – all parts; the MD&A; and the Audited Financial Report].				ST, OP
If a is "yes", consider the following:	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
b. Determine whether derivative holdings at year-end are significant. Review the ratio of total **book adjusted carrying value** at year-end to capital and surplus plus AVR. [Schedule DB – Part A, Part B and Part C, Section 1] Total **book adjusted carrying value** and percentage of capital and surplus and AVR for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total derivative transactions	ST, OP	>5% or < -5%	[Data]	[Data]
c. Determine whether derivative holdings at year-end are significant. Review the ratio of total **fair value** at year-end to capital and surplus plus AVR. [Schedule DB – Part A, Part B and Part C – Section 1]. Total **fair value** and percentage of capital and surplus and AVR for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total derivative transactions	ST, OP	>5% or < -5%	[Data]	[Data]

d. Ratio of total off balance sheet exposure to capital and surplus plus AVR. [Annual Financial Statement, Schedule DB – Part D]	ST, OP	>5%	[Data]	[Data]
e. Determine the quality of derivative instruments. Review the percentage of derivative instruments reported as medium quality or below (NAIC designation 3 through 6) as percent of total derivative instruments. [AVR Default Component Calculation]	ST, OP	>20%	[Data]	[Data]
If questions or concerns are noted …	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
f. Is the initial cost (original value) of call and put options, warrants, caps, floors, collars, swaps, swaptions and forwards acquired or opened during the year greater than 150% of the initial cost (original value) of derivatives owned or open at prior year-end? [Annual Financial Statement, Schedule DB – Part A – Section 1]	ST, OP	>150%	[Data]	[Data]
g. Is the current year statement value of futures contracts greater than 150% of the book adjusted carrying value at prior year-end? [Annual Financial Statement – Schedule DB – Part B – Verification]		>150%	[Data]	[Data]
				Other Risks
h. Review Note #5 for any information regarding possible collateral calls and assess the materiality exposure to the insurer if the collateral calls were to come due.				LQ

Derivative Instruments—Investment Income and Capital Gains & Losses

11. Determine whether there are concerns regarding investment in derivative instruments.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of gross derivative investment income to net investment income [Annual Financial Statement, Exhibit of Net Investment Income, Line 7]	OP, ST	>2% or < -2%	[Data]	[Data]
b. Ratio of realized capital loss attributed to derivatives as a percent of capital and surplus plus AVR [Annual Financial Statement, Exhibit of Capital Gains (Losses), Line 7]	OP, ST	>3%	[Data]	[Data]
c. If the sum of the aggregate gains and losses at disposal results in aggregate net losses on derivatives, then is the aggregate loss less than -10% of capital and surplus plus AVR? [Annual Financial Statement, Schedule DB – Part A – Section 2, columns 22, 23, and 24, and Schedule DB – Part B – Section 2, columns 16, 17, and 18]	OP, ST	<-10%	[Data]	[Data]

i. If "yes," display amount and percentage of capital and surplus +AVR of the following: • Recognized Gains/Losses of derivatives o Amount o Percent of C&S+AVR • Derivatives used to adjust basis of hedging items o Amount o Percent of C&S+AVR • Deferred gains or losses on derivatives o Amount o Percent of C&S+AVR	OP, ST		[Data]	

Investment Portfolio Turnover

12. Determine whether concerns exist due to significant turnover of long-term bonds, preferred stocks or common stocks during the year.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Long-term bond turnover ratio	OP, CR	>50%	[Data]	[Data]
b. Stock turnover ratio	OP, CR	>50%	[Data]	[Data]
c. Total long-term bond and stock turnover ratio	OP, CR	>50%	[Data]	[Data]
				Other Risks
d. Determine the amount of bonds and stocks disposed of during the current year.				CR
e. Review Annual Financial Statement, Schedule D – Part 3 to determine the quality of bonds acquired, noting any "Z" rated (not rated by the SVO) securities. Also, note any NAIC designations of 3, 4, 5, or 6 (non-investment grade bonds).				CR
f. Review Schedule D – Part 3 to determine the quality of preferred and common stocks acquired. Evaluate any "U" (unlisted) or "A" (analytically determined) rated stocks.				CR
g. High turnover of investments can result in realized capital gains. Review the Annual Financial Statement, Exhibit of Capital Gains (Losses) to determine the degree of reliance on capital gains to increase surplus.				OP

Realized and Unrealized Capital Gains and Losses

13. Assess realized capital gains (losses), including other-than-temporary impairments (OTTI).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net unrealized capital gains/(losses) as a percent of prior year-end capital and surplus		>10%	[Data]	[Data]

b. Ratio of net realized capital gains to net income, where the absolute value of net realized capital gains or losses exceeds 3% of capital and surplus		>25% or < -25%	[Data]	[Data]
				Other Risks
c. Review Annual Financial Statement, Notes to the Financial Statements, the Exhibit of Capital Gains (Losses) and Investment Schedules to assess the amount of OTTI that have been taken in the current period for reasonableness.				

Investment Income

14. Review and assess the adequacy of net investment income.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investment income to cash and invested assets	LQ, ST	>10% or <4.5%	[Data]	[Data]
b. Adequacy of investment income (IRIS Ratio 4)	LQ, ST	<125%	[Data]	[Data]
c. Interest margin ratio	LQ, ST	<0	[Data]	[Data]
				Other Risks
d. Review the detail of investment income in the Exhibit of Net Investment Income and the detail of realized gains or (losses) in the Exhibit of Capital Gains (Losses) for reasonableness.				LQ, ST
e. Review the investment yield ratio (Annual Financial Profile Reports) for unusual fluctuations and trends between years.				LQ, ST
f. Calculate and review the investment yield ratio by asset class.				LQ, ST
g. Compare the ratio of investment income to cash and invested assets (Annual Financial Profile Reports) to the industry average investment yield to determine any significant deviation from the industry average.				LQ, ST
h. If interest margin (spreads) are negative and issues are identified, consider using available information from the actuarial filings and the Annual Financial Statement and, if necessary, contacting the insurer (see below), to assist in the following: i. Gaining an understanding of the liquidity requirements and the adequacy of ALM for the insurer's mix of business, including interest rate guarantees on products. ii. Gaining an understanding of the investment portfolio and strategy underlying the investment income returns, specifically understanding what factors are driving the investment yields year-over-year (YOY). iii. Gaining an understanding of trends and whether investment returns or guaranteed rates are driving the spread results. iv. Reviewing the Actuarial Memorandum and Regulatory Asset Adequacy Issues Summary (RAAIS) for prolonged low interest rate stress testing results and booking of additional ALM reserves. 1. Consider talking to the Company's appointed actuary to understand his or her perspective on the ALM testing and his or her comfort level.				

v. Gaining an understanding of prospective strategic plans to manage this risk for prolonged low interest rate, including any changes in investment strategy, impacts of other factors including market volatility, changes in guaranteed rates on policies, and additional reserving. vi. If the negative margin result cannot be explained by other transactions that skew the ratio, gain an understanding of what actions the company is taking or should take to resolve or mitigate the risk.	

Related Party Exposure in the Investment Portfolio

15. Assess related party exposure in the investment portfolio.

	Other Risks
a. Review the Annual Financial Statement investment schedules, as disclosed in the column "Investments Involving Related Parties" and utilizing iSite+ tools, determine if the insurer has material related party exposures in its investment portfolio. This disclosure is included in: • Schedule B • Schedule BA • Schedule D • Schedule DA • Schedule DB • Schedule DL • Schedule E, Part 2 Consider exposure by asset class and in aggregate, and by the role of the related party in the investment as designed by the "Investments Involving Related Parties" disclosure.	LQ, MK
b. If concerns exist regarding a material related party exposure in the investment portfolio, assess the credit quality of those investments involving related parties by reviewing designations, assessing historical default experience, etc.	LQ, MK

c. If concerns exist regarding a material related party exposure in investment management or advisory services, consider the following: i. Review the procedures in the "Additional Procedures" section below regarding Third Party Investment Advisors and consider their application to related party advisors in that role. ii. In addition to the additional analysis procedures regarding third party investment advisors, consider the following: 1. Review the insurer's investment policy guidelines and determine whether the related party investments follow the guidelines and are in compliance with regulatory requirements. 2. Review whether the fee structure for asset management is fair, reasonable, and appropriately recognized as investment expenses. 3. If the related party asset manager also originates/securitizes investments held by the insurer, consider requesting additional information from the insurer to determine the following: a. Whether the asset manager has adequate experience and knowledge in originating and managing the types of investments; b. Whether the asset manager follows appropriate underwriting practices and applicable regulatory requirements in originating investments; and c. Whether the fee structures embedded in securities (if applicable) are fair, reasonable, and appropriately account for potential duplication of fees or conflicts of interest.	OP

Invested Asset Exposure to Climate Change Risk

16. Assess the potential impact of material climate change and/or transition and asset devaluation risk on the insurer's invested asset portfolio.

	Other Risks
a. Review information provided in the insurer's response to the NAIC's Climate Risk and Disclosure Survey (if available) on its exposure to material climate change/energy transition risk and related mitigation activity in this area.	CR*, LQ*
b. Review relevant information provided in the Own Risk and Solvency Assessment (ORSA) Summary Report, and/or U.S. Securities and Exchange Commission (SEC) 10-K or 10-Q filings (if available) that discusses the insurer's exposure to material climate change/energy transition risk and related mitigation activity in this area.	CR*, LQ*
c. Review information provided in the NAIC's U.S. Insurance Industry Climate Affected Investment Analysis to identify potential concentrations in insurer exposure.	CR*, LQ*

Additional Analysis and Follow-up Procedures

Request and Assess the Insurer's Investment Policies and Strategies:

If concerns exist regarding the level of market risk in the investment portfolio, request and review the insurer's investment strategy to determine if it is appropriately structured to support its ongoing business plan. Review the guidelines outlined in the plan for:

- Quality of issues invested in and diversification standards pertaining to issuer, industry, duration, liquidity, geographic location, and issues/sectors exposed to material climate change, transition, and asset devaluation risks.
- Expected rate of returns on investments (projected investment income) compared to actual results
- Planned increases in investment types, sectors and markets, etc.
- Appropriateness of the investment plan for the liability structure of the insurer (This may require a review of asset adequacy analysis for ALM and discussion with the insurer's management to better understand its plan.)

Upon review of the investment plan, compare the plan to actual results. Does the insurer and its investment manager(s) appear to be adhering to the investment policies and guidelines in the investment plan?

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding market risks associated with:

- Investment concentration
- Exposure to riskier asset classes
- Climate change, transition, and asset devaluation
- Asset Liability Matching (ALM)
- Adherence to investment policies and strategies
- Investment management, and the use of and monitoring of external investment managers

NAIC Capital Market's Bureau Analytical Assistance:

Consider requesting the following analytical reviews:

- Review of the insurer's investment portfolio
- Review of Investment Management Agreements

Third-Party Investment Advisers:

Assess and determine if any concerns exist regarding third party investment advisers and associated contractual arrangements.

a. Review Annual Financial Statement, General Interrogatories, Part 1, #29.05. Does the insurer utilize third party investment advisors, broker/dealer or individuals acting on behalf of the insurer with access to their investment accounts?

If "yes", consider the following procedures:

b. Review the results of the most recent financial examination work papers, follow-up and prospective risk information and the summary review memorandum provided by the examiners. Did the examination identify

any issues with regard to investment advisers and associated contractual arrangements that require follow-up analysis or communication with the insurer? If "yes", document the follow-up work performed.

c. Compare Annual Financial Statement, General Interrogatories, Part 1, #29.05 for the current year to the prior year to determine if there have been any changes in advisors.

If "yes",

i. Consider obtaining an explanation for the change from the insurer.

ii. Consider obtaining a copy of the new investment advisor agreement and review it for appropriate provisions.

d. Using the information reported in Annual Financial Statement, General Interrogatories, Part 1, #29.05, obtain and review SEC Form ADV (if available), to determine if the investment advisor is in good standing with the SEC. If not in good standing, contact the insurer to request an explanation.

e. If agreements with third party investment advisers are affiliated, have the appropriate Form D – Prior Notice of Transactions been filed and approved by the department? Were any concerns noted or follow-up monitoring recommended?

f. Request information from the insurer regarding the background and expertise in structured securities of its investment advisors (in-house and/or contractual) and its analytical system capabilities. Determine whether the advisors and systems are adequate to allow the insurer to continuously monitor its structured securities investments.

g. If the insurer uses an external asset manager, consider if investments on Schedule BA are invested in funds that are affiliated with the asset manager or are managed by that asset manager. Consider the following issues:

i. If any conflicts of interest exist

ii. If the investment is appropriate for the insurer's portfolio and is arm's-length

iii. If the insurer is paying double fees

Inquire of the Insurer:

If concerns exist, consider requesting information from the insurer regarding:

General Investment Inquiries:

- If management has adequately reviewed the investment portfolio and understands the yields, underlying collateral, cash flows and investment volatility.
- Any additional concentration by collateral type.
- Management's process for valuing securities so as to assist analysts in assessing if the securities are valued appropriately.
- Management's intended use of certain riskier investments and purpose within the insurer's portfolio.
- If management has an appropriate level of knowledge and expertise with the type of securities being purchased/held.
- If the insurer has controls implemented to mitigate the risks associated with this investment type.
- Sources of liquidity, such as letters of credit (LOCs).
- Request information from the insurer regarding investment strategies and short-term cash flow needs to determine whether investments with a book/adjusted carrying value significantly in excess of their fair value will need to be sold at a loss to satisfy short-term cash flow requirements.

Investment Diversification:

- Planned asset mix and diversification strategies.

Investment Turnover:

- In light of the level of portfolio turnover identified, inquire of the insurer regarding any changes in investment strategy or philosophy or changes in investment managers. Assess the impact of any strategic changes on the insurer's prospective exposure to market risk.

Other Than Temporary Impairment (OTTI):

- If concerns exist that OTTI are not properly written down, request information on the insurer's investment policy for recording OTTI to determine if it aligns with statutory accounting requirements.

Bonds:

- If securities are listed in Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2, with a "Z" suffix after the NAIC designation request verification from the insurer that the securities, if not filing exempt, have been submitted to, and subsequently valued by, the SVO.

Real Estate:

- Increases by adjustment in book value/recorded investment during the year.

BA Assets:

- Request information necessary to determine the fair value of collateral to the amount loaned to ensure the loan is adequately collateralized.
- Information to support significant increases by adjustment in book/adjusted carrying value during the year.
- Current Audited Financial Statements and other documents (partnership agreements, etc.) necessary to support the value of the insurer's investment in partnerships and joint ventures.
- Information necessary to support the value of significant other invested assets other than partnerships and joint ventures.
- Current details on cash flows and returns for the different types of investments, especially hedge funds and private equity funds.

RMBS, CMBS and LBaSS:

- Percentage distribution and amounts of each type of RMBS, CMBS and LBaSS held; planned amortization class (PAC), support bonds, interest only (IO) tranches, and principle only (PO) tranches to evaluate the level of prepayment risk in the portfolio.
- Projected prepayment speeds on its RMBS portfolio and compare with historical prepayments, as well as the prepayment assumption at the time of purchase.

Structured Note:

- If management has adequately reviewed the structured note portfolio and understands the underlying yields, cash flows and volatility.
- Concentration by collateral type, subordination in the overall structure of the structured note transactions, and any trend analysis management has performed on the underlying assets to ensure appropriate valuation of the structured note.
- Management's process for valuing the structured notes so as to assist analysts in assessing if the notes are valued appropriately.

- Management's intended use of these structured notes and purpose within the insurer's portfolio
- If management has an appropriate level of expertise with this type of security.
- If the insurer has controls implemented to mitigate the risks associated with this investment type
- What the insurer's expectations are for liquidity in the secondary market.
- Ensure that the insurer understands the difference between these instruments and more traditional corporate bonds (i.e., that there is significant risk that is separate from the issuer's ability to pay).

Derivatives:

- Copy of the insurer's hedging program.
- Information on how the insurer will manage any material collateral calls if they come due.
- Review the Annual Financial Statement, Schedule DB. for significant derivative instruments that are open at year-end, request the following information from the insurer:
    - A description of the methodology used to verify the continued effectiveness of the hedge provided.
    - A description of the methodology to determine the fair value.
    - A description of the determination of the book/adjusted carrying value.
- Consider having the insurer's derivative instruments and hedge program reviewed by an investment expert to determine whether the derivative instruments are providing an effective hedge.

Interest Rate Margin (Spread):

If interest margin (spreads) are negative and issues are identified, consider using available information from actuarial filings and the Annual Financial Statement and, if necessary, contacting the insurer to assist in the following:

- Gaining an understanding of the liquidity requirements and the adequacy of ALM for the insurer's mix of business, including interest rate guarantees on products.
- Gaining an understanding of the investment portfolio and strategy underlying the investment income returns, specifically understanding what factors are driving the investment yields YOY.
- Gaining an understanding of trends and whether investment returns or guaranteed rates are driving the spread results.
- Reviewing the Actuarial Memorandum and RAAIS for prolonged low interest rate stress testing results and booking of additional ALM reserves.
    - Consider talking to the company's appointed actuary to understand his or her perspective on the ALM testing and his or her comfort level.
- Gaining an understanding of prospective strategic plans to manage this risk for prolonged low interest rate, including any changes in investment strategy; impacts of other factors, including market volatility; changes in guaranteed rates on policies; and additional reserving.
- If the negative margin result cannot be explained by other transactions that skews the ratio, gain an understanding of what actions the company is taking or should take to resolve or mitigate the risk.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any market risks that require further monitoring or follow-up?
- Did the ORSA Summary Report Analysis conducted by the lead state indicate any mitigating strategies for existing or prospective market risks?

Holding Company Analysis:

- Did the Holding Company Analysis conducted by the lead state indicate any market risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company Analysis conducted by the lead state indicate any mitigating strategies for existing or prospective market risks impacting the insurer?

Actuarial Filings, Including Asset Liability Matching (ALM):

Did the review of the Statement of Actuarial Opinion or other actuarial filings indicate any concerns regarding:

- The adequacy of ALM and the sufficiency of assets to meet the business obligations of the insurer
- Exposure to certain asset classes
- Investment turnover
- Interest rate spreads

Example Prospective Risk Considerations

	Example Risk Component for IPS	*Explanation of Risk Component*
1	Valuation of [name the asset class].	• The securities reported on the balance sheet may not exist or may not be free of encumbrances. • The insurer's investments reported on the balance sheet are incorrectly valued. • The insurer's bonds, stocks and short-term investments that are considered hard-to-value, high-risk and/or subject to significant price variation are incorrectly valued.
2	High exposure to real estate or real estate backed assets.	High exposure to mortgage loans, real estate and non-agency mortgage-backed assets could result in credit losses in the event of a housing and/or commercial real estate market downturn.
3	High/increasing exposure to foreclosed mortgage loans.	The insurer is not properly identifying, handling and recording foreclosed mortgage loans.
4	Foreign security default.	Material exposure to foreign investments could result in credit losses if those investments are affected by negative changes in geopolitical or foreign economic environments.
5	Structured notes cash flow volatility risk.	Impact of the volatility of structured notes and the underlying asset on which its cash flows are based. (For example, the risks on structured notes are different from risks of typical corporate bonds.)
6	Structured notes collateral concentration risk.	Material investment in structured notes that may have collateral type concentration may result in concentration risk (lack of diversity) to the insurer's portfolio. (For example, structures can be complicated and

		cash flows hard to predict. Cash flows can be linked to a variety of factors or indices, including those that are not capital markets related.)
7	Structured notes default.	Structured notes may be subordinated in the overall transaction, representing exposure to non-payment in event of default.
8	Adequacy of collateral of BA asset.	Volatility of underlying assets (example: certain hedge funds) may result in underlying asset not adequate.
9	Economic impact on portfolio of [name the asset class].	Portfolio value that is affected by volatility driven by economic changes/conditions.
10	Hedge effectiveness of derivatives portfolio.	The derivatives strategy may not meet hedge effectiveness for mitigating risk.
11	Exposure to derivatives market generates negative results.	Derivative market volatility has a negative impact on derivative returns and generates capital losses.
12	Investment strategy contemplate higher [credit, market, liquidity…] risk.	The insurer's investment strategy may not be structured to support its ongoing business plan, which could indicate the strategy enjoys higher credit, market and liquidity risks than are appropriate for the liabilities of the insurer and may lead to financial concerns in the future
13	Investment strategy execution.	Experience in execution can be a concern with more volatile and complex markets. The use of external investment managers can raise a host of other issues.
14	Investment results actual to projected variance.	The insurer's actual investment portfolio and/or portfolio performance may vary significantly from projections if the insurer is not adhering to the strategy in place (i.e., higher actual credit, market or liquidity risk compared to the plan).
15	Narrowing/low interest rate spread.	Investment spread results for life and annuity business is/may be narrowing or worsening.
16	Financial solvency risk of Parents, Subsidiaries or Affiliates (PSA).	PSA may become insolvent, resulting in a significant drop in value, which could lead to liquidity issues.
17	High investment turnover.	• High turnover ratios may be an indication of unusual activity in the management of the investment portfolio. • High turnover in the portfolio may be driven by economic/market conditions, resulting in the need to make changes to the portfolio. • High turnover in the portfolio may indicate a change in investment strategy. • High turnover ratios raise questions of whether investments are being sold at loss, possibly creating high capital losses.
18	Negative market impact on investment income/returns.	• Economic conditions, such as a low interest rate environment, reduce the expected returns on investment. • Returns on investments are not adequate to meet the business plans of the insurer.
19	Exposure to climate change, transition and asset devaluation risk	The insurer's investment portfolio is subject to prospective devaluation of the assets/changes in the asset return associated with its holdings of climate-affected assets.

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with market risk. For example, investment asset classes (Mortgages, Affiliates, etc.) are also discussed in Credit and/or Liquidity Risk Repositories.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer.

Investment Portfolio Diversification

1. Determine whether the insurer's investment portfolio appears to be adequately diversified to avoid any undue concentration of investments by type or issue. *(See also Credit Risk Repository for diversification of other asset classes)*

"a" through "d": Shown are as a percent of total net admitted assets (excluding separate accounts)	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
a. Common stocks.		>10%	[Data]	[Data]
b. Mortgage loans.	CR*	>20%	[Data]	[Data]
c. Real estate (before encumbrances), including home office real estate.	LQ	>10%	[Data]	[Data]
d. Investments in affiliates.	CR*	>10%	[Data]	[Data]
				Other Risks
e. Review the Percentage Distribution of Total Assets in the Quarterly Financial Profile Report for significant shifts in the mix of investments owned over the last five years.				CR

Changes in Certain Asset Exposures

2. Determine whether there are concerns due to the change in certain asset classes from the prior year-end.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Increase in real estate from the prior year-end, where the ratio of total real estate to cash and invested assets exceeds 10%.	LQ	>15%	[Data]	[Data]
b. Increase in mortgage loans from the prior year-end, where the ratio of total mortgage loans to cash and invested assets exceeds 10%.	CR*, LQ	>15%	[Data]	[Data]
c. Increase in affiliated investments from the prior year-end, where the ratio affiliated investments to cash and invested assets is greater than 3.5%.	CR*	>20%	[Data]	[Data]

d. Increase in BA assets from the prior year-end, where the ratio of BA assets to cash and invested assets is greater than 5%.		>10	[Data]	[Data]

Valuation of Securities

3. Determine whether securities owned have been valued in accordance with the standards promulgated by the NAIC Investment Analysis Office and Statutory Accounting Principles.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the insurer failed to follow the filing requirements of the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*? If "yes," document the exceptions. [Quarterly Financial Statement, General Interrogatories, Part 1, #18.1 and #18.2]	OP	= Yes	[Data]	
				Other Risks
b. Assess the impact of market conditions: i. Through consideration of industry and economic events (i.e., news, industry analytics), is the analyst aware of any market conditions that may threaten the value of insurers' investment portfolios? ii. Through correspondence with the insurer, is the insurer aware of any market conditions that could threaten the value of its investment portfolio?				

Valuation of Affiliated Investments

4. Determine whether concerns exist regarding the level of exposure to investments in affiliates and if investments are properly valued in accordance with statutory accounting practices.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Total of all investments in affiliates to capital and surplus. [Quarterly Financial Statement, General Interrogatories, Part 1, #14]	CR, LQ*	>20%	[Data]	[Data]
b. Change in total of all investments in affiliates from the prior year-end.	CR, LQ*	>20% or < -20%	[Data]	[Data]
c. Change in any category of affiliated investments from the prior year-end.	CR, LQ*	>10% or < -10%	[Data]	[Data]
				Other Risks
d. Review the results of the Holding Company Analysis completed by the lead state. Were any concerns regarding exposure to (see diversification procedure above) or valuation of affiliated investments noted?				CR, LQ
e. If investments in common stocks of parents, subsidiaries and affiliates (PSA) involve publicly traded securities, is the investment valued on a basis other than market valuation?				

f. If investments in common stocks of PSA do not involve publicly traded securities, is the investment valued on a basis other than the statutory equity or generally accepted accounting principles (GAAP) equity methods?	
g. If concerns exist regarding an affiliate investment(s) and/or material changes have occurred since the prior period analysis, consider the following (note that some of this information may be available in the Holding Company Analysis completed by the lead state): i. Obtain an understanding of the primary business activity of the affiliate and determine that such an investment complies with regulatory requirements. ii. Obtain and review the Audited Financial Statement, Annual Financial Statement and Statement of Actuarial Opinion of the affiliate, if available. iii. Determine the current ratings of the affiliate from the major rating agencies, if available. iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate. Also, review iSite+ data on the reinsurer (i.e., financial statements, Regulatory Information Retrieval System [RIRS] and Global Receivership Information Database [GRID]).	

Exposure to Derivative Investments

5. Determine whether there are concerns due to the use of derivative instruments.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Determine whether derivative holdings are significant. Review the ratio of total **book/adjusted carrying value** to capital and surplus and asset valuation reserve (AVR), and [Quarterly Financial Statement, Schedule DB – Part A and Part B – Section 1]. Total **book/adjusted carrying value** and percentage of capital and surplus and AVR for: • Hedging effective. • Hedging other. • Replication. • Income generation. • Other. • Total derivative transactions.	ST, OP	>5% or < -5%	[Data]	[Data]
b. Determine whether derivative holdings are significant. Review the ratio of total **fair value** at quarter-end to capital and surplus plus AVR, and [Quarterly Financial Statement, Schedule DB – Part A and Part B – Section 1]. Total **fair value** and percentage of capital and surplus plus AVR for:	ST, OP	>5% or < -5%	[Data]	[Data]

• Hedging effective. • Hedging other. • Replication. • Income generation. • Other. • Total derivative transactions.				
c. Increase in derivative investments over the prior year-end where the ratio of potential exposure on futures contracts and options, caps, floors, collars, swaps and forwards to capital and surplus plus AVR exceeds 3.5%. [Schedule DB – Part A and Part B – Section 1]	OP, ST	>10%	[Data]	[Data]
				Other Risks
d. Review detail provided in Quarterly Financial Statement, Schedule DB columns for Description of Item(s) Hedged, Used for Income Generation, or Replicated and Type(s) of Risk(s) to determine if the insurer's detailed use of derivatives appears to be consistent with the overall strategy that the reporting entity has described elsewhere. Where the detail reported in Schedule DB differs from other information provided by the insurer, request further clarifying information from the reporting entity.				ST
e. Review detail provided in Quarterly Financial Statement, Schedule DB columns for Hedge Effectiveness at Inception and at Quarter-End. Note anything unusual or any variances from the insurer's current hedging program description.				ST

Realized and Unrealized Capital Gains and Losses

6. Assess realized capital gains/(losses), including other-than-temporary impairments (OTTI).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net unrealized capital gains/(losses) as a percent of prior year-end capital and surplus.		>10%	[Data]	[Data]
b. Ratio of net realized capital gains to net income, where the absolute value of net realized capital gains or losses exceeds 3% of capital and surplus.		>25% or < -25%	[Data]	[Data]
				Other Risks
c. Review the Quarterly Financial Profile Report for significant changes or trends in capital gains/(losses) by quarter over the last five years.				

Investment Income

7. Review and assess the adequacy of net investment income.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investment income to cash and invested assets (rolling year).	LQ, ST	>10% or <3%	[Data]	[Data]

	Other Risks
b. Review the Quarterly Financial Profile Report for significant changes or trends in investment income by quarter over the last five years.	LQ, ST

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk**.** Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with market risk. For example:

- Investment strategy is also discussed in Strategic Risk Repository.
- Investment asset classes (Bonds, Mortgages, etc.) are also discussed in Credit and/or Liquidity Risk Repositories.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer.

Investment Portfolio Diversification

1. Determine whether the insurer's investment portfolio appears to be adequately diversified to avoid any undue concentration of investments by type or issue. *(See also Credit Risk Repository for diversification of other asset classes.)*

"a" through "h": Shown are as a percent of total net admitted assets (excluding separate accounts)	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
a. Residential mortgaged-backed securities (RMBS), commercial mortgage-backed securities (CMBS) or other loan-backed and structured securities (LBaSS)	CR*	>20%	[Data]	[Data]
b. Foreign bonds		>5%	[Data]	[Data]
c. Common stocks		>10%	[Data]	[Data]
d. Mortgage loans	CR*	>20%	[Data]	[Data]
e. Real estate (before encumbrances), including home office real estate	LQ	>10%	[Data]	[Data]
f. Total derivatives (notional value)	CR	>1%	[Data]	[Data]
g. Investments in affiliates	CR*	>10%	[Data]	[Data]
h. Any one single investment in foreign bonds, common stock, real estate and derivatives (excluding affiliated investments) *(Note that single investments in asset backed securities are considered in the Credit Risk Repository.)*	CR	>3%	[Data]	[Data]
				Other Risks
i. Review the Percentage Distribution of Total Assets in the Annual Financial Profile Report for significant shifts in the mix of investments owned during the past five years.				CR*
j. Compare the insurer's distribution of invested assets per the Percentage Distribution of Total Assets in the Annual Financial Profile Report and Investment Snapshot Report to industry and peer averages to determine any significant deviations from the industry averages.				CR

k. If the insurer's investments include a significant amount of foreign bonds, review the Annual Supplemental Investment Risks Interrogatories (#4 through #11). Consider the insurer's potential foreign currency exposure from holding bonds denominated in a foreign currency.	CR
l. Review the Annual Supplemental Investment Risks Interrogatories and assess any unusual items or areas that indicate a non-diversified portfolio.	

Valuation of Securities

2. Determine whether securities owned have been valued in accordance with the standards promulgated by the NAIC Investment Analysis Office and Statutory Accounting Principles.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the insurer failed to follow the filing requirements of the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*? If "yes," document the exceptions listed [Annual Financial Statement, General Interrogatories, Part 1, #33.1 and #33.2]	OP	=YES	[Data]	[Data]
				Other Risks
b. Assess the impact of market conditions: i. Through consideration of industry and economic events (i.e., news and industry analytics), is the analyst aware of any market conditions that may threaten the value of insurer's investment portfolios? ii. Through correspondence with the insurer, is the insurer aware of any market conditions that could threaten the value of its investment portfolio?				
c. Review Annual Financial Statement, Schedule D – Part 1 and Schedule D – Part 2. Does it appear that the insurer has failed to comply with the requirement to submit securities that are not filing exempt to the Securities Valuation Office (SVO) for a valuation (i.e., there are securities which were acquired prior to the current year with a "Z" suffix after the NAIC designation and/or there is a significant number of securities which were acquired during the current year with a "Z" suffix after the NAIC designation)?				OP
d. Review Annual Financial Statement, Schedule D – Part 1 to determine whether all bonds with an NAIC designation of 3, 4, 5, or 6 (non-investment grade bonds) have been valued at the lesser of book/adjusted carrying value or fair value and all other bonds have been valued at their book/adjusted carrying value.				OP
e. Review Annual Financial Statement, Schedule D – Part 2 to determine whether sinking fund preferred stocks have been valued at their cost and all other stocks have been valued at their fair value.				OP
f. If securities are listed in Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2 with a "Z" suffix after the NAIC designation and if the securities do not qualify as filing exempt, compare the price or designation actually received from the SVO to that included in the Annual Financial Statement for significant securities.				OP
g. Review the Annual Financial Statement, Summary Investment Schedule. Note any unusual valuation methods or areas that indicate further review is necessary.				CR

Value of Bond & Sinking Fund Preferred Stock

3. Determine whether the statement value of bonds and sinking fund preferred stocks is significantly greater than their fair value.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Aggregate excess of the statement value over the fair value of bonds and preferred stocks owned to the statement value of bonds and preferred stocks owned [Annual Financial Statement, General Interrogatories, Part 1, #31]	LQ, CR	>5%	[Data]	[Data]
b. Aggregate excess of the statement value over the fair value of bonds and preferred stocks owned to capital and surplus	LQ, CR	>20%	[Data]	[Data]
				Other Risks
c. Review available information from actuarial reporting on asset/liability matching (ALM) and cash flow testing to determine if there are any concerns regarding the impact of interest rate changes (or prolonged low interest rate environment) on long duration bonds and the potential for prospective liquidity risk to result in market risk.				
d. Review Schedule D – Part 1 and Schedule D – Part 2 or request additional information from the insurer to determine which individual securities have a book/adjusted carrying value significantly in excess of their fair value. For those securities: i. Verify the NAIC designation assigned and, if not filing exempt, determine whether it has been updated recently by the SVO. ii. If filing exempt, determine the current rating by a Credit Rating Provider — CRP (e.g., Moody's Investors Service, Standard & Poor's, A.M. Best or Fitch Ratings). iii. Determine whether there has been an other-than-temporary impairment recognized within fair value.				CR

Exposure to Structured Notes

4. Determine whether there are concerns due to the level of investment in structured notes.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investments in structured notes to capital and surplus	CR	>10%	[Data]	[Data]
				Other Risks
b. Review the Annual Financial Statement, Schedule D – Part 1 to identify the types of structured notes and the yield reported.				

Value of Common Stock

5. Review Annual Financial Statement, Schedule D – Part 2 – Section 2 to determine whether the fair value of common stock is significantly greater than or less than the cost.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Is the aggregate fair value of common stocks below the actual cost and greater than 5% of capital and surplus?		=YES	[Data]	[Data]
b. Is the aggregate actual cost of common stocks below the fair value and greater than 5% of capital and surplus?		=YES	[Data]	[Data]
c. Fair value to actual cost, when an investment in one issue of common stock is greater than 5% of invested assets		>30% or <-20%	[Data]	[Data]
				Other Risks
d. If concerns exist about sector concentration of common stocks, review Annual Financial Statement, Schedule D – Part 2 – Section 2 and consider requesting the NAIC Capital Markets Bureau to perform an analysis of the portfolio focusing on sector risk.				
e. Review Annual Financial Statement, Schedule D – Part 2 – Section 2 or request additional information from the insurer to determine which individual common stocks have a cost significantly in excess of their fair value. For those securities: i. If the stock is listed on a market or an exchange (designated by the symbol "L" or "U")—such as the New York Stock Exchange, American Stock Exchange, NASDAQ National Market System, or a foreign exchange—verify the price and total market value. ii. If the stock is designated "A" (analytically determined by the SVO), determine whether it has been updated recently by the SVO. iii. Determine whether there has been an other-than-temporary decline in the fair value of the common stock.				CR
f. Request information from the insurer regarding investment strategies and short-term cash flow needs to determine whether common stock with a cost significantly in excess of its fair value will need to be sold at a loss to satisfy short-term cash flow requirements.				LQ

Exposure to Real Estate

6. Determine whether there are concerns due to the level or quality of investment in real estate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of total real estate to capital and surplus	LQ	>10%	[Data]	[Data]
b. Increase in total real estate from the prior year, where the ratio of total real estate to capital and surplus is greater than 10%	LQ	>15%	[Data]	[Data]

c. Determine if the insurer owns any securities of a real estate holding company or otherwise holds real estate indirectly [Annual Financial Statement, General Interrogatories, Part 1, #12.1]		=YES	[Data]	[Data]
				Other Risks
d. Using postal codes and property type reported in the Annual Financial Statement, Schedule A – Part 1, identify if real estate owned is concentrated in one or a few geographical areas.				
e. Review Annual Financial Statement, Schedule A – Part 1 to determine whether updated appraisals should be obtained for any of the properties owned based on the location of the property, the book/adjusted carrying value and reported fair value of the property, and the year of last appraisal. i. Consider benchmarking against the National Council of Real Estate Investment Fiduciaries (NCREIF) index number.				
f. Review Annual Financial Statement, Schedule A – Part 1 and: i. Investigate any instances where a property has a book/adjusted carrying value in excess of its cost. ii. Review Schedule A – Part 1 for any properties owned that have a book/adjusted carrying value in excess of fair value and determine whether the asset should be written down.				

Value of Other (Schedule BA) Invested Assets

7. Determine whether there are concerns regarding other (Schedule BA) invested assets.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of Schedule BA assets to capital and surplus	LQ*, CR*	>10%	[Data]	[Data]
b. Increase in Schedule BA assets from the prior year where the ratio of Schedule BA assets to capital and surplus is greater than 3.5%	LQ*, CR*	>10%	[Data]	[Data]
				Other Risks
c. Review the Annual Financial Statement, Schedule BA – Part 1 to determine the amount and types of other invested assets owned and identify if the insurer's exposure to certain classes of BA assets are significant (e.g., hedge funds and private equity funds).				LQ*, CR*

Valuation of Affiliated Investments

8. Determine whether concerns exist regarding the level of exposure to investments in affiliates and if investments are properly valued in accordance with statutory accounting practices.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Total of all investments in affiliates to capital and surplus [Annual Financial Statement, Five-Year Historical Data]	CR, LQ*	>20%	[Data]	[Data]

b. Change in total of all investments in affiliates from the prior year-end	CR, LQ*	>20% or <-20%	[Data]	[Data]
c. Change in any category of affiliated investments from the prior year-end	CR, LQ*	>10% or <-10%	[Data]	[Data]
				Other Risks
d. Review the results of the Holding Company Analysis completed by the lead state. Were any concerns regarding exposure to (see diversification procedure above) or valuation of affiliated investments noted?				
e. If investments in common stocks of parents, subsidiaries, and affiliates (PSA) involve publicly traded securities, is the investment valued on a basis other than market valuation?				
f. If investments in common stocks of PSA do not involve publicly traded securities, is the investment valued on a basis other than the Statutory Equity or GAAP Equity methods?				
g. Review the components of investment income reflected on the Annual Financial Statement, Exhibit of Net Investment Income and the Exhibit of Capital Gains (Losses). i. Calculate the return on investment for current and prior years. ii. Review the components of investment income and determine whether the source is cash or merely an increase in accrued interest income. iii. If a substantial portion of investment income relates to an increase in the accrual, determine whether such revenue recognition is legitimate and reasonable. iv. Determine whether accrued interest on investments in affiliates have grown to a significant level.				
h. Review details of affiliated investments as reported in Annual Financial Statement, Schedule A, Schedule B, Schedule BA, and Schedule D, and compare with prior years. Review the trend in the value of affiliated investments to identify any negative trends that may continue in future.				
i. If concerns exist regarding an affiliate investment(s), consider the following (note that some of this information may be available in the Holding Company Analysis completed by the lead state): i. Obtain an understanding of the primary business activity of the affiliate and determine that such an investment complies with regulatory requirements. ii. Obtain and review the Audited Financial Statement, Annual Financial Statement, and the Statement of Actuarial Opinion of the affiliate, if available. iii. Determine the current ratings of the affiliate from the major rating agencies, if available. iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate. Also, review iSite+ data on the reinsurer (i.e., financial statements, Regulatory Information Retrieval System [RIRS] and Global Receivership Information Database [GRID]).				

Exposure to Derivative Investments

9. Determine whether there are concerns due to the use of derivative instruments.

				Other Risks
a. Determine whether there are concerns due to investments in derivative instruments. Is the insurer engaging in derivative activity? [Annual Financial Statement, Notes to Financial Statements, Note #1 and Note #8; General Interrogatories, Part 1, #27; the write-ins for assets and liabilities; Exhibit of Net Investment Income, Line 7; Exhibit of Capital Gains and Losses, Line 7; Schedule DB – all parts; the MD&A; and the Audited Financial Report]				ST, OP
If a is "yes," consider the following:	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
b. Determine whether derivative holdings at year-end are significant. Review the ratio of total book/adjusted carrying value at year-end to capital and surplus [Annual Financial Statement, Schedule DB, Part A, Part B and Part C, Section 1] Total book/adjusted carrying value and percentage of capital and surplus for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total other	ST, OP	>5% or <-5%	[Data]	[Data]
				Other Risks
c. Review Annual Financial Statement, Notes to Financial Statement, Note #5 for any information regarding possible collateral calls and assess the materiality exposure to the insurer if the collateral calls were to come due.				LQ
d. Review the Annual Financial Statement, Schedule DB. For significant derivative instruments that are open at year-end, request the following information from the insurer: • A description of the methodology used to verify the continued effectiveness of the hedge provided. • A description of the methodology to determine the fair value. • A description of the determination of the book/adjusted carrying value.				
e. Consider having the insurer's derivative instruments and hedge program reviewed by an investment expert to determine whether the derivative instruments are providing an effective hedge.				

Derivative Instruments—Investment Income and Capital Gains & Losses

10. Determine whether there are concerns regarding investment in derivative instruments.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of gross derivative investment income to net investment income [Annual Financial Statement, Exhibit of Net Investment Income, Line 7]	OP, ST	>2% or <-2%	[Data]	[Data]
b. Ratio of realized capital loss attributed to derivatives compared to capital and surplus [Annual Financial Statement, Exhibit of Capital Gains (Losses), Line 7]	OP, ST	>3%	[Data]	[Data]
c. If the sum of the aggregate gains and losses at disposal results in aggregate net losses on derivatives, is the aggregate loss less than -10% of capital and surplus? [Annual Financial Statement, Schedule DB – Part A – Section 2, columns 22, 23, and 24, and Schedule DB – Part B – Section 2, columns 16, 17, and 18] If "yes," display amount and percentage of capital and surplus of the following: • Recognized gains/losses of derivatives • Derivatives used to adjust basis of hedging items • Deferred gains or losses on derivatives	OP, ST	<-10%	[Data]	[Data]

Investment Portfolio Turnover

11. Determine whether concerns exist due to significant turnover of long-term bonds, preferred stocks or common stocks during the year.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Long-term bond turnover ratio	OP, CR	>50%	[Data]	[Data]
b. Stock turnover ratio	OP, CR	>50%	[Data]	[Data]
c. Total long-term bond and stock turnover ratio	OP, CR	>50%	[Data]	[Data]
				Other Risks
d. Determine the amount of bonds and stocks disposed of during the current year. [Annual Financial Statement, Schedule D – Part 4 and Schedule D – Part 5]				CR
e. Review Annual Financial Statement, Schedule D – Part 3 to determine the quality of bonds acquired, noting any "Z" rated (not rated by the SVO) securities. Also, note any NAIC designations of 3, 4, 5, or 6 (non-investment grade bonds).				CR
f. Review Annual Financial Statement, Schedule D – Part 3 to determine the quality of preferred and common stocks acquired. Evaluate any "U" (unlisted) or "A" (analytically determined) rated stocks.				CR
g. High turnover of investments can result in realized capital gains. Review the Exhibit of Capital Gains (Losses) to determine the degree of reliance on capital gains to increase surplus.				OP

Realized and Unrealized Capital Gains and Losses

12. Assess realized capital gains (losses), including other-than-temporary impairments (OTTI).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net unrealized capital gains (losses) to prior year-end capital and surplus		>5%	[Data]	[Data]
b. Ratio of net realized capital gains to net income where the absolute value of net realized capital gains or losses is greater than 3% of capital and surplus		>25% or <-25%	[Data]	[Data]
				Other Risks
c. Review Annual Financial Statements, Notes to the Financial Statements, the Exhibit of Capital Gains (Losses) and Investment Schedules to assess the amount of OTTI have been taken in the current period for reasonableness.				

Investment Income

13. Review and assess the adequacy of net investment income.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investment income to cash and invested assets	LQ, ST	>6% or <2%	[Data]	[Data]
				Other Risks
b. Review the detail of investment income in the Exhibit of Net Investment Income and the detail of realized gains or (losses) in the Exhibit of Capital Gains (Losses) for reasonableness.				LQ, ST
c. Review the investment yield ratio for unusual fluctuations and trends between years. [Annual Financial Profile Reports]				LQ, ST
d. Calculate and review the investment yield ratio by asset class.				LQ, ST
e. Compare the ratio of investment income to cash and invested assets to the industry average investment yield to determine any significant deviation from the industry average. [Annual Financial Profile Reports]				LQ, ST

Related Party Exposure in the Investment Portfolio

14. Assess related party exposure in the investment portfolio.

	Other Risks
a. Review the Annual Financial Statement investment schedules, as disclosed in the column "Investments Involving Related Parties" and utilizing iSite+ tools, determine if the insurer has material related party exposures in its investment portfolio. This disclosure is included in: • Schedule B • Schedule BA • Schedule D • Schedule DA • Schedule DB • Schedule DL • Schedule E, Part 2 Consider exposure by asset class and in aggregate, and by the role of the related party in the investment as designed by the "Investments Involving Related Parties" disclosure.	LQ, MK
b. If concerns exist regarding a material related party exposure in the investment portfolio, assess the credit quality of those investments involving related parties by reviewing designations, assessing historical default experience, etc.	LQ, MK

c. If concerns exist regarding a material related party exposure in investment management or advisory services, consider the following: i. Review the procedures in the "Additional Procedures" section below regarding Third Party Investment Advisors and consider their application to related party advisors in that role. ii. In addition to the additional analysis procedures regarding third party investment advisors, consider the following: 1. Review the insurer's investment policy guidelines and determine whether the related party investments follow the guidelines and are in compliance with regulatory requirements. 2. Review whether the fee structure for asset management is fair, reasonable, and appropriately recognized as investment expenses. 3. If the related party asset manager also originates/securitizes investments held by the insurer, consider requesting additional information from the insurer to determine the following: a. Whether the asset manager has adequate experience and knowledge in originating and managing the types of investments; b. Whether the asset manager follows appropriate underwriting practices and applicable regulatory requirements in originating investments; and c. Whether the fee structures embedded in securities (if applicable) are fair, reasonable, and appropriately account for potential duplication of fees or conflicts of interest.	OP

Invested Asset Exposure to Climate Change Risk

14. Assess the potential impact of material climate change and/or transition and asset devaluation risk on the insurer's invested asset portfolio.

	Other Risks
a. Review information provided in the insurer's response to the NAIC's Climate Risk and Disclosure Survey (if available) on its exposure to material climate change/energy transition risk and related mitigation activity in this area.	CR*, LQ*
b. Review relevant information provided in the Own Risk and Solvency Assessment (ORSA) Summary Report, and/or U.S. Securities and Exchange Commission (SEC) 10-K or 10-Q filings (if available) that discusses the insurer's exposure to material climate change/energy transition risk and related mitigation activity in this area.	CR*, LQ*
c. Review information provided in the NAIC's U.S. Insurance Industry Climate Affected Investment Analysis to identify potential concentrations in insurer exposure.	CR*, LQ*

Additional Analysis and Follow-up Procedures

Request and assess the insurer's investment policies and strategies:

If concerns exist regarding the level of market risk in the investment portfolio, request and review the insurer's investment strategy to determine if it is appropriately structured to support its ongoing business plan. Review the guidelines outlined in the plan for:

- Quality of issues invested in and diversification standards pertaining to issuer, industry, duration, liquidity, geographic location, and issues/sectors exposed to material climate change, transition, and asset devaluation risks.
- Expected rate of returns on investments (projected investment income) compared to actual results.
- Planned increases in investment types, sectors and markets, etc.
- Appropriateness of the investment plan for the liability structure of the insurer. (This may require a review of asset adequacy analysis for asset liability matching and discussion with the insurer's management to better understand its plan.)

Upon review of the investment plan, compare the plan to actual results. Does the insurer and its investment manager(s) appear to be adhering to the investment policies and guidelines in the investment plan?

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding market risks associated with:

- Investment concentration
- Exposure to riskier asset classes
- Climate change, transition, and asset devaluation
- Asset liability matching (ALM)
- Adherence to investment policies and strategies
- Investment management, and use of and monitoring of external investment managers

If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

NAIC Capital Market's Bureau Analytical Assistance:

Consider requesting the following analytical reviews:

- Review of the insurer's investment portfolio
- Review of Investment Management Agreements

Third-Party Investment Advisers:
Assess and determine if any concerns exist regarding third party investment advisers and associated contractual arrangements.

- Review Annual Financial Statement, General Interrogatories, Part 1, #29.05. Does the insurer utilize third party investment advisors, broker/dealer or individuals acting on behalf of the insurer with access to their investment accounts?

  If "yes," consider the following procedures:

- Review the results of the most recent financial examination work papers, follow-up and prospective risk information and the summary review memorandum provided by the examiners. Did the examination identify any issues with regard to investment advisers and associated contractual arrangements that

require follow-up analysis or communication with the insurer? If "yes", document the follow-up work performed.

- Compare Annual Financial Statement, General Interrogatories, Part 1, #29.05 for the current year to the prior year to determine if there have been any changes in advisors. If "yes,"
  - Consider obtaining an explanation for the change from the insurer.
  - Consider obtaining a copy of the new investment advisor agreement and review it for appropriate provisions.
- Using the information reported in Annual Financial Statement, General Interrogatories, Part 1, #29.05, obtain and review SEC Form ADV (if available), to determine if the investment advisor is in good standing with the SEC. If not in good standing, contact the insurer to request an explanation.
- If agreements with third party investment advisers are affiliated, have the appropriate Form D–Prior Notice of Transactions been filed and approved by the department? Were any concerns noted or follow-up monitoring recommended?
- Request information from the insurer regarding the background and expertise in structured securities of its investment advisors (in-house and/or contractual) and its analytical system capabilities. Determine whether the advisors and systems are adequate to allow the insurer to continuously monitor its structured securities investments.
- If the insurer uses an external asset manager, consider if investments on Schedule BA are invested in funds that are affiliated with the asset manager or are managed by that asset manager. Consider the following issues:
  - If any conflicts of interest exist.
  - If the investment is appropriate for the insurer's portfolio and is arm's-length.
  - If the insurer is paying double fees.

Inquire of the Insurer:

If concerns exist, consider requesting information from the insurer regarding:

General Investment Inquiries:

- If management has adequately reviewed the investment portfolio and understands the yields, underlying collateral, cash flows and investment volatility.
- Any additional concentration by collateral type.
- Management's process for valuing securities so as to assist analysts in assessing if the securities are valued appropriately.
- Management's intended use of certain riskier investments and purpose within the insurer's portfolio.
- If management has an appropriate level of knowledge and expertise with the type of securities being purchased/held.
- If the insurer has controls implemented to mitigate the risks associated with this investment type.
- Sources of liquidity, such as letters of credit (LOCs).
- Request information from the insurer regarding investment strategies and short-term cash flow needs to determine whether investments with a book/adjusted carrying value significantly in excess of their fair value will need to be sold at a loss to satisfy short-term cash flow requirements.

Investment Diversification:

- Planned asset mix and diversification strategies

Investment Turnover:

- In light of the level of portfolio turnover identified, inquire of the insurer regarding any changes in investment strategy or philosophy, or changes in investment managers. Assess the impact of any strategic changes on the insurer's prospective exposure to market risk.

Other Than Temporary Impairments (OTTI):

- If concerns exist that OTTI are not properly written down, request information on the insurer's investment policy for recording OTTI to determine if it aligns with statutory accounting requirements.

Bonds:

- If securities are listed in Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2 with a "Z" suffix after the NAIC designation request verification from the insurer that the securities, if not filing exempt, have been submitted to, and subsequently valued by, the SVO.

Real Estate:

- Increases by adjustment in book value/recorded investment during the year

BA Assets:

- Request information necessary to determine the fair value of collateral to the amount loaned to ensure the loan is adequately collateralized.
- Information to support significant increases by adjustment in book/adjusted carrying value during the year.
- Current Audited Financial Statements and other documents (partnership agreements, etc.) necessary to support the value of the insurer's investment in partnerships and joint ventures.
- Information necessary to support the value of significant other invested assets other than partnerships and joint ventures.
- Current details on cash flows and returns for the different types of investments, especially hedge funds and private equity funds.

RMBS, CMBS and LBaSS:

- Percentage distribution and amounts of each type of RMBS, CMBS and LBaSS held; planned amortization class (PAC), support bonds, interest only (IO) tranches, and principle only (PO) tranches to evaluate the level of prepayment risk in the portfolio.
- Projected prepayment speeds on its RMBS portfolio and compare with historical prepayments, as well as the prepayment assumption at the time of purchase.

Structured Note:

- If management has adequately reviewed the structured note portfolio and understands the underlying yields, cash flows and volatility.
- Concentration by collateral type, subordination in the overall structure of the structured note transactions, and any trend analysis management has performed on the underlying assets to ensure appropriate valuation of the structured note.
- Management's process for valuing the structured notes so as to assist analysts in assessing if the notes are valued appropriately.

- Management's intended use of these structured notes and purpose within the insurer's portfolio.
- If management has an appropriate level of expertise with this type of security.
- If the insurer has controls implemented to mitigate the risks associated with this investment type.
- What the insurer's expectations are for liquidity in the secondary market.
- Ensure that the insurer understands the difference between these instruments and more traditional corporate bonds (i.e., that there is significant risk that is separate from the issuer's ability to pay).

Derivatives:

- Copy of the insurer's hedging program.
- Information on how the insurer will manage any material collateral calls if they come due.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any market risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective market risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any market risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective market risks impacting the insurer?

Actuarial Filings, Including Asset Liability Matching (ALM):

- Did the review of the Statement of Actuarial Opinion or other actuarial filings indicate any concerns regarding:
  - The adequacy of ALM and the sufficiency of assets to meet the business obligations of the insurer
  - Exposure to certain asset classes
  - Investment turnover
  - Interest rate spreads

Example Prospective Risk Considerations

	Risk Components for IPS	*Explanation of Risk Components*
1	Valuation of [name the asset class]	• The securities reported on the balance sheet may not exist or may not be free of encumbrances • The insurer's investments reported on the balance sheet are incorrectly valued • The insurer's bonds, stocks and short-term investments that are considered hard-to-value, high-risk and/or subject to significant price variation are incorrectly valued
2	High exposure to real estate or real estate-backed assets	High exposure to mortgage loans, real estate and non-agency mortgage-backed assets could result in credit losses in the event of a

		housing and/or commercial real estate market downturn.
3	High/increasing exposure to foreclosed mortgage loans	The insurer is not properly identifying, handling and recording foreclosed mortgage loans.
4	Foreign security default	Material exposure to foreign investments could result in credit losses if those investments are affected by negative changes in geopolitical or foreign economic environments.
5	Structured notes cash flow volatility risk	The impact of the volatility of structured notes and the underlying asset on which its cash flows are based. (e.g., the risks on structured notes are different from risks of typical corporate bonds.)
6	Structured notes collateral concentration risk	Material investment in structured notes that may have collateral type concentration may result in concentration risk (lack of diversity) to the insurer's portfolio. (For example, structures can be complicated and cash flows hard to predict. Cash flows can be linked to a variety of factors or indices, including those that are not capital markets related.)
7	Structured notes default	Structured notes may be subordinated in the overall transaction, representing exposure to non-payment in event of default.
8	Adequacy of collateral of BA asset	Volatility of underlying assets (e.g., certain hedge funds) may result in underlying asset not adequate.
9	Economic impact on portfolio of [name the asset class]	Portfolio value that is impacted by volatility driven by economic changes/conditions.
10	Hedge effectiveness of derivatives portfolio	The derivatives strategy may not meet hedge effectiveness for mitigating risk.
11	Exposure to derivatives market generates negative results	Derivative market volatility has a negative impact on derivative returns and generates capital losses.
12	Investment strategy contemplate higher [credit, market, liquidity…] risk	The insurer's investment strategy may not be structured to support its ongoing business plan, which could indicate the strategy enjoys higher credit, market and liquidity risks than are appropriate for the liabilities of the insurer and may lead to financial concerns in the future.
13	Investment strategy execution	Experience in execution can be a concern with more volatile and complex markets. The use of external investment managers can raise a host of other issues.
14	Investment results actual to projected variance	The insurer's actual investment portfolio and/or portfolio performance may vary significantly from projections if the insurer is not adhering to the strategy in place (i.e., higher actual credit, market or liquidity risk compared to the plan).
15	Financial solvency risk of parent, subsidiaries or affiliates (PSA)	PSA(s) may become insolvent, resulting in a significant drop in value, which could lead to liquidity issues.
16	High investment turnover	• High turnover ratios may be an indication of unusual activity in the management of the investment portfolio • High turnover in the portfolio may be driven by economic/market conditions, resulting in the need to make changes to the portfolio • High turnover in the portfolio may indicate a change in investment

		strategy • High turnover ratios raise questions of whether investments are being sold at loss, possibly creating high capital losses
17	Negative market impact on investment income/returns	• Economic conditions, such as low interest rate environment, reduce the expected returns on investment • Returns on investments are not adequate to meet the business plans of the insurer
18	Exposure to climate change, transition, and asset devaluation risk	The insurer's investment portfolio is subject to prospective devaluation of the assets/changes in the asset return associated with its holdings of climate-affected assets.

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with market risk. For example, investment asset classes (Mortgages and Affiliates, etc.) are also discussed in Credit and/or Liquidity Risk Repositories.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer.

Investment Portfolio Diversification

1. Determine whether the insurer's investment portfolio appears to be adequately diversified to avoid any undue concentration of investments by type or issue. *(See also Credit Risk Repository for diversification of other asset classes.)*

"a" through "d": Shown are as a percent of total net admitted assets (excluding separate accounts)	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
a. Common stocks		>10%	[Data]	[Data]
b. Mortgage loans	CR*	>5%	[Data]	[Data]
c. Real estate (before encumbrances), including home office real estate	LQ	>5%	[Data]	[Data]
d. Investments in affiliates	CR*	>5%	[Data]	[Data]
				Other Risks
e. Review the Quarterly Financial Profile Report for significant shifts in the mix of investments owned over last five quarters.				CR

Changes in Certain Asset Exposures

2. Determine whether there are concerns due to the change in certain asset classes from the prior year-end.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Increase in real estate from the prior year-end, where the ratio of total real estate to capital and surplus is greater than 5%	LQ	>15%	[Data]	[Data]
b. Increase in mortgage loans from the prior year-end, where the ratio of total mortgage loans to capital and surplus is greater than 5%	CR*, LQ	>15%	[Data]	[Data]
c. Increase in affiliated investments from the prior year-end, where the ratio affiliated investments to capital and surplus is greater than 10%	CR*	>20%	[Data]	[Data]
d. Increase in BA assets from the prior year-end, where the ratio of BA assets to capital and surplus is greater than 5%	CR*, LQ*	>10%	[Data]	[Data]

Valuation of Securities

3. Determine whether securities owned have been valued in accordance with the standards promulgated by the NAIC Investment Analysis Office and Statutory Accounting Principles.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the insurer failed to follow the filing requirements of the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*? If "yes," document the exceptions. [Quarterly Financial Statement, General Interrogatories, Part 1, #18.1 and #18.2]	OP	=YES	[Data]	
				Other Risks
b. Assess the impact of market conditions: i. Through consideration of industry and economic events (i.e., news and industry analytics), is the analyst aware of any market conditions that may threaten the value of insurers' investment portfolios? ii. Through correspondence with the insurer, is the insurer aware of any market conditions that could threaten the value of its investment portfolio?				

Valuation of Affiliated Investments

4. Determine whether concerns exist regarding the level of exposure to investments in affiliates and if investments are properly valued in accordance with statutory accounting practices.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Total of all investments in affiliates to capital and surplus [Quarterly Financial Statement, General Interrogatories, Part 1, #14)	CR, LQ*	>20%	[Data]	[Data]
b. Change in total of all investments in affiliates from the prior year-end	CR, LQ*	>20% or <-20%	[Data]	[Data]
c. Change in any category of affiliated investments from the prior year-end	CR, LQ*	>10% or <-10%	[Data]	[Data]
				Other Risks
d. Review the results of the Holding Company Analysis completed by the lead state. Were any concerns regarding exposure to (see diversification procedure above) or valuation of affiliated investments noted?				CR, LQ
e. If investments in common stocks of parents, subsidiaries, and affiliates (PSA) involve publicly traded securities, is the investment valued on a basis other than market valuation?				
f. If investments in common stocks of PSA do not involve publicly traded securities, is the investment valued on a basis other than the statutory equity or generally accepted accounting principles (GAAP) equity methods?				

g. If concerns exist regarding an affiliate investment(s) and/or material changes have occurred since the prior period analysis, consider the following (note that some of this information may be available in the Holding Company Analysis completed by the lead state): i. Obtain an understanding of the primary business activity of the affiliate and determine that such an investment complies with regulatory requirements. ii. Obtain and review the Annual Audited Financial Statement, Financial Statement(s) and Annual Statement of Actuarial Opinion of the affiliate, if available. iii. Determine the current ratings of the affiliate from the major rating agencies, if available. iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate. Also, review iSite+ data on the reinsurer (i.e., financial statements, Regulatory Information Retrieval System [RIRS] and Global Receivership Information Database [GRID]).	

Exposure to Derivative Investments

5. Determine whether there are concerns due to the use of derivative instruments.

				Other Risks
a. Is the insurer engaging in derivative activity? [Quarterly Financial Statement, Schedule DB – all parts, the write-ins for assets and liabilities, General Interrogatories #15.1 and #15.2; Notes to the Financial Statements, Note #1 and Note #8 (if reported)]				ST, OP
If a is "yes," consider the following:	*Other Risks*	*Benchmark*	*Result*	*Outside Benchmark*
b. If concerns exist, determine whether derivative holdings are significant. Review the ratio of total book/adjusted carrying value to capital and surplus [Quarterly Financial Statement, Schedule DB – Part A and Part B – Section 1] Total book/adjusted carrying value and percentage of capital and surplus for: • Hedging effective • Hedging other • Replication • Income generation • Other • Total derivative transactions	ST, OP	>5% or <-5%	[Data]	[Data]

Realized and Unrealized Capital Gains and Losses

6. Assess realized capital gains/(losses), including other-than-temporary impairments (OTTI).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net unrealized capital gains/(losses) to prior year-end capital and surplus		>5%	[Data]	[Data]
b. Ratio of net realized capital gains to net income, where the absolute value of net realized capital gains or losses is greater than 3% of capital and surplus		>25% or <-25%	[Data]	[Data]
				Other Risks
c. Review the Quarterly Financial Profile Report for significant changes or trends in capital gains/(losses) by quarter over the last five years.				

Investment Income

7. Review and assess the adequacy of net investment income.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of investment income to cash and invested assets (rolling year)	LQ, ST	>6% or <2%	[Data]	[Data]
				Other Risks
b. Review the Quarterly Financial Profile Report for significant changes or trends in investment income by quarter over the last five years.				LQ, ST

Market Risk Assessment

Market Risk: Movement in market rates or prices (such as interest rates, foreign exchange rates or equity prices) adversely affects the reported and/or market value of investments.

The objective of Market Risk Assessment analysis is focused primarily on exposure to market risk of investments and reinsurance receivables. The following discussion of annual procedures provides suggested data, benchmarks and procedures the analyst can consider in his/her review. In analyzing market risk, the analyst may analyze specific types of investments and receivables held by insurers. An analyst's risk-focused assessment of market risk takes into consideration the following areas (but not be limited to):

- Diversification of assets subject to market risk
- Valuation of assets
- Economic/market impacts on asset value (e.g., real estate, structured notes, etc.)
- Use of derivatives
- Investment turnover
- Capital gains and losses on investments
- Investment Income

Overview of Investments

Refer to IV. Supplemental Analysis Guidance – Financial Analysis and Reporting Considerations for general information and a primer on derivatives.

Discussion of Annual Procedures

Using the Repository

The market risk repository is a list of possible quantitative and qualitative procedures, including specific data elements, benchmarks and procedures from which the analyst may select to use in his/her review of market risk. Analysts are not expected to respond to all procedures, data or benchmark results listed in the repository. Rather, analysts and supervisors should use their expertise, knowledge of the insurer and professional judgement to tailor the analysis to address the specific risks of the insurer and document completion of the analysis. The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

In using procedures in the repository, the analysts should review the results in conjunction with the Supervisory Plan and Insurer Profile Summary and the prior period analysis. Communication and/or coordination with other internal departments are a critical step in the overall risk assessment process and are a crucial consideration in the review of certain procedures in the repository.

The analyst should also consider the insurer's corporate governance which includes the assessment of the risk environment facing the insurer in order to identify current or prospective solvency risks, oversight provided by the board of directors and the effectiveness of management, including the code of conduct established by the board.

The placement of the following data and procedures in the market risk repository is based on "best fit." Analysts should use their professional judgement in categorizing risks when documenting results of the analysis. Key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with market risk.

Analysis Documentation: Results of market risk analysis should be documented in Section III: Risk Assessment of the insurer. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the repository document.

Quantitative and Qualitative Data and Procedures

Investment Portfolio Diversification

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
1	***1***	***1***

EXPLANATION: The procedure assists the analyst in determining whether the insurer's investment portfolio appears to be adequately diversified to avoid an undue concentration of investments by asset type, duation or issuer. The ratios of the various types of investments to total net admitted assets (excluding separate accounts) are a measure of the diversity of the insurer's investment portfolio by type of investment. The results of these ratios may also provide some indication of the insurer's liquidity. In addition, the ratio of the investment in any one issuer to total net admitted assets (excluding separate accounts) is a measure of the diversity of the insurer's investment portfolio by issuer.

ADDITIONAL REVIEW CONSIDERATIONS

- Review the Percentage Distribution of Assets in the Financial Profile Report for significant shifts in the mix of investments owned during the past five years. The analyst should compare the insurer's distribution of invested assets to industry averages to determine significant deviations from the industry averages. The comparison should focus on an appropriate peer group based on insurer type and asset size.
- Review of the Annual Supplemental Investment Risks Interrogatories to determine whether the insurer's investment portfolio is adequately diversified with the appropriate level of liquidity to meet cash flow requirements.
- Review of the Legal Risk Repository to determine whether the insurer's investment portfolio is in compliance with the investment limitations and diversification requirements per the state's insurance laws.

Valuation of Securities

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
2	***2***	***2***

EXPLANATION: The procedure assists the analyst in determining whether the securities owned by the insurer have been valued in accordance with the standards promulgated by the NAIC Securities Valuation Office (SVO). According to NAIC requirements, all securities purchased that are not filing exempt (FE) per the *Purposes and Procedures Manual of the NAIC Investment Analysis Office* (P&P Manual) should be submitted to the SVO for valuation within 120 days of the purchase. In accordance with the NAIC *Annual Statement Instructions*, if the SVO provides an NAIC designation or price, that designation or price should be utilized. Insurers are required to complete the general interrogatory on compliance filing requirements of the P&P Manual and list exceptions as a component of the Annual Financial Statement. This interrogatory should indicate the following: 1) all prices or NAIC designations for the securities owned by the insurer that appear in the Valuation of Securities (VOS) product have been obtained directly from the SVO; 2) all securities previously valued by the insurer and identified with a "Z" suffix (which indicates that the security is not FE, does not appear in the SVO VOS product or has not been reviewed and approved in writing by the SVO) have either been submitted to the SVO for a valuation or disposed of; and 3) all necessary information on securities which have previously been designated NR (not rated due to lack of current information) by the SVO has been submitted to the SVO for a valuation or that the securities have been disposed.

ADDITIONAL REVIEW CONSIDERATIONS

- Review Annual Financial Statement, Schedule D, Part 1 and Schedule D, Part 2, to determine whether it appears that the insurer is complying with the requirement to submit privately held securities to the SVO for valuation. There should be no securities which were acquired prior to the current year that have a "Z" suffix after the NAIC designation.
- Review Annual Financial Statement, Schedule D – Part 1 to determine whether all bonds with an NAIC designation of 6—bonds in or near default—have been valued at the lower of cost or fair value and all other bonds have been valued at amortized cost value in accordance with the NAIC *Accounting Practices and Procedures Manual* (AP&P Manual).
- Review Annual Financial Statement, Schedule D – Part 2 to determine whether sinking fund preferred stocks have been valued at cost and all other stocks have been valued at fair value in accordance with the AP&P Manual.
- Review the Jumpstart Reports investment analysis tool (available on iSite+) to compare the CUSIP number, NAIC designation, and fair value for each of the securities listed in Annual Financial Statement, Schedule D – Part 1, Schedule D – Part 2, and Schedule DA – Part 1 to information on the SVO master file.
- If concerns exist, for those securities listed in Annual Financial Statement, Schedule D – Part 1 or Schedule D – Part 2, with a "Z" suffix after the NAIC designation, the analyst might request verification from the insurer that the securities are FE or have been submitted to, and subsequently valued by, the SVO and compare the price or designation subsequently received from the SVO to that included in the Annual Financial Statement for significant securities.

Value of Bond & Sinking Fund Preferred Stock

Property/Casualty #	***Life/A&H/Fraternal #***	***Health #***
3	***3***	***3***

EXPLANATION: The procedure assists the analyst in determining whether the statement value of bonds and sinking fund preferred stocks is significantly greater than fair value. Annual Financial Statement, General Interrogatories, Part 1, #31 shows the aggregate statement value and the aggregate fair value of bonds and preferred stocks owned and requires the insurer to indicate how the fair values were determined. If the statement value of bonds and sinking fund preferred stocks is significantly greater than fair value, the insurer could realize significant losses if it were forced to sell these investments to cover unexpected cash flow needs due to larger than anticipated policy surrenders or claims. In determining whether there is a concern regarding the excess of the statement value of bonds or sinking fund preferred stocks over fair value, the analyst should also consider the insurer's interest maintenance reserve (Life and Fraternal only) and the results of its cash flow testing.

ADDITIONAL REVIEW CONSIDERATIONS

- Review the Statement of Actuarial Opinion and other actuarial filings along with a review of Annual Financial Statement, Schedule D Part 1A to understand the duration and maturity profile of the bond portfolio to determine if there are any concerns regarding asset/liability matching based on the asset composition. For this procedure, the analyst may choose to seek the assistance of an in-house actuary.
- Review the Annual Financial Statement, Schedule D – Part 1 and Schedule D – Part 2 or request information from the insurer to determine which individual bonds and sinking fund preferred stocks have a book/adjusted carrying value significantly in excess of fair value. The analyst should be aware that the value for those securities with an "AV" (amortized value) designation in the rate used to obtain the value column in Schedule D does not represent a true fair value for the securities.

- For those securities with a book/adjusted carrying value significantly in excess of fair market value, consider verifying the NAIC designation assigned and determine whether it has recently been reviewed by the SVO, determine the current rating by a credit rating provider (CRP), and evaluate whether there has been an other-than-temporary decline in fair value.
- For bonds and sinking fund preferred stocks with other-than-temporary declines, consider whether the investment should be written down to its fair value to properly reflect the value of the investment.
- If the insurer has experienced negative cash flows or has other liquidity problems, consider requesting information from the insurer regarding investment strategies and short-term cash flow needs to determine whether investments with a book/adjusted carrying value significantly in excess of fair value will need to be sold at a loss to satisfy short-term cash flow requirements.

Exposure to Structured Notes

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
4	*4*	*4*

EXPLANATION: The procedure assists the analyst in determining whether concerns exist due to the level of structured notes held by the insurer. If the amount is material as compared to the the insurer's capital and surplus plus asset valuation reserve (AVR), the analyst should consider steps to gain a better understanding of the prospective risks of these investments and the insurer's level of investment expertise regarding these types of notes.

Structured notes are issuer bonds where the cash flows are based upon a referenced asset and not the issuer credit. These notes differ from structured securities in that they do not have a related trust. Structured notes that are classified as mortgage-referenced securities are valued in accordance with *Statement of Statutory Accounting Principles (SSAP) 43R—Loan-Backed and Structured Securities* while all other structured notes are valued in accordance with *SSAP 86—Derivatives*. Some examples of mortgage-referenced securities include secutiries issued by the Federal Home Loan Mortgage Corporation (FHLMC) (e.g., Structured Agency Credit Risk or STACR) and the Federal National Mortgage Association (FNMA). These mortgage referenced securities are not FE, and the Structured Securities Group (SSG) assigns their NAIC designation based upon modeling assumptions.

ADDITIONAL REVIEW CONSIDERATIONS

- If an insurer has a material amount of structured notes, through discussion with the insurer, determine whether management has adequately reviewed the insurer's structured note portfolio and understands the underlying yields, cash flows and volatility.
- Consider the following risks related to structured notes: collateral type concentration, subordination in the overall structure of the transactions, and trend analysis of underlying assets to ensure appropriate valuation.
- Assess if the notes are valued appropriately so as to ensure the insurer is not undercapitalized.
- Refer to any recent examination findings.
- Inquire of the insurer on such items as the structured note's use, valuation, the insurer's level of expertise with this type of security and controls the insurer has implemented to mitigate this risk.

Value of Common Stock

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
5	*5*	*5*

EXPLANATION: The procedure assists the analyst in determining whether the fair value of common stock is significantly greater than or less than the actual cost. The analyst should review the Annual Financial Statement,

Schedule D – Part 2 – Section 2, to compare the aggregate fair value position to the aggregate actual cost of common stock. The analyst should also review individual stock issues to determine if the fair value is significantly above or below actual cost. If the fair value of a stock issue is significantly below cost (unrealized loss), the insurer may incur a loss upon disposition. If the fair value of an individual stock issue is significantly greater than actual cost (unrealized gain), the insurer may be reflecting an unrealized gain that will not be realized at disposition.

ADDITIONAL REVIEW CONSIDERATIONS

- Reviewing Annual Financial Statement, Schedule D – Part 2 – Section 2 to determine which individual common stocks have a cost significantly in excess of fair value.
- Determine whether the stock is listed on a national exchange and verify the price per stock and the total fair value listed in the statement. If the NAIC designation of the stock is "A" (unit price of the share of privately held common stock is determined analytically by the SVO), review the date that the price per share was last analyzed by the SVO.
- Consider whether the common stock has had an other-than-temporary decline in its value.
- Requesting the Audited Financial Statement and other documents necessary to support the value of the common stock.
- Request information from the insurer regarding investment strategies and short-term cash flow needs.

Exposure to Real Estate

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
6	*6*	*6*

EXPLANATION: The procedure assists the analyst in determining whether concerns exist due to the value of investment in real estate. The analyst may have concerns regarding the fair value of the real estate, whether it is the underlying investment or the collateral for a mortgage loan. Real estate in certain parts of the country has experienced significant declines in fair values from time to time. These investments are less liquid than many other types of investments. Investments in real estate have some similarities to investments in common stock and mortgages since they involve credit risk and the risk of default.

ADDITIONAL REVIEW CONSIDERATIONS

- If there are concerns regarding real estate owned, review the Annual Financial Statement, Schedule A – Part 1 to determine whether updated appraisals should be obtained for any of the properties owned, based on the location of the property, the book/adjusted carrying value and reported fair value of the property, and the year of the last appraisal.
- Consider benchmarking against the National Council of Real Estate Investment Fiduciaries (NCREIF) index number, keeping in mind that the NCREIF is a national benchmark for all property types.
- In addition, for those properties with book/adjusted carrying values in excess of fair value; the analyst might consider whether the asset should be written down.
- For instances where a property has a book/adjusted carrying value in excess of its cost, request information from the insurer regarding any increases in book/adjusted carrying value during the year.
- Utilize postal code and property type information along with the city and state location information in Schedule A and Schedule B to identify geographic concentrations and to identify differences in volatility based on the property type and geographic location.

Value of Other Invested Assets (Schedule BA)

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
7	***7***	***7***

EXPLANATION: The procedure assists the analyst in determining whether concerns exist due to the level of investment in other invested assets (Schedule BA). Consider requesting information from the insurer to support any increases by adjustment in book/adjusted carrying value during the year.

ADDITIONAL REVIEW CONSIDERATIONS

Request current audited financial statements and other documents (e.g., partnership agreements, etc.) necessary to support the book/adjusted carrying value of the insurer's investment in partnerships and joint ventures and information to support the book/adjusted carrying value of significant other invested assets (e.g., other than partnerships and joint ventures).

Value of Collateral Loans

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
N/A	***8***	***N/A***

EXPLANATION: The procedure assists the analyst in determining whether concerns exist due to the level of investment in collateral loans. The analyst should review Annual Financial Statement, Schedule BA, Part 1 and Schedule DA – Part 1. In most states, collateral loans are required to be secured or collateralized by assets which have a value in excess of the amount of the loan and which are considered admitted assets for an insurer.

ADDITIONAL REVIEW CONSIDERATIONS

- Compare the fair value of the collateral to the amount loaned to determine whether the loan is adequately collateralized.
- In those instances where the underlying collateral is comprised of securities, consider verifying the rate used to obtain the fair value of the securities by referencing the *Purposes and Procedures Manual of the NAIC Investment Analysis Office*.

Valuation of Affiliated Investments

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
8	***9***	***8***

EXPLANATION: The procedure assists the analyst in determining whether investments in affiliates are significant and are properly valued. When investments in affiliates are significant, it is important for the analyst to review and understand the underlying financial statements of the affiliates. It is only through this process that the analyst can detect situations where the investment may be substantially overvalued. In particular, the analyst should review the level of return on the investment in the affiliate, including the source of the investment income (e.g., cash or merely an increase in the accrual). The analyst should not only be alert to the level of investments in the affiliate but also the level of accrued interest relating to investments in the affiliate.

Exposure to Derivative Investments

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
9, 10	***10, 11***	***9, 10***

EXPLANATION: The procedures assists the analyst in determining whether concerns exist due to the value of investment in derivative instruments. A derivative instrument is a financial market instrument which has a price,

performance, value, or cash flow based primarily on the actual or expected price, performance, value, or cash flow of one or more underlying interests. Derivative instruments (which consist of options, caps, floors, collars, swaps, forwards, swaptions and futures) are used by some insurers to hedge against the risk of a change in value, yield, price, cash flow, or quantity or degree of exposure with respect to its assets, liabilities, or anticipated future cash flows. If an insurer invests in derivative instruments, it is important for the analyst to understand the impact that these derivative instruments have on the risk return profile of the insurer's cash market investment portfolio under different scenarios. For insurers with significant investments in derivative investments, this will probably require the analyst to obtain the assistance of an actuary.

ADDITIONAL REVIEW CONSIDERATIONS

The analyst should ask for a derivatives use plan and may also consider obtaining a comprehensive description of the insurer's hedge program in order to obtain an understanding of the insurer's use of derivative instruments to hedge against the risk of a change in value, yield, price, cash flow, or quantity or degree of exposure with respect to the insurer's assets, liabilities, or expected cash flows. Analysis of hedging programs should include consideration of the company's hedge effectiveness analysis. (See Strategic Risk Repository for further guidance.)

Investment Portfolio Turnover

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
11	***12***	***11***

EXPLANATION: The procedure assists the analyst in determining whether concerns exist due to the level of investment turnover. The analyst can identify significant turnover by reviewing Annual Financial Statement, Schedule D – Part 4 and Schedule D – Part 5. The turnover ratio represents the degree of trading activity in long-term bonds, preferred and common stock investments that has occurred during the year. Investment turnover is an indication of whether a buy-and-hold or sell based on short-term fluctuation strategy is utilized. A high turnover of investments generally leads to greater transaction costs, operating expenses and the acceleration of realized capital gains and should be justified by more active management that may or may not be appropriate given the liabilities recorded. Sales result from securities reaching a price objective, anticipated changes in interest rates, changes in credit worthiness of issuers or general financial or market developments.

ADDITIONAL REVIEW CONSIDERATIONS

- Review the Annual Financial Statement, Schedule D – Part 3, Schedule D – Part 4 and Schedule D – Part 5 to determine the types of securities purchased and sold. This information can also assist the analyst in determining the types of securities sold and acquired, the length of time each security was held and the quality of the security.
- Review realized capital gains from the sale of securities to determine any reliance on these gains, as opposed to unrealized gains and losses.
- Consider having a specialist (i.e., NAIC's Capital Markets Bureau (CMB)) review the insurer's investment program.
- Review the Statement of Actuarial Opinion to determine whether any concerns regarding investment turnover are noted.

Realized and Unrealized Capital Gains and Losses

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
12	***13***	***12***

EXPLANATION: The procedure directs the analyst to review the Annual Financial Statement, Notes to the Financial Statements, Exhibit of Capital Gains (Losses) and Investment Schedules to determine the amount of

other-than-temporary impairments (OTTI) that have been taken in the current period and to determine if OTTI appear to be in compliance with statutory accounting guidelines.

Investment Income

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
13	***14***	***13***

EXPLANATION: The procedure directs the analyst to review investment yields, interest rate spreads and trends in investment returns. The analyst should use the available information to determine if the investment returns appear adequate to meet the business plans of the insurer.

Investments Involving Related Parties

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
13	***15***	***12***

This procedure assists analysts in determining related party exposure in the investment portfolio and assessing any related credit [market, liquidity, operational] risk.

Related parties are entities that have common interests as a result of ownership, control, affiliation or by contract as definited in *SSAP No. 25—Affiliates and Other Related Parties* (SSAP No. 25). Refer to the *Insurance Holding Company System Model Act* (Model #440) and SSAP No. 25 for a broader definition of "affiliate," "related party" and "control".

Related party transactions are subject to abuse because reporting entities may be induced to enter transactions that may not reflect economic realities or may not be fair and reasonable to the reporting entity or its policyholders. As such, related party transactions require specialized accounting rules and increased regulatory scrutiny.

The anlayst should utilize the tools available in iSite+ to identify if the insurer has a material exposure to investments involving related parties, either on an asset category basis or in aggregate, and by the related party designation noted below. If a material exposure exists, further assessment of the [credit, market, liquidity] risk may be warranted. For example, what is the NAIC designation of investments involving related parties? Analysts may also consider the extent to which related parties are involved in securitizing or originating business for the insurer, and what differences may exist in how investments involving related parties are valued. If the role of the related party is that of a third-party advisor, factors to consider may include for example, the expertise of the related party advisor, any potential conflicts of interest, and if related parties are originating investments only for the insurer or also to the public, the latter being subject to SEC requirements. The analyst may consider utilizing suggested procedures in the "Additional Procedures" section of the repository on third-party advisors, if applicable.

Within the Annual Financial Statement investment Schedules B, BA, D, DA, DB, DL, and E (Part 2), all investments involving related parties must incude disclosure to ensure full transparency. This disclosure is in the column "Investments Involving Related Parites". It designates investments by the following roles:

1. Direct loan or direct investment (excluding securitizations) in a related party, for which the related party represents a direct credit exposure.
2. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies involving a relationship with a related party as sponsor, originator, manager, servicer, or other similar influential role and for which 50% or more of the underlying collateral represents investments in or direct credit exposure to related parties.

3. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies involving a relationship with a related party as sponsor, originator, manager, servicer or other similar influential role and for which less than 50% (including 0%) of the underlying collateral represents investments in or direct credit exposure to related parties.
4. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies in which the structure reflects an in-substance related party transaction but does not involve a relationship with a related party as sponsor, originator, manager, servicer or other similar influential role.
5. The investment is identified as related party, but the role of the related party represents a different arrangement than the options provided in choices 1-4.
6. The investment does not involve a related party.

Invested Asset Exposure to Climate Change Risk

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
15	***16***	***14***

The procedure assists analysts in identifying and assessing the potential exposure of the insurer's investment portfolio to the impact of material climate change and/or energy transition risks. Transition risks refer to stresses on certain investment holdings arising from the shifts in policy, consumer and business sentiment, or technologies associated with the changes necessary to limit climate change. A few examples of investment holdings and sectors generally subject to greater levels of transition risk include oil/gas, transportation, heavy manufacturing, and agriculture. In assessing an insurer's exposure to these risks, the analyst is encouraged to review information disclosed by the insurer in its responses to the NAIC's Climate Risk Disclosure Survey, U.S. Securities and Exchange Commission (SEC) filings, and/or the Own Risk and Solvency Assessment (ORSA) Summary Report filings. In addition, the analyst is encouraged to review the results of basic scenario analysis conducted by the NAIC using insurers' Annual Statement filings (U.S. Insurance Industry Climate Affected Investment Analysis) to identify potential concentrations in exposure.

ADDITIONAL REVIEW CONSIDERATIONS

- Review the insurer's investment policies and strategies to assess whether material climate change, transition and asset devaluation risk considerations have been appropriately implemented into the company's investment processes.
- Review the most recent examination report and summary review memorandum (SRM) for any findings regarding climate change/energy transition risks.
- If concerns exist, consider requesting information from the insurer regarding how the insurer manages its exposure to material climate change/energy transition risk, including how it identifies and estimates current and prospective exposures and the limits (if any) in place to avoid concentrations.

Additional Analysis and Follow-Up Procedures

INVESTMENT STRATEGY directs the analyst to consider requesting and reviewing a copy of the insurer's formal adopted investment plan. This should be evaluated to determine if the plan appears to result in investments that are appropriate for the insurer, based on the types of business written and its liquidity and cash flow needs and to determine whether the insurer appears to be adhering to its plan. For example, the insurer's plan for investing in noninvestment-grade bonds should be reviewed for guidelines regarding the quality of issues invested in and diversification standards pertaining to issuer, industry, duration, liquidity, and geographic location.

EXAMINATION FINDINGS direct the analsyt to consider a review of the most recent examination report, summary review memorandum and communication with the examination staff to identify if any market risk issues were discovered during the examination.

NAIC CAPITAL MARKETS BUREAU ANALYTICAL ASSISTANCE directs the analyst to consider requesting the NAIC's CMB to assist with investment portfolio or investment management agreement analysis. The CMB has different levels of analysis that can be arranged to assist the state.

THIRD-PARTY INVESTMENT ADVISORS assists the analyst in determining whether concerns exist regarding the use of third-party investment advisers. As investments and investment strategies grow in complexity, insurers may consider the use of unaffiliated third-party investment advisers to manage their investment strategy. Investment advisers may operate independently or as part of an investment company. Investment advisers and companies are subject to regulation by the U.S. Securities and Exchange Commission (SEC) and/or by the states in which they operate, generally based on the size of their business. In certain situations, insurers may use a broker-dealer for investment advice. Broker-dealers are subject to regulation by the Financial Industry Regulatory Authority (FINRA). Regardless, most broker dealers and investment advisers will register with the SEC and annually update a Form ADV–Uniform Application for Investment Adviser Registration and Report Form by Exempt Reporting Advisers, which provides extensive information about the nature of the organization's operations. To locate these forms, the analyst can go to *www.adviserinfo.sec.gov* and perform a search based on the company name.

Key information provided on a Form ADV includes:

a. Regulatory agencies and states in which the adviser/broker is registered

b. Information about the advisory business including size of operations and types of customers (Item 5)

c. Information about whether the company provides custodial services (Item 9)

d. Information about disciplinary action and/or criminal records (Item 11)

e. A report of the independent public accountant verifying compliance if the investment advisor also acts as a custodian.

It is important to note that the information provided on Form ADV is self-reported and is subject to limited regulatory oversight. However, the information may be valuable to analysts in assessing the suitability and capability of investment advisers providing advisory services to insurers.

The analyst should consider any significant risks identified in the most recent risk-focused examination and whether any follow-up procedures were recommended by the examiner. The examiner may have performed steps to determine the following; whether the investment adviser is suitable for the role (including whether he/she registered and in good standing with the SEC and/or state securities regulators); whether the investment advisory agreements contain appropriate provisions; whether the adviser is acting in accordance with the agreement; and whether management/board oversight of the investment adviser is sufficient for the relationships in place.

The analyst should determine if changes have occurred in the insurer's use of investment advisers that may prospectively impact the insurer's investment strategy and overall management of the investment portfolio. If changes have occurred the analyst may consider asking the insurer for an explanation for the change in investment advisers and obtain a copy of the new adviser agreement to gain an understanding of the provisions including the advisor's authority, specific reference to compliance with the insurer's investment strategy and/or policy statements, as well as state investment laws; conficts of interest; fiduciary responsibilities; fees; and the insurer's review of the adviser's performance. (Refer to the *Financial Condition Examiners Handbook* for further guidance.)

The analyst can determine if the investment advisor is in good standing with the SEC. The SEC does not officially use the term "good standing"; however, for this analysis, the term is used to mean a firm that is registered as an investment adviser with the SEC and does not report disciplinary actions or criminal records in Item 11 of the Form ADV.

If the insurer uses an external asset manager and if investments on Schedule BA assets are invested in funds that are affiliated with the asset manager or are managed by that asset manager, the analyst should consider several possible issues that may result from this scenario. A possible concern may exist when the asset manager is also managing other funds in addition to managing assets for the insurer and then invests the insurer's assets in those other funds that the asset manager manages. While those funds may be good investments, both in general and for the insurer, there are a few issues that may need to be considered. First is the potential for a conflict of interest if the asset manager is using the insurer's available funds to provide seed money or fund the manager's other funds. Second is if any concerns exist regarding the appropriateness of the fund for the insurer's investment portfolio and if the transactions would be considered on an arm's-length basis. Third is the understanding that the insurer may be paying double fees as the insurer would pay the asset manager a fee for the investment and then also pay a fee within the fund investment.

INQUIRE OF THE INSURER directs the analyst to consider requesting additional information from the insurer if market risk concerns exist in a specific area. Note that the list provided includes examples of types of information or explanations to be obtained that may assist in the analysis of marekt risk for specific topics where concerns have been identified.

***OWN RISK AND SOLVENCY ASSESSMENT* (ORSA)** directs the analyst to obtain and review the latest ORSA Summary Report for the insurer or insurance group (if available) to assist in identifying, assessing and addressing risks faced by the insurer.

HOLDING COMPANY ANALYSIS directs the analyst to 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.

Example Prospective Risk Considerations

The table provides the analyst with example risk components for use in the Risk Assessment and Insurer Profile Summary branded risk analysis section and a general discription of the risk components. Note that the risks listed are only examples and do not represent a complete list of all risks available for the market risk category.

Discussion of Quarterly Procedures

The Quarterly Market Risk Repository procedures are designed to identify the following:

1. Whether the insurer's investment portfolio appears to be adequately diversified to avoid an undue concentration of investments by type or issue
2. Concerns due to the change in certain asset classes from the prior year-end
3. Concerns with valuation of securities
4. Concerns with the level of exposure to investments in affiliates and valuation of the investments
5. Concerns due to the use of derivative instruments
6. Concerns with realized capital gains (losses)
7. Adequacy of net investment income

For additional guidance on individual procedure steps, please see the corresponding annual procedures discussed above.

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk**.** Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with operational risk. For example, many of the procedures also may be related to pricing/underwriting risks or strategic risks.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Operating Performance

1. Determine whether concerns exist regarding the insurer's Statement of Income or operating performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Combined ratio		>105% or <80%	[Data]	[Data]
i. Net loss ratio	PR/UW*		[Data]	
ii. Gross expenses and commissions to GPW		>40% or <10%	[Data]	[Data]
b. Change in combined ratio		>10 pts or <-25 pts	[Data]	[Data]
i. Change in net premiums earned	PR/UW*	>25% or <-25%	[Data]	[Data]
ii. Change in net incurred losses and loss adjustment expenses (LAE)	PR/UW*	>20% or <-35%	[Data]	[Data]
iii. Change in net loss ratio	PR/UW*	>20 pts or <-20 pts	[Data]	[Data]
iv. Change in gross expenses and commissions		>30% or <-30%	[Data]	[Data]
c. Change in net income when net income is greater than 10% or less than -10% of surplus		>30% or <-15%	[Data]	[Data]
d. Return on surplus ratio		>20% or <5%	[Data]	[Data]
e. Two-year operating ratio (IRIS #5)		>100%	[Data]	[Data]
f. Ratio of other income to net income when the absolute value of other income is greater than 3% of surplus		>25% or <-25%	[Data]	[Data]
				Other Risks
g. Review the five-year trend with the Financial Profile Report for the following measures of operating performance, and note any unusual fluctuations or trends between years for				PR/UW

each ratio: • Combined ratio • Loss ratios for direct, assumed, and ceded business • Incurred loss and LAE by line of business • Expense ratio • Contingent commissions (per commissions and brokerage ratios) • Return on surplus ratio • Two-year operation ratio (IRIS #5) • Change in material individual income and expense categories	
h. Compare the following measures of operating performance within the Financial Profile Report to the industry average to determine any significant deviations: • Expense ratio • Return on surplus ratio • Commission ratios (per commissions and brokerage ratios)	
i. Review the components of other income in the Annual Financial Statement, Statement of Income, including write-ins for miscellaneous income, for reasonableness.	
j. Describe any known trends that have had or that the insurer reasonably expects will have a material favorable or unfavorable impact on net revenues or net income. If the insurer knows of events that will cause a material change in the relationship between benefits, losses, and expenses, the change in the relationship should be disclosed.	PR/UW
k. If concerns exist regarding operating performance, consider the following procedures: i. Review the Annual Financial Statement, Insurance Expense Exhibit and identify any expense allocation concerns or unusual operating results by line of business. ii. Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. iii. Request, review, and evaluate information from the insurer regarding its plans to address poorly performing operations.	PR/UW

Corporate Governance

2. Determine whether the corporate governance practices of the insurer provide effective oversight of operations.

	Other Risks
a. If the Corporate Governance Annual Disclosure (CGAD) is filed to your state as either the domestic state of a legal entity (not part of a group) or the lead state of a group, review and assess information on the insurer's or insurance group's corporate governance practices as provided in the CGAD to identify and follow up on any issues noted that could affect the insurer's or the group's ability to adequately oversee operations. If your state is the lead state, document information and risks from the CGAD in the Group Profile Summary (GPS). If material risk relates only to an insurance entity, contact the domestic state in a timely manner.	
b. If your state is not the lead state and the CGAD is filed to the lead state, review the corporate governance assessment included in the lead state's GPS and contact the lead state with any questions, concerns or follow-ups. Upon the receipt of any additional	

information, the non-lead state should document any material concerns regarding corporate governance that could impact the financial condition (e.g., operations, policyholder surplus or capital position) of the domestic insurer.	
c. Review and follow up on any issues noted in the department's documentation of corporate governance in the most recent examination reports, other examination documentation or summaries, communication with the examiner-in-charge, or the most recent communication with the insurer. Note any observations or follow-up analysis performed.	
d. Obtain a copy of and review the most recent board of directors' meeting minutes (i.e., may refer to last quarterly, monthly, etc., depending on the frequency of the meetings). Has the board of directors taken any significant actions that may result in changes in operations, business structure, or management that may result in a material financial impact on the insurer?	
e. Based on the above procedures, does the board of directors and management provide a sufficient level of oversight and support? Explain.	

3. Evaluate the effects of changes in officers or directors on the operations of the insurer.

	Other Risks
a. Review the changes in officers, directors or trustees and any concerns noted during a review of biographical affidavits. i. Do new directors and officers have the required knowledge, experience and training to perform their duties? Document any concerns. ii. Are new board of directors' members sufficiently independent from management and adequately engaged in performing their duties? iii. Has there been significant turnover in management in the current year or a pattern of turnover in the past five years? If so, document the reasons. iv. Have new directors and officers ever been officers, directors, trustees, key employees or controlling stockholders of an insurance company that, while they occupied any such position or served in any such capacity with respect to it: A. Been placed in supervision, conservation, rehabilitation or liquidation; B. Been enjoined from, or ordered to cease and desist from, violating any securities or insurance law or regulation; C. Suffered the suspension or revocation of their certificate of authority or license to do business in any state? If "yes," explain. v. Summarize the insurer's policies and procedures regarding performance of background checks on new management.	ST*, RP, LG
b. If a significant amount of turnover and/or changes in key positions (i.e., chairman of the board of directors or chief executive officer [CEO]) are identified, gain an understanding of and evaluate the impact of such changes on the insurer's operations. Consider requesting updated business plans, holding in-person meetings, conducting conference calls or taking other steps to understand and address significant changes.	ST*, RP

c. Have there been any significant operational or business changes that have resulted in significant changes to staffing levels, consolidations of operations with affiliates, outsourcing of key functions, or placing blocks of business into run-off (closed) blocks?	ST*
d. Review and evaluate the insurer's human capital and succession planning processes and controls. i. Evaluate the insurer's management and personnel to identify directors, executives, or key employees that may be approaching retirement. A. For these identified individuals, discuss the steps taken by the company to plan for succession. ii. Determine whether the insurer is overly reliant on any one individual to produce its business or manage its operations. A. For these key individuals, discuss the steps taken by the company to plan for succession. iii. Describe the insurer's processes to identify, appoint, train, evaluate, and compensate directors, executives, and key members of personnel.	

Investment Operations

4. Determine whether concerns exist related to investment operations, including purchases and sales of securities and control of assets.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the purchase or sale of any investments not been approved by the board of directors or a subordinate committee thereof? [Annual Financial Statement, General Interrogatories, Part 1, #16]		=YES		[Data]
b. Are any stocks, bonds and other securities owned, over which the insurer has exclusive control, not in the actual possession of the insurer, other than securities lending programs? [Annual Financial Statement, General Interrogatories, Part 1, #24.01 and #24.02]		=YES	[Data]	[Data]
c. Are any stocks, bonds or other assets owned by the insurer not exclusively under the control of the insurer? [Annual Financial Statement, General Interrogatories, Part 1, #25.1 and #25.2]		= YES	[Data]	[Data]
d. Were there any assets reported subject to a contractual obligation to transfer to another party without the liability for such obligation being reported? If "yes," comment on the purpose and the amount. [Annual Financial Statement, General Interrogatories, Part 1, #21.1 and #21.2]		= YES	[Data]	[Data]
e. Payable for securities to total invested assets		>10%	[Data]	[Data]
f. Receivable for securities to total invested assets		>10%	[Data]	[Data]

	Other Risks
g. Request a copy of the insurer's investment plan to determine who is authorized to purchase and sell investments and what approvals are required for investment transactions.	ST
h. Review the Annual Financial Statement, Schedule D – Part 3 and Schedule D – Part 5, were significant amounts of bonds or stocks purchased near the beginning or the end of the year? If so, determine the types of securities purchased and the vendors used for those purchases. Refer to the Financial Summary Investment Activity section of the insurer's Financial Profile Report for information regarding long-term bonds and stocks acquired near the beginning or the end of the year.	
i. Review the Annual Financial Statement, Schedule D – Part 4 and Schedule D – Part 5, were significant amounts of bonds or stocks disposed of near the beginning or the end of the year? If so, determine the types of securities sold and the purchasers of those securities. Refer to the Financial Summary Investment Activity section of the insurer's Financial Profile Report for information regarding long-term bonds and stocks sold, redeemed or otherwise disposed of near the end of the year.	
j. Based on the results of 4.h and 4.i above, determine whether the insurer might have engaged in "window dressing" of its investment portfolio (replacing lower quality investments with higher quality investments near year-end and then re-acquiring lower quality investments after year-end).	ST

5. Determine whether any concerns exist regarding third-party investment advisors and associated contractual arrangements, and related party exposure in the investment portfolio.

	Other Risks
a. Review the Annual Financial Statement, General Interrogatories, Part 1, #28.05. i. Does the insurer utilize third party investment advisors, broker-dealers or individuals acting on behalf of the insurer with access to its investment accounts? If "yes," consider the following procedures:	ST
ii. Review the results of the most recent financial examination work papers, follow-up and prospective risk information and the summary review memorandum provided by the examiners. Did the examination identify any issues with regard to investment advisors and associated contractual arrangements that require follow-up analysis or communication with the insurer? If "yes," document the follow-up performed.	
iii. Compare Annual Financial Statement, General Interrogatories, Part 1, #28.05 for the current year to the prior year to determine if there have been any changes in advisors. If "yes," consider obtaining: • An explanation for the change from the insurer • A copy of the new investment advisor agreement and review it for appropriate provisions	
iv. Using the information reported in Annual Financial Statement, General Interrogatories, Part 1, #28.05, obtain and review SEC Form ADV (if available), to determine if the investment advisor is in good standing with the SEC. If not, contact the insurer to request an explanation.	

v. If agreements with third party investment advisors are affiliated, has the appropriate form D-Prior Notice of Transaction been filed and approved by the department? Were any concerns noted or follow-up monitoring recommended?	
vi. Request information from the entity regarding the background and expertise in structured securities of its investment advisors (in-house and/or contractual) and its analytical systems capabilities. Determine whether the advisors and systems are adequate to allow the entity to continuously monitor its structured securities investments.	

b. Assess related party exposure in the investment portfolio.

	Other Risks
i. Review the Annual Financial Statement investment schedules, as disclosed in the column "Investments Involving Related Parties" and utilizing iSite+ tools, determine if the insurer has material related party exposures in its investment portfolio. This disclosure is included in: • Schedule B • Schedule BA • Schedule D • Schedule DA • Schedule DB • Schedule DL • Schedule E, Part 2 Consider exposure by asset class and in aggregate, and by the role of the related party in the investment as designed by the "Investments Involving Related Parties" disclosure.	LQ, MK
ii. If concerns exist regarding a material related party exposure in the investment portfolio, assess the credit quality of those investments involving related parties by reviewing designations, assessing historical default experience, etc.	LQ, MK

iii. If concerns exist regarding a material related party exposure in investment management or advisory services, consider the following: a. Review the procedures in the "Additional Procedures" section below regarding Third Party Investment Advisors and consider their application to related party advisors in that role. b. In addition to the additional analysis procedures regarding third party investment advisors, consider the following: 1. Review the insurer's investment policy guidelines and determine whether the related party investments follow the guidelines and are in compliance with regulatory requirements. 2. Review whether the fee structure for asset management is fair, reasonable, and appropriately recognized as investment expenses. 3. If the related party asset manager also originates/securitizes investments held by the insurer, consider requesting additional information from the insurer to determine the following: a. Whether the asset manager has adequate experience and knowledge in originating and managing the types of investments; b. Whether the asset manager follows appropriate underwriting practices and applicable regulatory requirements in originating investments; and c. Whether the fee structures embedded in securities (if applicable) are fair, reasonable, and appropriately account for potential duplication of fees or conflicts of interest.	OP

Exposure to Transactions with Affiliates/Related Parties

Note: *The following procedures for the review of Corporate Structure and Transactions with affiliates should consider any analysis already completed or anticipated to be completed with regard to the Holding Company Analysis performed by the lead state, review of the Form B – Registration Statement and any review of Form D – Material Transactions to avoid duplication of analysis.*

6. Determine whether any concerns exist regarding changes in the insurer's corporate structure.

	Other Risks
a. Review the Annual Financial Statement, Schedule Y – Part 1 and additional information provided in Form B, for the current and prior year: i. Were there any significant changes to the corporate structure during the year (e.g., acquisitions, divestitures, mergers)? ii. If 6.a.i is "yes," and the change involved ownership of the insurer or a transaction with an affiliate, did the insurer fail to receive proper regulatory approval? iii. Are there any indications the corporate structure may include a holding company whose primary asset is the stock of the insurance company? iv. Does the insurer have an agency of brokerage subsidiary?	ST

7. Identify whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Management fees paid to affiliates to total expenses incurred [Annual Financial Statement, Underwriting and Investment Income Exhibit, Part 3]		>15%	[Data]	[Data]
				Other Risks
b. Review the Annual Financial Statement, Schedule Y – Part 2, Notes to Financial Statement – Note #10 and Note #13, and additional information provided in Form B and Form D: i. Are any unusual items noted, such as significant new transactions with affiliatess or modified intercompany agreements from the prior year or significant increases in transaction amounts? ii. Has the insurer forwarded to any affiliate funds greater than 15% of the insurer's surplus? iii. Do affiliated undertakings resulting in a contingent liability to the insurer involve financial exposure greater than 25% of surplus? iv. Review the description of management agreements and service contracts. Is an allocation basis involved other than one designed to estimate actual cost?				ST, LQ
c. After reviewing both the Annual Financial Statement, Schedule Y – Part 2 and Notes to Financial Statements – Note #10, identify any discrepancies in reporting between the two disclosures.				
d. Verify that all regulatory approvals were received and that the transactions recorded in the Annual Financial Statement reflect the transactions as approved (e.g., Dividends – Note #13 and Structured Settlements – Note #27).				
e. **Risk Retention Groups:** Summarize the insurer's level of reliance on captive managers, TPAs, or MGAs to run its business operations (e.g., underwriting, claims, records, and reporting). i. If significant reliance exists, describe the services provides, any additional relationships, whether the expense ratio is in line with industry standards, and whether those parties service other insurers.				ST

8. Determine whether other affiliated transactions are legitimate and properly accounted for.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Affiliated receivable to surplus	CR*	>10%	[Data]	[Data]
b. Affiliated payable to surplus	CR*	>10%	[Data]	[Data]
c. Federal income tax recoverables to surplus		>5%	[Data]	[Data]
d. Does any foreign entity control 10% or more of the insurer, either directly or indirectly, through a holding company system? [Annual Financial		>10%	[Data]	[Data]

	Statement, General Interrogatories, Part 1, #7.1 and #7.2.]				
e.	Review the Annual Financial Statement, General Interrogatories, Part 1, #20.1 and #20.2:				
	i. Total amount loaned to directors, other officers, or stockholders to net income.		>10%	[Data]	[Data]
	ii. Total amount of loans outstanding at end of the year to directors, other officers, or stockholders to surplus.		>5%	[Data]	[Data]
f.	Has the insurer failed to establish a conflict-of-interest disclosure policy? [Annual Financial Statement, General Interrogatories, Part 1, #18]		=YES	[Data]	[Data]
					Other Risks
g.	Review Annual Financial Statement, Schedule E – Part 1: i. Were any open depositories a parent, subsidiary, or affiliate? ii. Based upon a review of the holding company financial statements (as filed with the Annual Holding Company Registration Statement Form B), are there any holding company lenders reported that also appear as open depositories of the insurer?				
h.	Review the Annual Financial Statement, Notes to Financial Statements, Note #9: i. If the insurer is included in a consolidation federal income tax return, note any concerns relating to how taxes are allocated to the insurer. ii. Review the tax-sharing agreement and verify whether the terms are being followed. iii. Obtain and review the financial statements of the parent of affiliate and evaluate any collectability to the insurer. iv. Verify whether the amount recoverable from the prior year-end has been collected/recovered. v. If federal income tax recoverables are greater than 5% of surplus, are federal income tax recoverables due from an affiliate?				CR, LQ
i.	Review the Annual Financial Statement, Notes to Financial Statements, Note #27: i. Has the insurer acquired structured settlements from an affiliated life insurance company? ii. If 8.i.i is “yes,” is the amount of loss reserved eliminated by annuities greater than 15% of surplus? iii. Determine the current rating of the affiliates from the major rating agencies, if available. iv. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups. v. Obtain and review the Statement of Actuarial Opinion of the affiliate, if available. vi. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate.				
j.	Review the Annual Financial Statement, General Interrogatories, Part 2, #5. In the case of				

reciprocal exchange: i. Are any unusual items noted regarding compensation of the attorney-in-fact? ii. If there an approval agreement on file with the insurance department, review the Articles of Agreement.	
k. If 8.d is "yes," did the insurer fail to properly disclose the investment on the Annual Financial Statement, Schedule Y – Part 2?	
l. If 8.f is "yes," is there any evidence that activities of directors, other officers, or shareholders were in violation of state statues?	
m. Review the Financial Annual Statement, Schedule SIS, are any unusual items noted regarding transactions with, or compensation to directors and officers?	
n. Assemble a list of all affiliated and other related parties and summarize the financial impact of each transaction. Identify any other unusual transactions and investigate for reasonableness.	

MGAs and TPAs

9. Determine whether concerns exist due to a significant amount of the insurer's direct premiums being written through managing general agents (MGAs) and third-party administrators (TPAs).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Did any agent, general agent, broker, sales representative, non-affiliated sales/service organization, or any combination thereof under common control (other than salaried employees of the insurer) receive credit or commissions for or control a substantial part (more than 20% of any major line of business measured on direct premiums) of either the sale of new business or renewals? [Annual Financial Statement, General Interrogatories, Part 1, #4.1 and #4.2]		=YES	[Data]	[Data]
b. Aggregate amount of direct premiums written through MGAs and TPAs to total direct premiums written [Annual Financial Statement, Notes to Financial Statements, Note #19]		>10%	[Data]	[Data]
				Other Risks
c. Review the Annual Financial Statement, Notes to Financial Statements, Note #19 (which lists all individual MGAs and TPAs whose direct writings are greater than 5% of surplus), determine the following: • Which MGAs and TPAs are being utilized and whether any are affiliated with the insurer • The types and amount of direct business written by the MGAs and TPAs • The types of authority granted to the MGAs and TPAs by the insurer				
d. For those lines of business in which a significant amount of the insurer's direct premiums				

are written through MGAs and TPAs, determine if the incurred loss and LAE ratios are comparable to industry averages.	
e. Determine whether the MGAs utilized by the insurer are properly licensed and whether the TPAs utilized by the insurer hold valid certificates of authority. In some states, an insurer may utilize an MGA who is not licensed if biographical questionnaires have been submitted for each individual owning more than 10% of the MGA. If this provision is applicable and the MGA is not licensed, verify that the required biographical questionnaires have been submitted.	

Cybersecurity

10. Determine whether any concerns exist with regard to controls and processes for cybersecurity risk, mitigation, prevention, or exposure to recent breaches.

	Other Risks
a. Gain an understanding of and evaluate the company's exposure to and mitigation of cybersecurity risk by reviewing recent exam results and findings, company documentation, and other relevant information. Considerations may include whether the company's information security program appropriately identifies, prevents, detects and responds/recovers from cybersecurity events. Concern may be heightened in the event of companies with planned mergers or acquisitions (and the resulting system integration), system updates, and/or significant unresolved findings from financial exam or other third-party security audits. If the analyst's level of concern merits additional analysis, consider performing the following procedures: i. Obtain and review information on the cybersecurity insurance coverage maintained by the insurer to limit exposure to cybersecurity events. ii. Inquire on recent adjustments made to the company's information security program to address emerging threats and vulnerabilities.	RP
b. If material risk warrants further investigation, or more technical analysis, the analyst should consider seeking the expertise of a cybersecurity expert (e.g., internal examination staff or external consultants) to conduct additional risk analysis and/or target examination in this area. If the cybersecurity expert's level of concern merits additional analysis, consider performing the following procedures in the scope of the work to be performed by the expert: i. Obtain and review results of recent vulnerability assessments and/or penetration tests to identify weaknesses in the existing security framework. ii. Obtain and review results of external/internal security audits, including those performed by other regulatory agencies–e.g., Office of Management and Budget (OMB) or Federal Reserve (FRB)–and corresponding changes to the company's security techniques (e.g., firewalls or intrusion detections, logical access controls (e.g., user access rights or authentication mechanisms) and disaster recovery processes).	RP
c. If the state has passed the NAIC's *Insurance Data Security Model Law* (#668), the analyst may consider: i. Obtaining and reviewing any changes to the company's information security program to ensure compliance with the law's provisions, which notably include sections on oversight by board of directors and oversight of third-party service provider	RP

arrangements. ii. Ensuring the company has submitted an "Annual Certification to Commissioner of Domiciliary State," which is a new requirement under the Model #668 whereby an insurance company asserts compliance with Section 4 of the model law (i.e., risk assessment, risk management, oversight by board of directors, etc.). iii. Reviewing any recent notifications of a cybersecurity event provided by the company in accordance with Section 6 of Model #668. A. Gain an understanding of the nature and extent of any cybersecurity event and its expected impact on the company's reputation and financial standing. B. For each cybersecurity event, determine whether the company took appropriate steps to remediate, including timely reporting to impacted stakeholders, protection of policyholders against identity theft and/or corrective actions to address identified weaknesses in IT security.	
d. If the state has not passed the Model #668, the analyst should consider obtaining and reviewing information regarding any cybersecurity events the company has detected over the past 12 months. i. Gain an understanding of the nature and extent of any cybersecurity event and its expected impact on the company's reputation and financial standing. ii. For each cybersecurity event, determine whether the company took appropriate steps to remediate, including timely reporting to impacted stakeholders, protection of policyholders against identity theft and/or corrective actions to address identified weaknesses in IT security.	RP

Additional Analysis and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding operational risks associated with:

- Operating performance
- Information Technology (IT) systems
- Cybersecurity
- Fraud
- Internal controls
- Disaster recovery
- Transactions and services with affiliates

If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Overall Operating Performance:

If there are any concerns regarding the insurer's operating performance as it relates to expenses overall or by line of business:

- Compare the entity's actual results against projections. Determine any variances and request additional information for those areas where unfavorable variances exist. If material differences exist, request

updated projections based on revised assumptions.

- Review the Annual Financial Statement, Insurance Expense Exhibit (IEE):
  - Investigate unusual items, especially situations where expenses were allocated to lines of business using methods not defined in the Annual Statement Instructions. The Annual Statement Instructions are included in the Supplements section and additional guidance in this regard is included in the *Financial Condition Examiners Handbook*.
- Review the IEE, Part 1:
  - Investigate significant fluctuations in expenses by expense groups between years
  - Compare expenses by expense group for the insurer with industry averages
- Review the IEE, Part II and Part III:
  - Investigate significant fluctuations in expenses by lines of business between years
  - Compare expenses by line of business with industry averages
  - Determine whether the totals agree with financial statement line items included in the Annual Financial Statement

Corporate Governance:

If the CGAD is filed to your state as either the domestic state of a legal entity (not part of a group) or the lead state of a group and if concerns related to the corporate governance practices of the insurer or insurer group are identified:

- Consider reviewing internal resources on file related to the following, and if not on file, request the following information from the insurer:
  - For the board of directors and each committee established by the board of directors request a copy of the charter/policy, the business ethic policy, code of conduct policy, and conflict of interest policy
  - The most recent conflict of interest statement, or its equivalent, for each member of the board of directors and committees established by the board of directors including an explanation of any conflicts reported
  - Financial expertise or statutory accounting principles expertise of the audit committee
  - Reporting structure of the internal audit function
  - Copy of the company's by-laws currently in effect
  - If part of a holding company system, discussion on the level of oversight the parent company maintains over the insurer
  - Discussion of compliance with corporate governance statutes
  - Discussion of compensation policies, bonus/incentive programs, and management performance and assessment programs
  - Discussion of the board of directors' and management's responsibilities and authority
- If your state is not the lead state and the CGAD is filed to the lead state, review the information provided in the GPS or other information provided by the lead state. Contact the lead state with any questions, concerns or follow-ups. Upon receipt of any additional information, the non-lead state should document any material concerns regarding corporate governance that could impact the financial condition (e.g., operations, policyholder surplus or capital position) of the domestic insurer.

Transactions with Affiliates:

If concerns related to the economic substance of a transaction with affiliates/related parties are identified, obtain and review supporting documents.

- If the concern relates to the fair value of a transaction with affiliates:
  - Obtain and review an appraisal of the asset transferred
  - Consider consulting an independent appraiser
- If the concern involves a management agreement or service contract:
  - Obtain and review the supporting contract and compare against Form D filing previously submitted to the department (if applicable)
  - Determine whether the amounts involved are reasonable approximations of actual costs
  - Determine whether the actual amounts paid are in agreement with the supporting contact
  - For any arrangement based on a cost-plus formula or percent of premiums formula, request justification from the insurer for amounts in excess of the actual costs of providing the service
  - For those services being performed by/for an affiliate and that are also provided by unrelated third-party vendors (e.g., data processing, actuarial, investment management), contact such vendors or review vendor pricing schedules in order to determine the reasonableness of the intercompany transfer pricing level
  - Evaluate whether any portion of such fees in substance dividends should be evaluated in the contact of dividend regulations
  - Determine if agreements received appropriate regulatory approval in conformity with regulatory requirements
  - Consider whether additional examination procedures should be recommended to verify/validate information regarding transactions and services with affiliates or to further consider whether the expense allocations continue to be fair and reasonable
  - See additional guidance regarding criteria to be considered in determining whether an agreement with affiliates merits review during an onsite examination at section V.F. Domestic and/or Non-Lead State Analysis – Analyst Reference Guide (Form D - Prior Notice of a Transaction)
- If the concern relates to federal tax recoverables from a parent or affiliate:
  - Obtain and review the financial statements of the parent or affiliate, and evaluate any collectability risk to the insurer
  - Review the tax-sharing agreement, and verify that terms of the tax-sharing agreement are being followed
  - Verify that the amount recoverable from the prior year-end has been paid

MGAs and TPAs:

For the more significant MGAs and TPAs, if further concerns exist request the following information from the insurer to evaluate:

- The comparability of the incurred loss and LAE ratios on the business written by the MGA and TPA with that written directly by the insurer (for the lines of business in which significant, but not all, direct business is written through the MGA/TPA).
- Whether the business produced by the MGA and TPA is ceded to a particular reinsurer and, if so, whether that reinsurance was arranged by the MGA or TPA. If the MGA or TPA arranged for the reinsurance, determine whether the MGA or TPA is affiliated with the reinsurer, and consider reviewing the reinsurance agreements to determine whether the terms are reasonable.
- Commission rates and any other amounts paid to the MGA and TPA. Review the information for

reasonableness and compare the commission rates to those paid by the insurer to other agents.

- Whether the contracts between the insurer and MGA include minimum required provisions per Section 4 of the NAIC *Managing General Agents Act* (#225) and/or the applicable sections of the insurance code.
- Whether the contracts between the insurer and TPA include minimum required provisions per Sections 2,4,6,7 and 8 of the NAIC *Registration and Regulation of Third-Party Administrators* (#1090) and/or the applicable sections of the insurance code.
- The most recent independent CPA audit or annual report of the MGA or TPA.
- If the MGA establishes loss reserves, the opinion of an actuary attesting to the adequacy of loss reserves established for losses incurred and outstanding on business produced by the MGA.
- Documentation supporting the insurer's periodic (at least semi-annual) on-site review of the MGA's underwriting and claims processing operations.
- Documentation supporting the insurer's periodic (at least semi-annual) review of the operations of the TPA. (Model #225 requires at least one of the semi-annual reviews to be an on-site audit of the operations of the TPA.)

If there are concerns regarding the business placed with the insurer by an MGA or TPA, consider determining if other insurers are utilizing the same MGA or TPA and perform the following:

- Compare the contract between the insurer and the MGA or TPA with the contracts between the other insurers and the MGA or TPA to determine whether the contracts are similar (e.g., contain the same commission rates).
- Compare the insurer's loss and LAE ratios on the business placed by the MGA or TPA with those of the other insurers utilizing the same MGA or TPA to determine whether the ratios are similar or whether it appears that the insurer may be receiving a disproportionate amount of "bad" business from the MGA or TPA.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file an ORSA or is part of a group that is required to file an ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any operational risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective operational risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any operational risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective operational risks impacting the insurer?

Example Prospective Risk Considerations

	Risk Components for IPS	***Explanation of Risk Components***
1	Trend of poor operating performance [indicate overall or specific line of business]	Continued trends in expense ratio, combined ratio and overall profitability may indicate ongoing solvency risks.

2	High expense structure	A high expense structure may make it difficult for the insurer to attract new business, compete with other insurers and fulfill its strategic plan.
3	Lack of effective governance/oversight of operations	The lack of an effective governance function to oversee operations may make it difficult for the insurer to fulfill its strategic plan and achieve desired outcomes.
4	Change in operations	A significant change in operations resulting from turnover or change in key board and/or senior management positions may increase operational risk.
5	Lack of asset control	Assets not under the full control of the insurer may not be available to fulfill policyholder obligations.
6	Questionable investment transactions	The insurer's investment performance or risks in its investment portfolio may be masked due to questionable investment activities (e.g., wash sales, window dressing, etc.).
7	Concerns with investment advisors	Heavy reliance on unqualified investment advisors or lack of effective oversight may lead to excessive risk taking and increases in the fraud and investment reporting risks.
8	Significant and complex services and transactions with affiliates	Significant services and transactions with affiliates can alter financial performance and increase risks related to cost sharing, contingent liabilities, unauthorized dividends, etc.
9	Significant reliance on MGAs/TPAs	Reliance on MGAs/TPAs to produce premiums, process claims and fulfill other operational functions can increase operational risk significantly if effective oversight practices are not in place.

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with operational risk. For example, many of the procedures also may be related to pricing/underwriting risk or strategic risks.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Operating Performance

1. Determine whether concerns exist regarding the insurer's Statement of Income or operating performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Combined ratio		>105% or <80%	[Data]	[Data]
b. Net Loss Ratio	PR/UW*		[Data]	
c. Change in combined ratio from prior year-to-date		>10 pts or <-20 pts	[Data]	[Data]
d. Change in net premiums earned from prior year-to-date	PR/UW*	>20% or <-20%	[Data]	[Data]
e. Change in net incurred losses from prior year-to-date	PR/UW*	>25% or <-25%	[Data]	[Data]
f. Change any of profitability ratios from prior year-to-date i. Pure loss ii. Pure loss adjustment expense (LAE) iii. Expense iv. Dividend		>10% or <-10%	[Data]	[Data]
g. Ratio of other income to net income when the absolute value of other income is greater than 3% of surplus		>25% or <-25%	[Data]	[Data]
h. Change in net income (loss) from prior year-to-date when absolute value of net income (loss) is greater than 5% of surplus		>20% or <-20%	[Data]	[Data]
				Other Risks
i. Review the five-year trend with the Financial Profile Report for the following measures of operating performance, and note any unusual fluctuations or trends between years for each ratio: • Combined ratio • Loss ratios for direct, assumed and ceded business				PR/UW

• Incurred loss and LAE by line of business • Expense ratio • Return on surplus ratio	
j. Review the components of other income in the Quarterly Financial Statement, Statement of Income, including write-ins for miscellaneous income, for reasonableness.	
k. Describe any known trends that have had or that the insurer reasonably expects will have a material favorable or unfavorable impact on net revenues or net income. If the insurer knows of events that will cause a material change in the relationship between benefits, losses and expenses, the change in the relationship should be disclosed.	PR/UW
l. If concerns exist regarding operating performance, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. ii. Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations.	PR/UW

Investment Operations

2. Determine whether all securities owned are under the control of the insurer and in the insurer's possession.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Were any of the assets of the insurer loaned, placed under option agreement, or otherwise made available for use by another person (excluding securities under securities lending agreements)? If "yes," are there any concerns regarding these assets? [Quarterly Financial Statement, General Interrogatories, Part 1, #11.1 and #11.2]		=YES	[Data]	[Data]

Exposure to Affiliated / Related Party Transactions

Note: The following procedures for the review of Corporate Structure and Affiliated Transactions should consider any analysis already completed or anticipated to be completed with regard to the Holding Company Analysis performed by the lead state, review of the Form B – Registration Statement and any review of Form D – Material Transactions to avoid duplication of analysis.

3. Determine whether the insurer is a member of a holding company group and whether the corporate structure elevates concerns about affiliated transactions.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Is the insurer part of a holding company system? [Quarterly Financial Statement, General Interrogatories, Part 1, #3.1]	ST	=YES	[Data]	[Data]
b. Have there been substantial changes in the organizational chart since the prior quarter end?	ST*	=YES	[Data]	[Data]

[Quarterly Financial Statement, General Interrogatories, Part 1, #3.2]				
				Other Risks
c. If 3.b is "yes," and the change involved ownership of the insurer or a transaction with an affiliate, did the insurer fail to receive proper regulatory approvals?				ST
d. Are there any indications the corporate structure may include a holding company whose primary asset is the stock of the insurance company?				ST
e. Does the insurer have an agency or brokerage subsidiary?				LQ

4. Identify whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Have there been changes to any management agreement, including third-party administrators (TPAs) and managing general agents (MGAs) in terms of the agreement or principals involved? [Quarterly Financial Statement, General Interrogatories, Part 1, #5]		=YES	[Data]	[Data]
				Other Risks
b. Review Quarterly Financial Statement, Schedule A – Part 2 and Part 3 and Schedule BA – Part 2 and Part 3: i. Did any such acquisitions or disposition involve an affiliate or other related party? ii. Is the amount of the transaction greater than 5% of surplus? iii. If the answers to 4b.i and 4b.ii are "yes," is there any reason to believe that the acquisition was recorded on a basis other than fair value?				MK

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with operational risk. For example, many of the procedures also may be related to pricing/underwriting risk or strategic risks.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Operating Performance

1. Determine whether concerns exist regarding the insurer's income statement or operating performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in net income (loss): If the absolute value of current year net income (loss) exceeds 5% of surplus/capital and surplus (based on business type), has the net income (loss) decreased by more than 20% or increased by more than 40% from the prior year?		> 40% or < - 20%	[Data]	[Data]
b. Ratio of net income to total income (including realized capital gains and losses) (IRIS Ratio 3).		=< 0	[Data]	[Data]
c. Ratio of net gain from operations (before realized capital gains and losses) to total income.	PR/UW*	< 0	[Data]	[Data]
d. Has there been a net loss in two or more of the past three years?	PR/UW	Net Income <$0 in >=2 years	[Data]	[Data]
e. Ratio of return on capital and surplus.		< 5% or > 20%	[Data]	[Data]
f. Ratio of commissions and administrative expenses to gross premiums for non-life insurers.		> 30%	[Data]	[Data]
g. Accident and health (A&H) loss ratio.	PR/UW*	> 85%	[Data]	[Data]
h. Ratio of aggregate write-ins for miscellaneous income to net income when aggregate write-ins for miscellaneous income exceed 3% of capital and surplus.		> 25% or < - 25%	[Data]	[Data]
i. Ratio of aggregate write-ins for deductions to net income when aggregate write-ins for deductions exceed 3% of capital and surplus.		> 25% or < - 25%	[Data]	[Data]

	Other Risks
j. Review the five-year trend with the Summary of Operations and Annual Financial Profile Report for the following measures of operating performance, and note any unusual fluctuations or trends between years for each: • Income. • Expense items. • A&H loss ratio. • Commissions and expenses to premiums ratio. • Change in material individual income and expense categories.	PR/UW
k. Compare the following measures of operating performance within the Annual Financial Profile Report to the industry average to determine any significant deviations: • Return on capital and surplus ratio. • Commissions and administrative expense to premiums ratio.	
l. Describe any known trends that have had (or that the insurer reasonably expects will have) a material impact on net revenues or net income, or a material impact on the relationship between benefits, losses, and expenses.	PR/UW*
m. Review the Analysis of Operations by Lines of Business in the Annual Financial Statement and the Financial Profile Report and: i. Determine which lines of business were profitable for the insurer and which lines of business generated a loss. ii. Determine if any lines of business indicate a negative trend in profitability over the past five years. iii. Determine whether commissions and expenses on any lines of business appear excessive based on the volume of premiums.	PR/UW*
n. Review the components of the Annual Financial Statement, Summary of Operations line items Aggregate Write-ins for Miscellaneous Income and Aggregate Write-ins for Deductions for reasonableness.	PR/UW*
o. If concerns exist regarding operating performance, consider the following procedures: i. Review Exhibit 2 – General Expenses to identify concerns or unusual items to identify any expense allocation concerns or unusual operating results by line of business. ii. Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. iii. Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations.	PR/UW

Corporate Governance

2. Determine whether the corporate governance practices of the insurer provide effective oversight of operations.

a. If the Corporate Governance Annual Disclosure (CGAD) is filed to your state as either the domestic state of a legal entity (not part of a group) or the lead state of a group, review and assess information on the insurer's or insurance group's corporate governance practices as provided in the CGAD to identify and follow up on any issues noted that could affect the insurer's or the group's ability to adequately oversee operations. If

your state is the lead state, document information and risks from the CGAD in the Group Profile Summary (GPS). If material risk relates only to an insurance entity, contact the domestic state in a timely manner.
b. If your state is not the lead state and the CGAD is filed to the lead state, review the corporate governance assessment included in the lead state's GPS, and contact the lead state with any questions, concerns or follow-ups. Upon the receipt of any additional information, the non-lead state should document any material concerns regarding corporate governance that could impact the financial condition (e.g., operations, policyholder surplus or capital position) of the domestic insurer.
c. Review and follow up on any issues noted in the department's documentation of corporate governance in the most recent examination reports, other examination documentation or summaries, communication with the examiner-in-charge, or the most recent communication with the insurer. Note any observations or follow-up analysis performed.
d. Obtain a copy of and review the most recent board of directors' meeting minutes (i.e., may refer to the last quarterly, monthly, etc., depending on the frequency of meetings). Has the board of directors taken any significant actions that may result in changes in operations, business structure, or management that may result in a material financial impact on the insurer?
e. Based on results of the above procedures, does the board of directors and management provide a sufficient level of oversight and support? Explain.

3. Evaluate the effects of changes in officers or directors on the operations of the insurer.

	Other Risks
a. Review the changes in officers, directors or trustees and any concerns noted during a review of biographical affidavits. i. Do new directors and officers have the required knowledge, experience and training to perform their duties? Document any concerns. ii. Are new board of directors' members sufficiently independent from management and adequately engaged in performing their duties? iii. Has there been significant turnover in management in the current year or a pattern of turnover in the past five years? If so, document the reasons. iv. Have new directors and officers ever been officers, directors, trustees, key employees or controlling stockholders of an insurance company that, while they occupied any such position or served in any such capacity with respect to it: 1) placed in supervision, conservation, rehabilitation or liquidation; 2) enjoined from, or ordered to cease and desist from, violating any securities or insurance law or regulation; or 3) suffered the suspension or revocation of their certificate of authority or license to do business in any state? If so, explain. v. Summarize the insurer's policies and procedures regarding performance of background checks on new management.	ST*, RP, LG
b. If a significant amount of turnover and/or changes in key positions (i.e., chairman of the board of directors or chief executive office [CEO]) are identified, gain an understanding of and evaluate the impact of such changes on the insurer's operations. Consider requesting updated business plans, holding in-person meetings, conducting conference calls, or taking other steps to understand and address significant changes.	ST, RP

c. Have there been any significant operational or business changes that have resulted in significant changes to staffing levels, consolidations of operations with affiliates, outsourcing of key functions, or placing blocks of business into run-off (closed) blocks?	ST*
d. Review and evaluate the insurer's human capital and succession planning processes and controls. i. Evaluate the insurer's management and personnel to identify directors, executives, or key employees that may be approaching retirement. 1. For these identified individuals, discuss the steps taken by the company to plan for succession. ii. Determine whether the insurer is overly reliant on any one individual to produce its business or manage its operations. 1. For these key individuals, discuss the steps taken by the company to plan for succession. iii. Describe the insurer's processes to identify, appoint, train, evaluate, and compensate directors, executives, and key members of personnel.	

Investment Operations

4. Determine whether concerns exist related to investment operations, including purchases and sales of securities and control of assets.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the purchase or sale of any investments not been approved by the board of directors or a subordinate committee thereof? [Annual Financial Statement, General Interrogatories, Part 1, #16]		=Yes		[Data]
b. Were any securities owned, over which the insurer has exclusive control, not in the actual possession of the insurer, except as shown by the Schedule of Special Deposits? [Annual Financial Statement, General Interrogatories, Part 1, #25.01 and #25.02]		=Yes	[Data]	[Data]
c. Were any assets owned by the insurer not exclusively under the control of the insurer? [Annual Financial Statement, General Interrogatories, Part 1, #26.1 and #26.2]		=Yes	[Data]	[Data]
d. Were there any assets reported subject to a contractual obligation to transfer to another party without the liability for such obligation being reported? If "yes," note the purpose and the amount. [Annual Financial Statement, General Interrogatories, Part 1, #21.1 and #21.2]		=Yes	[Data]	[Data]
e. Payable for securities to total invested assets.		>10%	[Data]	[Data]
f. Receivable for securities to total invested assets.		>10%	[Data]	[Data]

	Other Risks
g. Request a copy of the insurer's investment plan to determine who is authorized to purchase and sell investments and what approvals are required for investment transactions.	
h. If the insurer has securities under its exclusive control that are not in its actual possession, review Annual Financial Statement, General Interrogatories, Part 1, #25.01 and #25.02 to determine the reason the securities are not in the insurer's possession, who holds the securities, and whether the securities qualify as admitted assets of the insurer.	
i. If the insurer owns assets that are not under its exclusive control, review Annual Financial Statement, General Interrogatories, Part 1, #26.1, #26.2, and #26.3 to determine the reason the assets are not under the insurer's exclusive control, who holds the assets, and whether the assets qualify as admitted assets of the insurer.	
j. Review Annual Financial Statement, Schedule D – Part 3. were significant amounts of bonds or stocks purchased near the beginning or the end of the year? If so, determine the types of securities purchased at or near the beginning and the end of the year, and the vendors used for those purchases. Refer to the "Financial Summary Investment Activity" section of the insurer's "Financial Profile" for information regarding long-term bonds and stocks acquired near the beginning or the end of the year.	
k. Review Annual Financial Statement, Schedule D – Part 4, were significant amounts of bonds or stocks disposed of near the beginning or the end of the year? If so, determine the types of securities sold and the purchasers of those securities. Refer to the "Financial Summary Investment Activity" section of the insurer's "Financial Profile" for information regarding long-term bonds and stocks sold, redeemed or otherwise disposed of near the end of the year.	
l. Review Annual Financial Statement, Schedule D – Part 5, were significant amounts of bonds or stocks acquired near the beginning of the year and disposed of near the end of the year? If so, determine the types of securities purchased, the vendors used for those purchases and the purchasers of those securities. Refer to the "Financial Summary Investment Activity" section of the insurer's "Financial Profile" for information regarding long-term bonds and stocks acquired near the beginning of the year and disposed of near the end of the year.	

5. Determine whether any concerns exist regarding third party investment advisers and associated contractual arrangements, and related party exposure in the investment portfolio.

	Other Risks
a. Review Annual Financial Statement, General Interrogatories, Part 1, #29.05. i. Does the insurer utilize third party investment advisors, broker/dealer or individuals acting on behalf of the insurer with access to their investment accounts? If "yes", consider the following procedures listed below.	ST
ii. Review the results of the most recent financial examination work papers, follow-up and prospective risk information and the summary review memorandum provided by the examiners. Did the examination identify any issues with regard to investment advisers and associated contractual arrangements that require follow-up analysis or communication with the insurer? If "yes", document the follow-up work performed.	
iii. Compare Annual Financial Statement, General Interrogatories, Part 1, #29.05 for the current year to the prior year to determine if there have been any changes in advisors. If "yes", consider obtaining:	

• An explanation for the change from the insurer. • A copy of the new investment advisor agreement and review it for appropriate provisions.	
iv. Using the information reported in Annual Financial Statement, General Interrogatories, Part 1, #29.05, obtain and review SEC Form ADV (if available), to determine if the investment advisor is in good standing with the SEC. If not in good standing, contact the insurer to request an explanation.	
v. If agreements with third party investment advisers are affiliated, has the appropriate Form D – Prior Notice of Transactions been filed and approved by the department? Were any concerns noted or follow-up monitoring recommended?	
vi. Request information from the insurer regarding the background and expertise in structured securities of its investment advisors (in-house and/or contractual) and its analytical system capabilities. Determine whether the advisors and systems are adequate to allow the insurer to continuously monitor its structured securities investments.	

	Other Risks
b. Assess related party exposure in the investment portfolio. i. Review the Annual Financial Statement investment schedules, as disclosed in the column "Investments Involving Related Parties" and utilizing iSite+ tools, determine if the insurer has material related party exposures in its investment portfolio. This disclosure is included in: • Schedule B • Schedule BA • Schedule D • Schedule DA • Schedule DB • Schedule DL • Schedule E, Part 2 Consider exposure by asset class and in aggregate, and by the role of the related party in the investment as designed by the "Investments Involving Related Parties" disclosure.	LQ, MK
ii. If concerns exist regarding a material related party exposure in the investment portfolio, assess the credit quality of those investments involving related parties by reviewing designations, assessing historical default experience, etc.	LQ, MK

iii. If concerns exist regarding a material related party exposure in investment management or advisory services, consider the following: a. Review the procedures in the "Additional Procedures" section below regarding Third Party Investment Advisors and consider their application to related party advisors in that role. b. In addition to the additional analysis procedures regarding third party investment advisors, consider the following: 1. Review the insurer's investment policy guidelines and determine whether the related party investments follow the guidelines and are in compliance with regulatory requirements. 2. Review whether the fee structure for asset management is fair, reasonable, and appropriately recognized as investment expenses. 3. If the related party asset manager also originates/securitizes investments held by the insurer, consider requesting additional information from the insurer to determine the following: a. Whether the asset manager has adequate experience and knowledge in originating and managing the types of investments; b. Whether the asset manager follows appropriate underwriting practices and applicable regulatory requirements in originating investments; and c. Whether the fee structures embedded in securities (if applicable) are fair, reasonable, and appropriately account for potential duplication of fees or conflicts of interest.	OP

Exposure to Transactions with Affiliates/Related Parties

Note: The following procedures for the review of Corporate Structure and Transactions with affiliates should consider any analysis already completed or anticipated to be completed with regard to Holding Company Analysis performed by the lead state, review of the Form B – Registration Statement and any review of Form D – Material Transactions to avoid duplication of analysis.

6. Determine whether any concerns exist regarding changes in the insurer's corporate structure.

	Other Risks
a. Review Annual Financial Statement, Schedule Y – Part 1 and additional information provided in Form B, for the current and prior years. i. Were there any significant changes to the corporate structure during the year (e.g., acquisitions, divestitures, and/or mergers)? ii. If "yes," and the change involved ownership of the insurer or a transaction with an affiliate, did the insurer fail to receive proper regulatory approvals? iii. Are there any indications the corporate structure may include a holding company whose primary asset is the stock of the insurance company? iv. Does the insurer have an agency or brokerage subsidiary?	ST

7. Identify whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Management fees paid to affiliates compared to total incurred general expenses. [Annual Financial Statement, Exhibit 2 General Expenses, Footnote (a)]		>15%	[Data]	[Data]
				Other Risks
b. Review Schedule Y – Part 2, Note #10 and Note #13 and additional information provided in Form B and Form Ds. i. Were any unusual items noted, such as significant new transactions with affiliates or modified intercompany agreements from the prior year, or significant increases in transaction amounts? ii. Identify any discrepancies in transactions reported on the Annual Financial Statement, Schedule Y – Part 2 compared to Note #10. iii. Has the insurer forwarded to any one affiliate funds greater than 15% of the insurer's surplus? iv. Do affiliated business ventures resulting in a contingent liability to the insurer involve financial exposure greater than 25% of surplus? v. Review the description of management and services agreements. Is an allocation basis involved other than one designed to estimate actual cost?				ST
c. Verify that all regulatory approvals were received and that the transactions recorded in the Annual Financial Statement reflect the transactions as approved (e.g., Note #13 – Dividends, Note #27 – Structured Settlements).				

8. Determine whether other affiliated transactions are legitimate and properly accounted for.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Affiliated receivable to capital and surplus.	CR, LQ	>10%	[Data]	[Data]
b. Affiliated payable to capital and surplus.	CR, LQ	>10%	[Data]	[Data]
c. Federal Income Tax Recoverables to capital and surplus. [Annual Financial Statement, Notes to Financial Statements Note #9]		>5%	[Data]	[Data]
d. Does any foreign entity control 10% or more of the insurer, either directly or indirectly, through a holding company system? [Annual Financial Statement, General Interrogatories, Part 1, #7.1 and #7.2]		=Yes	[Data]	[Data]
e. Review Annual Financial Statement, General Interrogatories, Part 1, #20.1 and #20.2	CR			
i. Total amount loaned during the year to directors, other officers, or stockholders to net income.	CR	>10%	[Data]	[Data]

ii. Total amount of loans outstanding at the end of the year to directors, other officers, or stockholders to capital and surplus.	CR	>5%	[Data]	[Data]
f. Has the insurer failed to establish a conflict-of-interest disclosure policy? [Annual Financial Statement, General Interrogatories, Part 1, #18]		=Yes	[Data]	[Data]
				Other Risks
g. Review Annual Financial Statement, Schedule E, Part 1 – Cash: i. Were any open depositories a parent, subsidiary, or affiliate? ii. Based upon a review of the holding company financial statements (as filed with the Annual Holding Company Registration Statement Form B), are there any holding company lenders reported that also appear as open depositories of the insurer?				
h. If the response to d. (Foreign control) is "yes," did the insurer fail to properly disclose the investment on Schedule Y – Part 1?				
i. If General Interrogatories, Part 1, #18 is "yes," is there any evidence that activities of directors, officers or shareholders were in violation of state statutes?				
j. Review Annual Financial Statement, Schedule SIS (Stockholder Information Supplement). Are any unusual items noted regarding transactions with, or compensation to, directors and officers?				
k. Review the Annual Financial Statement, Notes to Financial Statements, Note #9 – Income Taxes. i. Is the insurer included in a consolidated federal income tax return? ii. If "yes," note any concerns about the manner in which federal income taxes are allocated to the insurer. iii. If federal income tax recoverables are greater than 5% of capital and surplus (c. above), how much of federal income tax recoverables are due from an affiliate?				
l. Review the Annual Schedule SIS – Stockholder Information Supplement. Are any unusual items noted regarding transactions with, or compensation to directors and officers?				
m. Are there any financial guaranties in place, in any form between the insurer and any member of the holding company system?				
n. Assemble a list of all affiliated and other related parties and summarize the financial impact of each transaction. Identify any other unusual transactions and investigate for reasonableness.				

MGA / TPA

9. Determine whether concerns exist due to a significant amount of the insurer's direct premiums being written through managing general agents (MGAs) and third-party administrators (TPAs).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Did any agent, broker, sales representative, non-affiliated sales/service organization, or any		=Yes	[Data]	[Data]

combination thereof under common control (other than salaried employees of the insurer) receive credit or commissions for or control a substantial part (more than 20% of any major line of business measured on direct premiums) of either the sale of new business or renewals. [Annual Financial Statement, General Interrogatories, Part 1, #4.1 and #4.2]				
b. Was the aggregate amount of direct premiums written through MGAs and TPAs greater than 10% of total direct premiums written? [Annual Financial Statement, Notes to Financial Statements, Note #19]		>10%	[Data]	[Data]
				Other Risks
c. Review the Annual Financial Statement, Notes to Financial Statements, Note #19 (which lists individual MGAs and TPAs whose direct writings are greater than 5% of capital and surplus). Determine the following: • Which MGAs and TPAs are being utilized (and whether any of the MGAs or TPAs are affiliated with the insurer). • The types and amount of direct business written by the MGAs and TPAs. • The types of authority granted to the MGAs and TPAs by the insurer.				
d. For lines of business in which a significant amount of the insurer's direct premiums are written through MGAs and TPAs, determine if the operating performance for those lines are comparable to industry averages.				
e. Determine whether the MGAs utilized by the insurer are properly licensed and whether the TPAs utilized by the insurer hold valid certificates of authority. In some states, an insurer may utilize an MGA who is not licensed if biographical questionnaires have been submitted for each individual owning more than 10% of the MGA. If this provision is applicable and the MGA is not licensed, verify that the required biographical questionnaires have been submitted.				

Separate Accounts

10. Determine whether concerns exist regarding the appropriateness of business being placed within separate accounts or regarding transactions between the general account and the separate account.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Did the insurer report any separate account products that do not meet separate account GAAP classification? If "yes", review in detail the products and conditions listed. [Separate Accounts Financial Statement, General Interrogatory #8.3]		=Yes	[Data]	[Data]
b. Did the insurer file a non-insulated separate accounts statement? Identify and document any concerns regarding the inclusion of non-insulated products in the separate account.		=Yes	[Data]	[Data]

c. Portion of capital and surplus funds of the insurer covered by assets in the Separate Accounts Financial Statement greater than capital and surplus.	ST	>5%	[Data]	[Data]
d. Determine if the portion of such capital and surplus not distributable from the separate accounts to the general account for use by the general account. [Annual Financial Statement, General Interrogatories, Part 2, #3.3]		>5%	[Data]	[Data]
e. Compare the amounts recorded on page 4, line 20 of the Separate Accounts Financial Statement, contributed surplus, to Page 4, line 46 of the General Account Financial Statement, surplus (contributed to) withdrawn from separate accounts during period. Do the amounts fail to reconcile?		=Yes	[Data]	[Data]
f. Are other changes in surplus in the Separate Accounts Financial Statement greater than capital and surplus?		>5%	[Data]	[Data]
				Other Risks
g. Were any non-variable (non-unit linked) products reported in the Separate Account? If "yes": i. Review the specific product information to determine and understand the reasons for including non-variable products in the separate accounts. ii. Identify and document any concerns regarding the non-variable products' inclusion in the separate accounts.				
h. Request additional information from the insurer of any unusual or non-variable (non-unit linked) products included in the separate accounts.				
i. Review the Annual Financial Statement, Notes to Financial Statements, Note #35 – Separate Accounts. i. Do the amounts transferred between the general account and separate accounts statement(s) reconcile? ii. Are any reconciling adjustments noted? iii. Is the net amount of all reconciling items greater than 10% of statutory net income?				
j. Assess and determine if any additional concerns exist regarding separate accounts reporting.				

i. Review the Separate Accounts Annual Financial Statement and the General Account Annual Financial Statement and: 1. Verify that the separate accounts gain from operations is properly recorded in the capital and surplus section of the General Account Summary of Operations. 2. Verify that all other premium and benefits activity is properly recorded on the net transfers to or (from) separate accounts line of the General Account Summary of Operations. ii. Review the Separate Accounts Summary of Operations and surplus account in order to identify potential misclassifications as to "above the line" and "below the line" classifications.	
k. Review the level of investment management fees charged to the separate accounts to determine that they are in the generally accepted range of 125 to 140 basis points on separate accounts assets.	
l. Review the insurer's response to Annual Financial Statement, General Interrogatories, Part 2, #3.3. Assess if any concerns exist regarding the portion of capital and surplus funds of the insurer covered by assets in the Separate Accounts Financial Statements that are not currently distributable from the separate accounts to the general account for use by the general account.	

Cybersecurity

11. Determine whether any concerns exist with regard to controls and processes for cybersecurity risk, mitigation, prevention, or exposure to recent breaches.

	Other Risks
a. Gain an understanding of and evaluate the company's exposure to and mitigation of cybersecurity risk by reviewing recent exam results and findings, company documentation and other relevant information. Considerations may include whether the company's information security program appropriately identifies, prevents, detects and responds/recovers from cybersecurity events. Concern may be heightened in the event of companies with planned mergers or acquisitions (and the resulting system integration), system updates, and/or significant unresolved findings from financial exam or other third-party security audits. If the analyst's level of concern merits additional analysis, consider performing the following procedures: i. Obtain and review information on the cybersecurity insurance coverage maintained by the insurer to limit exposure to cybersecurity events. ii. Inquire on recent adjustments made to the company's information security program to address emerging threats and vulnerabilities.	RP
b. If material risk warrants further investigation, or more technical analysis, the analyst should consider seeking the expertise of a cybersecurity expert (e.g., internal examination staff or external consultants) to conduct additional risk analysis and/or target examination in this area. If the cybersecurity expert's level of concern merits additional analysis, consider performing the following procedures in the scope of the work to be performed by the expert:	RP

i. Obtain and review results of recent vulnerability assessments and/or penetration tests to identify weaknesses in the existing security framework. ii. Obtain and review results of external/internal security audits, including those performed by other regulatory agencies–e.g., Office of Management and Budget (OMB) or Federal Reserve (FRB) and corresponding changes to the company's security techniques (e.g., firewalls or intrusion detections, logical access controls (e.g., user access rights or authentication mechanisms) and disaster recovery processes).	
c. If the state has passed the NAIC's *Insurance Data Security Model Law* (#668), the analyst may consider: i. Obtaining and reviewing any changes to the company's information security program to ensure compliance with the law's provisions, which notably include sections on oversight by board of directors and oversight of third-party service provider arrangements. ii. Ensuring the company has submitted an "Annual Certification to Commissioner of Domiciliary State," which is a new requirement under Model#668 whereby an insurance company asserts compliance with Section 4 of the model law (i.e., risk assessment, risk management, oversight by board of directors, etc.). iii. Reviewing any recent notifications of a cybersecurity event provided by the company in accordance with Section 6 of Model #668. o Gain an understanding of the nature and extent of any cybersecurity event and its expected impact on the company's reputation and financial standing. o For each cybersecurity event, determine whether the company took appropriate steps to remediate, including timely reporting to impacted stakeholders, protection of policyholders against identity theft and/or corrective actions to address identified weaknesses in IT security.	RP
d. If the state has not passed Model #668, the analyst should consider obtaining and reviewing information regarding any cybersecurity events the company has detected over the past 12 months. i. Gain an understanding of the nature and extent of any cybersecurity event and its expected impact on the company's reputation and financial standing. ii. For each cybersecurity event, determine whether the company took appropriate steps to remediate, including timely reporting to impacted stakeholders, protection of policyholders against identity theft and/or corrective actions to address identified weaknesses in IT security.	RP

Additional Analysis and Follow-up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding operational risks associated with:

- Operating performance
- Information technology (IT) systems,
- Cybersecurity,
- Fraud,
- Internal controls,
- Disaster recovery
- Transactions and services with affiliates

If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Overall Operating Performance:

Compare the entity's actual results against projections. Determine any variances and request additional information for those areas where unfavorable variances exist. If material differences exist, request updated projections based on revised assumptions.

Medicare Part D Operating Performance:

If concerns related to the operating performance of Medicare Part D business are identified, obtain and review supporting documents, as noted below:

- Information regarding the contracted benefits, premium and cost sharing with the U.S. Centers for Medicare & Medicaid Services.
- Information on the assumptions for reserves, utilization and benefit costs projected in the development of the contract.

Corporate Governance:

If the CGAD is filed to your state as either the domestic state of a legal entity (not part of a group) or the lead state of a group and if concerns related to the corporate governance practices of the insurer or insurer group are identified:

- Consider reviewing internal resources on file related to the following, and if not on file, request the following information from the insurer:
  - For the board of directors and each committee established by the board of directors, request a copy of the charter/policy, the business ethic policy, code of conduct policy, and conflict of interest policy.
  - The most recent conflict of interest statement, or its equivalent, for each member of the board of directors and committees established by the board of directors including an explanation of any conflicts reported.
  - Financial expertise or statutory accounting principles expertise of the audit committee.
  - Reporting structure of the internal audit function.
  - Copy of the company's by-laws currently in effect.

- If part of a holding company system, discussion on the level of oversight the parent company maintains over the insurer.
- Discussion of compliance with corporate governance statutes.
- Discussion of compensation policies, bonus/incentive programs, and management performance and assessment programs.
- Discussion of the board of directors' and management's responsibilities and authority.

- If your state is not the lead state and the CGAD is filed to the lead state, review the information provided in the GPS or other information provided by the lead state. Contact the lead state with any questions, concerns or follow-ups. Upon receipt of any additional information, the non-lead state should document any material concerns regarding corporate governance that could impact the financial condition (e.g., operations, policyholder surplus or capital position) of the domestic insurer.

Transactions with Affiliates:

If the concern relates to the economic substance of a transaction with affiliates/related parties are identified, obtain and review supporting documents.

- If the concern relates to the fair value of a transaction with affiliates:
  - Obtain and review an appraisal of the asset transferred.
  - Consider consulting an independent appraiser.
- If the concern involves a Management Agreement or Service Contract:
  - Obtain and review the supporting contract and compare against Form D filing previously submitted to the department (if applicable)
  - Determine whether the amounts involved are reasonable approximations of actual costs.
  - Determine whether actual amounts paid are in agreement with the supporting contract.
  - For any agreement based on a cost-plus formula or percentage of premiums formula, request justification from the insurer for amounts in excess of the actual cost of providing the service.
  - For those services being performed by/for an affiliate, and which are also provided by unrelated third-party vendors (i.e., data processing, actuarial, investment management), contact such vendors or review vendor pricing schedules in order to determine the reasonableness of the intercompany transfer pricing level.
  - Evaluate whether any portion of such fees is, in substance, dividends should be evaluated in the context of dividend regulations.
  - Determine if agreements received appropriate regulatory approval in conformity with regulatory requirements.
  - Consider whether additional examination procedures should be recommended to verify/validate information regarding transactions and services with affiliates or to further consider whether the expense allocations continue to be fair and reasonable.
  - See additional guidance regarding criteria to be considered in determining whether an agreement with affiliates merits review during an onsite examination at section V.F. Domestic and/or Non-Lead State Analysis – Analyst Reference Guide (Form D - Prior Notice of a Transaction)
- If the concern relates to federal tax recoverables from a parent or affiliate:
  - Obtain and review the financial statements of the parent or affiliate and evaluate any collectability risk to the insurer.

- Review the tax-sharing agreement and verify that terms of the tax-sharing agreement are being followed.
- Verify that the amount recoverable from the prior year-end has been paid.

MGAs and TPAs:

For the more significant MGAs and TPAs, request information from the insurer to evaluate:

- Whether commission rates and any other amounts paid to the MGAs and TPAs. Review the information for reasonableness and compare the commission rates to those paid by the insurer to other agents.
- Whether the business produced by the MGA or TPA is ceded to a particular reinsurer and, if so, whether that reinsurance was arranged for by the MGA or TPA. If the MGA or TPA arranged for the reinsurance, determine whether the MGA or TPA is affiliated with the reinsurer and consider reviewing the reinsurance agreements to determine whether the terms are reasonable.
- Whether the MGAs utilized by the insurer are properly licensed and whether the TPAs utilized by the insurer hold valid certificates of authority. (In some states, an insurer may utilize an MGA who is not licensed if biographical questionnaires have been submitted for each individual owning more than 10% of the MGA. If this provision is applicable and the MGA is not licensed, verify that the required biographical questionnaires have been submitted.)
- Whether the contracts between the insurer and its more significant MGAs. Review to determine that the contracts include the minimum required provisions per Section 4 of the NAIC *Managing General Agents Act* (#225) and/or the applicable sections of the insurance code.
- The contracts between the insurer and its more significant MGAs and review to determine that the contracts include the minimum required provisions per Section 4 of the NAIC *Managing General Agents Act* (#225) and/or the applicable sections of the insurance code.
- The contracts between the insurer and its more significant TPAs and review to determine whether the contracts include the minimum required provisions per Sections 2, 4, 6, 7 and 8 of the NAIC *Registration and Regulation of Third-Party Administrators* (Guideline #1090) and/or the applicable sections of the insurance code.
- For the more significant MGAs utilized by the insurer, request and review the following:
  - The most recent Audited Financial Statement of the MGA.
  - If the MGA establishes loss reserves, the opinion of an actuary attesting to the adequacy of loss reserves established for losses incurred and outstanding on business produced by the MGA.
  - Documentation supporting the insurer's periodic (at least semi-annual) on-site review of the MGA's underwriting and claims processing operations.
- For the more significant TPAs utilized by the insurer, request and review the following:
  - The most recent annual report of the TPA.
  - Documentation supporting the insurer's periodic (at least semi-annual) review of the operations of the TPA. (At least one of the semi-annual reviews is required to be an on-site audit of the operations of the TPA).
- Review analyst notes or exam reports for the other companies using the same MGA, TPA or IPA if there is reason to believe problems exist.

If there are concerns regarding the business placed with the insurer by an MGA or TPA, consider determining whether other insurers are utilizing the same MGA or TPA, request and perform the following:

- Compare the contract between the insurer and the MGA or TPA with the contracts between the other insurers and the MGA or TPA to determine whether they are similar (i.e., contain the same commission rates).
- Compare the insurer's loss and loss adjustment expense (LAE) ratios on the business placed by the MGA or TPA with those of the other insurers utilizing the same MGA or TPA to determine whether the ratios are similar or whether it appears that the insurer might be receiving a disproportionate amount of "bad" business from the MGA or TPA.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file an ORSA or is part of a group that is required to file an ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any operational risks that require further monitoring or follow-up?
- Did the ORSA Summary Report Analysis conducted by the lead state indicate any mitigating strategies for existing or prospective operational risks?

Holding Company Analysis:

- Did the Holding Company Analysis conducted by the lead state indicate any operational risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company Analysis conducted by the lead state indicate any mitigating strategies for existing or prospective operational risks impacting the insurer?

Example Prospective Risk Considerations

	Example Risk Component for IPS	*Explanation of Risk Component*
1	Trend of poor operating performance.	Continued trends in overall profitability may indicate ongoing solvency risks.
2	High expense structure.	A high expense structure may make it difficult for the insurer to attract new business, compete with other insurers and fulfill its strategic plan.
3	Lack of effective governance/oversight of operations.	The lack of an effective governance function to oversee operations may make it difficult for the insurer to fulfill its strategic plan and achieve desired outcomes.
4	Change in operations.	A significant change in operations resulting from turnover or change in key board and/or senior management positions may increase operational risk.
5	Lack of asset control.	Assets not under the full control of the insurer may not be available to fulfill policyholder obligations.
6	Questionable investment transactions.	The insurer's investment performance or risks in its investment portfolio may be masked due to questionable investment activities (e.g., wash sales, window dressing, etc.).
7	Concerns with investment advisors.	Heavy reliance on unqualified investment advisors or lack of effective oversight may lead to excessive risk taking and increases in fraud and investment reporting risks.

8	Significant and complex services and transactions with affiliates.	Significant services and transactions with affiliates can alter financial performance and increase risks related to cost sharing, contingent liabilities, unauthorized dividends, etc.
9	Significant reliance on MGAs/TPAs.	Reliance on MGAs/TPAs to produce premiums, process claims and fulfill other operational functions can increase operational risk significantly if effective oversight practices are not in place.
10	Separate account concerns.	Challenges in properly managing and reporting separate account business and transactions with the general account may mask true financial performance and/or understate liabilities due to the separate account.

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with operational risk. For example, many of the procedures also may be related to pricing/underwriting risk or strategic risks.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Operating Performance

1. Determine whether concerns exist regarding the insurer's income statement or operating performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net Loss (year-to-date).		< 0	[Data]	[Data]
b. Change in net income from prior year-to-date when the absolute value of the change exceeds 10% of capital and surplus.		< -30%	[Data]	[Data]
c. Net income/total revenue (ROR).		N/A	[Data]	
d. Annualized net income/total assets (ROA).		N/A	[Data]	
e. Annualized net income/capital & surplus (ROE).		N/A	[Data]	
f. Ratio of commissions and administrative expenses to premiums and deposits		>50%	[Data]	[Data]
g. Review the Summary of Operations in the Quarterly Financial Statement.				
i. Ratio of aggregate write-ins for miscellaneous income to net income when aggregate write-ins for miscellaneous income exceed 3% of capital and surplus.		>25% or < -25%	[Data]	[Data]
ii. Ratio of aggregate write-ins for deductions to net income when aggregate write-ins for deductions exceed 3% of capital and surplus.		>25% or < -25%	[Data]	[Data]
				Other Risks
h. Based upon the health entity's primary lines of business, do the combined, medical loss, and administrative expense ratios appear reasonable?				
i. Review the five-year trend with the Quarterly Financial Profile Report for the following measures of operating performance, and note any unusual fluctuations or trends between years for each ratio: • ROR, ROA and ROE. • Commissions and expenses to premium. • Net income (loss).				PR/UW

j. Review the components of other income in the Statement of Revenue and Expenses, including write-ins for miscellaneous income, for reasonableness.	
k. Describe any known trends that have had or that the insurer reasonably expects will have a material favorable or unfavorable impact on net revenues or net income. If the insurer knows of events that will cause a material change in the relationship between benefits, losses and expenses, the change in the relationship should be disclosed.	PR/UW
l. If concerns exist regarding operating performance, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. ii. Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations.	PR/UW

Investment Operations

2. Determine whether all securities owned are under the control of the insurer.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Were any of the assets of the insurer loaned, placed under option agreement or otherwise made available for use by another person (excluding securities under securities lending agreements)? [Quarterly Financial Statement, General Interrogatories, Part 1, #11.1]		=Yes	[Data]	[Data]
				Other Risks
b. Review General Interrogatories, Part 1, #11.2 for additional information to determine if there are any concerns regarding these assets.				

Exposure to Affiliated Transactions

Note: The following procedures for the review of Corporate Structure and Affiliated Transactions should consider any analysis already completed or anticipated to be completed with regard to the Holding Company Analysis performed by the lead state, review of the Form B – Registration Statement and any review of Form D – Material Transactions to avoid duplication of analysis.

3. Determine whether the insurer is a member of a holding company group and whether the corporate structure elevates concerns about affiliated transactions.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Is the insurer part of a Holding Company system? [Quarterly Financial Statement, General Interrogatories, Part 1, #3.1]	ST	=Yes	[Data]	[Data]
b. Have there been substantial changes in the organizational chart since the prior quarter end? [Review the Quarterly Financial Statement, General Interrogatories, Part 1, #3.2]	ST*	=Yes	[Data]	[Data]

	Other Risks
c. If 4.b is "yes," and the change involved ownership of the insurer or a transaction with an affiliate, did the insurer fail to receive proper regulatory approvals?	ST
d. Are there any indications the corporate structure may include a holding company whose primary asset is the stock of the insurance company?	ST
e. Does the insurer have an agency or brokerage subsidiary?	LQ

4. Identify whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Have there been changes to any management agreement, including third-party administrators (TPAs) and managing general agents (MGAs), in terms of the agreement or principles involved? [Quarterly Financial Statement, General Interrogatories, Part 1, #5]		=Yes	[Data]	[Data]
				Other Risks
i. Review Quarterly Financial Statement, Schedule A – Part 2 and Schedule BA – Part 2 and Schedule A – Part 3 and Schedule BA Part 3 Did any such acquisitions or disposition involve an affiliate or other related party? ii. Is the amount of the transaction greater than 5% of surplus? iii. If the answers to 4.b.i and 4.b.ii are "yes," is there any reason to believe that the acquisition was recorded on a basis other than fair value?				MK

Separate Accounts

5. Determine whether concerns exist regarding the insurer's separate accounts.

				Other Risks
a. Determine whether the insurer maintains Separate Accounts. Review the Quarterly Financial Statement, Balance Sheet asset and liability items relating to separate accounts business. Are there balances in either of these categories? *If the answer above is "no," do not proceed with the remaining Separate Accounts procedures.*				
	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
b. Determine whether the insurer maintains Separate Accounts. Review the Quarterly Financial Statement, Balance Sheet asset and liability items relating to separate accounts business. Are there balances in either of these categories? *If the answer above is "no," do not proceed with the remaining Separate Accounts procedures.*		<>0	[Data]	[Data]

c. Change in separate account assets or liabilities from the prior year-end.		>10% or < -10%	[Data]	[Data]
d. Review the Quarterly Financial Statement, Capital and Surplus Account Statement page.				
i. Is the line item, "Other changes in surplus in the Separate Accounts Statement," greater than capital and surplus?		>5%	[Data]	[Data]
ii. Change in line item, "Other changes in surplus in the Separate Accounts Statement," from the prior year, same quarter.		>10% or < -10%	[Data]	[Data]
e. Review the Quarterly Financial Statement, Summary of Operations page.				
i. Change in line item, "Net transfers to or (from) separate accounts," from the prior year, same quarter.		>10% or < -10%	[Data]	[Data]
ii. Did the insurer report a net loss in the line item, "Separate accounts net gain from operations excluding unrealized gains or losses," whose absolute value is greater than 5% of the general account capital and surplus?		>5%	[Data]	[Data]

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with operational risk. For example, many of the procedures also may be related to pricing/underwriting risk or strategic risks.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Operating Performance

1. Determine whether concerns exist regarding the insurer's Statement of Revenue and Expenses or operating performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Profit margin ratio		>10% or <0%	[Data]	[Data]
b. Change in profit margin ratio		> 5 pts or <-10 pts	[Data]	[Data]
c. Net income (loss)		<0	[Data]	[Data]
d. Change in net income when net income is greater than 5% of capital and surplus		>40% or <-20%	[Data]	[Data]
e. Has there been a net loss in two or more of the past three years		Net Income <0 in >=2 years	[Data]	[Data]
f. Combined Ratio		>100%	[Data]	[Data]
i. Medical loss ratio	PR/UW*	>85%	[Data]	[Data]
ii. Administrative expense ratio		>15%	[Data]	[Data]
g. Change in combined ratio		>5 pts or <-10 pts	[Data]	[Data]
i. Change in medical loss ratio	PR/UW*	>5 pts or <-10 pts	[Data]	[Data]
ii. Change in administrative expense ratio		>3 pts or <-5 pts	[Data]	[Data]
h. Any line of business with a combined ratio greater than 105% (List LOB and results)		>105%	[Data]	[Data]
i. Were any losses incurred from ASO/ASC plans [Annual Financial Statement, Notes to Financial Statements, Note #18]		=YES	[Data]	[Data]
j. Return on capital and surplus ratio		>50% or <3%	[Data]	[Data]

	Other Risks
k. Review the five-year trend with the Annual Financial Profile Report for the following measures of operating performance, and note any unusual fluctuations or trends between years for each ratio: • Profit margin ratio • Combined ratio • Medical loss ratio • Administrative expense ratio • Ratios by line of business • Change in material individual income and expense categories	PR/UW*
l. Compare the following measures of operating performance within the Annual Financial Profile Report to the industry average to determine any significant deviations: • Combined ratio • Return on capital and surplus	
m. Based upon the insurer's primary lines of business, do the combined, medical loss, and administrative expense ratios appear reasonable?	
n. Review the Analysis of Operations by Line of Business to determine which lines of business were profitable for the insurer and which lines of business generated a loss.	
o. Describe any known trends that have had or that the insurer reasonably expects will have a material impact on net revenues or net income.	
p. Review the components of the Statement of Revenues and Expenses line item aggregate write-ins for other health care related revenues, other income or expenses for reasonableness.	
q. Describe any known trends that have had or that the insurer reasonably expects will have a material favorable or unfavorable impact on net revenues or net income or a material impact on the relationship between benefits, losses and expenses. i. Consider if the insurer is dependent upon investment income. ii. If the insurer knows of events that will cause a material change in the relationship between benefits, losses and expenses, the change in the relationship should be disclosed.	PR/UW*
r. If concerns exist regarding operating performance, consider the following procedures: i. Review the Supplemental Health Care Exhibit to identify concerns or unusual items for further analysis. ii. Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. iii. Request, review and evaluate information from the insurer regarding its plans to address poor operating performance (e.g., staff reductions, system enhancements, etc.).	PR/UW*

Corporate Governance

2. Determine whether the corporate governance practices of the insurer provide effective oversight of operations.

	Other Risks
a. If the Corporate Governance Annual Disclosure (CGAD) is filed to your state as either the domestic state of a legal entity (not part of a group) or the lead state of a group, review and assess information on the insurer's or insurance group's corporate governance practices as provided in the CGAD to identify and follow up on any issues noted that could affect the insurer's or the group's ability to adequately oversee operations. If your state is the lead state, document information and risks from the CGAD in the Group Profile Summary (GPS). If material risk relates only to an insurance entity, contact the domestic state in a timely manner.	
b. If your state is not the lead state and the CGAD is filed to the lead state, review the corporate governance assessment included in the lead state's Holding Company Analysis GPS and contact the lead state with any questions, concerns or follow-ups. Upon the receipt of any additional information, the non-lead state should document any material concerns regarding corporate governance that could impact the financial condition (e.g., operations, policyholder surplus or capital position) of the domestic insurer.	
c. Review and follow up on any issues noted in the department's documentation of corporate governance in the most recent examination reports, other examination documentation or summaries, communication with the examiner-in-charge, or the most recent communication with the insurer. Note any observations or follow-up analysis performed.	
d. Obtain a copy of and review the most recent board of directors' meeting minutes (i.e., may refer to last quarterly, monthly, etc., depending on frequency of meetings). Has the board of directors taken any significant actions that may result in changes in operations, business structure, or management that may result in a material financial impact on the insurer?	
e. Based on results of the above procedures, does the board of directors and management provide a sufficient level of oversight and support? Explain.	

3. Evaluate the effects of changes in officers and directors on the operations of the insurer.

	Other Risks
a. Review the changes in officers, directors or trustees and any concerns noted during a review of biographical affidavits. i. Do new directors and officers have the required knowledge, experience and training to perform their duties? Document any concerns. ii. Are new board of directors' members sufficiently independent from management and adequately engaged in performing their duties? iii. Has there been significant turnover in management in the current year or a pattern of turnover in the past five years? If so, document the reasons. iv. Have new directors and officers ever been officers, directors, trustees, key employees or controlling stockholders of an insurance company that, while they occupied any such position or served in any such capacity with respect to it: • Was placed in supervision, conservation, rehabilitation or liquidation.	ST*, RP, LG

• Was enjoined from, or ordered to cease and desist from, violating any securities or insurance law or regulation. • Suffered the suspension or revocation of its certificate of authority or license to do business in any state? If "yes," explain. v. Summarize the insurer's policies and procedures regarding performance of background checks on new management.	
b. If a significant amount of turnover and/or changes in key positions (i.e., chairman of the board of directors or chief executive officer [CEO]) are identified, gain an understanding of and evaluate the impact of such changes on the insurer's operations. Consider requesting updated business plans, holding in-person meetings, conducting conference calls, or taking other steps to understand and address significant changes.	ST, RP
c. Have there been any significant operational or business changes that have resulted in significant changes to staffing levels, consolidations of operations with affiliates, outsourcing of key functions, or placing blocks of business into run-off (closed) blocks?	ST*
d. Review and evaluate the insurer's human capital and succession planning processes and controls. i. Evaluate the insurer's management and personnel to identify directors, executives, or key employees that may be approaching retirement. A. For these identified individuals, discuss the steps taken by the company to plan for succession. ii. Determine whether the insurer is overly reliant on any one individual to produce its business or manage its operations. A. For these key individuals, discuss the steps taken by the company to plan for succession. iii. Describe the insurer's processes to identify, appoint, train, evaluate, and compensate directors, executives, and key members of personnel.	

Investment Operations

4. Determine whether concerns exist related to investment operations, including purchases and sales of securities and control of assets.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has the purchase or sale of any investments not been approved by the board of directors or a subordinate committee thereof? [Annual Financial Statement, General Interrogatories, Part 1, #16]		=YES		[Data]
b. Were any stocks, bonds and other securities owned, over which the insurer has exclusive control, not in the actual possession of the insurer, other than securities lending programs? [Annual Financial Statement, General Interrogatories, Part 1, #25.1 and #25.2]		=YES	[Data]	[Data]

c. Were any stocks, bonds or other assets owned by the insurer not exclusively under the control of the insurer? [Annual Financial Statement, General Interrogatories, Part 1, #26.1 and #26.2]		=YES	[Data]	[Data]
d. Were there any assets reported subject to a contractual obligation to transfer to another party without the liability for such an obligation being reported? If "yes", note the purpose and the amount. [Annual Financial Statement, General Interrogatories, Part 1, #21.1 and #21.2]		=YES	[Data]	[Data]
e. Payable for securities to total invested assets		>10%	[Data]	[Data]
f. Receivable for securities to total invested assets		>10%	[Data]	[Data]
				Other Risks
g. Request a copy of the insurer's investment plan to determine who is authorized to purchase and sell investments and what approvals are required for investment transactions.				
h. If the insurer has securities under its exclusive control that are not in its actual possession, review Annual Financial Statement, General Interrogatories, Part 1, #25.01 and #25.02 to determine the reason the securities are not in the insurer's possession, who holds the securities, and whether the securities qualify as admitted assets of the insurer.				
i. If the insurer owns assets that are not under its exclusive control, review Annual Financial Statement, General Interrogatories, Part 1, #26.1, #26.2, and #26.3 to determine the reason the assets are not under the insurer's exclusive control, who holds the assets, and whether the assets qualify as admitted assets of the insurer.				
j. Review Annual Financial Statement, Schedule D – Part 3. Were significant amounts of bonds or stocks purchased near the beginning or the end of the year? If so, determine the types of securities purchased at or near the beginning and the end of the year, and the vendors used for those purchases. Refer to the Financial Summary Investment Activity section of the insurer's Financial Profile for information regarding long-term bonds and stocks acquired near the beginning or the end of the year.				
k. Review Annual Financial Statement, Schedule D – Part 4. Were significant amounts of bonds or stocks disposed of near the beginning or the end of the year? If so, determine the types of securities sold and the purchasers of those securities. Refer to the Financial Summary Investment Activity section of the insurer's Financial Profile for information regarding long-term bonds and stocks sold, redeemed or otherwise disposed of near the end of the year.				
l. Review Annual Financial Statement, Schedule D – Part 5. Were significant amounts of bonds or stocks acquired near the beginning of the year and disposed of near the end of the year? If so, determine the types of securities purchased, the vendors used for those purchases and the purchasers of those securities. Refer to the Financial Summary Investment Activity section of the insurer's Financial Profile for information regarding long-term bonds and stocks acquired near the beginning of the year and disposed of near the end of the year.				

5. Determine whether any concerns exist regarding third party investment advisors and associated contractual arrangements, and related party exposure in the investment portfolio.

	Other Risks
a. Review Annual Financial Statement, General Interrogatories, Part 1, #29.05. i. Does the insurer utilize third party investment advisors, broker/dealer or individuals acting on behalf of the insurer with access to their investment accounts? **If "yes," consider the following procedures listed below.**	ST
ii. Review the results of the most recent financial examination work papers, follow-up and prospective risk information and the summary review memorandum provided by the examiners. Did the examination identify any issues with regard to investment advisers and associated contractual arrangements that require follow-up analysis or communication with the insurer? If "yes," document the follow-up work performed.	
iii. Compare Annual Financial Statement, General Interrogatories, Part 1, #29.05 for the current year to the prior year to determine if there have been any changes in advisors. If "yes," • Consider obtaining an explanation for the change from the insurer. • Consider obtaining a copy of the new investment advisor agreement and review it for appropriate provisions.	
iv. Using the information reported in Annual Financial Statement, General Interrogatories, Part 1, #29.05, obtain and review SEC Form ADV (if available), to determine if the investment advisor is in good standing with the SEC. If not in good standing, contact the insurer to request an explanation.	
v. If agreements with third party investment advisers are affiliated, have the appropriate Form D–Prior Notice of Transactions been filed and approved by the department? Were any concerns noted or follow-up monitoring recommended?	
vi. Request information from the insurer regarding the background and expertise in structured securities of its investment advisors (in-house and/or contractual) and its analytical system capabilities. Determine whether the advisors and systems are adequate to allow the insurer to continuously monitor its structured securities investments.	

b. Assess related party exposure in the investment portfolio.

	Other Risks
i. Review the Annual Financial Statement investment schedules, as disclosed in the column "Investments Involving Related Parties" and utilizing iSite+ tools, determine if the insurer has material related party exposures in its investment portfolio. This disclosure is included in: • Schedule B • Schedule BA • Schedule D • Schedule DA • Schedule DB • Schedule DL • Schedule E, Part 2 Consider exposure by asset class and in aggregate, and by the role of the related party in the investment as designed by the "Investments Involving Related Parties" disclosure.	LQ, MK
ii. If concerns exist regarding a material related party exposure in the investment portfolio, assess the credit quality of those investments involving related parties by reviewing designations, assessing historical default experience, etc.	LQ, MK

iii. If concerns exist regarding a material related party exposure in investment management or advisory services, consider the following: a. Review the procedures in the "Additional Procedures" section below regarding Third Party Investment Advisors and consider their application to related party advisors in that role. b. In addition to the additional analysis procedures regarding third party investment advisors, consider the following: 1. Review the insurer's investment policy guidelines and determine whether the related party investments follow the guidelines and are in compliance with regulatory requirements. 2. Review whether the fee structure for asset management is fair, reasonable, and appropriately recognized as investment expenses. 3. If the related party asset manager also originates/securitizes investments held by the insurer, consider requesting additional information from the insurer to determine the following: a. Whether the asset manager has adequate experience and knowledge in originating and managing the types of investments; b. Whether the asset manager follows appropriate underwriting practices and applicable regulatory requirements in originating investments; and c. Whether the fee structures embedded in securities (if applicable) are fair, reasonable, and appropriately account for potential duplication of fees or conflicts of interest.	OP

Exposure to Transactions with Affiliates/Related Parties

Note: *The following procedures for the review of Corporate Structure and Transactions with affiliates should consider any analysis already completed or anticipated to be completed with regard to the Holding Company Analysis performed by the lead state, review of Form B – Registration Statement and any review of Form D – Material Transactions to avoid duplication of analysis.*

6. Determine whether any concerns exist regarding changes in the insurer's corporate structure.

	Other Risks
a. Review Annual Financial Statement, Schedule Y – Part 1 and additional information provided in Form B, for the current and prior years. i. Were there any significant changes to the corporate structure during the year (e.g., acquisitions, divestitures, and/or mergers)? ii. If "yes," and the change involved ownership of the insurer or a transaction with an affiliate, did the insurer fail to receive proper regulatory approvals? iii. Are there any indications the corporate structure may include a holding company whose primary asset is the stock of the insurance company? iv. Does the insurer have an agency or brokerage subsidiary?	ST

7. Identify whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Management fees paid to affiliates to total expenses incurred [Annual Financial Statement, Underwriting and Investment Exhibit, Part 3]		>15%	[Data]	[Data]
				Other Risks
b. Review the Annual Financial Statement, Schedule Y – Part 2 and Notes to Financial Statements, Note #10 and additional information provided in Form B and Form Ds: i. Were any unusual items noted, such as significant new transactions with affiliates or modified intercompany agreements from the prior year, or significant increases in transaction amounts? ii. Has the insurer forwarded to any one affiliate funds greater than 15% of the insurer's surplus? iii. Do any transactions described in Note to Financial Statements #10 appear to conflict with the transactions disclosed in Schedule Y – Part 2? iv. Are any transactions disclosed in Note to Financial Statements #10 with an affiliate that is not listed on Schedule Y –Part 2? v. Do affiliated business ventures resulting in a contingent liability to the insurer involve financial exposure greater than 25% of surplus? vi. Review the description of management and administrative services agreements. Is an allocation basis involved other than one designed to estimate actual cost? vii. If the answer to "a." above is "yes," are the allocation or cost bases used for service charges periodically reviewed and adjusted?				LQ, ST
c. Did the capital contributions from the insurer to another affiliate substantially impact the financial condition of the insurer? i. Were non-cash capital contributions into the insurer not recorded at fair value? ii. Were purchases, sales, or exchanges of loans, securities, real-estate, mortgage loans, or other investments, not at arms-length or not recorded at fair value? iii. Did any transfer of assets between insurance affiliates impact the risk-based capital calculation? iv. Does the insurer have a parental guaranty to maintain capital and surplus at a pre-determined level?				ST
d. Review the Annual Financial Statement, Notes to Financial Statements, Note #13. Are any unusual items noted?				
e. Has the insurer historically required capital contributions from its parent to offset operating losses or other decreases in capital and surplus?				
f. Verify that all regulatory approvals were received and that the transactions recorded in the Annual Financial Statement reflect the transactions as approved (e.g., Note #13).				

8. Determine whether other affiliated transactions are legitimate and properly accounted for.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Affiliated receivable to capital and surplus		>10%	[Data]	[Data]
b. Affiliated payable to capital and surplus		>10%	[Data]	[Data]
c. Non-current balances [Annual Financial Statement, Exhibit 6]		<>0	[Data]	[Data]
d. Ratio of payments made to affiliated providers to total payments		>50%	[Data]	[Data]
e. Federal income tax recoverables to capital and surplus		>5%	[Data]	[Data]
f. Does any foreign entity control 10% or more of the insurer, either directly or indirectly, through a holding company system? [Annual Financial Statement, General Interrogatories, Part 1, #7.1 and #7.2]		>=10%	[Data]	[Data]
g. Review Annual Financial Statement, General Interrogatories, Part 1, #20.1 and #20.2				
i. Total amount loaned to directors, other officers, or stockholders to net income		>10%	[Data]	[Data]
ii. Total amount of loans outstanding at the end of the year to directors, other officers, or stockholders to capital and surplus		>5%	[Data]	[Data]
h. Has the insurer failed to establish a conflict-of-interest disclosure policy? [Annual Financial Statement, General Interrogatories Part 1, #18]		=YES	[Data]	[Data]
				Other Risks
i. Review the Annual Financial Statement, Exhibit 5. i. Are there any balances over 90 days, which are admitted? ii. Does the exhibit otherwise suggest that the insurer may have collectability issues with its affiliates? iii. Are any of the receivable balances from an affiliate which the insurer also reports a payable balance on Exhibit 6 and could therefore net the balances on the face of the balance sheet if the requirements of SSAP 64 were met? iv. Is the analyst aware of any receivable balances from an affiliate which has experienced some financial problems? v. Are there any affiliated receivable balances from medical providers or intermediaries included on Exhibit 5?				
j. Review the Annual Financial Statement, Exhibit 6. Are any of the balances unusually large for the description or are any of the descriptions unusual?				
k. Review the Annual Financial Statement, Exhibit 7 – Part 1. Has there been any indication that the amount charged by the affiliated provider is non-economic or non-arms-length?				

l. Review the Annual Financial Statement, Schedule E. i. Were any open depositories a parent, subsidiary or affiliate? ii. Based upon a review the holding company financial statements (as filed with the Annual Holding Company Registration Statement Form B), are there any holding company lenders reported that also appear as open depositories of the insurer?	
m. Review the Annual Financial Statement, Notes to Financial Statements, Note #9. i. If 5.e. above is "yes," are federal income tax recoverables due from affiliates? ii. Is the insurer included in a consolidated federal income tax return? iii. If the answer to e is "yes," are there any concerns about the manner in which federal income taxes are allocated to the insurer?	
n. If Annual Financial Statement, General Interrogatories, Part 1 #18 was "yes," is there any evidence that activities of directors, officers or shareholders were in violation of state statutes?	
o. Review the Annual Financial Statement, Schedule SIS. Are any unusual items noted regarding transactions with, or compensation to, directors and officers?	
p. If concerns relate to federal tax recoverables from a parent or affiliate: i. Obtain and review the financial statements of the parent or affiliate and evaluate any collectability risk to the insurer. ii. Review any tax-sharing agreement and verify that the terms of the tax-sharing agreement are being followed. iii. Verify that the amount recoverable from the prior year-end has been collected/recovered.	
q. Assemble a list of all affiliated and other related parties and summarize the financial impact of each transaction. Identify any other unusual transactions and investigate for reasonableness.	
r. If concern exists regarding downstream risk with affiliated provider intermediaries: i. Obtain and review the Audited Financial Report and Annual Financial Statement of the affiliate, if available. ii. Review information about the affiliate from industry analysts and benchmark capital adequacy with top performers and peer groups, if available. iii. Obtain and review the actuarial opinion of the affiliate, if available. iv. Contact the domiciliary state to determine whether any regulatory actions are pending against the affiliate.	

MGAs and TPAs

9. Determine whether concerns exist due to a significant amount of the insurer's direct premiums being written through managing general agents (MGAs) and third-party administrators (TPAs).

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Did any agent, general agent, broker, sales representative, non-affiliated sales/service organization or any combination thereof under common control (other than salaried employees of the insurer) receive credit or commissions for or control a substantial part (more than 20% of any major line of business measured on direct premiums) of either the sale of new business or renewals? [Annual Financial Statement, General Interrogatories, Part 1, #4.1 and #4.2]		=YES	[Data]	[Data]
b. Aggregate amount of direct premiums written through MGAs and TPAs to total direct written premiums [Annual Financial Statement, Notes to Financial Statements, Note #19]		>10%	[Data]	[Data]
i. Aggregate direct premiums written through MGAs and TPAs to capital and surplus		>5%	[Data]	[Data]
c. Ratio of direct medical expense payments made to intermediaries to total medical expense payments		>5%	[Data]	[Data]
				Other Risks
d. Review the Annual Financial Statement, Notes to Financial Statements, Note #19 which lists individual MGAs and TPAs through which direct writings are greater than 5% of capital and surplus. Determine the following: • Which MGAs and TPAs are being utilized and whether any are affiliated with the insurer • The types and amount of direct business written by the MGAs and TPAs • The types of authority granted to the MGAs and TPAs by the insurer				
e. For the more significant MGAs and TPAs, request information from the insurer regarding commission rates and any other amounts paid to the MGAs and TPAs. Review the information for reasonableness and compare the commission rates to those paid by the insurer to other agents.				
f. For more significant MGAs and TPAs, request information from the insurer to determine whether the business produced by the MGA or TPA is ceded to a particular reinsurer and, if so, whether the reinsurance was arranged by the MGA or TPA. If the MGA or TPA arranged for the reinsurance, determine whether the MGA or TPA is affiliated with the reinsurer and consider reviewing the reinsurance agreements to determine if the terms are reasonable.				
g. Determine whether the MGAs utilized by the insurer are properly licensed and whether the TPAs utilized by the insurer hold valid certificates of authority. In some states, an insurer may utilize an MGA who is not licensed if biographical questionnaires have been				

submitted for each individual owning more than 10% of the MGA. If this provision is applicable and the MGA is not licensed, verify that the required biographical questionnaires have been submitted.	

Risk Transfer Arrangements Other Than Reinsurance

10. Determine if experience rating arrangements are significant, reasonable and settled on a timely basis.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Compare reserve for rate credits or experience rating refunds to total hospital and medical expenses. Does the insurer report reserve for rate credits or experience rating refunds to be collected from the prior year? If not settled on a timely manner, inquire with the insurer for any balances outstanding. [Annual Financial Statement, Underwriting and Investment Exhibit – Part 2D, Line 4]		>0	[Data]	[Data]
				Other Risks
b. Compare amounts due from experience rating arrangements from the write-in for other than invested assets to total hospital and medical expenses. Does the insurer report amounts due from experience rating arrangements?				RV
c. Determine whether the insurer has reported appropriate reserves. Has a premium stabilization reserve been included in the reserve for rate credits or experience rating refunds? [Annual Financial Statement, Underwriting and Investment Exhibit – Part 2D, Line 4]				RV

11. Determine if capitation payments with providers are material and if so, whether risks exist with providers' or intermediaries' ability to meet capitation agreement obligations.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Compare total capitation payments to intermediaries to total hospital and medical expenses [Annual Financial Statement, Exhibit 7 – Part 1]		>10%	[Data]	[Data]
b. Health care receivables to capital and surplus		>8%	[Data]	[Data]
c. Percentage of members covered by capitated arrangements based on capitation payments to total payments		>50%	[Data]	[Data]
				Other Risks
d. Has the insurer failed to complete Annual Financial Statement, Exhibit 7 – Part 1?				

e. Does the insurer have capitation arrangements with providers? i. Has the insurer failed to file copies of provider agreements, if required, with the domiciliary commissioner? ii. If the insurer has capitation arrangements with providers, did it fail to enter the appropriate information in the RBC filing (worksheet XR017)?	
f. Determine if capitation to groups or intermediaries reported in Annual Financial Statement, Exhibit 7 is actually disbursed or withheld by the insurer for future payment of claims as they are submitted.	
g. Determine if the insurer pays or processes claims for the participating providers of a capitated intermediary.	
h. Request the most recent independent audited report of the intermediary (TPA or IPA). If not available, request the most recent annual report.	
i. Obtain the opinion of an actuary attesting to the adequacy of claim reserves and claim adjustment expenses established for claims incurred and outstanding on business produced by the intermediaries, if available.	
j. Review analyst notes or exam reports for the other companies using the same intermediaries if there is reason to believe problems exist with those entities.	

12. Determine whether the insurer's special payment arrangements (i.e., bonus and withhold arrangements) with providers are material, reasonable and reported correctly.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Compare total bonus/withhold arrangement payments to total hospital and medical benefits		>20%	[Data]	[Data]
b. Compare pool/withhold arrangement payments to total bonus/withhold accrual		>100%	[Data]	[Data]
c. Bonus/withhold payments and prior year underwriting losses		<>0 and <0	[Data]	[Data]
d. Liability for accrued medical incentive pool and bonus payments to total hospital and medical expense		>5%	[Data]	[Data]
e. Liability for amounts withheld from paid claims and capitations to total hospital and medical expense		>5%	[Data]	[Data]
f. Incentive pool and withhold adjustments expense to total hospital and medical expense		>5%	[Data]	[Data]
g. Change in bonus/withhold accrual from prior year to current year		>25% or <-25%	[Data]	[Data]
				Other Risks
h. Review the Annual Financial Statement, General Interrogatories, Part 2. Does the insurer report bonus/withhold arrangements with providers?				
i. Determine if risk transfer arrangements with providers have had a negative impact on utilization. Review the Exhibit of Premiums, Enrollment, and Utilization in the Annual				

Financial Statement and compare to prior years. Has utilization compared to membership increased?	
j. Has the insurer failed to comply with state-specific laws, regulations, or guidelines regarding arrangements for risk transfer other than reinsurance?	
k. Request a listing of provider groups contracting with the insurer.	
l. Review the Statement of Actuarial Opinion to determine if capitation arrangements were reviewed.	
m. Review the Statement of Actuarial Opinion to determine if: i. The financial strength of contracting provider groups was or was not reviewed or excluded by the opining actuary ii. Provider insolvencies were considered when determining the reserves and liabilities.	
n. Evaluate the financial condition of the largest contracting provider groups.	
o. Review bonus/withhold provisions of the provider contracts.	
p. Obtain detailed calculation of direct bonus and withhold payments, and accruals and those covering capitated arrangements.	
q. Evaluate the appropriateness of withhold distributions or bonus payments made to providers relative to contract provisions and the insurer's underwriting results.	
r. Determine whether the insurer is compliant with RBC filing requirements and verify that amounts reported for bonuses and withholds in the insurer's Risk-Based Capital (RBC) filing are consistent with what is reported in the Annual Financial Statement filing. i. Is there an amount entered in accrued medical incentive pool and bonus Payments on Page 3, Column 3, Line 2, even though the RBC filing on worksheet XR017 ii. Column 2, Lines 3 and 4, indicates that no business is subject to withholds or bonuses iii. Is there no amount entered in accrued medical incentive pool and bonus payments on Page 3, Column 3, Line 2, even though the RBC filing on worksheet XR017 Column 2, Lines 3 and 4, indicates that some business is subject to withholds or bonuses? iv. Did the prior year withholds and bonuses paid differ by more than 40% from prior year withholds and bonuses available from RBC worksheet XR017 in the RBC filing? (XR018: ABS (Line 18 - Line 19)/(Line 18)). v. If amounts reported for bonuses and withholds in the insurer's RBC filing appear to be potentially inconsistent with what is reported in the annual statement filing, request that the insurer provide an explanation. If further analysis indicates that there is a disconnect between the two filings, request that the insurer amend whichever filing is incorrect.	

Cybersecurity

13. Determine whether any concerns exist with regard to controls and processes for cybersecurity risk, mitigation, prevention, or exposure to recent breaches.

	Other Risks
a. Gain an understanding of and evaluate the company's exposure to and mitigation of cybersecurity risk by reviewing recent exam results and findings, company documentation and other relevant information. Considerations may include whether	RP

the company's information security program appropriately identifies, prevents, detects and responds/recovers from cybersecurity events. Concern may be heightened in the event of companies with planned mergers or acquisitions (and the resulting system integration), system updates, and/or significant unresolved findings from financial exam or other third-party security audits. If analyst's level of concern merits additional analysis, consider performing the following procedures: i. Obtain and review information on the cybersecurity insurance coverage maintained by the insurer to limit exposure to cybersecurity events. ii. Inquire on recent adjustments made to the company's information security program to address emerging threats and vulnerabilities.	
b. If material risk warrants further investigation, or more technical analysis, analysts should consider seeking the expertise of a cybersecurity expert (e.g., internal examination staff or external consultants) to conduct additional risk analysis and/or target examination in this area. If the cybersecurity expert's level of concern merits additional analysis, consider performing the following procedures in the scope of the work to be performed by the expert: i. Obtain and review results of recent vulnerability assessments and/or penetration tests to identify weaknesses in the existing security framework. ii. Obtain and review results of external/internal security audits (including those performed by other regulatory agencies – e.g., Office of Management and Budget (OMB) or Federal Reserve (FRB) and corresponding changes to the company's security techniques (e.g., firewalls or intrusion detections, logical access controls (e.g., user access rights or authentication mechanisms) and disaster recovery processes	RP
c. If the state has passed the NAIC's Insurance Data Security Model Law #668, analysts may consider: i. Obtaining and reviewing any changes to the company's information security program to ensure compliance with the law's provisions, which notably include sections on Oversight by Board of Directors and Oversight of Third-Party Service Provider Arrangements. ii. Ensuring the company has submitted an "Annual Certification to Commissioner of Domiciliary State," which is a new requirement under the Model Law whereby an insurance company asserts compliance with the Section 4 of the Law (i.e., risk assessment, risk management, oversight by Board of Directors, etc.). iii. Reviewing any recent notifications of a cybersecurity event provided by the company in accordance with Section 6 of Model #668. o Gain an understanding of the nature and extent of any cybersecurity event and its expected impact on the company's reputation and financial standing. o For each cybersecurity event, determine whether the company took appropriate steps to remediate, including timely reporting to impacted stakeholders, protection of policyholders against identity theft and/or corrective actions to address identified weaknesses in IT security.	RP
d. If the state has not passed the NAIC's Insurance Data Security Model Law #668, analysts should consider obtaining and reviewing information regarding any cybersecurity events the company has detected over the past 12 months. i. Gain an understanding of the nature and extent of any cybersecurity event and its	RP

expected impact on the company's reputation and financial standing. ii. For each cybersecurity event, determine whether the company took appropriate steps to remediate, including timely reporting to impacted stakeholders, protection of policyholders against identity theft and/or corrective actions to address identified weaknesses in IT security.	

Additional Analysis and Follow-up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding operational risks associated with:

- Operating performance
- Information technology (IT) systems
- Cybersecurity
- Fraud
- Internal controls
- Disaster recovery
- Transactions and services with affiliates

If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Overall Operating Performance:

Compare the insurer's actual results against projections. Determine any variances and request additional information for those areas where unfavorable variances exist. If material differences exist, request updated projections based on revised assumptions.

Medicare Part D Operating Performance:

If concerns related to the operating performance of Medicare Part D business are identified, obtain and review supporting documents, as noted below:

- Information regarding the contracted benefits, premium and cost sharing with the U.S. Centers for Medicare & Medicaid Services.
- Information on the assumptions for reserves, utilization and benefit costs projected in the development of the contract.

Corporate Governance:

If the CGAD is filed to your state as either the domestic state of a legal entity (not part of a group) or the lead state of a group and if concerns related to the corporate governance practices of the insurer or insurer group are identified:

- Consider reviewing internal resources on file related to the following, and if not on file, request the following information from the insurer:
  - For the board of directors and each committee established by the board of directors request a copy of the charter/policy, the business ethic policy, code of conduct policy, and conflict of interest policy.
  - The most recent conflict of interest statement, or its equivalent, for each member of the board of directors and committees established by the board of directors including an explanation of any conflicts reported.

- Financial expertise or statutory accounting principles expertise of the audit committee.
- Reporting structure of the internal audit function.
- Copy of company's by-laws currently in effect.
- If part of a holding company system, discussion on the level of oversight the parent company maintains over the insurer.
- Discussion of compliance with corporate governance statutes.
- Discussion of compensation policies, bonus/incentive programs, and management performance and assessment programs.
- Discussion of board of directors' and management's responsibilities and authority.

- If your state is not the lead state and the CGAD is filed to the lead state, review the information provided in the GPS or other information provided by the lead state. Contact the lead state with any questions, concerns or follow-ups. Upon receipt of any additional information, the non-lead state should document any material concerns regarding corporate governance that could impact the financial condition (e.g., operations, policyholder surplus or capital position) of the domestic insurer.

Transactions with Affiliates:

If concerns related to the economic substance of transactions with affiliates/related parties are identified, obtain and review supporting documents.

- If the concern relates to the fair value of a transaction with affiliates:
  - Obtain and review an appraisal of the asset transferred.
  - Consider consulting an independent appraiser.
- If the concern involves a management agreement or service contract:
  - Obtain and review the supporting contract and compare against Form D filing previously submitted to the department (if applicable).
  - Determine whether the amounts involved are reasonable approximations of actual costs.
  - Determine whether the actual amounts paid are in agreement with the supporting contact.
  - For any arrangement based on a cost-plus formula or percentage of premiums formula, request justification from the insurer for amounts in excess of the actual costs of providing the service.
  - For those services being performed by/for an affiliate and that are also provided by unrelated third-party vendors (e.g., data processing, actuarial, investment management), contact such vendors or review vendor pricing schedules in order to determine the reasonableness of the intercompany transfer pricing level.
  - Evaluate whether any portion of such fees in substance dividends that should be evaluated in the contact of dividend regulations.
  - Determine if agreements received appropriate regulatory approval in conformity with regulatory requirements.
  - Consider whether additional examination procedures should be recommended to verify/validate information regarding transactions and services with affiliates or to further consider whether the expense allocations continue to be fair and reasonable
  - See additional guidance regarding criteria to be considered in determining whether an agreement with affiliates merits review during an onsite examination at section V.F. Domestic and/or Non-Lead State Analysis – Analyst Reference Guide (Form D - Prior Notice of a Transaction)

- If the concern relates to federal tax recoverables from a parent or affiliate:
- Obtain and review the financial statements of the parent or affiliate and evaluate any collectability risk to the insurer.
- Review the tax-sharing agreement and verify that terms of the tax-sharing agreement are being followed.
- Verify that the amount recoverable from the prior year-end has been paid.

MGA, TPAs and IPAs:

For the more significant MGAs, TPAs, and IPAs, if further concerns exist request the following information from the insurer to evaluate:

- Whether the contracts between the insurer and MGA include minimum required provisions per Section 4 of the NAIC *Managing General Agents Act* (#225) and/or the applicable sections of the insurance code.
- Whether the contracts between the insurer and TPA include minimum required provisions per Sections 2, 4, 6, 7 and 8 of the NAIC *Registration and Regulation of Third-Party Administrator* (#1090) and/or the applicable sections of the insurance code.
- A listing of significant TPAs and IPAs that pre-authorize, or process claims for the insurer, by line of health business (e.g., pharmacy, vision, mental health) and/or provider types (Hospitals, Physicians).
- Whether the TPAs and IPAs utilized by the insurer are properly licensed to process, preauthorize or otherwise administrator claims.
- For the more significant MGAs utilized by the insurer, request and review the following:
  - The most recent independent CPA audit of the MGA. If not available, request the most recent annual report.
  - If, with respect to business produced by the MGA, the MGA provides the insurer with claim reserve and/or claim adjustment expense reserve estimates that are incorporated into the insurer's financial statement, an opinion from an actuary employed or retained by the MGA attesting to the adequacy of such reserves.
  - Documentation supporting the insurer's periodic (at least semi-annual) on-site review of the MGAs underwriting and claims processing operations, as well as its disaster recovery plan.
- Review analyst notes or exam reports for the other companies using the same MGA, TPA or IPA if there is reason to believe problems exist.

If there are concerns regarding the business placed with the insurer by an MGA or TPA, consider determining if other insurers are utilizing the same MGA or TPA and perform the following:

- Compare the contract between the insurer and the MGA or TPA with the contracts between the other insurers and the MGA or TPA to determine whether they are similar (e.g., contain the same commission rates).
- Compare the insurer's claim and claim adjustment expense ratios on the business placed by the MGA or TPA with those of the other insurers utilizing the same MGA or TPA to determine whether the ratios are similar or whether it appears that the insurer may be receiving a disproportionate amount of "bad" business from the MGA or TPA.

For the more significant TPAs or IPAs utilized by the insurer, request and review the following:

- Contracts between the insurer and the TPA or IPA to determine whether the contracts include minimum provisions.

- The most recent independent CPA audit of the TPA or IPA. If not available, request the most recent annual report.
- If, with respect to business produced by the TPA or IPA, the TPA or IPA provides the insurer with claim reserve and/or claim adjustment expense reserve estimates that are incorporated into the insurer's financial statement, an opinion from an actuary employed or retained by the TPA or IPA attesting to the adequacy of such reserves.
- If the TPA or IPA provides paid claims data that is used by the insurer in establishing claim reserves, determine whether the insurer or the actuary providing the insurer's claim reserve certification tested data provided by the TPA or IPA.
- Documentation supporting the insurer's periodic (at least semi-annual) on-site review of the TPAs or IPAs underwriting and claims processing operations.

Risk Transfer Other Than Reinsurance: If concerns exist consider:

- Request information concerning the specific contract provisions of the primary bonuses and withhold arrangements that the insurer is using.
- Request withheld and bonus liability amounts (included in "Accrued medical incentive pool and bonus payments" from Page 3, Column 3, Line 2) for the top five provider groups.
- Contact the qualified actuary who signed the insurer's actuarial opinion to discuss the nature and scope of the review of the provider contracts.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file an ORSA or is part of a group that is required to file an ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any operational risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective operational risks?

Enterprise Risk Management:

- If concerns exist regarding potential for pandemic outbreak:
  - Regulators should consider performing additional procedures if significant risks/concerns are identified in this area.
  - Gain an understanding of and evaluate the company's processes for dealing with a potential pandemic event.
  - Determine whether processes address increased utilization, liquidity needs, ability for employees to work remotely, etc.

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any operational risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective operational risks impacting the insurer?

Example Prospective Risk Considerations		
Risk Components for IPS		***Explanation of Risk Components***
1	Trend of poor operating performance [indicate overall or specific line of business]	Continued trends in overall profitability may indicate ongoing solvency risks.
2	High expense structure	A high expense structure may make it difficult for the insurer to attract new business, compete with other insurers and fulfill its strategic plan.
3	Lack of effective governance/oversight of operations	The lack of an effective governance function to oversee operations may make it difficult for the insurer to fulfill its strategic plan and achieve desired outcomes.
4	Change in operation	A significant change in operations resulting from turnover or change in key board and/or senior management positions may increase operational risk.
5	Lack of asset control	Assets not under the full control of the insurer may not be available to fulfill policyholder obligations.
6	Questionable investment transactions	The insurer's investment performance or risks in its investment portfolio may be masked due to questionable investment activities (e.g., wash sales, window dressing, etc.).
7	Concerns with investment advisors	Heavy reliance on unqualified investment advisors or lack of effective oversight may lead to excessive risk taking and increases in the fraud and investment reporting risks.
8	Significant and complex services and transactions with affiliates	Significant services and transactions with affiliates can alter financial performance and increase risks related to cost sharing, contingent liabilities, unauthorized dividends etc.
9	Significant reliance on MGAs/TPAs	Reliance on MGAs/TPAs to produce premiums, process claims and fulfill other operational functions can increase operational risk significantly if effective oversight practices are not in place.
10	Significant use of risk transfer arrangements	Experience rating, capitation, special payment or bonus withhold arrangements are material
11	Concerns with risk transfer arrangements	Claims experience under experience rating, capitation, special payment or bonus withhold arrangements result in concerns.
12	Lack of preparation for pandemic outbreak	The insurer does not have appropriate policies and practices in place to deal with a potential pandemic outbreak that could significantly impact operations.

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with operational risk. For example, many of the procedures may also be related to pricing/underwriting risk or strategic risks.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Operating Performance

1. Determine whether concerns exist regarding the insurer's Statement of Revenue and Expenses or operating performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Profit margin ratio		>10% or <0%	[Data]	[Data]
b. Change in profit margin ratio from prior year-end		>5% or <-10%	[Data]	[Data]
c. Change in profit margin ratio from prior year-to-date		>5% or <-10%	[Data]	[Data]
d. Combined ratio		>100%	[Data]	[Data]
e. Change in combined ratio from prior year-end		>5% or <-10%	[Data]	[Data]
f. Change in combined ratio from prior year-to-date		>5% or <-10%	[Data]	[Data]
g. Medical Loss Ratio (MLR)	PR/UW*	>85%	[Data]	[Data]
h. Change in MLR from prior year-end	PR/UW*	>5% or <-10%	[Data]	[Data]
i. Change in MLR from prior year-to-date	PR/UW*	>5% or <-10%	[Data]	[Data]
j. Administrative expense ratio		>15%	[Data]	[Data]
k. Change in administrative expense ratio from prior year-end		>3% or <-5%	[Data]	[Data]
l. Change in administrative expense ratio from prior year-to-date		>3% or <-5%	[Data]	[Data]
				Other Risks
m. Based upon the insurer's primary lines of business, do the combined, medical loss, and administrative expense ratios appear reasonable?				
n. Review the five-year trend with the Quarterly Financial Profile Report for the following				PR/UW

measures of operating performance, and note any unusual fluctuations or trends between years for each ratio: • Combined ratio • Medical loss ratios • Administrative expense ratio • Profit margin ratio	
o. Review the components of other income in the Statement of Revenue and Expenses, including write-ins for miscellaneous income, for reasonableness.	
p. Describe any known trends that have had or that the insurer reasonably expects will have a material favorable or unfavorable impact on net revenues or net income. If the insurer knows of events that will cause a material change in the relationship between benefits, losses and expenses, the change in the relationship should be disclosed.	PR/UW
q. If concerns exist regarding operating performance, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. ii. Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations.	PR/UW

Investment Operations

2. Determine whether all securities owned are under the control of the insurer and in the insurer's possession.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Were any of the assets of the insurer loaned, placed under option agreement, or otherwise made available for use by another person (excluding securities under securities lending agreements)? If "yes", are there any concerns regarding these assets? [Quarterly Financial Statement, General Interrogatories, Part 1, #11.1 and #11.2]		=YES	[Data]	[Data]

Exposure to Affiliated / Related Party Transactions

Note: The following procedures for the review of Corporate Structure and Affiliated Transactions should consider any analysis already completed or anticipated to be completed with regard to the Holding Company Analysis performed by the lead state, review of the Form B – Registration Statement and any review of Form D – Material Transactions to avoid duplication of analysis.

3. Determine whether the insurer is a member of a holding company group and whether the corporate structure elevates concerns about affiliated transactions.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Is the insurer part of a holding company system [Quarterly Financial Statement, General Interrogatories, Part 1, #3.1]	ST	=YES	[Data]	[Data]

b. Have there been substantial changes in the organizational chart since the prior quarter end [Quarterly Financial Statement, General Interrogatories, Part 1, #3.2]	ST*	=YES	[Data]	[Data]
				Other Risks
c. If 3.b. is "yes," and the change involved ownership of the insurer or a transaction with an affiliate, did the insurer fail to receive proper regulatory approvals?				ST
d. Are there any indications the corporate structure may include a holding company whose primary asset is the stock of the insurance company?				ST
e. Does the insurer have an agency or brokerage subsidiary?				LQ

4. Identify whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Have there been changes to any management agreement, including third-party administrators (TPAs) and managing general agents (MGAs), in terms of the agreement or principals involved [Quarterly Financial Statement, General Interrogatories, Part 1, #5]		=YES	[Data]	[Data]
				Other Risks
b. Review Quarterly Financial Statement, Schedule A – Part 2 and Part 3 and Schedule BA – Part 2 and Part 3: i. Did any such acquisitions or disposition involve an affiliate or other related party? ii. Is the amount of the transaction greater than 5% of surplus? iii. If the answers to 4.b.i and 4.b.ii are "yes," is there any reason to believe that the acquisition was recorded on a basis other than fair value?				MK

Provider Liabilities

5. Determine whether the insurer's use of bonus and withhold arrangements are significant.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Liability for accrued medical incentive pool and bonus payments to annualized total hospital and medical expenses		>5%	[Data]	[Data]
b. Incentive pool and withhold adjustments to total hospital and medical expense		>5%	[Data]	[Data]

Operational Risk Assessment

Operational Risk: The risk of financial loss resulting from inadequate or failed internal processes, personnel and systems, as well as unforeseen external events.

The objective of Operational Risk Assessment analysis is to focus on risks inherent in the company's daily operations. As such, although operational risk encompasses overall profitability, other risks in this area may not be identified through traditional financial statement review. Therefore, analysts may require additional investigation and information requests to understand and assess the potential impact of these risks. For example, analysts may need additional information to assess the insurer's exposure to cybersecurity risks. In addition, information presented in the Enterprise Risk Report (Form F) and Own Risk and Solvency Assessment (ORSA) Summary Report (if available), which are reviewed and risks documented by the lead state, may assist analysts in identifying and assessing the insurer's exposure to operational risks.

The following discussion of procedures provides suggested data, benchmarks and procedures analysts can consider in his/her review. Analysts' risk-focused assessment of operational risk should take into consideration the following areas (but not be limited to):

- Statement of income and operating performance
- Corporate governance practices
- Changes in officers and directors
- Investment operations (purchases and sales)
- Use of investment advisors
- Changes in corporate structure
- Related party transactions
- Use of managing general agents (MGAs) and third-party administrators (TPAs)
- Separate accounts (Life only)
- Risk transfer arrangements other than reinsurance (Health only)
- Provider liabilities (Health only)

Discussion of Annual Procedures

Using the Repository

The operational risk repository is a list of possible quantitative and qualitative procedures, including specific data elements, benchmarks and procedures from which analysts may select to use in their review of operational risk. Analysts are not expected to respond to all procedures, data or benchmark results listed in the repository. Rather, analysts and supervisors should use their expertise, knowledge of the insurer and professional judgement to tailor the analysis to address the specific risks of the insurer and document completion of the analysis. The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

In using procedures in the repository, analysts should review the results in conjunction with the Supervisory Plan and Insurer Profile Summary and the prior period analysis. Communication and/or coordination with other internal departments are a critical step in the overall risk assessment process and are a crucial consideration in the review of certain procedures in the repository.

Analysts should also consider the insurer's corporate governance which includes the assessment of the risk environment facing the insurer in order to identify current or prospective solvency risks, oversight provided by the board of directors and the effectiveness of management, including the code of conduct established by the board.

The placement of the following data and procedures in the operational risk repository is based on "best fit." Analysts should use their professional judgement in categorizing risks when documenting results of the analysis. Key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with operational risk.

Analysis Documentation: Results of operational risk analysis should be documented in Section III: Risk Assessment of the insurer. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the repository document.

Quantitative and Qualitative Data and Procedures

Operating Performance

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
1	***1***	***1***

PROPERTY/CASUALTY (P/C)

EXPLANATION: The procedure assists analysts in determining whether concerns exist regarding the insurer's Statement of Income or operating performance. In evaluating the insurer's operating performance, analysts should review the combined ratio to measure underwriting profitability in conjunction with the two-year overall operating ratio (Insurance Regulatory Information System (IRIS) ratio #5). Another measure of the insurer's operating performance is the return on surplus, which considers net income and unrealized gains (losses) as a percentage of two-year average surplus. In addition, analystare encouraged to review data and metrics provided and presented in the Annual Financial Profile Report over a five-year period to identify trends and areas of concern. Finally, analysts are encouraged to compare results in certain areas against industry averages to identify outliers and areas of concern.

ADDITIONAL REVIEW CONSIDERATIONS:

- Review the Annual Statement Blank, Insurance Expense Exhibit (IEE), to identify any expense allocation concerns or unusual operating results by line of business. The (IEE) is a supplemental P/C schedule filed by April 1. The IEE includes an interrogatories section and three major parts. Part I shows, for each expense line item included in the Annual Financial Statement, the allocation to five expense groups: 1) loss adjustment expense; 2) acquisition, field supervision, and collection expenses; 3) general expenses; 4) taxes, licenses and fees; and 5) investment expenses. Part II shows major categories of expenses and the allocation to each line of business. Part III is similar to Part II except that premiums are reflected on a direct basis. While the IEE is not a primary source of information for solvency analysis, it does provide meaningful information for evaluating an insurer's operations and overall profitability. In addition, the IEE may be used in the rate-making process or for evaluating an insurer's performance by line of business.
- Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. This procedure can assist analysst in understanding the cause of poor operating performance and assess whether it is likely to continue going forward.
- Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations. This procedure can assist analysts in evaluating the insurer's plans and mitigation strategies for addressing the poor operating performance.

- In conjunction with review of reinsurance program(s) (within Strategic Risk), consider the impact of reinsurance program(s) on the insurer's operating performance. This could include assessing whether there are any risk limiting features or insufficient ceding commission rates that could be a significant additional drain on operating earnings when insurers utilize reinsurance for RBC or premium leverage considerations.

LIFE/ ACCIDENT &HEALTH/FRATERNAL

EXPLANATION: The procedure assists analysts in determining whether concerns exist regarding the insurer's Summary of Operations or operating performance. One of the most common measures of overall profitability and operating performance for an A&H insurer is the IRIS ratio of net income to total income (including realized capital gains and losses). Six principal factors affect the insurer's net gain, as reflected in this ratio: 1) mortality and morbidity experience; 2) adequacy of investment income; 3) commissions and expenses; 4) reinsurance transactions; 5) the relationship of statutory reserve requirements to prevailing interest and mortality rates; and 6) realized capital gains and losses. This ratio is an indicator of the insurer's overall profitability and operating performance without consideration of realized gains and losses. Another important measure of the insurer's operating performance is the return on capital and surplus, which considers net income as a percentage of capital and surplus. All of these metrics are intended to assist analysts in determining whether the operating performance and profitability of the insurer may represent a current or prospective operating risk to be evaluated and assessed.

Additional steps analysts may include reviewing the summary of the individual income and expense items for the past five years for unusual fluctuations or trends between years. In addition, analysts might compare the ratio of return on capital and surplus to industry average results to determine any significant deviation from the industry average. By reviewing the Analysis of Operations by Lines of Business in the Annual Financial Statement, analysts could determine which lines of business had significant surrender activity during the year, which lines of business were profitable, and which lines of business generated a loss, and whether commissions and expenses on any lines of business appear excessive, based on the volume of premiums and deposit-type funds. If the ratio of commissions and expenses to premiums appears high or if the ratio of investment yield appears unusual, analysts should consider: 1) reviewing these ratio results for the past five years for unusual fluctuations or trends between years; and 2) comparing the ratio results to industry averages to determine any significant deviations from the industry averages. If write-ins for miscellaneous income or deductions are significant, analysts should consider reviewing the individual components of these amounts for reasonableness.

ADDITIONAL REVIEW CONSIDERATIONS:

- Review Exhibit 2 to identify concerns or unusual items to identify any expense allocation concerns or unusual operating results by line of business. This procedure may assist analysts in identifying areas for follow-up and investigation with the insurer.
- Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. This procedure can assist analysts in further understanding the cause of poor operating performance and assess whether it is likely to continue going forward.
- Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations. This procedure can assist analysts in evaluating the insurer's plans and mitigation strategies for addressing the poor operating performance.

HEALTH

EXPLANATION: The procedure assists analysts in determining whether concerns exist regarding the insurer's Statement of Revenue and Expenses or operating performance. Each of the ratios provided in this procedure is designed to provide analysts with an overall assessment of the health entity's profitability. The profit margins in the health insurance industry have traditionally been fairly low. As a result, the threshold for this ratio is established at less than 0% or greater than 10%. A profit margin ratio less than 0% indicates the health entity has experienced a net loss and operating problems may exist. With continued losses, the health entity's capital

cushion to support the business is likely to be diminished. Conversely, a profit margin greater than 10% is unusual in the health insurance industry and should be investigated.

Another ratio that provides an assessment of a health entity's profitability is the combined ratio. The threshold for the combined ratio is set at greater than 100%. A health entity with a combined ratio of 100% should have investment income for profit. The combined ratio consists of the medical loss and the administrative expense ratios. The administrative expense ratio includes administrative expenses as well as claims adjustment expenses. Claims adjustment expenses are the costs incurred relating to reported and unreported claims and are considered to be administrative in nature. The threshold for the medical loss ratio is set at greater than 85% and the administrative expense ratio is set at greater than 15%. These thresholds are based upon a typical relationship between the combined, medical loss, and administrative expense ratios. Some health entities may have a higher medical loss ratio but a lower administrative expense ratio. Some view this relationship as positive because more benefits are provided to the consumer. Other health entities may have a lower medical loss ratio and a higher administrative expense ratio. In some cases, this relationship may be positive because sometimes this is indicative of a health entity with lower operating leverage. Also, the medical loss ratio measures the direct cost of business as related to premiums earned and should have a consistent trend, while the administrative expense ratio which measures indirect expenses as related to premiums earned should decrease as the company becomes more efficient over a period of time. Typically, premium increases are driven by claim cost trends that exceed general inflation, which drives administrative costs. On the other hand, in situations where general inflation is less than medical cost trends, administrative cost ratios may actually increase since administrative trends will be higher than premium trends. As previously mentioned, analysts should also be familiar with the health entity's primary lines of business in order to evaluate their operating performance. This includes lines with business risk (ASO/ASC) but no underwriting risk, which report fees as a reduction of expenses, instead of as premium.

In addition to providing information on the current year's operating performance, this procedure also provides information on changes from the prior year. As previously mentioned an increase in a health entity's medical loss ratio may indicate a loss of control in the health entity's underwriting or pricing processes. An increase in the administrative expense ratio may indicate escalating costs or an expense structure that no longer supports the health entity's premium volume. Changes may also be the result of a change in the health entity's business mix. As previously mentioned, a health entity's entrance into new lines of business or sales regions might result in financial problems if the health entity does not have expertise in these new lines of business or regions. All of these items should be further investigated to further assess the risk to the health entity.

All of these metrics are intended to assist analysts in determining whether the operating performance and profitability of the insurer may represent a current or prospective operating risk to be evaluated and assessed. In addition, analysts are encouraged to review data and metrics provided and presented in the Annual Financial Profile Report over a five-year period to identify trends and areas of concern. Analysts are also encouraged to compare results in certain areas against industry averages to identify outliers and areas of concern. Finally, analysts can also review the Analysis of Operations by Line of Business and the Statement of Revenues and Expenses line item aggregate write-ins to understand results, recognize trends and identify items for follow-up with the insurer.

ADDITIONAL REVIEW CONSIDERATIONS:

- Review the Supplemental Health Care Exhibit (SHCE) to identify concerns or unusual items for further analysis. This procedure can help analysts determine what specific areas of operations or lines of business may be the source of poor operating performance.
- Request and review additional information from the insurer on the causes of poor operating performance or unusual variances in expenses. This procedure can assist analysts in understanding the cause of poor operating performance and assess whether it is likely to continue going forward.

- Request, review and evaluate information from the insurer regarding its plans to address poorly performing operations. This procedure can assist analysts in evaluating the insurer's plans and mitigation strategies for addressing the poor operating performance.

Corporate Governance

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
2, 3	***2, 3***	***2, 3***

PROCEDURE #2 assists analysts in determining whether concerns exist regarding the insurer's corporate governance practices. Analysts are asked to review the Corporate Governance Annual Disclosure (CGAD) filing (if filed on an insurance entity basis) to identify and assess the governance practices in place at the insurer. If the CGAD is filed on a group basis, the anlayst should rely on the information provided in the GPS or provided by the lead state if material risks are only relevant to specific insurance entities. In addition, analysts is encouraged to review the results of the corporate governance assessment conducted during the last on-site examination to identify issues or concerns to be considered or addressed. If concerns are identified, analysts may elect to request a copy of recent board minutes to review and/or contact the insurer regarding actions taken to address the concerns identified.

PROCEDURE #3 assists analysts in determining whether there are significant changes in staffing or key positions at the insurer that could result in operational risk. Analyst are encouraged to review biographical affidavits of new officers and directors of the insurer to identify and assess risks relating to their suitability. In addition, the procedure encourages meeting with the insurer to discuss significant turnover in key positions and its potential to result in operational risk. Finally, the procedure encourages consideration of whether any other changes in operations or business practices have the potential to result in operational risk. Changes in officers/directors/management brought on by a generational change in ownership/control of the insurer or insurance group could be a source of operational risk as it may be indicative of changes in corporate culture and philosophy. Examples of items to be considered include changes in staffing levels, consolidation of operations with affiliates, outsourcing of functions or placing lines of business into runoff. Any of these actions have the potential to result in operational risk and should be evaluated for their potential impact on the current and prospective solvency of the insurer.

PROCEDURE #3D is intended to assist analysts in evaluating the insurer's human capital and succession planning. Human capital can be defined as the collective skills, knowledge, or other intangible assets of employees and directors that can be used to create economic value for an organization. Insurer's face a number of wide-ranging threats to the quality of their human capital including aging directors/executives, over-reliance on key individuals in an increasingly competitive employment market and the lack of a workforce possessing insurance knowledge and skills. Insurers may be able to mitigate their risk in this area by implementing effective succession planning, recognizing and rewarding outstanding performance, and developing effective training, coaching and performance evaluation processes.

Investment Operations

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
4, 5	***4, 5***	***4, 5***

PROCEDURE #4 assists analysts in determining whether concerns exist related to investment operations, including purchases and sales of securities and control of assets. Most states require investment transactions to be approved by the health entity's board of directors or a subordinate committee. The Annual Financial Statement, General Interrogatories, Part 1, #16 indicates whether this has been done. The Annual Financial Statement, General Interrogatories, Part 1, #24.01 and #24.02 indicate whether the stocks, bonds or other securities, of which the health entity has exclusive control (defined by the NAIC as the exclusive right by the

health entity to dispose of an investment at will, without the necessity of making a substitution therefore) are in the actual possession of the health entity. If the health entity owns securities, which are not in its possession, the securities should be held by a custodian under a properly executed custodial agreement in order to be considered net admitted assets. The Annual Financial Statement, General Interrogatories, Part 1, #25.1 and #25.2 indicate whether any of the stocks, bonds or other assets of the health entity are not exclusively under its control. Assets that are not under the health entity's control might not meet the state's requirements to be considered net admitted assets.

Additional steps may be performed if there are concerns regarding investment approval or control and possession. If there are concerns regarding investment approval, analysts should consider requesting a copy of the health entity's formal adopted investment plan to determine who is authorized to purchase and sell investments and what approvals are required for investment transactions. If there are concerns regarding investments that are held by someone other than the health entity, analysts should consider reviewing the Annual Financial Statement, General Interrogatories, Part 1, #24 in more detail to determine the reason the securities are not in the health entity's possession and who holds the securities in order to evaluate whether they qualify as net admitted assets of the health entity under the state insurance laws or whether there are concerns regarding the health entity's ability to have access to the securities when needed. If there are concerns regarding investments that are not under the health entity's exclusive control, analysts should consider reviewing the Annual Financial Statement, General Interrogatories, Part 1, #25 in more detail to determine the reason the assets are not under the health entity's exclusive control (e.g., loaned to others, subject to repurchase or reverse repurchase agreements, pledged as collateral, placed under option agreements) and who holds the assets in order to evaluate whether they qualify as net admitted assets for the health entity under the state insurance laws or whether there are other concerns.

PROCEDURE #5 assists analysts in determining whether any concerns exist regarding third-party investment advisors and associated contractual arrangements. As investments and investment strategies grow in complexity, insurers may consider the use of unaffiliated third-party investment advisers to manage their investment strategy. Investment advisers may operate independently or as part of an investment company. Investment advisers and companies are subject to regulation by the U.S. Securities and Exchange Commission (SEC) and/or by the states in which they operate, generally based on the size of their business. In certain situations insurers may use a broker-dealer for investment advice. Broker dealers are subject to regulation by the Financial Industry Regulatory Authority (FINRA). Regardless, most broker dealers and investment advisers will register with the SEC and annually update a Form ADV-Uniform Application for Investment Adviser Registration and Report Form by Exempt Reporting Advisers which provides extensive information about the nature of the organization's operations. To locate these forms, analysts can go to *www.adviserinfo.sec.gov* and perform a search based on the company name.

Key Information provided on a Form ADV includes:

a. Regulatory agencies and states in which the adviser/broker is registered

b. Information about the advisory business including size of operation and types of customers (Item 5)

c. Information about whether the company provides custodial services (Item 9)

d. Information about disciplinary action and/or criminal records (Item 11)

e. A report of the independent public accountant verifying compliance if the investment advisor also acts as custodian

It is important to note that the information provided on Form ADV is self-reported and is subject to limited regulatory oversight. However, the information may be valuable to analysts in assessing the suitability and capability of investment advisers providing advisory services to insurers.

Analysts should consider any significant risks identified in the most recent risk-focused examination and whether any follow-up procedures were recommended by the examiner. The examiner may have performed steps to

determine the following: 1) whether the investment adviser is suitable for the role (including whether he/she registered and in good standing with the SEC and/or state securities regulators); 2) whether the investment advisory agreements contain appropriate provisions; 3) whether the adviser is acting in accordance with the agreement; and 4) whether management/board oversight of the investment adviser is sufficient for the relationships in place.

Analysts should determine if changes have occurred in the insurer's use of investment advisers that may prospectively impact the insurer's investment strategy and overall management of the investment portfolio. If changes have occurred, analysts may consider asking the insurer for an explanation for the change in investment advisers and obtain a copy of the new adviser agreement to gain an understanding of the provisions including the adviser's authority, specific reference to compliance with the insurer's investment strategy and/or policy statements, as well as state investment laws; conflicts of interest; fiduciary responsibilities; fees; and the insurer's review of the adviser's performance. (Refer to the *Financial Condition Examiners Handbook* for further guidance.)

Analysts should determine if the investment adviser is in good standing with the SEC. The SEC does not officially use the term "good standing"; however, for this analysis, the term is used to mean a firm that is registered as an investment adviser with the SEC and does not report disciplinary actions or criminal records in Item 11 of the form ADV.

Investments Involving Related Parties

Property/Casualty #	***Life/A&H/Fraternal #***	***Health #***
5	***5***	***5***

This procedure assists analysts in determining related party exposure in the investment portfolio and assessing any related market risk.

Related parties are entities that have common interests as a result of ownership, control, affiliation or by contract as definited in *SSAP No. 25—Affiliates and Other Related Parties* (SSAP No. 25). Refer to the *Insurance Holding Company System Model Act* (Model #440) and SSAP No. 25 for a broader definition of "affiliate," "related party" and "control".

Related party transactions are subject to abuse because reporting entities may be induced to enter transactions that may not reflect economic realities or may not be fair and reasonable to the reporting entity or its policyholders. As such, related party transactions require specialized accounting rules and increased regulatory scrutiny.

The anlayst should utilize the tools available in iSite+ to identify if the insurer has a material exposure to investments involving related parties, either on an asset category basis or in aggregate, and by the related party designation noted below. If a material exposure exists, further assessment of the [credit, market, liquidity] risk may be warranted. For example, what is the NAIC designation of investments involving related parties? Analysts may also consider the extent to which related parties are involved in securitizing or originating business for the insurer, and what differences may exist in how investments involving related parties are valued. If the role of the related party is that of a third-party advisor, factors to consider may include for example, the expertise of the related party advisor, any potential conflicts of interest, and if related parties are originating investments only for the insurer or also to the public, the latter being subject to SEC requirements. The analyst may consider utilizing suggested procedures in the "Additional Procedures" section of the repository on third-party advisors, if applicable.

Within the Annual Financial Statement investment Schedules B, BA, D, DA, DB, DL, and E (Part 2), all investments involving related parties must incude disclosure to ensure full transparency. This disclosure is in the column "Investments Involving Related Parites". It designates investments by the following roles:

1. Direct loan or direct investment (excluding securitizations) in a related party, for which the related party represents a direct credit exposure.
2. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies involving a relationship with a related party as sponsor, originator, manager, servicer, or other similar influential role and for which 50% or more of the underlying collateral represents investments in or direct credit exposure to related parties.
3. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies involving a relationship with a related party as sponsor, originator, manager, servicer or other similar influential role and for which less than 50% (including 0%) of the underlying collateral represents investments in or direct credit exposure to related parties.
4. Securitization or similar investment vehicles such as mutual funds, limited partnerships and limited liability companies in which the structure reflects an in-substance related party transaction but does not involve a relationship with a related party as sponsor, originator, manager, servicer or other similar influential role.
5. The investment is identified as related party, but the role of the related party represents a different arrangement than the options provided in choices 1-4.
6. The investment does not involve a related party.

Exposure to Transactions with Affiliates

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
6, 7, 8	***6, 7, 8***	***6, 7, 8***

PROCEDURE #6 assists analysts in determining whether any concerns exist regarding changes in the insurer's corporate structure. Significant changes in corporate structure may materially impact the entity's future financial condition and generally require prior regulatory approval. Analysts should closely analyze changes in corporate structure in order to understand the motivation for the change. By understanding the corporate structure in which the insurer operates, analysts may be able to foresee future problems and take appropriate action. For example, a common corporate structure analysts may encounter involves a holding company whose only significant asset is the stock of the insurance entity. The holding company may have financed the acquisition of the insurer through bank financing or other debt where the debt service by the holding company is completely dependent upon dividends paid by the insurer. This type of corporate structure warrants close attention by analysts to ensure that dividends are valid and in compliance with your state's applicable dividend restrictions, and that any other payments by the insurer to the holding company are legitimate, rather than dividends in disguise. Analysts should also be alert to a corporate structure that includes affiliated brokers or intermediaries that may be recording unusual or significant levels of commissions and fees. When a corporate structure is involved that includes multiple tiers of affiliates where significant levels of surplus are comprised of investments in affiliates, analysts should focus on the level of surplus that exists on a consolidated basis.

Additional steps may be performed if the insurer's corporate structure elevates concerns about transactions with affiliates. The primary objective is to understand the financial position of the parent company. By understanding the financial commitments of the parent, analysts will be able to better understand the parent's motivation for entering into transactions with the insurer or other affiliates. Financial statements of affiliates may reveal unauthorized transactions in progress.

PROCEDURE #7 assists analysst in determining whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines. Several types of transactions with affiliates are reported in the Annual Financial Statement, Schedule Y – Part 2, and explanatory comments are provided in the Annual Financial Statement, Notes to Financial Statements, #10. In addition, information is made available in Note #13, as well as in holding company filings (Form B and Form D) that are received from insurance holding company

systems throughout the year. Analysts should refer to all of these sources of information in order to develop an understanding and assessment of the underlying transactions with affiliates.

The following briefly describes the key concerns to analysts for several of the major transactions with affiliates. For shareholder dividends, the major concern relates to whether the level of dividends is within the regulatory guidelines and whether the dividends should be considered extraordinary, and therefore requires prior regulatory approval. For capital contributions from the insurer to another affiliate, analysts should determine that such contributions do not substantially impact the financial condition of the insurer. For non-cash capital contributions to the insurer, analysts should determine that the infusion is recorded at fair value so as to not arbitrarily inflate surplus. In the case of purchases, sales or exchanges of loans, securities, real estate, mortgage loans, or other investments, the concern to analysts is primarily one of valuation. These types of transfers should be at arm's length and recorded at fair value.

Analysts should also be alert to possible abuses regarding the transfer of assets between property/casualty and life/health affiliates merely to impact the RBC calculation of the affiliates. For management agreements and service contracts, the main concerns to analysts relate to the type of service being performed and the reasonableness of the cost. This is a common area for abuse when parent companies desire to withdraw funds from the insurer but do not want to or would not be permitted to classify it as a shareholder dividend. Analysts should understand why the parties were motivated to enter into such contracts and particularly, the benefit to the insurer. For those services provided by an affiliate where a market already exists (such as data processing, actuarial, or investment management), an effective way for analysts to determine whether an arm's length transaction exists is to contact one of the vendors and request a proposal or fee estimate for a similar service.

In understanding and evaluating these transactions, analysts should identify any discrepancies in reporting across the various information sources. In addition, analysts should verify that all regulatory approvals were received and that the transactions recorded in the Annual Financial Statement reflect the transactions as approved.

PROCEDURE #8 assists analysts in determining whether other transactions with affiliates are legitimate and properly accounted for. Analysts' primary objective in this area is to understand the substance of the transactions and to determine whether the transactions are economic-based. Analysts should review the extent of transactions with officers and directors to ensure that the transactions are at arm's length and are not detrimental to the financial condition of the insurer. Analysts should closely monitor other transactions with affiliates to ensure that the insurer is not exposed to significant collectability risk. For example, if the insurer is included in a consolidated federal income tax return and a significant asset for federal income tax recoverable is recorded on the financial statements of the insurer, analysts should closely review the financial statements of the parent to determine the parent's ability to repay the receivable. Structured settlements acquired from an affiliated life insurance company may also represent a collectability risk to the insurer. When the amounts of structured settlements are significant, analysts should review and understand the financial statements of the life insurance affiliate.

MGAs and TPAs

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
9	*9*	*9*

PROCEDURE #9 assists analysts in determining whether concerns exist due to a significant amount of the insurer's direct premiums being written through MGAs and TPAs. While the amount of direct premiums written by MGAs and TPAs is not necessarily an indication of a problem or concern, this procedure provides an indication to analysts of the insurer's exposure to potential abuse by MGAs and TPAs. MGAs and TPAs who had been delegated significant authority without insurer oversight have played a major role in the insolvency of several large insurers.

Analysts may perform additional steps if there are concerns regarding the insurer's use of MGAs and TPAs. Analysts should consider reviewing the information in the Annual Financial Statement, Notes to Financial Statements, Note #19 to determine which MGAs and TPAs are being utilized (and whether any of the MGAs or TPAs are affiliated with the insurer), the types and amount of direct premium written by each, and the types of authority granted to each by the insurer.

For the more significant MGAs and TPAs, analysts should consider requesting information from the insurer to determine whether the business produced by the MGA or TPA is ceded to a particular reinsurer and, if so, whether the MGA or TPA arranged for that reinsurance. If the MGA or TPA arranged for the reinsurance, analysts might consider determining whether the MGA or TPA is affiliated with the reinsurer. In addition, analysts should consider reviewing the reinsurance agreements to determine whether the terms are reasonable. For the more significant MGAs and TPAs, analysts should also consider requesting information from the insurer regarding commission rates and any other amounts paid to the MGAs and TPAs, reviewing that information for reasonableness and comparing the commission rates to those paid by the insurer to other agents. Any arrangement involving sliding-scale commissions based on loss ratios or a sharing of interim profits on business, where the MGA or TPA establishes claim liabilities or controls claim payments, should be reviewed closely to determine if there is potential for abuse by the MGA or TPA. In addition, analysts might also consider determining whether the MGAs utilized by the insurer are properly licensed and whether the TPAs utilized by the insurer hold valid Certificates of Authority.

The more authority that is delegated to an MGA or TPA, the more important it is for the insurer to provide active, ongoing oversight into the MGA's or TPA's operations. To evaluate the insurer's oversight of significant MGAs and TPAs, analysts should consider requesting from the insurer copies of its contracts with the MGAs and TPAs to determine compliance with the minimum contract provisions per the MGA Act and the TPA Guideline and/or the applicable provisions of the insurance code. Analysts should also consider requesting from the insurer copies of financial statements for the significant MGAs and TPAs and documentation supporting the insurer's periodic (at least semi-annual) review of the underwriting and claims processing systems. If there are concerns regarding the business placed with the insurer by an MGA or TPA, analysts should consider determining if other insurers are utilizing the same MGA or TPA and comparing the contract between the insurer and the MGA or TPA with the contracts between the other insurers and the MGA or TPA to determine whether they are similar (i.e., contain the same commission rates).

Separate Accounts

Property & Casualty #	*Life/A&H/Fraternal #*	*Health #*
N/A	***10***	***N/A***

PROCEURE #10 assists analysts in determining whether concerns exist regarding the appropriateness of business being placed within separate accounts or regarding transactions between the general account and the separate account. Criteria for qualifying for separate account classification under GAAP are outlined in *Statement of Statutory Accounting Principles (*SSAP*) No. 56—Separate Accounts*. A separate account product must meet four conditions as defined in Separate Accounts Annual Financial Statement, General Interrogatories, #8.2 in order to receive separate account classification: 1) legal recognition; 2) legal insulation; 3) investment directive; and 4) investment performance. If an insurer reports any products that do not meet these criteria, analysts should review the conditions listed in Separate Accounts Annual Financial Statement, General Interrogatories, #8.3 and further review the details of the separate account disclosures, as this is an indication the insurer includes products in its separate account that are not true separate account products.

Some insurers may include non-variable (non-unit linked) products in the separate account. Separate Accounts Annual Financial Statement, General Interrogatories, #8.3 may assist analysts in determining if such products are included. Analysts should gain an understanding of the reasons why non-variable products are included in the separate account. Analysts may need to contact the policy form unit within the insurance department to obtain information about the policy form application and approval to help gain such understanding of the products

included in the separate account. Analysts may need to contact the insurer to request additional information about the policies included in the separate account. Considerations may include: What investment guidelines apply to these products? Outside of product guarantees, does the general account have any responsibilities for funding the reserve liabilities?

If the insurer filed a non-insulated separate accounts statement, *Procedure #10.b.* assists analysts in gaining an understanding of the insurer's non-insulated products.

All separate accounts activity reaches the Separate Accounts Annual Financial Statement through the General Account Annual Financial Statement. Premiums are recorded in the general account and then "transferred to" the Separate Accounts Annual Financial Statement through the item Net Transfers to or from Separate Accounts (referred to as "above the line" activity). Once the premiums have been moved to the separate accounts, all direct investment activity and reserve changes are recorded on the Separate Accounts Annual Financial Statement. Seed money is "contributed to or withdrawn from" the Separate Accounts Annual Financial Statement through the item Surplus (contributed to) withdrawn from Separate Accounts during the period (referred to as "below the line" activity).

Additional procedures assist analysts in determining that the accounting for activity between the separate accounts and the general accounts is proper. The primary concern here is to properly classify such activity as to "above the line" (i.e., recorded on the Net Transfers to or (from) Separate Accounts line on the general account) or "below the line" activity (i.e., recorded on the Change in Surplus in Separate Accounts Statement on the general account). An additional area analysts should investigate in this regard is the level of investment management fees charged to the separate accounts. The SEC has set maximums for the level of such fees. Common industry practice is for this fee to range between 125 and 140 basis points on separate accounts assets.

Risk Transfer Arrangements Other Than Reinsurance

Property/Casualty #	***Life/A&H/Fraternal #***	***Health #***
N/A	***N/A***	***10, 11, 12***

PROCEDURE #10 assists analysts in determining whether experience rating arrangements are significant, reasonable and paid on a timely basis. The materiality of experience rated arrangements is determined by comparing the amount due from groups (from write-in for other than invested assets) and the amount due to groups (from reserve for rate credits or experience rating refunds on the Annual Financial Statement, Underwriting and Investment Exhibit, Part 2D, Line 4) to total hospital and medical benefits paid. If experience rating arrangements are significant, analysts should determine whether amounts are reasonable and settled on a timely basis by comparing to prior year balances and inquiring of the company, if necessary.

PROCEDURE #11 assists analysts in determining whether capitation payments with providers are material and whether risks exist with providers' or intermediaries' ability to meet capitation agreement obligations. The significance of capitation payments is determined by comparing their total to hospital and medical benefits paid. Also, the percent of capitation being paid to intermediaries or "other providers" is reviewed to determine if there is a disproportionate amount being paid to these entities and the proportion of bonuses and withhold payments is reviewed for appropriateness. If capitation payments are material, analysts are asked to review whether provider agreements have been filed with the department and if the arrangements are properly reflected in RBC reporting. If an intermediary (TPA or Individual Practice Associations (IPA)) is involved in capitation payments, analysts are encouraged to request audited financial statements for the intermediary (to verify financial position) and to consider obtaining and reviewing an actuarial opinion on the reserves established for claims incurred and outstanding on business produced by the intermediary.

PROCEDURE #12 assists analysts in determining whether special payment arrangements (i.e., bonuses and withholds) with providers are material, reasonable and reported correctly. The significance of special payment arrangements is determined by comparing their total to hospital and medical benefits paid. Also, the percent of

bonus/withhold to intermediaries or "other providers" is reviewed to determine if there is a disproportionate amount being paid to these entities and/or if the level paid is appropriate.

12a and 12b assist analysts in determining if the health entity's use of bonus and withhold arrangements are significant. Since health entities use these arrangements to different degrees, it is important to determine the significance of their use by the health entity under review. These procedures determine if the amount of bonus and withhold liabilities and expenses compared to the total hospital and medical expense is significant.

12d and 12e assist analysts in determining the significance of the liabilities outstanding for bonuses and withholds. While these procedures focus on materiality, there are very few tests that can be made to verify that provider liabilities are appropriate. Provider contracts often change dramatically from year to year, limiting the value of year-over-year comparisons. These liabilities build up over the contract period and then are paid, decreasing the liability to zero. Contract periods for different providers may cover different periods so that wide fluctuations can be seen from period to period. Therefore, analysts are encouraged to perform other qualitative procedures to evaluate provider liabilities such as reviewing the Statement of Actuarial Opinion, reviewing provisions in provider contracts and obtaining the detailed calculation supporting the liabilities.

12r assists analysts in verifying that information that is reported in the financial statement for the health entity is consistent with what is reported in the health entity's RBC filing. Since withholds and bonuses are reported both in the Annual Financial Statement and in the RBC filing, they should not appear in one and not the other. This procedure also assists analysts in determining if a significant amount of the prior year's withholds and bonuses available were not paid during that reporting year. Withholds and Bonuses Available represent the total amount that could have been paid in withholds and bonuses. (This information is provided in the RBC filing on page XR016.) The amount paid compared to the amount available provides analysts with a rough indication of how well provider groups were able to meet their contract goals. Further analysis may be necessary in order to determine whether the provider group is able to meet its financial or operational goals in its contracts with the health entity, currently and going forward. Provider groups not being able to meet their financial and operational goals and thus not earning all of their withholds in one year can result in higher claims costs than anticipated and/or less favorable contracts in the next contracting cycle.

Additional procedures may be performed if there are concerns regarding the amount of prior year withholds and if bonuses available not paid were significant. If the level of these arrangements is significant, it is important to determine if any actual risk is being transferred. Potentially, these arrangements could be used to create the appearance of capitated risk transfer when in fact the bonus and withholds result in no actual risk transfer. Since these arrangements reduce RBC, capital requirements could be understated. Some health entities have many types of contracts with providers, but it is possible to request that a health entity provide the primary contracts with its largest contracting providers.

It is also important to determine if these arrangements are concentrated within a few providers. If there is a concentration, any financial weakness of the providers could result in them not being able to fulfill their part of the risk transfer contract. Standards published by the Actuarial Standards Board of the American Academy of Actuaries (Actuarial Standard of Practice 16) requires that the actuarial opinion disclose the actuary's knowledge of the health entity's capitated risk contracts indicating if the actuary evaluated the financial position of the contracting providers. The actuarial opinion should be reviewed to determine if the capitated risk contracts, as well as the financial strength of the contracting providers were or were not reviewed by the opining actuary. It may be necessary to contact the qualified actuary to discuss his or her review and potential concerns.

It is possible that the contracting provider is actually an affiliate of the health entity. This can be the case where hospitals own HMOs that then contract back to the parent hospital. These arrangements should be understood for potential impact of the financial weakness of any of the participants.

Cybersecurity

Property/Casualty #	*Life/A&H/Fraternal #*	*Health #*
10	***11***	***13***

The procedure assists analysts in determining whether concerns exist regarding the insurer's exposure to and mitigation of cybersecurity risk. Cybersecurity is defined as a set of technologies and processes that protect a company's information system as well as information stored on the system. An insurer's exposure to cybersecurity risk may be influenced by its size and complexity, the nature and scope of its activities, and the sensitivity of non-public information used by the insurer or in the insurer's possession, custody or control. These potential cyber risks may directly lead to financial loss and/or reputational risk. As cybersecurity events become more prevalent, there are additional pressures for insurers to enhance their information security program to protect personal and sensitive information. Therefore, the NAIC adopted the *Insurance Data Security Model Law* (#668) in October 2017 to outline requirements for insurers in addressing cybersecurity risks. States are expected to adopt the model in the coming years, which should result in more consistency and authority for state insurance regulators in this area. However, in the meantime, analysts may consider discussing, reviewing and assessing risks in this area on a more frequent basis than the routine examination schedule. As cybersecurity activities and controls are commonly conducted at the group level, efforts may need to be coordinated with the lead state.

Additional Analysis and Follow-Up Procedures

EXAMINATION FINDINGS direct analysts to consider a review of the recent examination report, summary review memorandum and communication with the examination staff to identify if any operational risk issues were discovered during the examination.

OVERALL OPERATING PERFORMANCE directs analysts to perform additional steps, as necessary, to understand and evaluate issues related to the insurer's operating performance. Such steps include comparing actual results to projections, reviewing details of expenses by comparing to prior years and industry averages, and requesting additional information from the insurer and/or third parties (i.e., federal Centers for Medicare & Medicaid Services—CMS) to evaluate performance.

MEDICARE PART D OPERATING PERFORMANCE (LIFE/HEALTH) directs analysts to obtain and review supporting documents if concerns are identified related to the operating performance of Medicare Part D business. Supporting documents may include information on contracted benefits, premium and cost sharing with the CMS, and support for reserve, utilization and benefit cost assumptions projected in the development of the contract.

CORPORATE GOVERNANCE directs analysts to use the CGAD and/or request additional information from the insurer (if filed on an insurance enitty basis or your state is the lead state) to review and evaluate relevant policies and processes such as board/committee charters, code of conduct policy, conflict of interest policy, bylaws, compensation policies, etc. If you state is not the lead state rely on information provided in the GPS or provided by the lead state, where the CGAD is filed on a group basis.

TRANSACTIONS WITH AFFILIATES direct analysts to take additional steps if concerns regarding the economic substance of an affliated transaction are identified. Such steps include independent appraisals, comparisons to third-party services/bids, detailed review of contracts, review of the financial condition of the affiliate, reviewing collection, etc. In addition, the analyst should consider recommending procedures for the next examination (targeted or full-scope) to verify information reported on transactions with affiliates and to further evaluate the fairness and reasonableness of charges. In so doing, the analyst should consider additional guidance regarding criteria to be considered in determining whether an agreement with affiliates merits review during an onsite

examination at section V.F. Domestic and/or Non-Lead State Analysis – Analyst Reference Guide (Form D - Prior Notice of a Transaction).

MGAs AND TPAs direct analysts to take additional steps if concerns regarding significant MGAs, TPAs and IPAs are identified. Such steps include comparing the performance of MGA/TPA/IPA business to other business written by the insurer, reviewing the reasonableness of commissions and fees paid, performing detailed contract review, obtaining audited financial statements, etc.

RISK TRANSFER OTHER THAN REINSURANCE directs analysts to take additional steps if concerns are identified in this area, including requesting and reviewing provider contracts, requesting and reviewing liability amounts for the top five provider groups, and contacting the appointed actuary regarding the nature and scope of the review of provider contracts during the actuarial review.

OWN RISK AND SOLVENCY ASSESSMENT **(ORSA)** directs analysts to obtain and review the latest ORSA Summary Report for the insurer or insurance group (if available) to assist in identifying, assessing and addressing risks faced by the insurer.

HOLDING COMPANY ANALYSIS directs analysts to obtain and review the holding company analysis work completed by the lead state to assist in identifying, assessing and addressing operational risks that could impact the insurer.

ENTERPRISE RISK MANAGEMENT (HEALTH) directs analysts to conduct additional procedures if concerns exist regarding the insurer's ability to respond to a pandemic outbreak event. A pandemic is defined as an epidemic of infectious disease that has spread through human populations across a large region. The effects a pandemic may have on an insurer include, but are not limited to, significant increases in claims volume, increased loss costs and liquidity demands. Therefore, it is important to understand the processes and strategies put in place by health insurers to limit the effect of a pandemic on an insurer's operations and ongoing solvency, including the results of stress testing performed to assess and quantify the impact on an insurer. Such procedures may include gaining an understanding of the company's plans and processes for dealing with such an event and evaluating whether they address increased utilization, liquidity needs and impact on workforce.

Example Prospective Risk Considerations

The table provides analysts with example risk components for use in the Risk Assessment and Insurer Profile Summary branded risk analysis section and a general discription of the risk component. Note that the risks listed are only examples and do not represent a complete list of all risks available for the operational risk category.

Discussion of Quarterly Procedures

The Quarterly Operational Risk Repository procedures are designed to identify the following:

1. Concerns with the insurer's Statement of Income or operating performance.
2. Whether all securities owned are under the control of the insurer and in the insurer's possession.
3. Whether the insurer is a member of a holding company group and whether the corporate structure elevates concerns about transactions with affiliates.
4. Whether major transactions with affiliates are economic-based and in compliance with regulatory guidelines.
5. Whether the insurer's use of bonus withhold arrangements are significant.
6. Concerns with the insurer's separate accounts.

For additional guidance on individual procedure steps, please see the corresponding annual procedures discussed above.

Pricing/Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with pricing and underwriting. For example, many of the procedures also may be related to operational risks or strategic risks.

Analysis Documentation: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer.

Underwriting Performance

1. Determine whether concerns exist regarding the insurer's underwriting performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in net premiums earned	OP*	>25% or <-25%	[Data]	[Data]
b. Change in net incurred losses and loss adjustment expense (LAE)	OP*	>20% or <-35%	[Data]	[Data]
c. Other underwriting expense ratio		>25%	[Data]	[Data]
d. Net loss ratio	OP*		[Data]	
e. Change in net loss ratio	OP*	>20 pts or <-20 pts	[Data]	[Data]
f. Direct commissions to direct premiums ratio		>30%	[Data]	[Data]
				Other Risks
g. Review the five-year trend with the Financial Profile Report and/or the Management Discussion and Analysis (MD&A), for the following measures of operating performance, and note any unusual fluctuations, events (e.g., catastrophes) or trends between years for each ratio: • Loss ratios for direct, assumed and ceded business • Incurred loss and LAE by line of business				OP*
h. Compare, by line of business, the pure net loss ratio to the industry averages in the Financial Profile Report to determine any significant deviations.				
i. Review each line of business included in the Annual Financial Statement, Schedule P, for trends in accident year loss ratios, on both a gross and net basis, that may indicate a deterioration in underwriting results.				
j. If concerns exist regarding underwriting results, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor underwriting performance. ii. Request, review, and evaluate information from the insurer regarding its plans to address poor underwriting performance (e.g., tightening underwriting standards, rate				OP

changes, etc.). iii. Inquire of the rates and forms unit of the state insurance department (if appropriate) to gain an understanding of work performed to evaluate rate adequacy.	
k. Review the write-ins for underwriting deductions in the Annual Financial Statement, Statement of Income and the Financial Profile Report and note any unusual fluctuations or trends.	

Premium Production, Concentration and Writings Leverage

2. Determine whether concerns exist regarding changes in the volume of premiums written, changes in the insurer's mix of business (lines of business and/or geographic location) and changes in writing leverage.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in gross premiums written		>25% or <-25%	[Data]	[Data]
b. Change in net premiums written		>25% or <-25%	[Data]	[Data]
c. Change in direct premiums written (DPW) for any line of business		>33% or <-33%	[Data]	[Data]
d. Ratio of DPW for any new lines to total DPW		>5%	[Data]	[Data]
e. Change in DPW in any one state when DPW is greater than 10% of total DPW in either the current or prior year-end		>50% or <-50%	[Data]	[Data]
f. Ratio of DPW in a new state to total DPW		>5%	[Data]	[Data]
g. Gross premiums written to surplus [IRIS #1]	ST*	>900%	[Data]	[Data]
h. Net premiums written to surplus [IRIS #2]	ST*	>300%	[Data]	[Data]

	Other Risks
i. If significant changes in premium volume are identified, consider the following procedures: i. Request and review additional information from the insurer (if necessary) to understand and evaluate the source(s) of significant changes in premium volume. ii. Evaluate the impact of the sources of changes on the underwriting/marketing strategy, profitability and solvency position of the insurer.	ST
j. Review, by line of business, premiums written by year in the Financial Profile Report for shifts in the mix of business between years and to gain an understanding of lines of business written.	ST
k. Determine whether the insurer has material exposure to losses resulting from acts of terrorism. If concerns are identified, consider the following procedures: i. Request additional data/information from the insurer to gain an understanding of its exposure to terrorism risk. ii. If the insurer is subject to ORSA reporting, review information provided on terrorism exposure and risk assessment in the ORSA Summary Report or obtain the lead state's	ST

review (if applicable). iii. Gain an understanding of the insurer's mitigation of terrorism risk through TRIA coverage. iv. Assess the reasonableness of the ultimate exposure based on the insurer's business strategy and capital position. v. Consider the reasonableness of the insurer's plan to limit exposures, such as policy limits, policy exclusions, location of risks, pricing modifications, non-renewal of certain policies, plans for diversification, or other risk mitigation strategies	
l. Review the Five-Year Historical Data of the Annual Financial Statement. Has there been a shift in the mix of gross premiums written or net premiums written from property lines to liability lines within the past five years? If so, evaluate the underwriting/marketing strategy of the insurer and its expertise in writing liability lines of business.	
m. Review Annual Financial Statement, Schedule T for new direct business written in any state where the insurer is not licensed and verify that the insurer is authorized to write all lines of business written.	LG
n. Review Annual Financial Statement, Schedule T and the writings section in the Financial Profile Report to evaluate the top states in terms of direct premiums and the percentage of total DPW in those states. Based on the lines of business written, determine whether large concentrations of premiums are written in areas prone to catastrophic events.	ST
o. Is the company diversified in terms of product lines and geographical exposure? If not, request and review information from the insurer regarding mitigation strategies to limit exposure concentrations.	ST
p. Review the insurer's underwriting/marketing strategy included in its business plan. i. If 2.e is "yes," evaluate the insurer's marketing and expansion plans in that state. ii. Is the insurer planning expansion into new states or premium growth in the future? iii. Has the insurer applied for or received new licenses in other states? iv. Has the insurer reported that it has ceased writing new business, a line of business or writing in a certain geographical location? v. Does the insurer have closed block operations? vi. Does the insurer's marketing strategy and projected premium growth match actual results reported in the current period? If materially different, evaluate the reasons why, or ask the insurer for an explanation.	ST
q. Determine whether the insurer has expertise (e.g., distribution network, underwriting, claims, and reserving) in the lines of business written. Consider reviewing the insurer's MD&A, business plan and/or additional information from the insurer to determine the expertise in the lines of business written.	
r. Review the insurer's gross and net writings leverage positions to assist in evaluating risk exposure. Consider the following specific procedures in this area: i. Compare the gross writings leverage and net writings leverage ratios to the industry averages and determine any significant variances. ii. If the insurer is a member of a group, compute the gross premiums written to surplus ratio and the net premiums written to surplus ratio on a consolidated basis to	ST

determine if the group appears to be excessively leveraged. iii. Obtain an explanation from the insurer for unusual results for P/C IRIS ratios #1 and #2.	

Exposure to Catastrophic Events

3. Determine whether concerns exist regarding the insurer's exposure to catastrophic events, including the potential for increased physical losses, prospectively, due to climate change.

	Other Risks
a. Review Annual Financial Statement, Schedule T and the writings section in the Financial Profile Report (or the Mix of Business Dashboard) to evaluate the top states in terms of direct premiums and the percentage of total DPW in those states. Based on the lines of business written, determine whether there is a material concentration of premiums written in areas prone to catastrophic events.	ST
b. Review information provided by the insurer in the RCAT (PR027) section of its Risk Based Capital filing to identify and assess the insurer's current exposure to catastrophic events at modeled worst year in 50, 100, 250, and 500 levels on both a gross (direct and assumed) and net basis (after reinsurance). Evaluate the potential impact of the company's modeled loss results on its capital and surplus and RBC position.	ST
c. Review information provided in the insurer's response to the NAIC's Climate Risk and Disclosure Survey (if available) on its exposure to physical losses impacted by climate change, as well as its related mitigation activity. i. Determine whether any of the company's responses require further investigation and inquiry.	ST
d. Review information provided in the ORSA Summary Report and/or SEC 10K or 10Q filings (if available) regarding the insurer's exposure to physical losses impacted by climate change, as well as its related mitigation activity.	ST
e. Utilize the information gathered and/or request additional information as necessary to assess the insurer's exposure to climate/catastrophic risks, as well as processes and strategies in place to limit exposures. i. Gain an understanding of how the company incorporates catastrophe modeling results into its underwriting processes (e.g., assessment of risk appetite or determination of net retained risk). ii. Gain an understanding of and evaluate the potential impact of climate change on the company's business and underwriting strategy over medium and longer-term time horizons. iii. Determine whether there are any concerns regarding the company's risk management processes in regard to climate change, both currently and prospectively.	ST

Additional Analysis and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding pricing and underwriting risks. If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Inquire of the Insurer:

If concerns exist, consider requesting additional information from the insurer regarding:

Marketing Strategy and Projections

- Marketing strategy, including distribution channels/networks, planned growth or cessation of business, expansion into new states or regions, management of closed block operations, etc.
- Financial projections for expected premium/sales.

Underwriting Performance

- Descriptions of underwriting practices and policies, including any exposure limits established by the insurer.
- Descriptions of pricing practices (e.g., frequency of review) and policies.
- Status of recent and pending rate increase requests.

Premium Production and Writings Leverage

- The insurer's expertise in the lines of business written.
- Explanations for significant shifts in geographic concentrations, lines of business, amounts of premiums written, high leverage positions, etc.

Use of CAT Modeling and Exposure Limits in Underwriting

- CAT modeling processes and oversight.
- Use of modeled results to set underwriting exposure limits and refine underwriting guidelines.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to filed ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any pricing and underwriting risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective risks?
- Did the ORSA Summary Report present the results of the modeled CAT exposure analysis at various levels, on both a gross and net basis?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any pricing and underwriting risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective risks impacting the insurer?

Example Prospective Risk Considerations		
Risk Components for IPS		***Explanation of Risk Components***
1	Trend of poor underwriting results	A continued trend in loss and combined ratio results may be an indicator of other underlying risks, such as inadequate pricing.
2	Risk concentration (geographic, line of business, etc.)	Risk concentrations may expose the insurer to significant variances or threaten solvency if not effectively mitigated (e.g., homeowner's insurance concentrated in coastal states).
3	Lack of underwriting expertise in [name of line of business]	A lack of underwriting expertise may result in underpricing or faulty risk acceptance if the insurer is not experienced in underwriting a new line of business.
4	Lack of sufficient underwriting standards	A lack of sufficient underwriting policies and procedures may results in underpricing, acceptance of unknown/excessive risks, etc.
5	High writings leverage trend	A high writings leverage trend may indicate concentrations, overexposure to certain insurance risks and/or a lack of support from ownership/parent.
6	Negative variance on projected premium/sales to actual	Actual premium volume or new sales results vary materially from projections, leading to an inability to fulfill the strategic plan.
7	Rapid expansion/growth	Rapid growth or expansion into new geographic areas or new states may result in a higher-than-expected strain on surplus.
8	Declining premium volume	Declines in premium volume may result in insufficient revenue to sustain current operations.
9	Lack of a clear underwriting/marketing strategy	Failure to define and update the underwriting/marketing strategy of the insurer may lead to inconsistent results, inappropriate risk acceptance, etc.

Pricing/Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with pricing and underwriting risk. For example, many of the procedures also may be related to operational risks or strategic risks.

Analysis Documentation: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer.

Underwriting Performance

1. Determine whether concerns exist regarding the insurer's underwriting performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in net premiums earned from prior year-to-date	OP*	>20% or <-20%	[Data]	[Data]
b. Change in net incurred losses from prior year-to-date	OP*	>25% or <-25%	[Data]	[Data]
c. Net loss ratio	OP*		[Data]	
d. Change in pure loss ratio from prior year-to-date	OP*	> 10% or <-10%	[Data]	[Data]
e. Change in direct loss incurred for any line of business from prior year-to-date [Quarterly Financial Statement, Part 1]		> 10% or <-10%	[Data]	[Data]
				Other Risks
f. Review the trend in the Financial Profile Report, for the following measures of operating performance and note any unusual fluctuations, events (e.g., catastrophes) or trends between years for each ratio: • Loss ratios • Incurred loss and loss adjustment expense (LAE)				OP
g. Review the write-ins for underwriting deductions in the Quarterly Financial Statement, Statement of Income and the Financial Profile Report, and note any unusual fluctuations or trends.				
h. If concerns exist regarding underwriting results, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor underwriting performance. ii. Request, review, and evaluate information from the insurer regarding its plans to address poor underwriting performance (e.g., tightening underwriting standards, rate changes, etc.). iii. Inquire of the rates and forms unit of the state insurance department (if appropriate) to gain an understanding of work performed to evaluate rate adequacy.				OP

Premium Production, Concentration, and Writings Leverage

2. Determine whether concerns exist regarding changes in the volume of premiums written, changes in the insurer's mix of business (lines of business and/or geographic location) and changes in writing leverage.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in writings from prior year-to-date • Direct • Assumed • Ceded • Net	ST*	>20% or <-20%	[Data]	[Data]
b. Change in direct premiums written (DPW) for any line of business		>33% or <-33%	[Data]	[Data]
c. Ratio of DPW for new lines of business to total DPW		>5%	[Data]	[Data]
d. Change in DPW in any one state when DPW is greater than 10% of DPW in either the current or prior year		>50% or <-50%	[Data]	[Data]
e. Ratio of DPW in new states to total DPW		>5%	[Data]	[Data]
f. Ratio of net writings leverage (rolling year)		>=175% Long-tail >=225% Short-tail	[Data]	[Data]

	Other Risks
g. If significant changes in premium volume are identified, consider the following procedures: i. Request and review additional information from the insurer (if necessary) to understand and evaluate the source(s) of significant changes in premium volume. ii. Evaluate the impact of the sources of changes on the underwriting/marketing strategy, profitability and solvency position of the insurer.	ST
h. Review, by line of business, premiums written by year in the Financial Profile Report for shifts in the mix of business between years and gain an understanding of lines of business written.	ST
i. Review Quarterly Financial Statement, Schedule T for new direct business written in any state where the insurer is not licensed and verify that the insurer is authorized to write all lines of business written.	LG
j. Review Quarterly Financial Statement, Schedule T and the writings section in the Financial Profile Report to evaluate the top states in terms of direct premiums and the percentage of total DPW in those states. Based on the lines of business written, determine whether large concentrations of premiums are written in areas prone to catastrophic events.	ST
k. Is the company diversified in terms of product lines and geographical exposure? If not, request and review information from the insurer regarding mitigation strategies to limit exposure concentrations.	ST

l. Review the insurer's underwriting/marketing strategy included in its business plan. i. If 2.d is "yes," evaluate the insurer's marketing and expansion plans in that state. ii. Is the insurer planning expansion into new states or premium growth in the future? iii. Has the insurer applied for or received new licenses in other states? iv. Has the insurer reported that it has ceased writing new business, a line of business or writing in a certain geographical location? v. Does the insurer have closed block operations? vi. Does the insurer's marketing strategy and projected premium growth match actual results reported in the current period? If materially different, evaluate the reasons why, or ask the insurer for an explanation.	ST
m. Determine whether the insurer has expertise (e.g., distribution network, underwriting, claims and reserving) in the lines of business written.	

Pricing/Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with pricing and underwriting.

Analysis Documentation: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer.

Underwriting Performance

1. Review the Annual Financial Statement, Summary of Operations and determine whether concerns exist regarding the insurer's underwriting performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of net gain from operations (before realized capital gains and losses) to total income.	OP*	< 0	[Data]	[Data]
b. Have there been operating losses in two or more of the past three years?	OP	Operating Income < 0 in > =2 years	[Data]	[Data]
c. A&H loss ratio.	OP*	> 85%	[Data]	[Data]
d. Direct commissions to direct premium ratio.		> 30%	[Data]	[Data]
				Other Risks
e. Review the five-year trend with the Annual Statement Summary of Operations, Annual Financial Profile Report, and Management Discussion and Analysis (MD&A) for the following measures of operating performance, and note any unusual fluctuations, events or trends between years for each: • Operating income. • A&H loss ratio. • Commissions to premiums ratio.				OP
f. Describe any known trends that have had (or that the insurer reasonably expects will have) a material impact on net revenues or net income, or a material impact on the relationship between benefits, losses, and expenses.				OP*
g. Review the Annual Financial Statement, Analysis of Operations by Lines of Business and the Financial Profile Report and: • Determine which lines of business were profitable for the insurer and which lines of business generated a loss. • Determine if any lines of business indicate a negative trend in profitability over the past five years. • Determine whether commissions on any lines of business appear excessive based on the volume of premiums.				OP*

h. If concerns exist regarding underwriting results, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor underwriting performance. ii. Request, review and evaluate information from the insurer regarding its plans to address poor underwriting performance (e.g., tightening underwriting standards, rate changes, etc.). iii. Inquire of the rates and forms unit of the state insurance department (if appropriate) to gain an understanding of work performed to evaluate rate adequacy.	
i. Review the components of the Annual Financial Statement, Summary of Operations line items Aggregate Write-ins for Miscellaneous Income and Aggregate Write-ins for Deductions for reasonableness.	OP*

2. Review the Annual Financial Statement, Medicare Part D Coverage Supplement, and determine whether concerns exist regarding the insurer's Medicare Part D coverage.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Underwriting loss of either group or individual coverage.		< 0	[Data]	[Data]
b. Medical loss ratio of either group or individual coverage.		> 85%	[Data]	[Data]
c. Expense loss ratio of either group or individual coverage.		> 15%	[Data]	[Data]
d. Combined ratio of either group or individual coverage.		> 100%	[Data]	[Data]
				Other Risks
e. Obtain and review information regarding the contracted benefits, premium and cost sharing with the federal Centers for Medicare & Medicaid Services (CMS).				
f. Review the types of products being written, including any enhanced benefit products.				
g. Request information on and review the assumptions for reserves, utilization, and benefit costs projected in the development of the contract.				
h. If concerns exist regarding operating performance, request, review and evaluate information from the insurer regarding its plans to address the issues.				

3. Review the Annual Financial Statement, A&H Policy Experience Exhibit (April 1 filing) to investigate underwriting results by line of business.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Did the insurer report an underwriting loss on any line of business as reported? [Annual Financial Statement, Analysis of Operations by Line of Business]		< 0	[Data]	[Data]

	Other Risks
b. If underwriting losses were reported on Annual Financial Statement, Analysis of Operations by Lines of Business, review the A&H Policy Experience Exhibit to further identify specific health lines that may be experiencing losses.	
c. Compare results with prior years to identify any concerns with multiyear trends in premium, benefit, loss ratios or membership.	

4. Review the Annual Financial Statement, Long-Term Care (LTC) Experience Reporting Forms (April 1 filing) to investigate underwriting results for LTC business.

	Other Risks
a. Did the insurer report an underwriting loss on the "Other Health" line of business on the Analysis of Operations by Line of Business page, and the insurer writes long-term care insurance (LTCI)? If "yes," further investigate the underwriting loss by reviewing the Annual Financial Statement, LTC Experience Reporting Forms, A&H Policy Experience Exhibit, and the Actuarial Guideline-51 reporting. Request a department actuary to assist in the review, if available. i. Review the operational results in conjunction with the actuarial review of the LTC Experience Reporting Forms, the Actuarial Guideline-51 reporting, actuarial memorandum, or other related information filed to the department: 1. Identify by policy form or in aggregate trends in premiums, benefits and the LTC loss ratio (benefits divided by premiums). 2. Identify trends in under-reserving that may affect underwriting results. (Refer to the Actuarial Risk Repository for A&H and Statement of Actuarial Opinion review procedures.) ii. Compare results to prior years to identify any concerns with multi-year trends.	

Premium Production, Concentration and Writings Leverage

5. Determine whether concerns exist regarding changes in the volume of premiums written and deposit-type funds or changes in the insurer's mix of business (lines of business and/or geographic location).

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of change in net premiums, annuity considerations and deposit-type funds greater than +/- 30%.		> 30% or < -30%	[Data]	[Data]
b. Ratio of change in direct and assumed annuities and deposit-type funds for non-health insurers.		> 50% or < -50%	[Data]	[Data]
c. Ratio of Change in Product Mix (IRIS Ratio 10).		> 5%	[Data]	[Data]
d. Review the Direct Premium Written by State:		> 50% or < -50%	[Data]	[Data]

i. Significant change in direct premiums written in any one state in which current or prior year direct premium exceeds 10% of total direct premium?				
ii. Premiums being written in any new state where that state's premiums exceed 10 % of total direct premiums written.		> 10%	[Data]	[Data]
				Other Risks
e. Review the Mix of Business in the Annual Financial Profile Reports: i. Determine which lines of business are being written. ii. Determine whether there has been a significant increase or decrease or shifts in direct premiums written for any line of business. iii. Determine whether any new lines of business are being written.				
f. If significant changes in premium volume are identified, consider the following procedures: i. Request and review additional information from the insurer (if necessary) to understand and evaluate the source(s) of significant changes in premium volume. ii. Evaluate the impact of the sources of changes on the underwriting/marketing strategy, profitability and solvency position of the insurer.				
g. Review Annual Financial Statement, Schedule T for new direct business written in any state where the insurer is not licensed and verify that the insurer is authorized to write all lines of business written.				
h. Review information provided in the Annual Financial Statement and supporting schedules (e.g., Schedule T, the writings section in the Financial Profile Report, etc.) to identify potential risk concentrations in terms of product types, guarantees, geographical exposures, etc. If concerns are identified, request and review information from the insurer regarding mitigation strategies to limit exposure concentrations.				
i. Review the insurer's marketing strategy included in its business plan. i. If 2.d above is "yes," evaluate the insurer's marketing and expansion plans in that state. ii. Is the insurer planning expansion into new states or premium growth in the future? iii. Has the insurer applied for or received new licenses in other states? iv. Has the insurer reported that it has ceased writing new business, a line of business or writing in certain locations? v. Does the insurer have closed block operations? vi. Does the insurer's marketing strategy and projected premium growth match actual results reported in the current period? If materially different, evaluate the reasons why or ask the insurer for an explanation.				
j. Determine whether the insurer has expertise (distribution network, underwriting, claims and reserving) in the lines of business written. Consider reviewing the insurer's Management's Discussion and Analysis and/or seeking additional information from the insurer to determine the insurer's expertise in the lines of business written.				

6. Determine whether the insurer may be excessively leveraged due to its volume of A&H business.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of A&H business to net premiums and annuity considerations.		> 75%	[Data]	[Data]
b. If 6.a. is "yes," ratio of gross A&H premiums to capital and surplus.	ST*	> 500%	[Data]	[Data]
c. If 6.a. is "yes," ratio of net A&H premiums to capital and surplus.	ST*	> 300%	[Data]	[Data]
				Other Risks
d. Compare ratios of gross A&H premiums to capital and surplus and net A&H premiums to capital and surplus to industry averages to determine any significant deviations from the industry averages.				
e. Review Annual Financial Statement, Schedule H – Accident and Health Exhibit and/or obtain information from the insurer to determine the specific types of A&H policies written.				
f. Review Annual Financial Statement, Schedule H – Accident and Health Exhibit to determine whether the A&H lines of business are profitable and whether A&H reserve adequacy has been maintained.				
g. Review the A&H loss percentage ratio (Annual Financial Profile Reports) for unusual fluctuations or trends between years.				

Financial Impact of Affordable Care Act

7. Determine whether there are concerns regarding the impact by line of business to the insurer's overall operating results and financial solvency.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Preliminary medical loss ratio (MLR) by line of business (either the national Preliminary MLR or the state-level MLR). If any of the following benchmarks are met, assess the financial solvency of the plan and the impact of the plan on the overall financial solvency of the insurer.		= Yes	[Data]	[Data]
• Individual comprehensive.		> 90%	[Data]	[Data]
• Small group employer comprehensive.		> 90%	[Data]	[Data]
• Large group employer comprehensive.		> 95%	[Data]	[Data]
• Individual mini-med.		> 90%	[Data]	[Data]
• Small group employer mini-med.		> 90%	[Data]	[Data]
• Large group employer mini-med.		> 95%	[Data]	[Data]
• Small group expatriate plans.		> 90%	[Data]	[Data]

• Large group expatriate plans.		> 95%	[Data]	[Data]
• Student health plans.		> 90%	[Data]	[Data]
b. Analyze the underwriting gain/(loss) result by line of business. Did any line of business on the SHCE report an underwriting loss?		< 0	[Data]	[Data]
• Individual comprehensive.		< 0	[Data]	[Data]
• Small group employer comprehensive.		< 0	[Data]	[Data]
• Large group employer comprehensive.		< 0	[Data]	[Data]
• Individual mini-med.		< 0	[Data]	[Data]
• Small group employer mini-med.		< 0	[Data]	[Data]
• Large group employer mini-med.		< 0	[Data]	[Data]
• Small group expatriate plans.		< 0	[Data]	[Data]
• Large group expatriate plans.		< 0	[Data]	[Data]
• Student health plans.		< 0	[Data]	[Data]
				Other Risks
c. If any line of business in reported an underwriting loss, determine the reasons for the loss and assess the impact of each line of business to the overall operating results of the insurer.				OP, ST
d. Compare the results of your analysis of the Preliminary MLR to your analysis of the existing MLR calculations [refer to Financial Profile Report or Operations Risk Repository] and assess the impact to the overall solvency of the insurer.				ST
e. During the review of the health care business pursuant to the Public Health Service Act and all applicable filings, did the analyst note any unusual items or areas of concern, not previously noted, that indicate further review is warranted?				LG
f. If concerns exist regarding underwriting results for individual plans, consider requesting and reviewing additional information from the insurer on the causes and plans to address poor underwriting performance.				OP, ST
g. Determine if there are concerns regarding recent rate filing requests: i. Contact internal state insurance department staff responsible for the rate review and request information on any recent rate reviews. Were any concerns noted by the rate review staff (e.g., were rate adjustment requests disapproved or modified)? ii. Review the trend in rate filing requests. Are there any concerns with the frequency or amount of the requests? iii. Review the Financial Profile Report's PMPM premium data and compare it to rate increases.				LG

Additional Analysis and Follow-Up Procedures

Examination Findings: Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding pricing and underwriting risks. If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Inquire of the Insurer:

If concerns exist, consider requesting information from the insurer regarding:

Marketing Strategy and Projections:

- Marketing strategy, including distribution channels/networks, planned growth or cessation of business, expansion into new states or regions, management of closed block operations, etc.
- Financial projections for expected premium/sales.

Underwriting Performance:

- Descriptions of underwriting practices and policies.
- Descriptions of pricing practices (e.g., frequency of review) and policies.

Premium Production and Writings Leverage:

- The insurer's expertise in the lines of business written.
- Explanations for significant shifts in geographic concentrations, lines of business, product guarantees and crediting rates, amounts of premium written, etc.

Affordable Care Act:

- Explanations of negative results (high MLR, rebates, risk sharing payments, line of business [LOB] operating losses, etc.).
- Planned changes in market focus for federal Affordable Care Act (ACA) business (entering or exiting exchanges, entering or exiting states/regions, etc.).
- Status of recent and pending rate increases.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any pricing and underwriting risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective pricing and underwriting risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any pricing and underwriting risks affecting the insurer that require further monitoring or follow-up?
- Did the Holding Company Analysis conducted by the lead state indicate any mitigating strategies for existing or prospective pricing and underwriting risks impacting the insurer?

Example Prospective Risk Considerations

	Example Risk Components for IPS	*Explanation of Risk Components*
1	Trend of poor underwriting results [indicate overall or specific line of business].	A continued trend of losses may be an indicator of other underlying risks, such as inadequate pricing.

2	Risk concentration (geographic, line of business, etc.).	Risk concentrations may expose the insurer to significant variances or threaten solvency if not effectively mitigated (e.g., pandemic exposure on A&H business).
3	Lack of underwriting expertise in [name of line of business].	A lack of underwriting expertise may result in underpricing if the insurer is not experienced in underwriting a new line of business.
4	Lack of sufficient underwriting standards.	A lack of sufficient underwriting policies and procedures may result in underpricing, acceptance of unknown/excessive risks, etc.
5	High writings leverage trend.	A high-writings leverage trend may indicate concentrations, overexposure to certain insurance risks and/or a lack of support from ownership/parent.
6	Negative variance on projected premium/sales to actual.	Actual premium volume or new sales results vary materially from projections, leading to an inability to fulfill the strategic plan.
7	Rapid expansion/growth.	Rapid growth or expansion into new geographic areas or new states may result in a higher-than-expected strain on surplus.
8	Declining premium volume.	Declines in premium volume may result in insufficient revenue to sustain current operations.
9	Lack of a clear underwriting/marketing strategy.	Failure to define and update the underwriting/marketing strategy of the insurer may lead to inconsistent results, inappropriate risk acceptance, etc.
10	ACA solvency challenges.	The strain from writing business subject to ACA requirements may result in significant assessments, high claims experience, rebate obligations or risk sharing payments that have the potential to affect the insurer's solvency position.

Pricing/Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with pricing and underwriting.

Analysis Documentation: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer.

Underwriting Performance

1. Review the Quarterly Financial Statement, Summary of Operations, and determine whether concerns exist regarding the insurer's underwriting performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of operating income to total income (before realized capital gains and losses).	OP*	< 0	[Data]	[Data]
b. Have there been operating losses in two or more of the past three consecutive quarters?	OP	Operating Income < 0 in > =2 quarters	[Data]	[Data]
c. Accident and health (A&H) loss ratio.	OP*	> 85%	[Data]	[Data]
d. Total Commissions and Incurred Expenses to Gross Premiums	OP*	> 30%	[Data]	[Data]
				Other Risks
e. Review the five-year trend with the Quarterly Financial Statement, Summary of Operations, Quarterly Financial Profile Report, for the following measures of operating performance, and note any unusual fluctuations, events or trends between quarters for each: • Operating income, ratios. • A&H loss ratio.				
f. Describe any known trends that have had (or that the insurer reasonably expects will have) a material impact on net revenues or net income, or a material impact on the relationship between benefits, losses and expenses.				
g. If concerns exist regarding underwriting results, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor underwriting performance. ii. Request, review and evaluate information from the insurer regarding its plans to address poor underwriting performance (e.g., tightening underwriting standards, rate changes, etc.). iii. Inquire of the rates and forms unit of the state insurance department (if appropriate) to gain an understanding of work performed to evaluate rate adequacy.				

h. Review the components of the Quarterly Financial Statement, Summary of Operations line items Aggregate Write-ins for Miscellaneous Income and Aggregate Write-ins for Deductions for reasonableness.	

Change in Premium

2. Determine whether concerns exist regarding changes in the volume of premiums and deposit-type contract funds or changes in the insurer's mix.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of change in net premiums, annuity considerations, from the prior year, same quarter		> 30% or < -30%	[Data]	[Data]
b. Change in direct premiums for any line of business the prior year, same quarter? [Quarterly Financial Statement, Exhibit 1]		> 25% or < -25%	[Data]	[Data]
c. Review the direct premium written by state: i. Significant change in direct premiums written in any one state in which the current or prior year direct premium exceeds 10% of total direct premium.		> 50% or < -50%	[Data]	[Data]
ii. Premiums being written in any new state where that state's premiums exceed total direct premiums written.		> 10% or < -10%	[Data]	[Data]
				Other Risks
d. Review the mix of business in the Quarterly Financial Profile Reports: i. Determine which lines of business are being written. ii. Determine whether there has been a significant increase or decrease or shifts in direct premiums written for any line of business. iii. Determine whether any new lines of business are being written.				
e. If significant changes in premium volume are identified, consider the following procedures: • Request and review additional information from the insurer (if necessary) to understand and evaluate the source(s) of significant changes in premium volume. • Evaluate the impact of the sources of changes on the underwriting/marketing strategy, profitability and solvency position of the insurer.				
f. Review Quarterly Financial Statement, Schedule T for new direct business written in any state where the insurer is not licensed and verify that the insurer is authorized to write all lines of business written.				
g. Review information provided in the Quarterly Financial Statement and supporting schedules (e.g., Schedule T, the writings section in the Financial Profile Report, etc.) to identify potential risk concentrations in terms of product types, geographical exposures, etc. If concerns are identified, request and review information from the insurer regarding mitigation strategies to limit exposure concentrations.				

h. Review the insurer's marketing strategy included in its business plan. i. If 2.d above is "yes," evaluate the insurer's marketing and expansion plans in that state. ii. Is the insurer planning expansion into new states or premium growth in the future? iii. Has the insurer applied for or received new licenses in other states? iv. Has the insurer reported that it has ceased writing new business, a line of business or writing in a certain location? v. Does the insurer have closed block operations? vi. Does the insurer's marketing strategy and projected premium growth match actual results reported in the current period? If materially different, evaluate the reasons why, or ask the insurer for an explanation.	
i. Determine whether the insurer has expertise (distribution network, underwriting, claims and reserving) in the lines of business written.	

3. Determine whether the insurer may be excessively leveraged due to its volume of accident and health (A&H) business.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of A&H business to net premiums and annuity considerations.		> 75%	[Data]	[Data]
b. If a. is "yes," ratio of gross A&H premiums to capital and surplus.		> 500%	[Data]	[Data]
c. If a. is "yes," ratio of net A&H premiums to capital and surplus.		> 300%	[Data]	[Data]
				Other Risks
d. Compare ratios of gross A&H premiums to capital and surplus and net A&H premiums to capital and surplus to industry averages to determine any significant deviations from the industry averages.				
e. Review the A&H loss percentage ratio (Quarterly Financial Profile Reports) for unusual fluctuations or trends between quarters.				

Financial Impact of Affordable Care Act

4. Determine whether there are concerns regarding the impact of the federal Affordable Care Act (ACA) to the insurer's overall operating results and financial solvency.

	Other Risks
a. Determine whether the insurer wrote accident and health insurance premium which is subject to the Affordable Care Act risk-sharing provision and if the amount of premium written exceeded projections and ascertain whether the insurer's level of capital can support the impact of underestimation of the qualified premium.	
b. Review the insurer's current RBC to identify if it is at a deteriorating level due to ACA risk-sharing provisions or as a result of the ACA fee assessment payable.	ST

c. Review the reinsurance and risk-adjustment accruals to identify insurers that: i. Might not be adequately accruing liabilities for premium adjustments payable and for risk adjustment user fees payable. ii. That might be overestimating premium and adjustments receivables, or; iii. That might have liquidity issues because payments will be delayed until final determination can be made.	

Pricing/Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with pricing and underwriting.

Analysis Documentation: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer.

Underwriting Performance

1. Review the Annual Financial Statement, Summary of Operations, and determine whether concerns exist regarding the insurer's underwriting performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Medical loss ratio[i]	OP*	>85%	[Data]	[Data]
b. Change in medical loss ratio	OP*	>5 pts or <-10 pts	[Data]	[Data]
c. Underwriting gain/loss		<0	[Data]	[Data]
d. Have there been underwriting losses in two or more of the past three years?		Operating Income <0 in >= 2 years	[Data]	[Data]
e. Premium per member per month compared to prior year		<105%	[Data]	[Data]
f. Is the change in claims per member per month less the change in premium and risk revenue per member per month greater than zero (See Financial Profile Report) Display the change in claims per member per month, the change in premium per member per month and the variance between the two.		>0	[Data]	[Data]
g. Direct commissions to direct premium ratio		>15%	[Data]	[Data]
				Other Risks
h. Review the five-year trend with the Annual Financial Profile Report, Annual Statement of Revenue and Expenses, and the Management Discussion and Analysis (MD&A) for the following measures of operating performance, and note any unusual fluctuations, events or trends between years for each: • Underwriting gain • Medical loss ratio				OP*
i. Describe any known trends that have had or that the insurer reasonably expects will have				OP*

[i] Medical loss ratio in procedures 1a, 1b, and 1h do not represent the calculation for the medical loss ratio (MLR) under the Affordable Care Act.

a material impact on net revenues or underwriting income, or a material impact on the relationship between benefits, losses and expenses.	
j. Review the Annual Financial Statement, Analysis of Operations by Line of Business and the Financial Profile Report and: i. Determine which lines of business were profitable for the insurer and which lines of business generated an underwriting loss. ii. Determine if any lines of business indicate a negative trend in profitability over the past five years. iii. Determine whether commissions on any lines of business appear excessive based on the volume of premiums.	OP*
k. Review the Annual Financial Statement, General Interrogatories, Part 2, #9.1 and #9.2 and RBC Other Underwriting Risk (XR014-XR016). Does the insurer have a significant amount of multi-year contracts with premium rate guarantees?	
l. Is the analyst aware of any premium rates that are locked for the year? If "yes," determine if there are any concerns regarding underpricing of these rates.	
m. Determine whether a premium deficiency reserve has been established by the insurer on any products in question.	
n. For lines of business for which a premium deficiency reserve has been established, request information monthly from the insurer that details estimates of how actual claims compare with expected claims and details the estimated impact on the reserve established.	
o. If concerns exist regarding underwriting results, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor underwriting performance. ii. Request, review and evaluate information from the insurer regarding its plans to address poor underwriting performance (e.g., changes in underwriting, rate changes, etc.). iii. Inquire of the rates and forms unit of the state insurance department (if appropriate) to gain an understanding of work performed to evaluate rate adequacy.	

2. Review the Annual Financial Statement, Medicare Part D Coverage Supplement and Medicare Supplement Insurance Exhibit and determine whether concerns exist regarding the insurer's Medicare Part D Coverage.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Underwriting loss on either group or individual coverage		<0	[Data]	[Data]
b. Medical Loss Ratio for either group or individual coverage		>85%	[Data]	[Data]
c. Expense Loss Ratio for either group or individual coverage		>15%	[Data]	[Data]
d. Combined Ratio for either group or individual coverage		>100%	[Data]	[Data]

	Other Risks
e. Review the Medicare Supplement Insurance Exhibit (filed March 1st). Note any unusual items or areas that indicate further review is warranted.	
f. Review the types of products being written, including any enhanced benefit products.	

3. Review the Annual Financial Statement, Accident and Health (A&H) Policy Experience Exhibit (April 1 filing) to investigate underwriting results by line of business.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Did the insurer report an underwriting loss on any line of business [Annual Financial Statement, Analysis of Operations by Line of Business]		<0	[Data]	[Data]
				Other Risks
b. If underwriting losses were reported on Annual Financial Statement, Analysis of Operations by Lines of Business, review the A&H Policy Experience Exhibit to further identify specific health lines that may be experiencing losses.				
c. Compare results with prior years to identify any concerns with multiyear trends in premium, benefit, loss ratios or membership.				

4. Review the Annual Financial Statement, Long-Term Care (LTC) Experience Reporting Forms (April 1 filing) to investigate underwriting results for LTC business.

	Other Risks
a. Did the insurer report an underwriting loss on the "Other Health" line of business on page 7, Analysis of Operations by Lines of Business, and the insurer writes long-term care insurance (LTCI)? If "yes," further investigate the underwriting loss by reviewing the Annual Financial Statement, LTC Experience Reporting Forms, A&H Policy Experience Exhibit, and the Actuarial Guidance-51 reporting (if required to file). Request a department actuary to assist in the review, if available. i. Review the operational results in conjunction with the actuarial review of the LTC Experience Reporting Forms, the Actuarial Guideline-51 reporting, actuarial memorandum, or other related information filed to the department: 1. Identify by policy form or in aggregate trends in premiums, benefits and the LTC loss ratio (benefits divided by premiums). 2. Identify trends in under-reserving that may affect underwriting results. (Refer to the Actuarial Risk Repository for A&H and Statement of Actuarial Opinion review procedures.) ii. Compare results to prior years to identify any concerns with multi-year trends.	

Premium Production, Concentration and Writings Leverage

5. Determine whether concerns exist regarding changes in the volume of premium, enrollment levels or changes in the insurer's mix of business (lines of business and/or geographic location).

	Other	*Benchmark*	*Result*	*Outside*

	Risks			*Benchmark*
a. Change in enrollment from the prior year-end. Display the percent change and the enrollment for each of the past five years.		>10% or <-10%	[Data]	[Data]
b. Change in net premium income from the prior year		>10% or <-10%	[Data]	[Data]
c. Change in direct premiums written for any line of business		>33% or <-33%	[Data]	[Data]
d. Does the insurer write long-term care and disability income (long-tailed lines) premium? If "yes," list the percentage of total direct premium.		>0	[Data]	[Data]
e. If premiums are being written in any new lines, do they account for more than 10% of the total net premium income		>10%	[Data]	[Data]
f. Determine if any direct business is being written in a state in which there were no prior writings [Annual Statement, Schedule T]		<>0	[Data]	[Data]
				Other Risks
g. Review the mix of business in the Annual Financial Profile Reports. If significant changes in premium volume are identified, consider the following procedures: i. Determine which lines of business and types of are being written. ii. Determine whether there has been a significant increase or decrease or shifts in direct premiums written for any line of business. iii. Determine whether any new lines of business are being written. iv. Determine if the changes are consistent with the insurer's most recent projections and business plan. Request additional information for variances not discussed in the most recent plan. v. For an overall increase in premium, obtain specific information on when additional funds are expected to be deposited into the insurer to support the growth. vi. For an overall decrease, determine the insurer's plans for addressing its expense structure under its new premium base. vii. Request and review additional information from the insurer (if necessary) to understand and evaluate the source(s) of significant changes in premium volume. viii. Evaluate the impact of the sources of changes on the underwriting/marketing strategy, profitability and solvency position of the insurer.				
h. If 5.d. (long-tailed lines) is "yes," consider the impact that a reserve shortfall could have on the insurer's overall leverage risk.				
i. Review the insurer's marketing strategy included in its business plan. i. If either 2.e. or 2.f. is "yes," evaluate the insurer's marketing and expansion plans in those states. ii. Is the insurer planning expansion into new states or premium growth in the future?				

iii. Has the insurer applied for or received new licenses in other states? iv. Has the insurer reported that it has ceased writing new business, a line of business or writing in a certain location? v. Does the insurer have closed block operations? vi. Does the insurer's marketing strategy and projected premium growth match actual results reported in the current period? If materially different, evaluate the reasons why, or ask the insurer for an explanation.	
j. In new or increasing lines of business, determine whether the insurer has the expertise (distribution networks, systems, underwriting, claims and reserving) needed. Consider reviewing the insurer's Management's Discussion and Analysis and or seeking additional information from the insurer to determine the insurer's expertise in the lines of business written.	ST
k. If the insurer has entered a new region or has significantly increased the business written in an existing region, request information on how the insurer establishes product prices in those regions, the provider contracts used by the insurer in that region and a discussion of the insurer's future expected changes in the region. Compare this information with information available from the insurer's competitors.	ST

6. Determine whether the insurer is excessively leveraged due to the volume of premiums written.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Premiums and risk revenue to capital and surplus for HMOs	ST	>10:1	[Data]	[Data]
b. Premiums and risk revenue to capital and surplus for non-HMOs	ST	>8:1	[Data]	[Data]
c. Change in ratio of premiums and risk revenue to capital and surplus		>1.5 pts or <-2.0 pts	[Data]	[Data]
				Other Risks
d. Compare ratios of premiums and risk revenue to capital and surplus to industry averages to determine any significant deviations from the industry averages.				

Financial Impact of Affordable Care Act

7. Determine whether there are concerns regarding the impact by line of business to the insurer's overall operating results and financial solvency.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Review the Preliminary MLR (either the national Preliminary MLR or the state-level MLR) by line of business for individuals or small group employers with a ratio greater than 90% or large group employers with a ratio greater than 95%. If "yes," assess the financial solvency of the plan and the impact of the plan on the overall financial solvency		>90% or >95%	[Data]	[Data]

of the insurer.				
• Individual comprehensive		>90%	[Data]	[Data]
• Small group employer comprehensive		>90%	[Data]	[Data]
• Large group employer comprehensive		>95%	[Data]	[Data]
• Individual mini-med		>90%	[Data]	[Data]
• Small group employer mini-med		>90%	[Data]	[Data]
• Large group employer mini-med		>95%	[Data]	[Data]
• Small group expatriate plans		>90%	[Data]	[Data]
• Large group expatriate plans		>95%	[Data]	[Data]
• Student health plans		>90%	[Data]	[Data]
b. Analyze the underwriting gain/(loss) result by line of business. Did any line of business on the SHCE report an underwriting loss?		<0	[Data]	[Data]
• Individual comprehensive		<0	[Data]	[Data]
• Small group employer comprehensive		<0	[Data]	[Data]
• Large group employer comprehensive		<0	[Data]	[Data]
• Individual mini-med		<0	[Data]	[Data]
• Small group employer mini-med		<0	[Data]	[Data]
• Large group employer mini-med		<0	[Data]	[Data]
• Small group expatriate plans		<0	[Data]	[Data]
• Large group expatriate plans		<0	[Data]	[Data]
• Student health plans		<0	[Data]	[Data]
				Other Risks
c. If any line of business reported an underwriting loss, determine the reasons for the loss and assess the impact of each line of business to the overall operating results of the insurer.				OP, ST
d. Compare the results of your analysis of the Preliminary MLR to your analysis of the existing MLR calculations [refer to Financial Profile Report or Operations Risk Repository] and assess the impact to the overall solvency of the insurer.				ST
e. During the review of the health care business pursuant to the Public Health Service Act and all applicable filings, did the analyst note any unusual items or areas of concern, not previously noted, that indicate further review is warranted?				LG
f. If concerns exist regarding underwriting results for individual plans, consider requesting and reviewing additional information from the insurer on the causes and plans to address poor underwriting performance.				OP, ST
g. Determine if there are concerns regarding recent rate filing requests: i. Contact internal state insurance department staff responsible for the rate review and request information on any recent rate reviews. Were any concerns noted by the rate				LG

review staff (e.g., were rate adjustment requests disapproved or modified)? ii. Review the trend in rate filing requests. Are there any concerns with the frequency or amount of the requests? iii. Review the Financial Profile Report's PMPM premium data and compare it to rate increases.	

Additional Analysis and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding pricing and underwriting risks. If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Inquire of the Insurer:

If concerns exist, consider requesting information from the insurer regarding:

Marketing Strategy and Projections:

- Marketing strategy, including distribution channels/networks, planned growth or cessation of business, expansion into new states or regions, management of closed block operations, etc.
- Financial projections for expected premium/sales.

Underwriting Performance:

- Explanations for unusually high loss and combined ratios.
- Descriptions of underwriting practices and policies.
- Descriptions of pricing practices (e.g., frequency of review) and policies.

Premium Production and Writings Leverage:

- Insurer's expertise in the lines of business written.
- Request information from the insurer on how it shares risk with other entities in order to minimize the overall underwriting risk to the insurer.
- If significant concerns are identified, request information from the insurer on how it intends to address its operating leverage issue.
- Explanations for significant shifts in geographic concentrations, lines of business, amounts of premium written, etc.
- Information regarding contracted benefits, premium and cost sharing with the U.S. Centers for Medicare and Medicaid Services.

Affordable Care Act (ACA):

- Explanations of negative results (high MLR, rebates, risk sharing payments, line of business [LOB] operating losses, etc.).
- Planned changes in market focus for ACA business (entering or exiting exchanges, entering or exiting states/regions, etc.).
- Status of recent and pending rate increases.

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any pricing and underwriting risks that require further monitoring or follow-up?

- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective pricing and underwriting risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any pricing and underwriting risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective pricing and underwriting risks impacting the insurer?

Example Prospective Risk Considerations

	Risk Components for IPS	***Explanation of Risk Components***
1	Trend of poor underwriting results [indicate overall or specific line of business]	A continued trend in loss and combined ratio results may be an indicator of other underlying risks, such as inadequate pricing.
2	Risk concentration (geographic, line of business, etc.)	Risk concentrations may expose the insurer to significant variances or threaten solvency if not effectively mitigated (e.g., pandemic exposure).
3	Lack of underwriting expertise in [name of line of business]	A lack of underwriting expertise may result in underpricing if the insurer is not experienced in underwriting a new line of business.
4	Lack of sufficient underwriting	A lack of sufficient underwriting policies and procedures may result in underpricing, acceptance of unknown/excessive risks, etc.
5	High writings leverage trend	A high writings leverage trend may indicate concentrations, overexposure to certain insurance risks and/or a lack of support from ownership/parent.
6	Negative variance on projected premium/sales to actual	Actual premium volume or new sales results vary materially from projections, leading to an inability to fulfill the strategic plan.
7	Rapid expansion/growth	Rapid growth or expansion into new geographic areas or new states may result in a higher-than-expected strain on surplus.
8	Declining premium volume	Declines in premium volume may result in insufficient revenue to sustain current operations.
9	Lack of a clear underwriting/marketing strategy	Failure to define and update the underwriting/marketing strategy of the insurer may lead to inconsistent results, inappropriate risk acceptance, etc.
	ACA solvency challenges	The strain from writing business subject to ACA requirements may result in significant assessments, high claims experience, rebate obligations or risk sharing payments that have the potential to affect the insurer's solvency position.

Pricing/Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with pricing and underwriting.

Analysis Documentation: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer.

Underwriting Performance

1. Determine whether concerns exist regarding the insurer's underwriting performance.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Medical loss ratio (MLR)	OP*	>85%	[Data]	[Data]
b. Change in MLR from prior-year end	OP*	>5 pts or <-10 pts	[Data]	[Data]
c. Change in MLR from prior-year-to-date	OP*	>5 pts or <-10 pts	[Data]	[Data]
				Other Risks
d. Review the five-year trend with the Quarterly Financial Statement, Statement of Revenue and Expenses, Quarterly Financial Profile Report, for the following measures of operating performance, and note any unusual fluctuations, events or trends between years for each: • Operating income, ratios • MLR				
e. Describe any known trends that have had (or that the insurer reasonably expects will have) a material impact on net revenues or net income, or a material impact on the relationship between benefits, losses and expenses.				
f. If concerns exist regarding underwriting results, consider the following procedures: i. Request and review additional information from the insurer on the causes of poor underwriting performance. ii. Request, review and evaluate information from the insurer regarding its plans to address poor underwriting performance (e.g., tightening underwriting standards, rate changes, etc.). iii. Inquire of the rates and forms unit of the state insurance department (if appropriate) to gain an understanding of work performed to evaluate rate adequacy.				

Premium Production, Concentration and Writings Leverage

2. Determine whether concerns exist regarding changes in the volume of premium, enrollment levels or changes in the insurer's mix of business (lines of business and/or geographic location) and changes in writings leverage.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in premium income from prior year-to-date		>10% or <-10%	[Data]	[Data]
b. Change in enrollment from the prior year-end		>10% or <-10%	[Data]	[Data]
c. Change in direct premiums written for any line of business		>33% or <-33%	[Data]	[Data]
d. If premiums are being written in any new lines, do they account for more than 5% of the total earned premiums?		>5%	[Data]	[Data]
e. Determine if any direct business is being written in a state in which there were no prior writings [Quarterly Financial Statement, Schedule T]		<>0	[Data]	[Data]
				Other Risks
f. Review the mix of business in the Quarterly Financial Profile Reports. If significant changes in premium volume are identified, consider the following procedures: i. Determine which lines of business are being written. ii. Determine whether there has been a significant increase or decrease or shifts in direct premiums written for any line of business. iii. Determine whether any new lines of business are being written. iv. Determine if the changes are consistent with the insurer's most recent projections and business plan. Request additional information for variances not discussed in the most recent plan. v. For an overall increase in premium, obtain specific information on when additional funds are expected to be deposited into the insurer to support the growth. vi. For an overall decrease, determine the insurer's plans for addressing its expense structure under its new premium base. vii. Request and review additional information from the insurer (if necessary) to understand and evaluate the source(s) of significant changes in premium volume. viii. Evaluate the impact of the sources of changes on the underwriting/marketing strategy, profitability and solvency position of the insurer.				
g. Review Quarterly Financial Statement, Schedule T for new direct business written in any state where the insurer is not licensed and verify that the insurer is authorized to write all lines of business written.				
h. Review information provided in the Quarterly Financial Statement and supporting schedules (e.g., Schedule T, the writings section in the Financial Profile Report, etc.) to identify potential risk concentrations in terms of product types, geographical exposures, etc. If concerns are identified, request and review information from the insurer regarding mitigation strategies to limit exposure concentrations.				
i. Review the insurer's marketing strategy included in its business plan. i. If 2.f. above is "yes," evaluate the insurer's marketing and expansion plans in that				

state. ii. Is the insurer planning expansion into new states or premium growth in the future? iii. Has the insurer applied for or received new licenses in other states? iv. Has the insurer reported that it has ceased writing new business, a line of business or writing in a certain location? v. Does the insurer have closed block operations? vi. Does the insurer's marketing strategy and projected premium growth match actual results reported in the current period? If materially different, evaluate the reasons why, or ask the insurer for an explanation.	
j. Determine whether the insurer has expertise (e.g., distribution networks, underwriting, claims and reserving) in the lines of business written.	

3. Determine whether the insurer is excessively leveraged due to the volume of premiums written

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Premiums and risk revenue to capital and surplus for HMOs		>10:1	[Data]	[Data]
b. Premiums and risk revenue to capital and surplus for non-HMOs		>8:1	[Data]	[Data]
c. Change in ratio of premiums and risk revenue to capital and surplus		>1.5 pts or <-2.0 pts	[Data]	[Data]
				Other Risks
d. Compare ratios of gross accident and health (A&H) premiums to capital and surplus and net A&H premiums to capital and surplus to industry averages to determine any significant deviations from the industry averages.				
e. Review the A&H loss percentage ratio (Quarterly Financial Profile Reports) for unusual fluctuations or trends between years.				

4. Determine whether concerns exist regarding the pricing of the insurer's products.

	Other Risk	*Benchmark*	*Result*	*Outside Benchmark*
a. Increase in premium per member per month compared to prior year-end		<10%	[Data]	[Data]
b. Change in claims per member per month less the change in premium and risk revenue per member per month from the prior year-end [Financial Profile Report]		>0	[Data]	[Data]

Financial Impact of Affordable Care Act

5. Determine whether there are concerns regarding the impact of the federal Affordable Care Act (ACA) to the insurer's overall operating results and financial solvency.

	Other Risks
a. Determine whether the insurer wrote accident and health insurance premium which is subject to the ACA risk-sharing provision and if the amount of premium written exceeded projections and ascertain whether the insurer's level of capital can support the impact of underestimation of the qualified premium.	
b. Review the insurer's current RBC to identify if it is at a deteriorating level due to ACA risk-sharing provisions or as a result of the ACA fee assessment payable.	ST
c. Review the reinsurance and risk-adjustment accruals to identify insurers that: i. Might not be adequately accruing liabilities for premium adjustments payable and for risk adjustment user fees payable ii. Might be overestimating premium and adjustments receivables iii. Might have liquidity issues because payments will be delayed until final determination can be made	

Pricing and Underwriting Risk Assessment

Pricing and Underwriting Risk: Pricing and underwriting practices are inadequate to provide for risks assumed.

The objective of Pricing and Underwriting Risk Assessment analysis is to focus on risks inherent in writing business and premium production. Although pricing and underwriting risk is a component of overall profitability and operations, it is reviewed separately from other operational risks. Analysts may require additional investigation and information requests to understand and assess the potential impact of these risks. For example, analysts may need additional information to assess the insurer's capacity for growth and plans for expansion.

The following discussion of procedures provides suggested data, benchmarks and procedures analysts can consider in his/her review. An analyst's risk-focused assessment of pricing and underwriting risk should take into consideration, the following areas (but not be limited to):

- Underwriting performance
- Premium production
- Premium concentration
- Writings leverage
- Financial impact of the federal Affordable Care Act (ACA) (Life/A&H, Health)

Discussion of Annual Procedures

Using the Repository

The pricing and underwriting risk repository is a list of possible quantitative and qualitative procedures, including specific data elements, benchmarks and procedures from which analysts may select to use in his/her review of pricing and underwriting risk. Analysts are not expected to respond to procedures, data or benchmark results listed in the repository. Rather, analysts and supervisors should use their expertise, knowledge of the insurer and professional judgement to tailor the analysis to address the specific risks of the insurer and document completion of the analysis. The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

In using procedures in the repository, analysts should review the results in conjunction with the Supervisory Plan and Insurer Profile Summary and the prior period analysis. Communication and/or coordination with other internal departments are a critical step in the overall risk assessment process and are a crucial consideration in the review of certain procedures in the repository.

Analysts should also consider the insurer's corporate governance which includes the assessment of the risk environment facing the insurer in order to identify current or prospective solvency risks, oversight provided by the board of directors and the effectiveness of management, including the code of conduct established by the board.

The placement of the following data and procedures in the pricing and underwriting risk repository is based on "best fit." Analysts should use their professional judgement in categorizing risks when documenting results of the analysis. Key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with pricing and underwriting risk.

ANALYSIS DOCUMENTATION: Results of pricing and underwriting risk analysis should be documented in Section III: Risk Assessment of the insurer. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the repository document.

Quantitative and Qualitative Data and Procedures – Property & Casualty

Underwriting Performance

PROCEDURE #1 assists analysts in determining the impacts of the various components of underwriting performance, including premium revenue, incurred losses, loss adjustment expenses and commissions expenses.

Key ratios included in assessing underwriting performance are the underwriting expense ratio, net loss ratio and the commissions to direct premium ratio. The procedure includes recommendations to look at Annual Financial Statement, Schedule P and trending on the Financial Profile Report. Fluctuations and trends in the individual line items shown in the income statement are also important indicators of potential financial problems and concerns. For example, significant increases in premiums written may be an indication of an insurer's entrance into new lines of business or sales territories that might result in financial problems if the insurer does not have expertise in these new lines of business or sales territories. Significant increases in premiums may also indicate that an insurer is engaging in cash flow underwriting to cover current losses. Significant increases in incurred loss ratios may indicate premium pricing errors or reserve strengthening due to prior reserve understatements, whereas significant decreases in incurred loss ratios may be indicative of current reserve redundancies.

Premium Production, Concentration and Writings Leverage

PROCEDURE #2 assists analysts in determining whether concerns exist regarding changes in the volume of premiums written or changes in the insurer's mix of business. Significant increases or decreases in premiums written may indicate a lack of stability in the insurer's operations. In addition, a significant increase in premiums written may be an indication of the insurer's entrance into new lines of business or sales territories, which might result in financial problems if the insurer does not have expertise in these new lines of business or sales territories. Significant increases in premiums written might also be an indication that the insurer is engaging in cash flow underwriting. Cash flow underwriting is the practice of writing a significant amount of business in order to invest and earn a greater investment return than the costs associated with potentially underpriced business. Cash flow underwriting can be a serious concern if it is accompanied by a shift in business written from short-tail property lines of business to long-tail liability lines.

Analysts should consider reviewing premiums written by line of business to determine which lines increased or decreased significantly and whether any new lines of business are being written. Analysts should also consider verifying that the insurer is authorized to write all lines of business being written. If new lines of business are being written, or if premiums are being written in new states, analysts should consider determining whether the insurer has expertise in the new lines of business or new sales territories. This would include expertise in distribution, underwriting, claims, and reserving. There is no information in the Annual Financial Statement to assist analysts in making this determination. However, there may be helpful information in the insurer's Management's Discussion and Analysis (MD&A). Otherwise, information may be requested from the insurer.

Within several lines of business and policy types (most notably commercial property), property/casualty insurers may be exposed to losses resulting from acts of terrorism. Following the September 11, 2001, attacks on the New York World Trade Center and the U.S. Pentagon, terrorism coverage became prohibitively expensive, if offered at all. In response, the U.S. Congress passed the Terrorsim Risk Insurance Act (TRIA) of 2002. TRIA was initially created as a temporary three-year federal program that required insurers to offer commercial policyholders with terrorism coverage, while allowing the Federal Government to share monetary losses with insurers on commercial property/casualty losses from a terrorist attack. Since then, it has been renewed four times and is due to expire on December 31, 2027. Before this backstop can be accessed, several stipulations and

limits are applied, many of which have been adjusted under subsequent extensions of the Act to limit the support available to insurers. Analysts should assess the insurer's exposure to losses related to acts of terrorism and consider any mitigation by TRIA. Procedure #2 also assists analysts in determining whether the insurer is excessively leveraged due to the volume of premiums written. Surplus can be considered as underwriting capacity, and the ratios of gross and net writings leverage measure the extent to which that capacity is being utilized and the adequacy of the insurer's surplus cushion to absorb losses due to pricing errors and adverse underwriting results. A gross writings leverage ratio result greater than 900% may indicate that the insurer is excessively leveraged, and special attention should be given to the adequacy of the insurer's reinsurance protection and the quality of the reinsurers. A net writings leverage ratio greater than 300% may also indicate that the insurer is excessively leveraged and lacks sufficient surplus to finance the business currently being written. In evaluating these ratios, analysts should also consider the nature of the insurer's business. For example, an insurer that has historically written primarily short-tail property lines of business might not be considered excessively leveraged even though it has higher ratio results, because the risk of significant underpricing or adverse underwriting results is less than that of an insurer that writes primarily volatile long-tail liability lines of business such as medical professional liability.

Analysts should consider reviewing the net premiums written by line to determine which lines of business are being written. An insurer that writes primarily short-tail property lines may be able to write at higher levels of premiums to surplus than an insurer that writes primarily long-tail liability lines, because the risk of underpricing and significant adverse underwriting results is less with the short-tail property lines of business. Analysts should also consider comparing the ratios of gross and net writings leverage to industry averages to help evaluate the insurer's leverage. If the insurer is a member of an affiliated group of insurers, analysts might want to compute the net and gross writings leverage ratios on a consolidated basis to help evaluate whether the affiliated group of insurers is excessively leveraged. If the net and gross writings leverage ratios results are high, analysts should consider determining whether the insurer has adequate reinsurance protection against large losses and catastrophes and that the reinsurers are of high quality.

Exposure to Catastrophic Events

PROCEDURE #3 assists analysts in identifying and assessing the insurer's current and prospective exposure to catastrophic events as well as the risk management practices of insurers writing a significant percentage of their business in products and geographic areas that are exposed to severe loss events. These types of catastrophic risk exposures have frequently been the cause or contributing factor in insurer insolvencies. Various steps included in this procedure assist in identifying the potential concentrations of exposure through a review of information provided in the annual statement as well as additional information provided within the RBC filing regarding modeled catastrophic risk exposures.

The Catastrophe Risk Charge in RBC (RCAT or PR027) is required to be completed by all insurers filing on the Property/Casualty blank unless they are exempted from filing due to limited exposure to property lines or coverage in catastrophe-prone areas. Insurers that are not exempted from this charge are required to provide modeled loss outputs from an approved catastrophe model for the worst year in 50, 100, 250, and 500, using the insurance company's own insured property exposure information as inputs to the model. Insurers are not required to utilize any prescribed set of modeling assumptions but are expected to use the same exposure data, modeling, and assumptions used in its own internal catastrophe risk management process.

If the analyst identifies potentially significant concentrations or exposures in writings or modeled losses, the analyst should gain an understanding of the risk mitigation practices in place to identify, monitor and mitigate significant exposures. An understanding could be gained through a review of existing information available to the analyst through company responses to the NAIC Climate Risk Disclosure Survey, ORSA Summary Report filings, or public information sources such as SEC 10K or 10Q filings. If these existing information sources are not available or do not provide adequate details of exposures and risk management practices, the analyst is encouraged to reach out to the company to request and review additional information.

In reviewing the insurer's exposure to catastrophic losses, it is important to consider both the current and prospective nature of the exposures. Increases in weather-related catastrophic losses may result from noticeable changes in climate that have been recorded over an extended period, including rising sea levels, changes in temperatures, precipitation, and/or wind patterns. The concern is that climate change or change in weather patterns may increase the severity and frequency of future weather events including, but not limited to: thunderstorms, including severe hail and strong winds; tornadoes; hurricanes; windstorms; floods; heat waves; drought; and wildfires. If the insurer is exposed to significant catastrophic losses that could be the result of climate change, the analyst should take steps to gain an understanding of and evaluate the potential impact on the company's business and underwriting strategy over medium and longer-term time horizons.

Quantitative and Qualitative Data and Procedures – Life, Accident & Health (A&H), Fraternal

Underwriting Performance

PROCEDURE #1 assists analysts in determining the impacts of the various components of underwriting performance, including net gain from operations before realized capital gains to total revenue, operating loss trends, loss ratio and commissions expenses.

PROCEDURE #2 assists analysts in evaluating the underwriting performance of the Medicare Part D Prescription Drug coverage. The procedures utilize data in the Annual Financial Statement, Medicare Part D Coverage Supplement and calculates the loss ratio, expense ratio and combined ratio. If the results are outside the benchmarks, analysts should consider if the insurer writes an enhanced benefit plan that may contain more exposure to losses. While Medicare business is funded through contracted government rates, risk exists when utilization and benefit costs exceed that which was anticipated when the contract was made. If the insurer is reporting unusual results, analysts should consider if any delays in payments from the federal Centers for Medicare & Medicaid Services (CMS) are affecting results.

Medicare Part D business is contracted with CMS. The contract sets a fixed income from CMS for a period of one year. The insurer may also offer enhanced benefit plans that fill coverage gaps that exist in basic plans. If policyholders utilize more benefits than were projected in the contract, the insurer may experience losses because the income from CMS is set for a full year. Analysts should consider obtaining and reviewing information on the contracted benefits, premium, and cost-sharing with CMS. Analysts should also evaluate a comparison of premiums, reserves, expected utilization, and benefit costs to actual experience on each plan.

PROCEDURE #3 assists analysts in evaluating the underwriting performance of the individual A&H lines of business through a review of the Annual Financial Statement, A&H Policy Experience Exhibit, including a review of the loss ratio by line and consideration of multiyear trend analysis by line.

PROCEDURE #4 assists analysts in evaluating the underwriting performance of long-term care insurance (LTC) line of business through a review of the Annual Financial Statement, Long-Term Care Experience Reporting Forms, the Actuarial Guideline-51 reporting, actuarial memorandum or any other related actuarial information filed to the department including trends in premiums, claims and loss ratios. Analysts should consider requesting the assistance of the department actuary to review trends in reserving that may affect underwriting results. (See additional guidance in the Reserving Risk Repository Analyst Reference Guide of this Handbook).

Premium Production, Concentration and Writings Leverage

PROCEDURE #5 assists analysts in determining whether concerns exist regarding changes in the volume of premiums and deposit-type funds or changes in the insurer's mix of business (lines of business written and/or geographic location of premium written). Significant increases or decreases in premiums written may indicate a lack of stability in the insurer's operations. In addition, a significant increase in premiums written may be an indication of the insurer's entrance into new lines of business or sales territories that might result in financial problems if the insurer does not have expertise in these new lines of business or sales territories. Significant

increases in premiums might also be an indication that the insurer is engaging in cash flow underwriting to increase cash income in order to cover current benefit payments.

Fluctuations and trends in the individual line items shown in the income statement are also important indicators of potential financial problems and concerns. For example, significant increases in premiums may be an indication of an insurer's entrance into new lines of business or sales territories which might result in financial problems if the insurer does not have expertise in these new lines of business or sales territories. Significant increases in premiums may also indicate that an insurer is engaging in cash flow underwriting to cover current losses, particularly if the insurer primarily writes A&H insurance.

Analysts may also perform qualitative procedures if concerns exist regarding changes in the volume of premiums and deposit-type funds or changes in the insurer's mix of business (lines of business written and/or geographic location of the premiums written) include reviewing the insurer's mix of business to determine: 1) which lines of business are being written; 2) which lines of business have increased or decreased significantly; and 3) whether any new lines of business are being written. Analysts should also consider verifying that the insurer is authorized to write all lines of business being written. If new lines of business are being written or if premiums are being written in new states, analysts should consider determining whether the insurer has expertise in the new lines of business or new sales territories. This would include expertise in distribution, underwriting, claims, and reserving. There is no information in the Annual Financial Statement to assist analysts in making this determination. However, there may be helpful information in the insurer's Management's Discussion and Analysis. Otherwise, information may be requested from the insurer. Analysts should also consider determining if, as a result of changes in the mix of business, the insurer's business is concentrated in specific geographic areas that could result in the insurer being potentially exposed to catastrophic losses.

PROCEDURE #6 assists analysts in determining whether the insurer is excessively leveraged due to its volume of business written.

A&H: Capital and surplus can be considered as underwriting capacity, and the ratios of gross (direct plus assumed reinsurance) A&H premiums to capital and surplus and net (gross less reinsurance ceded) A&H premiums to capital and surplus measure the extent to which that capacity is being utilized and the adequacy of the insurer's capital and surplus cushion to absorb losses due to pricing errors and adverse underwriting results. A gross A&H premium to capital and surplus ratio greater than 500% may indicate that the insurer is excessively leveraged, and special attention should be given to the adequacy of the insurer's reinsurance protection and the quality of the reinsurers. A net A&H premium to capital and surplus ratio greater than 300% may also indicate that the insurer is excessively leveraged and lacks sufficient capital and surplus to finance the A&H business currently being written. In evaluating these leverage ratios, analysts should also consider the nature of the insurer's business. For example, an insurer that has written primarily A&H business for many years and has proven that it can manage the business profitably is probably not as risky as an insurer which has just begun writing A&H business, even if both insurers have the same leverage ratio results.

Analysts may also consider performing qualitative procedures if there are concerns regarding whether the insurer may be excessively leveraged due to its volume of A&H business including comparing the ratios of gross A&H premiums to capital and surplus and net A&H premiums to capital and surplus to industry averages to help evaluate the insurer's leverage. Analysts might also want to review Annual Financial Statement, Schedule H – Accident and Health Exhibit and/or obtain information from the insurer to determine the specific types of A&H policies written, determine whether the A&H lines of business have historically been profitable for the insurer, and determine whether A&H loss reserve adequacy has been maintained. As noted previously, an insurer that has historically written primarily A&H business might not be considered excessively leveraged, even though it has higher leverage ratio results, because the risk of significant underpricing or adverse underwriting results is less than for an insurer that has just begun writing A&H business.

HEALTH: Fluctuations in premium or enrollment may also indicate a reason for concern. Uncontrolled, excessive growth has been found to be one of the major causes of insolvency. If the growth is not accompanied by additional surplus, the capital and surplus may not be able to support the additional exposure. Growth is often

times driven by a health entity's desire for greater market share. Many times, the health entity is able to gain that market share by lowering its prices or setting prices below the rest of the market. This desire for greater market share can lead to considerable underpricing. This underpricing can increase the amount of risk to the health entity for every dollar of premium written. Additionally, in many cases, the health entity may establish reserves as a percentage of premiums when it enters a new market, which can lead to additional risk. Therefore, if the product is underpriced, it's possible the reserves may be understated. As a result, growth by a health entity is often associated with underpricing and under reserving, which is a risky combination. In effect, the company may need to establish a greater reserve when unsure about its pricing.

In addition, growth can make administering the operations difficult and can create claims inventory backlogs. A change in premium might also reflect a health entity's entrance into new lines of business or sales regions. This could result in financial problems if the health entity does not have expertise in these new lines of business or regions. This is particularly true in the health insurance market where margins are traditionally very thin and critical mass is necessary in establishing new provider contracts. Finally, significant increases in premiums might also be an indication that the health entity is attempting to increase cash inflow in order to cover current benefit payments, particularly if the health entity is writing more longer tail insurance (e.g., long-term care).

In cases where premium or enrollment has not significantly changed, analysts should still assess the level of business written by the health entity by comparing premium and risk revenue to capital and surplus. This comparison should include premium and risk revenue recorded by the health entity in its income statement since both sources of revenue represent exposure to the health entity. This type of comparison is generally considered a measure of a health entity's operating leverage and is important in determining the potential losses to the health entity. The higher the writings ratio, the more likely the health entity will record a material loss when morbidity spikes. For example, if a health entity is writing at a 5 to 1 ratio and reports a combined ratio of 105% (assuming no investment income and no federal income taxes) the health entity would report a 25% decrease in capital and surplus based upon the net loss alone. Therefore, for every $5 in writings at a loss of 5%, surplus would be impacted 5 times greater and incur a 25% loss. If a health entity is writing at a 10 to 1 ratio and reports a combined ratio of 105% (assuming no investment income and no federal income taxes) the health entity would report a 50% decrease in capital and surplus. Therefore, for every $10 in writings at a loss of 5%, surplus would be impacted 10 times greater and incur a 50% loss.

Financial Impact of the Federal Affordable Care Act

PROCEDURE #7A–F assists analysts in reviewing the underwriting gain or loss by line of business and assessing the impact of each line to the insurer's total operating results and financial solvency. Note that the preliminary medical loss ratio (MLR) included in this supplemental health care exhibit (for any given state) is not the MLR that is used in calculating the federal mandated rebates.

The MLR used in the rebate calculation (i.e., the ACA MLR) will differ for two reasons. First the ACA MLR will reflect the development of claims and claims reserves between December 31 of the Statement Year and March 31 of the following year. The second and far more important reason is that the ACA MLR includes a credibility adjustment that is based on the number of covered lives and certain benefit provisions of the coverages provided. The adjustment takes the form of an addition of percentage points to the calculated MLR. The ACA MLR is then used to determine if a rebate is due and to calculate the amount of the rebate. If the ACA MLR is greater than the relevant MLR standard, no rebate is due. If the ACA MLR is less than the relevant MLR standard the rebate is calculated by multiplying the difference between the ACA MLR and the standard MLR by earned premium. Except for very large blocks of business (75,000 lives or more), the ACA MLR will always be larger than the Preliminary MLR. Conversely, for very small blocks of business (under 1,000 lives) the ACA MLR is not calculated since no rebate is due.

Despite the differences, the validity and reasonableness of the ACA MLR calculation, and therefore of the rebate calculation can be assessed using the data from the Annual Financial Statement, Supplemental Health Care Exhibit (SHCE). The following elements from the SHCE and the rebate calculation can be used for such an assessment.

For the following items, there should be little or no difference between the amounts in the SHCE and the rebate calculation:

- Earned premium.
- Federal and state taxes and licensing or regulatory fees.
- Expenses to improve health care quality.

For other items, there are expected to be differences between the SHCE and the rebate calculation due to the difference in the time of reporting between the two:

- Paid claims, unpaid claim reserve, and incurred claims.
- Experience rating refunds and reserves for experience rating refunds.
- Change in contract reserves.
- Incurred medical pool incentives and bonuses.
- Net healthcare receivables.

For the Contingent Benefit Reserve, the expected relationship between the SHCE and the rebate calculation is unknown as yet.

PROCEDURE #7G assists analysts in identifying any risks or concerns with recent rate reviews. The rate review process may be performed by the U.S. Department of Health and Human Services (HHS) or by the state department of insurance (DOI), depending on the states' authority. Analysts should review any recent rate reviews performed (or if a different department, communicate with the rate review staff) and assess if any concerns exist. An analyst should also consider how the increase in the per member per month (PMPM) premiums compares with approved rate increases. Consider that there may have been different rate increases for different plans. Also consider the overall increase in premium PMPM for reasonableness compared to the approved rate increase.

In 2010, the NAIC adopted a form used to meet the requirements of Section 2794 of the federal Patient Protection and Affordable Care Act (PPACA) that specifies insurers must provide justifications for any rate filing request that meets an "unreasonable" threshold. The form is not an endorsement of any definition of "unreasonable" that HHS may develop. The form does not apply to large group business.

Analysts should have a general understanding of the states' rate regulation laws and practices. Currently, states have a number of ways to regulate rates. In the individual market, the majority of states rely on actuarially justified ratings, while some states rely on community ratings, adjusted community ratings and rating bands. In the small group market, rating bands are more prevalent, while a small number of states utilize community ratings and adjusted community ratings. Rating bands limit the variation in premiums attributable to health status and other characteristics. Community ratings prohibit the use of any case characteristics besides geography to vary premium. Adjusted community ratings prohibit the use of health status or claims experience in setting premiums. Actuarial justification requires the insurer to demonstrate a correlation between the case characteristics and the increased medical claims costs. The NAIC has adopted safe harbors for case characteristics commonly used for setting premiums without providing justification. For further guidance, refer to the applicable state law or regulation.

Quantitative and Qualitative Data and Procedures – Health

Underwriting Performance

PROCEDURE #1 assists analysts in determining whether concerns exist regarding the pricing of the health entity's products. To the extent the health entity's premium PMPM has not increased by an amount that approximates the expected increase in health care costs PMPM, this may be an indication that the health entity's premium rates may not be able to keep pace with the health entity's medical inflation. Although this

ratio is a measure of what has occurred since the prior year, it can be used as a gauge in evaluating whether a health entity may be exposed. The ratio is also limited since it can't be applied at the product level using Annual Financial Statement information. However, the purpose of the ratio is to provide analysts some sense of how the entity's premium rate changes compare with medical inflation in general. Analysts should also use the ratio of change in claims PMPM to change in premium PMPM. A result greater than zero indicates that claims increased from the prior year at a faster rate than premiums have increased from the prior year. A result less than zero would indicate that premiums have increased from the prior year at a faster rate than claims have increased from the prior year. The use of PMPM allows the ratio to be broken down to a more meaningful comparison. One other item that analysts should consider is the health entity's use of multiple year provider contracts. Multiple-year provider contracts allow a health entity and a provider to lock in agreed upon rates for an extended period of time. Although not necessarily an indication of underpricing, clearly it is much more difficult to predict the cost of health care three years out than it is one year out. As a result, multiple year contracts by their nature lend themselves to greater pricing risk. Analysts should be aware of the use of these contracts and the extent to which they are used.

If there are concerns, analysts may also consider procedures to assess if one or more of the health entity's products may be underpriced. Although it may be difficult to determine if any specific products are underpriced, one procedure analysts may want to consider is the level of losses on the individual statutory lines of business. To the extent the health entity had a combined ratio of greater than 105% on any line of business; it may be an indication that the product is underpriced. To the extent a health entity has underpriced a product; the financial impact could be significant depending upon the health entity's leverage and the type of product. Analysts should also consider the need to determine if the health entity has established a premium deficiency reserve on a line of business. As discussed in the Health Reserves and Liabilities section, this reserve is established when future premiums and current reserves are not sufficient to pay future claims and expenses. This type of reserve is established because it meets the definition of a loss contingency and should therefore be considered in evaluating the current financial position of the health entity. Analysts should use the information, along with any information from the health entity, to better assess the current financial position of the health entity. Other information could include a monthly assessment from the health entity on the adequacy of the current deficiency reserve based upon updated information. Since the reserve is essentially an estimate of the expected losses from one or more contracts, updated information can assist in ensuring that the reserve continues to be adequate and that the health entity's financial position has not materially deteriorated.

PROCEDURE #2 assists analysts in evaluating the underwriting performance of the Medicare Part D Prescription Drug coverage. The procedures utilize data in the Annual Financial Statement, Medicare Part D Coverage Supplement and calculates the loss ratio, expense ratio and combined ratio. If the results are outside the benchmarks, analysts should consider if the insurer writes an enhanced benefit plan that may contain more exposure to losses. While Medicare business is funded through contracted government rates, risk exists when utilization and benefit costs exceed that which was anticipated in the contract. If the insurer is reporting unusual results, analysts should consider if any delays in payments from the CMS are affecting results.

Medicare Part D business is contracted with CMS. The contract sets a fixed income from CMS for a period of one year. The insurer may also offer enhanced benefit plans that fill coverage gaps that exist in basic plans. If the policyholder's use more benefits than were projected in the contract, the insurer may experience losses since the income from CMS is set for a full year. Analysts should consider obtaining and reviewing information on the contracted benefits, premium and cost sharing with CMS. Analysts should also evaluate a comparison of premiums, reserves, expected utilization and benefit costs to actual experience on each plan.

PROCEDURE #3 assists analysts in evaluating the underwriting performance of the individual A&H lines of business through a review of the Annual Financial Statement, A&H Policy Experience Exhibit, including a review of the loss ratio by line and consideration of multiyear trend analysis by line.

PROCEDURE #4 assists analysts in evaluating the underwriting performance of the LTC line of business through a review of the Annual Financial Statement, Long-Term Care Experience Reporting Forms, the Actuarial Guideline-51 reporting, actuarial memorandum or any other related actuarial information filed to the department

including trends in premiums, claims and loss ratios. Analysts should consider requesting the assistance of the department actuary to review trends in reserving that may affect underwriting results. (See additional guidance in the Reserving Risk Repository Analyst Reference Guide of this Handbook)

Premium Production, Concentration and Writings Leverage

PROCEDURE #5 assists analysts in determining the business stability. As previously discussed, a significant increase in premiums and enrollment may indicate rapid growth, which can present many different types of problems to a health entity or can also be an indication of the health entity's entrance into new lines of business or sales regions. Significant increases in premiums might also be an indication that the health entity is attempting to increase cash inflow to cover current benefit payments, particularly if the health entity primarily writes longer tail insurance.

If there are concerns analysts may also consider procedures to assess the financial impact of fluctuations in premiums or changes in business mix (line of business written and/or geographic location of premiums written) may have on the insurer's financial position. Analysts should consider comparing any significant changes in premiums to the health entity's most recent projections and business plan. Variances could suggest that consumers have responded to the health entity differently than anticipated. As previously discussed, growth can have a material impact on the operations of a health entity, and analysts should gain more information from the health entity when this has occurred, including how current and future growth is expected to be supported. However, decreases in premium can also place some pressure on the health entity through forced expense reductions. Analysts should attempt to understand how decreases in premiums are expected to impact this issue. If new lines of business are being written or if premiums are being written in new regions, analysts should review the health entity's MD&A for related information. Otherwise, information may be requested from the health entity showing operating results vs. projections for the new lines of business or territories and describing any changes in implementation strategy or revisions in financial projections for future periods. Analysts should also consider determining if, as a result of increases in sales regions, how the health entity prices its products, the contracts used with providers and any future expected changes in the health entity's business. The business of health insurance is very localized and the health entity must have a reasonable understanding of that market to be successful.

PROCEDURE #6 assists analysts in determining whether the health entity is excessively leveraged due to its volume of business. Capital and surplus can be considered as underwriting capacity. The ratios of net premiums and risk revenue to capital and surplus measures the extent to which that capacity is being utilized and the adequacy of the health entity's capital and surplus cushion to absorb losses due to pricing errors and adverse underwriting results. A net premium and risk revenue to capital and surplus ratio greater than 10 to 1 (8 to 1 for non-health maintenance organizations (HMOs)) may indicate that the health entity is excessively leveraged. Special attention should be given to the type of coverage provided and the extent to which the health entity is able to transfer some of the risk from the business to another entity. Two health entities both with a 10 to 1 ratio may have different leverage depending on the type of coverage that they write. For example, to the extent the health entity has written primarily comprehensive business for many years in the same region, and is able to capitate some of its business, it may not be as risky as a health entity which has just begun writing Medicare business in a new region and is unable to transfer any of its risk. Even if both of these health entities have the same leverage ratio results, the one starting Medicare Risk coverage will have a riskier financial position. Analysts should also specifically consider if a significant portion of the premium is written on longer tail lines. On these lines, the ultimate experience may not be known for some time, thereby increasing the risk of reserve understatement. Analysts should also determine whether there has been an increase in the writing's ratio or an increase in the amount of long-tail business that is being written, to assist in identifying future trends.

If there are concerns analysts may also consider procedures to assess whether the health entity may be excessively leveraged due to its volume of business. Generally, the threshold for health business on leverage ratios is set at a much higher level than for property/casualty business. This is because property/casualty business tends to carry more catastrophic risk (risk of large loss) than health business, due in part to the long-

tailed nature of property/casualty major lines of business. The threshold for HMOs tends to be set at a higher level than other health entities. This is because to some extent, HMOs are able to transfer some of their risk to other entities, thereby reducing their overall risk in comparison to their premium volume. Because of the above, a 10 to 1 threshold is generally used for HMOs (8 to 1 for most other health entities). However, analysts should consider the type of business written by the health entity and the health entity's use of risk transfer in considering the extent to which a health entity may be leveraged. These procedures assist by directing analysts to consider how these items may impact the health entity's overall leverage. Once analysts have a better understanding of these issues for a health entity, analysts may want to consider requesting additional information from the health entity on how it intends to address this issue.

Financial Impact of the Federal Affordable Care Act

PROCEDURE #7A-F assists analysts in reviewing the underwriting gain or loss by line of business and assessing the impact of each line to the health entity's total operating results and financial solvency.

Note that the preliminary MLR included in this supplemental health care exhibit (for any given state) is not the MLR that is used in calculating the federal mandated rebates.

The MLR used in the rebate calculation (i.e., the ACA MLR) will differ for two reasons. First the ACA MLR will reflect the development of claims and claims reserves between Dec. 31 of the Statement Year and March 31 of the following year. The second and far more important reason is that the ACA MLR includes a credibility adjustment that is based on the number of covered lives and certain benefit provisions of the coverages provided. The adjustment takes the form of an addition of percentage points to the calculated MLR. The ACA MLR is then used to determine if a rebate is due and to calculate the amount of the rebate. If the ACA MLR is greater than the relevant MLR standard, no rebate is due. If the ACA MLR is less than the relevant MLR standard the rebate is calculated by multiplying the difference between the ACA MLR and the standard MLR by earned premium. Except for very large blocks of business (75,000 lives or more), the ACA MLR will always be larger than the Preliminary MLR. Conversely, for very small blocks of business (under 1,000 lives) the ACA MLR is not calculated since no rebate is due.

Despite the differences, the validity and reasonableness of the ACA MLR calculation, and therefore of the rebate calculation can be assessed using the data from the Annual Financial Statement, Supplemental Health Care Exhibit (SHCE). The following elements from the SHCE and the rebate calculation can be used for such an assessment.

For the following items there should be little or no difference between the amounts in the SHCE and the rebate calculation:

- Earned premium.
- Federal and state taxes and licensing or regulatory fees.
- Expenses to improve health care quality.

For other items, there are expected to be differences between the SHCE and the rebate calculation due to the difference in the time of reporting between the two:

- Paid claims, unpaid claim reserve, and incurred claims.
- Experience rating refunds and reserves for experience rating refunds.
- Change in contract reserves.
- Incurred medical pool incentives and bonuses.
- Net healthcare receivables.

For the Contingent Benefit Reserve, the expected relationship between the SHCE and the rebate calculation is unknown as yet.

PROCEDURE #7G assists analysts in identifying any risks or concerns with recent rate reviews. As stated above, the rate review process may be performed by the U.S. Department of Health and Human Services (HHS) or by the state department of insurance (DOI), depending on the states' authority. Analysts should review any recent rate reviews performed (or if a different department, communicate with the rate review staff) and assess if any concerns exist. An analyst should also consider how the increase in the PMPM premiums compares with approved rate increases. Consider that there may have been different rate increases for different plans. Also consider the overall increase in premium PMPM for reasonableness compared to the approved rate increase.

In 2010, the NAIC adopted a form used to meet the requirements of Section 2794 of the federal Patient Protection and Affordable Care Act (PPACA) that specifies health entities must provide justifications for any rate filing request that meets an "unreasonable" threshold. The form is not an endorsement of any definition of "unreasonable" that HHS may develop. The form does not apply to large group business.

Analysts should have a general understanding of the states' rate regulation laws and practices. Currently, states have a number of ways to regulate rates. In the individual market, the majority of states rely on actuarially justified ratings, while some states rely on community ratings, adjusted community ratings and rating bands. In the small group market, rating bands are more prevalent, while a small number of states utilize community ratings and adjusted community ratings. Rating bands limit the variation in premiums attributable to health status and other characteristics. Community ratings prohibit the use of any case characteristics besides geography to vary premium. Adjusted community ratings prohibit the use of health status or claims experience in setting premiums. Actuarial justification requires the health entity to demonstrate a correlation between the case characteristics and the increased medical claims costs. The NAIC has adopted safe harbors for case characteristics commonly used for setting premiums without providing justification. For further guidance refer to the applicable state law or regulation.

Additional Analysis and Follow-Up Procedures

EXAMINATION FINDINGS direct the analsyt to consider a review of the recent examination report, summary review memorandum and communication with the examination staff to identify if any pricing and underwriting risk issues were discovered during the examination.

INQUIRE OF THE INSURER directs analysts to consider requesting additional information from the insurer if pricing and underwriting 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 pricing and underwriting risk for specific topics where concerns have been identified.

OWN RISK AND SOLVENCY ASSESSMENT **(ORSA)** directs analysts to obtain and review the latest ORSA Summary Report for the insurer or insurance group (if available) to assist in identifying, assessing and addressing risks faced by the insurer.

HOLDING COMPANY ANALYSIS directs analysts to 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.

Example Prospective Risk Considerations

The table provides analysts with example risk components for use in the Risk Assessment and Insurer Profile Summary branded risk analysis section and a general discription of the risk component. Note that the risks listed are only examples and do not represent a complete list of all risks available for the pricing and underwriting risk category.

Discussion of Quarterly Procedures

The Quarterly Pricing and Underwriting Risk Repository procedures are designed to identify the following:

1) Concerns with the insurer's underwriting performance
2) Concerns with the changes in volume of premiums written, changes in the insurer's mix of business and changes in writing leverage
3) Determine whether the insurer is excessively leveraged due to the volume of premiums written
4) Concerns with the pricing of the insurer's products
5) Concerns with the impact of the federal Affordable Care Act (ACA) (Life/A&H, and Health)

For additional guidance on individual procedure steps, please see the corresponding annual procedures discussed above.

Reputational Risk: Negative publicity, whether true or not, causes a decline in the customer base, costly litigation and/or revenue reductions.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with reputational risk. For example:

- Market conduct issues are also addressed in the Legal Risk Repository.
- News and publicity are also addressed in the Strategic Risk Repository.

Analysis Documentation: Results of reputational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Reputational Impact of Other Risks

1. Evaluate the impact of risks associated with other branded risk classifications on the insurer's reputation.

	Other Risks
a. Identify and evaluate the impact of legal risks on the insurer's reputation, such as: • Violations of legal and regulatory requirements • Ongoing regulatory investigations • Significant ongoing litigation • Reports of fraud or fraud investigations • Ethical violations	LG
b. Identify and evaluate the impact of operational risks on the insurer's reputation, such as: • Information technology (IT) security concerns • Weak or ineffective corporate governance • Problems in operating performance • Third-party administrator (TPA) or managing general agent (MGA) relationships	OP
c. Identify and evaluate the impact of strategic risks on the insurer's reputation, such as: • Significant turnover at the board and senior management level • Merger and acquisition activity • Changes in business plan or strategic direction • Increasing leverage or concerns over capital adequacy	ST
d. Identify and evaluate the impact of an impairment of goodwill of any investment in parent, subsidiaries or affiliates (PSA) and the causes for such impairment on the insurer's reputation.	MK
e. Identify and evaluate the impact of all other significant risks with the potential to affect the insurer's reputation.	CR, LQ, MK, PR/UW, RV

Ratings

2. Determine if concerns exist regarding the insurer or insurance group's ratings.

	Other Risks
a. Review the most recent report from a credit rating provider (e.g., A.M. Best, Moody's, Standard & Poor's, Fitch, and Weiss) for the current financial strength and credit ratings and outlook, as well as an explanation of any change in the ratings.	PR/UW, ST
b. If concerns exist regarding a poor financial strength or credit rating, a negative outlook, or a rating change for the insurer or the insurance holding company, review the most recent report from the credit rating provider (CRP) to determine if the rating is at a level that may impact the insurer's ability to continue to write new business or that may impact other business functions (e.g., terms of debt covenants, ability to attract financing, ability to place reinsurance, etc.).	PR/UW, ST
c. Health Lines of Business Only (filing on either Health or Life/A&H financial statements): Obtain and review the most recent information about Centers for Medicare & Medicaid Services' (CMS) Star Rating of the insurer, as well as an explanation of any change in the rating, to determine if concerns exist regarding the impact to the insurer's reputation, pricing and underwriting, and/or future strategic plans. Also note whether if the insurer has received a Star Rating of 4 or more and in turn received annual bonus payments from CMS to be spent on extra benefits for its members. Assess the reliance on bonus payments and the possible impact should the insurer no longer receive them.	PR/UW, ST

News, Press Releases and Industry Reports

3. Determine if concerns exist regarding news, press release, stock movements or industry reports involving the insurer or insurance group.

	Other Risks
a. Review insurer or insurance group press releases to identify if any negative publicity or other issues have the potential to adversely impact the insurer's reputation.	LG, ST
b. Review any insurance, marketplace or economic industry reports, news releases, and emerging issues to identify if any issues have the potential to negatively impact the insurer's reputation. • Examples: NAIC "Insurance Industry Snapshots" and "Insurance Industry Analysis Reports," NAIC Capital Markets Bureau reports, rating agency reports, insurance news sources, NAIC Risk Alerts, etc.	LG, ST*
c. If concerns exist regarding a recent industry report, news release, stock movement or emerging issue, determine if the news or industry issue has the potential to impact the insurer's reputation, operations or financial solvency.	LG, ST*
d. Review movements and trends in the insurer's or group's stock price and trading volume to assist in identifying and assessing reputational risk.	ST*
e. Perform additional non-routine procedures where applicable (e.g., survey or questionnaire, stress testing, etc.).	LG, ST*

Market Conduct

4. Determine if concerns exist regarding market conduct issues, including complaints, market conduct actions, issues raised by market conduct staff, etc. If concerns exist, communicate risks/issues to the state insurance department's Market Conduct Unit to investigate further.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Review any market conduct information available from the NAIC market analysis tools and databases (MAP, MARS, MATS, RIRS, MCAS, and Complaints). Note any unusual items or negative trends that translate into financial risks or indicate further review is needed.	LG*			
i. Count of total confirmed complaints • Current year • Prior year • Second prior year			[Data]	
ii. Confirmed complaint index (nationwide) • Current year • Prior year • Second prior year		>1%	[Data]	[Data]

	Other Risks
b. Review any market conduct information, including information available from the state's market analysis department (such as the Market Analysis Chief or the Collaborative Action Designee). Note any unusual items that translate into financial risks or indicate further review is needed.	LG*
c. Review any inter-departmental communication, as well as communication with other state, federal or international insurance regulators and the insurer. Note any unusual items or prospective risks that indicate further analysis or follow-up is necessary.	LG*
d. If market conduct information is unusual and indicates the potential for reputational damage, perform the following procedures: i. Describe and document the findings of the most recent market conduct examination and analysis and communication with the insurance department's market conduct staff. ii. Describe any current or future actions of the insurance department, other state insurance departments or other regulatory bodies against the insurer related to market conduct violations.	LG*

Additional Analysis and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding reputational risks. If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Request and assess the insurer's policies and strategies:

If concerns exist regarding the level of reputational risk, request and review the insurer's policies and strategies for:

- Strategies for maintaining or improving ratings
- Dependency on quality ratings
- Sales and marketing strategies
- Claims payment policies (including use and oversight of third parties)
- Assessment of emerging risks in the industry and economic impacts on ongoing business plans. (If an Own Risk and Solvency Assessment (ORSA) filer, this may be included in the ORSA Summary Report)
- Policies and strategies for mitigating reputational damages or crises sustained by the insurer or insurance group

Inquire of the Insurer:

If concerns exist, consider requesting additional information from the insurer regarding:

Ratings:

- Information from the insurer on the impact of ratings or changes in ratings to the insurer and/or group's operations
- If the insurer is downgraded or has a low rating, request information on any efforts to restore its rating
- Outcome of recent meetings with rating agencies
- Revised business plan
- If rating downgrades occur at the parent or affiliate, what impact do those changes have on the insurer

News, Press Releases, Industry Reports:

- The financial impact to the insurer and/or group's operations and surplus
- Disclosures of financial impact to the public and agent distribution force
- The insurer's efforts to mitigate any impact of the risk. For ORSA filers, this may be identified in the ORSA Summary Report for certain risks.
- Policies and procedures in place to mitigate adverse publicity
- Revised business plan

Market Conduct:

- The insurer's assessment of the financial impact to operations and surplus of market conduct examination findings, fines, settlements or remediation

Own Risk and Solvency Assessment (ORSA) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any reputational risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective reputational risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any reputational risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company analysis conducted by the lead state indicate any mitigating strategies for existing or prospective reputational risks impacting the insurer?

Example Prospective Risk Considerations

	Risk Components for IPS	***Explanation of Risk Components***
1	Reputational impact of [other branded risks]	The risk that other concerns, primarily associated with other branded risk classifications, may damage the insurer's reputation.
2	Negative publicity related to [name of event]	Negative publicity for the insurer or its affiliates could affect the insurer's ability to write new business or retain its current business.
3	Financial strength rating downgrade by [name of rating agency]	A rating decline or a poor rating could negatively affect the insurer's ability to write new business, or it may affect other business operations. For example, debt covenants often include requirements to maintain ratings above a certain level.
4	Poor financial strength rating by [name of rating agency] [sustained or new]	Same as above.
5	Poor Star Rating (Health Lines of Business only)	Star ratings issued by the CMS reflect performance and members satisfaction and certain Medicare plans, which may impact the insurer's reputation, pricing and underwriting, and future strategic plans.
6	Poor PSA [financial strength or credit] rating	Poor ratings by a PSA may have an indirect impact on the insurer.
7	Market conduct examination [specify findings, corrective actions, etc.]	Material findings or corrective actions, including large fines, settlements or required remediation (e.g., re-reviewing denied claims), may have a current or prospective financial impact on the insurer. (E.g., if corrective actions extend into future years and result in future costs or changes in operating practices)
8	Material market conduct violations/concerns [related to …]	Identified from communications or other iSite+ data.
9	Financial impact of remediation of market conduct violations	Identifies the financial impact both currently and prospectively in terms of either dollars or operation/process changes.

Reputational Risk: Negative publicity, whether true or not, causes a decline in the customer base, costly litigation and/or revenue reductions.

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk**.** Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with reputational risk. For example:

- Market conduct issues are also addressed in the Legal Risk Repository.
- News and publicity are also addressed in the Strategic Risk Repository.

Analysis Documentation: Results of reputational risk analysis should be documented in Section III: Risk Assessment of the insurer.

Reputational Impact of Other Risks

1. Evaluate the impact of risks associated with other branded risk classifications on the insurer's reputation.

	Other Risks
a. Identify and evaluate the impact of legal risks on the insurer's reputation, such as: • Violations of legal and regulatory requirements • Ongoing regulatory investigations • Significant ongoing litigation • Reports of fraud or fraud investigations • Ethical violations	LG
b. Identify and evaluate the impact of operational risks on the insurer's reputation, such as: • Information technology (IT) security concerns • Weak or ineffective corporate governance • Problems in operating performance • Third-party administrator (TPA) or managing general agent (MGA) relationships	OP
c. Identify and evaluate the impact of strategic risks on the insurer's reputation, such as: • Significant turnover at the board and senior management level • Merger and acquisition activity • Changes in business plan or strategic direction • Increasing leverage or concerns over capital adequacy	ST
d. Identify and evaluate the impact of an impairment of goodwill of any investment in parent, subsidiaries, or affiliates (PSA) and the causes for such impairment on the insurer's reputation.	MK
e. Identify and evaluate the impact of all other significant risks with the potential to affect the insurer's reputation.	CR, LQ, MK, RV, PR/UW

Ratings

2. Determine if concerns exist regarding the insurer's or group's ratings.

	Other Risks
a. Review the most recent report from a credit rating provider (e.g., A.M. Best, Moody's, Standard & Poor's, Fitch, and Weiss) for the current financial strength and credit ratings and outlook, as well as an explanation of any change in the ratings.	PR/UW, ST
b. If concerns exist regarding a poor financial strength or credit rating, a negative outlook, or a rating change for the insurer or the insurance holding company, review the most recent report from the credit rating provider (CRP) to determine if the rating is at a level that may impact the insurer's ability to continue to write new business or that may impact other business functions (e.g., terms of debt covenants, ability to attract financing, ability to place reinsurance, etc.).	PR/UW, ST
a. Health Lines of Business Only (filing on either Health or Life/A&H financial statements): Obtain and review the most recent information about CMS's Star Rating of the insurer, as well as an explanation of any change in the rating, to determine if concerns exist regarding the impact to the insurer's reputation, pricing and underwriting, and/or future strategic plans. Also note whether if the insurer has received a Star Rating of 4 or more and in turn received annual bonus payments from CMS to be spent on extra benefits for its members. Assess the reliance on bonus payments and the possible impact should the insurer no longer receive them.	PR/UW, ST

News, Press Releases, and Industry Reports

3. Determine if concerns exist regarding news, press release or industry reports involving the insurer or insurance group.

	Other Risks
a. Review insurer or insurance group press releases to identify if any negative publicity or other issues have the potential to adversely impact the insurer's reputation.	LG, ST
b. Review any insurance, marketplace or economic industry reports, news releases and emerging issues to identify if any issues have the potential to negatively impact the insurer's reputation. • Examples: NAIC "Insurance Industry Snapshots" and "Insurance Industry Analysis Reports," NAIC Capital Markets Bureau reports, rating agency reports, insurance news sources, NAIC risk alerts, etc.	LG, ST*
c. If concerns exist regarding a recent industry report, news release or emerging issue, determine if the news or industry issue has the potential to impact the insurer's reputation, operations or financial solvency.	LG, ST*

Market Conduct

4. Determine if concerns exist regarding market conduct issues, including complaints, market conduct actions, issues raised by market conduct staff, etc. If concerns exist, communicate risks/issues to the state insurance department's Market Conduct Unit to investigate further.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Review any market conduct information available from the NAIC market analysis tools and databases (MAP, MARS, MATS, RIRS, and Complaints). Note any unusual items or negative trends that translate into financial risks or indicate further review is needed.	LG*			
i. Count of total confirmed complaints • Current year-to-date • Prior year-to-date • Second prior year-to-date			[Data]	
ii. Confirmed complaint index (Nationwide) • Prior Year-End • Second Prior year-end • Third prior year-end		>1%	[Data]	[Data]
				Other Risks
b. Review any market conduct information, including information available from the state's market analysis department (such as the Market Analysis Chief or the Collaborative Action Designee). Note any unusual items that translate into financial risks or indicate further review is needed.				LG*
c. Review any inter-departmental communication, as well as communication with other state, federal or international insurance regulators and the insurer. Note any unusual items or prospective risks that indicate further analysis or follow-up is necessary.				LG*
d. If market conduct information is unusual and indicates the potential for reputational damage, perform the following procedures: i. Describe and document the findings of the most recent market conduct examination and analysis and communication with the insurance department's market conduct staff. ii. Describe any current or future actions of the insurance department, other state insurance departments or other regulatory bodies against the insurer related to market conduct violations.				LG*

Reputational Risk Assessment

Reputational Risk: Negative publicity, whether true or not, causes a decline in the customer base, costly litigation and/or revenue reductions.

The objective of Reputational Risk Assessment analysis is to focus on how changes in the way the insurer is perceived can affect its solvency position. As such, risks in this area are often prospective in nature and may require consideration of third-party information to understand and assess their potential impact. For example, analysts may monitor news reports and movements in a company's stock price to identify risks and trends that may be affecting the insurer's reputation.

The following discussion of procedures provides suggested data, benchmarks and procedures analysts can consider in his/her review. Analysts' risk-focused assessment of reputational risk should take into consideration the following areas (but not be limited to):

- Reputational impact of legal risks
- Reputational impact of operational risks
- Reputational impact of strategic risks
- Potential impairment of goodwill
- Agency ratings and outlooks
- News reports
- Press releases
- Stock trends
- Volume and trends in company complaints
- Market conduct violations and findings

Discussion of Annual Procedures

Using the Repository

The reputational risk repository is a list of possible quantitative and qualitative procedures, including specific data elements, benchmarks and procedures from which analysts may select to use in their review of reputational risk. Analysts are not expected to respond to all procedures, data or benchmark results listed in the repository. Rather, analysts and supervisors should use their expertise, knowledge of the insurer and professional judgement to tailor the analysis to address the specific risks of the insurer and document completion of the analysis. The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

In using procedures in the repository, analysts should review the results in conjunction with the Supervisory Plan, Insurer Profile Summary and the prior period analysis. Communication and/or coordination with other internal departments are a critical step in the overall risk assessment process and are a crucial consideration in the review of certain procedures in the repository.

Analysts should also consider the insurer's corporate governance which includes the assessment of the risk environment facing the insurer in order to identify current or prospective solvency risks, oversight provided by the board of directors and the effectiveness of management, including the code of conduct established by the board.

The placement of the following data and procedures in the reputational risk repository is based on "best fit." Analysts should use their professional judgement in categorizing risks when documenting results of the analysis. Key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with reputational risk.

ANALYSIS DOCUMENTATION: Results of reputational risk analysis should be documented in Section III: Risk Assessment of the insurer. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the repository document.

Quantitative and Qualitative Data and Procedures

Reputational Impact of Other Risks

PROCEDURE #1 directs analysts to identify and assess risks associated with other branded risk classifications on the insurer's reputation. While risks that are primarily addressed in any of the eight other branded risk classifications might have the potential to harm the insurer's reputation, the classifications most likely to directly affect reputational risk are legal risk, operational risk and strategic risk. Therefore, the procedure references a number of common risk factors/components associated with each of these classifications for consideration of their impact on the insurer's reputation. For example, reports of fraud, problems in operating performance, and significant turnover in senior management all have the potential to result in reputational risk. Therefore, the procedure encourages the reputational impact of these risks to be considered and assessed, if applicable. In addition, the procedure asks analysts to consider the reputational impact of any other significant risks identified throughout the risk assessment process, including the impact of goodwill impairment on the insurer or insurance group's reputation.

Ratings

PROCEDURE #2 directs analysts to determine if concerns exist regarding the insurer or insurance group's ratings. Ratings received from a rating agency, as well as changes in the ratings and company/industry outlooks, can have a significant impact on the insurer or insurance group's reputation. Therefore, analysts are strongly encouraged to monitor agency ratings and outlooks when assessing an insurer's exposure to reputational risk. The primary agencies that issue ratings to insurers include A.M. Best, Fitch Ratings, Moody's Investors Service, Standard & Poor's and Weiss Financial Group. For more information on these agencies and their ratings processes, see I. Introduction C. External Information. In reviewing agency ratings, reports and outlooks, analysts should consider and assess the reputational impact of any negative movements or trends with the potential to impact the insurer, as such trends may limit the insurer's ability to write new business or otherwise affect ongoing operations.

Procedure 2.c. applies only to health insurers and instructs the analyst to obtain and review the most recent information about Centers for Medicare and Medicaid Services (CMS)'s Star Rating of the insurer, as well as an explanation of any change in the rating. Star ratings are calculated by CMS based on the insurer's performance and member satisfaction data for Medicare plans including Medicare Advantage and Medicare Part D prescription drug plans. The ratings measure various factors and assign ratings on a scale from 1 to 5 stars, where 5 is the best. Star ratings help consumers compare the quality of Medicare plans. Performance data including Star ratings are available on the following CMS website:

https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData

A low or lowering of the Star rating may result in concerns regarding the insurer's reputation leading to loss of membership, decrease in underwriting results, and changes in future strategic plans. Where concerns exist, the analyst should consider gaining an understanding of the reasons for the low or lowering of the Star rating from the insurer, and how it impacts membership and future operations.

Also noteworthy is that insurers with Star ratings of 4 or higher receive annual bonus payments from CMS, which is required to be spent on extra benefits for members, which benefits consumers. Plans that receive at least four out of five stars have their benchmark increased. Total Spending on Medicare Advantage plan bonus payments have risen every year. The growth in spending on bonus payments has coincided with the increase in Medicare Advantage enrollment. Annual bonus payments from the federal government to Medicare insurers have reached an all-time high at a time when the Medicare program is facing growing fiscal pressures. The analyst should consider the amount of the bonus payments relative to the overall profit/loss and assess the reliance on those bonus payments and the possible impact should the insurer no longer receive them.

News, Press Releases and Industry Reports

PROCEDURE #3 directs analysts to determine if concerns exist regarding news, press release, stock movements or industry reports involving the insurer or insurance group. The focus of this procedure is on reviewing sources of information outside of the regulatory filings to identify and assess relevant issues for their potential impact on the insurer's reputation. To obtain information from these sources, analysts should consider performing internet searches, subscribing to news feeds and taking other steps as necessary to accumulate and collect relevant information. In addition, analysts should consider using information accumulated and provided by the NAIC for this purpose, including industry snapshots and industry analysis reports, Capital Markets Bureau reports and solvency monitoring risk alerts. For insurers that are part of publicly traded groups, movements and trends in stock price may be indicative of potential reputational issues and should, therefore, be reviewed and assessed.

Market Conduct

PROCEDURE #4 directs analysts to determine if reputational concerns exist as a result of market conduct issues, such as complaints, market conduct actions, issues raised by market conduct staff, etc. In identifying and assessing reputational risks emerging as a result of market conduct considerations, analysts should review information available through NAIC market analysis tools and databases(e.g., Market Analysis Procedures (MAP), the Market Analysis Review System (MARS), the Market Action Tracking System (MATS), the Regulatory Information Retrieval System (RIRS), the Market Conduct Annual Statement (MCAS), Complaints, etc.). These tools are made available to financial analysts through links on iSITE+ and can be a valuable resource in identifying issues with the potential to harm the insurer's reputation. If any concerns are identified through use of the tools, financial analysts are encouraged to contact market conduct regulators in their state to discuss and follow-up on the issues identified. In addition, analysts should routinely reach out to market conduct regulators to inquire regarding any significant issues they are aware of that could affect the insurer's reputation or solvency position.

Additional Analysis and Follow-Up Procedures

EXAMINATION FINDINGS directs analysts to consider a review of the recent examination report, summary review memorandum and communication with the examination staff to identify if any reputational risk issues were discovered during the examination.

REQUEST AND ASSESS POLICIES & STRATEGIES directs analysts to obtain and review information from the insurer regarding its policies and strategies for dealing with reputational risk, including strategies for maintaining or improving ratings and policies and strategies for mitigating reputational damages or crises sustained by the insurer or insurance group.

INQUIRE OF THE INSURER directs analysts to consider requesting additional information from the insurer if reputational 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 reputational risk for specific topics where concerns have been identified.

OWN RISK AND SOLVENCY ASSESSMENT (ORSA) directs analysts to obtain and review the latest ORSA Summary Report for the insurer or insurance group (if available) to assist in identifying, assessing and addressing reputational risks faced by the insurer.

HOLDING COMPANY ANALYSIS directs analysts to obtain and review the holding company analysis work completed by the lead state to assist in identifying, assessing and addressing reputational risks that could impact the insurer.

Prospective Risk Considerations

The table provides analysts with example risk components for use in the Risk Assessment and Insurer Profile Summary branded risk analysis section and a general discription of the risk component. Note that the risks listed are only examples and do not represent a complete list of all risks available for the reputational risk category.

Discussion of Quarterly Procedures

The Quarterly Reputational Risk Repository procedues are designed to identify the following:

1. Whether reputation risks may emerge from other branded risk classifications
2. Concerns regarding the insurer's or group's ratings
3. Concerns with news, press release or industry reports involving the insurer or insurance group
4. Concerns with market conduct issues, including complaints, market conduct actions, issues raised by market conduct staff, etc.

For additional guidance on individual procedure steps, please see the corresponding annual procedures discussed above.

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

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk**.** Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with reserves. For example, reserves also are addressed in the Statement of Actuarial Opinion Worksheet. In addition, if significant reserving risks are identified, analysts should consider seeking the assistance of an actuary to conduct analysis procedures in support of an assessment of reserving risk.

Analysis Documentation: Results of reserving risk analysis should be documented in Section III: Risk Assessment of the insurer.

Understated Loss and LAE Reserves

1. Review the results of the Statement of Actuarial Opinion Worksheet.

	Other Risks
a. Review the results of the Statement of Actuarial Opinion Worksheet. Were any concerns noted?	OP

2. Determine whether an understatement of loss and loss adjustment expenses (LAE) reserves would be significant.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Loss and LAE reserves to surplus		>250%	[Data]	[Data]
b. NPW (long-tail) to total NPW	ST*, PR/UW	>25%	[Data]	[Data]
c. Increase in ratio of NPW (long-tail) to total NPW from PYE		>25 pts	[Data]	[Data]
d. Review the shift in business mix from short-tail property lines to long-tail liability lines within the past 5 years	OP, ST		[Data]	

3. Review reserve development to assess whether losses and LAE appear to have been adequately reserved.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. One-year reserve development to PYE surplus ratio [IRIS #11]		>20%	[Data]	[Data]
b. Two-year reserve development to second PYE surplus ratio [IRIS #12]		>20%	[Data]	[Data]
c. Adverse or unusual trend in: • One-year reserve development • Two-year reserve development			[Data]	

d. Estimated current reserve deficiency to surplus ratio [IRIS #13].		>25%	[Data]	[Data]
				Other Risks
e. Review, by line of business, the incurred loss and LAE ratio by accident year in Annual Financial Statement, Schedule P – Part 1: i. Note any unusual fluctuations or trends between accident years. ii. Note any ratios over 100% for recent accident years. Consider the significance of the lines of business producing ratios more than 100% in relation to the insurer's total book of business.				
f. 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. i. 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. ii. Have any internal changes been initiated that may impact the reserve estimates (e.g., accelerating claim payments)?				
g. 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.				
h. Review the Annual Financial Statement, Schedule P Interrogatories, #7.1 for information on significant events or changes in coverage, retention, or accounting changes.				
i. 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.				
j. 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.				

4. Assess asbestos/environmental reserves. Review the Actuarial Opinion; Annual Financial Statement, Notes to Financial Statements, Note #33, and survival ratios.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Exposure to asbestos and environmental liability		>0	[Data]	[Data]
b. Net asbestos and environmental loss and LAE reserves to surplus		>15%	[Data]	[Data]
c. Increase in net asbestos and environmental loss and LAE reserves over prior year, where current year change in reserves is greater than 5% of surplus		>15%	[Data]	[Data]
d. A&E survival ratio		=< 5 Years	[Data]	[Data]

	Other Risks
e. If significant exposure to asbestos and environmental (A&E) reserves is identified, analysts may further assess the exposure by reviewing the following sources of information: • The Actuarial Opinion: o Does the Appointed Actuary mention A&E exposure as a risk factor or potential source of material adverse deviation? o Does the Appointed Actuary state that the A&E exposure is material? • Annual Financial Statement, Notes to Financial Statement, Note #33: o Have there 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. Note #33 does not include the effects of any asbestos and environmental exposures assumed or ceded under retroactive reinsurance agreements. • The A&E survival ratios in the Financial Profile Report: o Have there been material changes in the ratio 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. • The Actuarial Report, if requested: o Does the report provide information on the insurer's exposure to A&E losses and the Appointed Actuary's reserving methodology. The analyst's review of the information above may suggest that a meeting with company management is 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 Losses and LAE Reserves

5. Determine whether loss and LAE reserves have been discounted and, if so, whether concerns exist regarding the loss reserve discounting.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Time value of money discount on unpaid losses and LAE to surplus		>5%	[Data]	[Data]
				Other Risks
b. 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				
c. 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.				
d. 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

6. Determine whether unpaid losses and LAE are reduced for anticipated salvage and subrogation recoveries and whether concerns exist regarding the use of anticipated salvage and subrogation recoveries in the development of unpaid losses and LAE.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Anticipated salvage and subrogation to surplus		>10%	[Data]	[Data]
				Other Risks
b. 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.				
c. 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 and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding reserving risks associated with any of the items listed above. If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Inquire of the Insurer:

If concerns exist, consider requesting information from the insurer regarding:

- 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) Summary Report:

If the insurer is required to file ORSA or part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any reserving risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the Lead State indicate any mitigating strategies for existing or prospective reserving risks?

Holding Company Analysis:

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

Example Prospective Risk Considerations		
Risk Components for IPS		***Explanation of Risk Component***
1	Adverse findings from the Actuarial Opinion Assessment	Issues or concerns identified through a review of the actuarial opinion assessment may indicate prospective risks. Examples include concerns regarding the qualifications of the appointed actuary, the scope of the actuarial opinion, an inability to reconcile to Schedule P, problems with the nature of the actuarial opinion (e.g., qualified), indications of a risk of material adverse deviation, etc.
2	Potential for understated loss and LAE reserves	Various conditions and metrics may indicate the potential for understated loss and LAE reserves, which could materially misstate the insurer's financial position. Examples include the relationship between the carried reserves and appointed actuary's range, the knowledge and experience of the insurer/actuary in a particular line of business or geographic area, etc.
3	Reasonableness of actuarial methodologies or assumptions	Reasonableness may be identified through a follow-up to the examination, review of actuarial filings that summarize changes in assumptions/methodologies, discussions with the company, etc.
4	Adverse reserve development and development trend	Reserve development can be used as a measure to assess the insurer's ability to accurately estimate reserves. Analysts also should consider the reserve development trend. Adverse reserve development reduces surplus.
5	Exposure to A&E reserves	Given the level of volatility and uncertainty associated with asbestos/environmental reserves, material exposure in this area can represent a prospective risk to the insurer and should be closely evaluated and monitored.
6	Exposure to salvage and subrogation	If anticipated salvage and subrogation is overstated, the loss and LAE reserves (net of salvage and subrogation) are understated, and surplus is, therefore, overstated.
7	Exposure to discounted unpaid losses and LAE	Discounting of loss reserves could result in the following prospective risk concerns: • Undiscounted reserves contain an implicit risk margin in the amount of the discount. Discounted reserves do not include this risk margin. • Changes in payment patterns will affect the amount of the discount. • An overstated discount rate will overstate the amount of the discount, thus understating the discounted reserves.
8	Change in opining actuary	If there is a change in actuary, consider if the change results in any changes in reserving assumptions, methodologies, etc.
9	Minimum statutory standards not met	The analyst identifies certain minimum statutory reserving standards have not been met as required by state law/regulation.

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

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

Analysis Documentation: Results of reserve risk analysis should be documented in Section III: Risk Assessment of the insurer.

Understated Loss and LAE Reserves

1. Determine whether significant changes in unpaid losses or loss adjustment expense (LAE) have occurred since the prior year-end. Determine whether year-to-date (YTD) incurred losses or LAE are significantly different from the prior YTD incurred losses or LAE.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change from prior year-end:				
i. Loss reserves		>15% or <-15%	[Data]	[Data]
ii. LAE reserves		>15% or <-15%	[Data]	[Data]
b. Change from prior year-to-date:				
i. Net losses incurred		>25% or <-25%	[Data]	[Data]
ii. Net LAE incurred		>25% or <-25%	[Data]	[Data]

2. Determine whether there has been significant adverse development in the liabilities for unpaid losses and LAE established as of the end of the prior year.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Loss and LAE reserves to surplus		>250%	[Data]	[Data]
b. Change in loss and LAE reserves to surplus ratio from prior year-end		>25 pts or <-25 pts	[Data]	[Data]
c. Review the YTD reserve development of the prior year-end's loss and LAE reserves. i. Development of prior year-end total loss and LAE reserves to prior year-end surplus		>20% or <-20%	[Data]	[Data]

Exposure to Discounted Unpaid Losses and LAE

3. Determine whether there have been any significant changes pertaining to loss reserve discounting.

	Other Risks
a. Has there been any change in discounting loss reserves since the previous annual statement? If "yes," describe the changes. [Quarterly Financial Statement, Notes to Financial Statements, Note #32]	

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

Analysis Documentation: The Statement of Actuarial Opinion Worksheet is intended to provide procedures for reviewing the Statement of Actuarial Opinion, Actuarial Opinion Summary, and Actuarial Report for compliance and assessment of risks. Results of the reserving risk analysis should be documented in Section III: Risk Assessment of the insurer.

Note that reserving risks also are included in the Reserving Risk Repository.

Actuarial Opinion - General

1. Determine whether the insurer is exempt from filing the Actuarial Opinion.

	Comments
a. Actuarial Opinion filed	
b. Exemption granted	
i. Exemption attached to Annual Financial Statement	
ii. Reason for exemption: • Small company • Under supervision or conservatorship • Nature of business • Financial hardship • Other	

Actuarial Opinion - Identification

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.

	Comments
a. Appointed Actuary:	
i. Name	
ii. Relationship to insurer: • Office/employee of insurer or group (E) • Consultant (C)	
iii. Qualification (List the same qualification as listed in the Actuarial Opinion): • Fellow of the Casualty Actuarial Society (F) • Associate of the Casualty Actuarial Society (A) • Fellow of the Society of Actuaries through the General Insurance track (S) • Member of the American Academy of Actuaries approved by the Casualty Practice Council (M) • Other (O)	

iv. Appointed by the board of directors by Dec. 31 of the calendar year for which the opinion was rendered	
v. Same actuary who was appointed for the previous Actuarial Opinion ("yes" or "no")	
If "no": • The insurer notified the domiciliary state insurance regulator within five days of the replacement. • Within 10 days of above notification, the insurer provided an additional letter stating whether there were any disagreements with the former appointed actuary and also in writing requested the former appointed actuary provide a letter of agreement. • The insurer furnished the former appointed actuary's letter of agreement.	

3. Determine whether the appointed actuary made the required disclosures if the insurer is a member of an intercompany pooling arrangement. (P/C only)

	Comments
a. Member of intercompany pooling arrangement ("yes" or "no") (The analyst should refer to Annual Financial Statement, Notes to Financial Statements, Note #26 to verify.)	
i. If "yes," the Actuarial Opinion includes: • Description of pool • Pool lead company identification • List of pool members, states of domicile and pooling percentages	
ii. Exhibits A and B represent company's share of pool and reconcile to company's financial statement	
iii. If company has 0% share: • The Actuarial Opinion reads similar to that provided for the lead company • Responses to Exhibit B, items #5 and #6 are $0 and "not applicable," respectively • Lead company's Exhibits A and B are attached	

Actuarial Opinion - Scope

4. Determine whether the Appointed Actuary included the appropriate loss reserves, loss adjustment expense (LAE) reserves, and (if appropriate) other loss and premium reserves within the scope of the opinion as required by the Annual Statement Instructions Property/Casualty (P/C) and Annual Statement Instructions Title (Title) and whether the reserve amounts included in Exhibit A and Exhibit B of the Actuarial Opinion agree with the amounts reported in the Annual Statement.

	Comments
a. SCOPE paragraph contains a sentence such as: • "I have examined the actuarial assumptions and methods used in determining reserves listed in Exhibit A, as shown in the Annual Statement of the Company as prepared for filing with state regulatory officials, as of Dec. 31, 20xx, and reviewed information provided to me through xxx date." • "I have examined the reserves listed in Exhibit A, as shown in the Annual Statement of the Company as prepared for filing with state regulatory officials, as of Dec. 31, 20xx and reviewed information provided to me through xxx date." • Other or none (provide comments).	
b. Exhibit A:	
i. Attached to or made part of the Actuarial Opinion	
ii. Lists items and amounts with respect to which the Appointed Actuary is expressing an opinion, including: • Reserve for net unpaid losses • Reserve for net unpaid LAE • Reserve for direct and assumed unpaid losses • Reserve for direct and assumed unpaid LAE	
iii. Shows amounts that reconcile to corresponding Annual Financial Statement references. If amounts do not reconcile, the analyst should discuss any differences and concerns.	
iv. Lists other items on which the Appointed Actuary is expressing an opinion (P/C only), including: • Reserve for retroactive reinsurance assumed (page 3 write-in item) • Other loss reserve items • Reserve for direct and assumed unearned premiums for P&C long duration contracts • Reserve for net unearned premiums for P&C long duration contracts • Other premium reserve items such as premium deficiency reserves	
v. Cite any concerns with amounts or unusual findings with other items	

vi. Statement that items in Exhibit A reflect the disclosure items #8 through #14 in Exhibit B	

5. Determine whether the Appointed Actuary relied on an officer of the company for data preparation and whether the data used in forming the Appointed Actuary's opinion were reconciled to Annual Financial Statement, Schedule P – Part 1 (P/C) or Schedule P – Parts 1 and 2 (Title).

	Comments
a. SCOPE paragraph:	
i. Gives the name and title of the individual at the company that the Appointed Actuary relied on for data preparation.	
ii. States that the Appointed Actuary evaluated that data for reasonableness and consistency.	
iii. States that the Appointed Actuary reconciled or reviewed the reconciliation of that data to Annual Financial Statement, Schedule P – Part 1 (P/C) or Schedule P – Parts 1 and 2 (Title).	
iv. If the data was not reconciled, the analyst should document any reasons provided by the Appointed Actuary as to why the reconciliation was not performed. Further, if the reconciliation was performed but the data did not reconcile, the analyst should document any reasons provided by the Appointed Actuary as to why the data did not reconcile.	
v. States that the Appointed Actuary's examination included a review of the actuarial assumptions and methods used and tests of the calculations as considered necessary.	

Actuarial Opinion - Opinion

6. Determine whether the Actuarial Opinion states that 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, and whether all portions of the insurer's reserves are covered by the Actuarial Opinion.

	Comments
a. OPINION paragraph states that the:	
i. Amounts shown in Exhibit A meet the requirements of the insurance laws of the state of domicile.	
ii. Amounts shown in Exhibit A are computed in accordance with accepted actuarial standards and principles or similar language, such as "consistent with reserves computed in accordance with …".	
iii. Amounts shown in Exhibit A make a reasonable provision (carried reserve is within the Appointed Actuary's range of reasonable reserve estimates) for all unpaid loss and LAE	

obligations of the insurer under the terms of its contracts and agreements.	
• If "no," the type of opinion is: o Deficient or Inadequate. (Carried reserve is less than the minimum amount that the Appointed Actuary believes is reasonable.) o Redundant or Excessive. (Carried reserve is greater than the maximum amount that the Appointed Actuary believes is reasonable.) o Qualified. (Carried reserves for a certain item or items are in question because they cannot be reasonably estimated or the Appointed Actuary is unable to render an opinion on those items.) o No Opinion. (The Appointed Actuary cannot reach a conclusion due to deficiencies or limitations in the data, analysis, assumptions, or related information.)	
b. If the SCOPE includes material unearned premium reserves for P&C long duration contracts, the OPINION paragraph states that the amounts shown in Exhibit A make a reasonable provision for the unearned premium reserves for P&C long duration contracts. (P/C only)	
c. If the SCOPE includes other loss or premium reserve items on which the Appointed Actuary is expressing an opinion, the OPINION paragraph states that the amounts shown in Exhibit A make a reasonable provision for the other loss or premium reserve items.	
d. If the Appointed Actuary made use of the analysis of another actuary not within the Appointed Actuary's control for a material portion of the reserves: i. The other actuary is identified by name, credential and affiliation. ii. The Appointed Actuary discloses whether he or she reviewed the other actuary's underlying analysis. If a review was conducted, the Appointed Actuary should disclose the extent of the review including items such as the methods and assumptions used and the underlying arithmetic calculations.	
e. If the Appointed Actuary made use of the work of a non-actuary not within the Appointed Actuary's control for a material portion of the reserves: i. The individual is identified by name and affiliation. ii. The Appointed Actuary describes the type of analysis the non-actuary performed.	
f. If the Appointed Actuary made use of the work of another not within the Appointed Actuary's control for a material portion of the	

reserves, what percentage of the total reserves was based on the work of others?	

7. If applicable, identify the reasons why the Actuarial Opinion states the reserves do not make a reasonable provision for unpaid loss and LAE obligations.

	Comments
a. If the Appointed Actuary issues a Qualified Opinion, the Appointed Actuary: i. Discloses the item(s) to which the qualification relates, the reason(s) for the qualification and the amounts of such items. ii. States whether the carried reserves make a reasonable provision for the liabilities, except for the item(s) to which the qualification relates.	
b. If the Appointed Actuary issues a statement of No Opinion, the Appointed Actuary includes a description of the reasons why no opinion could be given.	
c. Review and assess, as applicable: i. If the type of opinion is Deficient or Redundant, the differences between the Appointed Actuary's indicated reserves (or range of reasonable reserves) and those carried by the insurer, and the impact of the differences on the insurer's policyholders' surplus. ii. The reasons why a Qualified Opinion or No Opinion was given. iii. The need to perform additional analysis and procedures on the items or risks affected.	

Actuarial Opinion – Relevant Comments and Exhibit B Disclosures

8. Determine whether the Appointed Actuary commented on various topics and issues in Exhibit B of the Actuarial Opinion as required by the *Annual Statement Instructions Property/Casualty and Title Insurers*.

	Comments
a. Risk of Material Adverse Deviation:	
i. Description of company-specific risk factors	
ii. Identification of materiality standard and the basis for establishing this standard	
iii. Risk of material adverse deviation ("yes" or "no")	
iv. Bright Line Indicator triggered (If "yes," comments from the Appointed Actuary should be pursued if the Appointed Actuary does not believe a risk of material adverse deviation exists.) (P/C only)	
b. Other disclosures in Exhibit B:	

i. The following amounts in Exhibit B match the corresponding Annual Financial Statement references. The Appointed Actuary may include RELEVANT COMMENT paragraphs describing the significance of the items. <u>P/C</u> • Statutory surplus • Anticipated net salvage and subrogation • Nontabular discount • Tabular discount • Net reserves for the company's share of voluntary and involuntary pools' and associations' reserves • Net asbestos reserves • Net environmental reserves • Extended claims made loss reserves • Extended claims made unearned premium reserves • Other items on which the Appointed Actuary is providing relevant comment <u>Title</u> • Known claims reserve • Statutory premium reserve • Aggregate of other reserves required by law • Supplemental reserve • Anticipated net salvage and subrogation • Discount included as a reduction to reserves If the amounts do not match the Annual Statement references, discuss the differences and any concerns.	
c. Reinsurance:	
i. Discussion of retroactive reinsurance	
ii. Discussion of financial reinsurance	
iii. Discussion of reinsurance collectability: • No discussion • Discussion with little comment • The Appointed Actuary solicited information from management on actual collectability problems • The Appointed Actuary reviewed ratings of reinsurers • The Appointed Actuary reviewed Schedule F of the Annual Financial Statement	
d. Exceptional values for one or more reserve-related IRIS ratios (P/C only): • None • One-year development to PY PHS (#11) • Two-year development to 2nd PY PHS (#12) • Estimated current reserve deficiency to PHS (#13)	

e. Comment if reserves cause the ratio of one-year or two-year reserve development to the respective prior year's policyholders' surplus to be greater than 20% (Title only)	
f. Significant change in the actuarial assumptions or methods from those previously employed	
g. Comments on any additional topics (e.g., lack of historical data, etc.)	

Actuarial Opinion – Assurance That an Actuarial Report Has Been Prepared, Signature, Requirements for Actuarial Report

9. Determine whether the Appointed Actuary indicates that an Actuarial Report has been prepared that supports the findings expressed in the Actuarial Opinion. Determine whether the Actuarial Opinion has been signed according to the Instructions. If the Actuarial Report is requested, determine if the report contains the required elements.

	Comments
a. The Appointed Actuary indicates that an Actuarial Report and underlying actuarial work papers supporting the Actuarial Opinion will be maintained at the company and available for regulatory examination for seven years.	
b. The Actuarial Opinion concludes with the signature, the printed name, the employer's name, the address, the telephone number and the email address of the Appointed Actuary, as well as the date the Actuarial Opinion was rendered.	
c. Copy of the Actuarial Report requested.	
d. Requirements of the Actuarial Report (to be verified by analyst if report is requested):	
i. The Actuarial Report is signed and dated by the Appointed Actuary.	
ii. The Actuarial Report is consistent with Actuarial Standard of Practice (ASOP) No. 41, *Actuarial Communications* and includes:	
• Narrative component that provides sufficient detail to clearly explain to company management, the board of directors, the regulator, or other authority the findings, recommendations and conclusions, as well as their significance.	
• Technical component that provides sufficient documentation and disclosures for another actuary practicing in the same field to evaluate the work and shows the analysis from the basic data (e.g., loss triangles) to the conclusions.	
iii. Actuarial report includes required elements from the Instructions:	
• Description of the Appointed Actuary's relationship to the company with clear presentation of the Appointed	

Actuary's role in advising the board of directors and/or management regarding the carried reserves. The actuarial report should identify how and when the Appointed Actuary presents the analysis to the board of directors.	
• An exhibit that ties to the Annual Statement and compares the Appointed Actuary's conclusions to the carried amounts consistent with the segmentation of exposure or liability groupings used in the analysis. The Appointed Actuary's conclusions include the Appointed Actuary's point estimate(s), range(s) of reasonable estimates or both.	
• An exhibit that reconciles and maps the data used by the Appointed Actuary, consistent with the segmentation of exposure or liability groupings used in the analysis, to the Annual Financial Statement, Schedule P line of business reporting. An explanation should be provided for any material differences.	
• An exhibit or appendix showing the change in the Appointed Actuary's estimates from the prior Actuarial Report, including extended discussion of factors underlying any material changes. If the Appointed Actuary is newly appointed and does not review the work of the prior Appointed Actuary, the Appointed Actuary should disclose this.	
• Extended comments on trends that indicate the presence or absence of risks and uncertainties that could result in material adverse deviation.	
• Extended comments on factors that led to unusual IRIS ratios for One-Year Reserve Development to Surplus (#11), Two-Year Reserve Development to Surplus (#12) or Estimated Current Reserve Deficiency to Surplus (#13), and how these factors were addressed in current and prior year analyses. (P/C only)	
• Extended comments on factors that led to exceptional reserve development and how these factors were addressed in prior and current analyses. (Title only)	
• Disclosure of all reserve amounts associated with A&H long duration contracts. (P/C only)	

Actuarial Opinion Summary

10. Determine whether the Actuarial Opinion Summary (AOS) was prepared according to regulatory requirements.

	Comments
a. Domiciliary state insurance regulator requires a confidential AOS.	

i. Required AOS was submitted by March 15 or by a later date specified by the domiciliary state. ii. AOS was signed and dated by the same Appointed Actuary who signed the Actuarial Opinion.	

11. If the insurer is a member of an intercompany pooling arrangement, verify that the AOS discloses pooling information. (P/C only)

	Comments
a. Member of intercompany pooling arrangement:	
i. Percentage of company's share of pool is disclosed.	
ii. Numbers for non-0% companies reflect the company's share of the pool. Numbers for 0% pool participants are those of the lead company.	

12. Determine whether the AOS contains the required comparisons and whether the amounts in the AOS reconcile with those in the Actuarial Opinion, Actuarial Report and Annual Financial Statement.

	Comments
a. The AOS includes:	
i. The Appointed Actuary's range of reasonable estimates for loss and LAE reserves, net and gross of reinsurance, when calculated. ii. The Appointed Actuary's point estimates for loss and LAE reserves, net and gross of reinsurance, when calculated. iii. The company's carried loss and loss adjustment expense reserves, net and gross of reinsurance. iv. The difference between the company's carried reserves and the Appointed Actuary's estimates calculated in i. and ii. above, net and gross of reinsurance.	
b. Net and gross reserve amounts reported by the Appointed Actuary in the AOS reconcile to the corresponding values reported in the insurer's Annual Statement, the Appointed Actuary's Actuarial Opinion and the Actuarial Report. If not, the Appointed Actuary provides an explanation of the difference.	
c. If the company's carried reserves are below the Appointed Actuary's point estimate or below the midpoint of the Appointed Actuary's range, how material is the difference? • As a percent of surplus • As a percent of carried reserves • In relation to the company's risk-based capital (RBC) position (P/C only) • Is the difference greater or less than the materiality standard	

13. Determine whether the Appointed Actuary's opinion implied by the comparisons in the AOS is consistent with the type of opinion rendered in the Actuarial Opinion.

	Comments
a. The AOS is consistent with the Appointed Actuary's conclusion that the amounts shown in Exhibit A are Reasonable, Deficient, or Redundant; the Opinion is Qualified; or No Opinion can be given. i. Opinion type is "Reasonable": Carried reserves are at or near the Appointed Actuary's point estimate and/or within the Appointed Actuary's range. ii. Opinion type is "Deficient": Carried reserves are materially below the Appointed Actuary's point estimate and/or below the low end of the Appointed Actuary's range. iii. Opinion type is "Redundant": Carried reserves are materially above the Appointed Actuary's point estimate and/or above the high end of the Appointed Actuary's range. iv. Opinion type is Qualified or No Opinion: The Appointed Actuary's choice of presentation in AOS will vary.	

14. Determine whether the AOS is compliant with reporting requirements regarding persistent adverse development. (P/C only)

	Comments
a. The company has experienced one-year adverse development in excess of 5% of prior year's surplus, as measured by the Annual Financial Statement, Schedule P – Part 2 – Summary, in three or more of the past five calendar years.	
i. If "yes," the Appointed Actuary includes an explicit description of the reserve elements or management decisions that were the major contributors.	

Reserving Risk Assessment

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

The objective of Reserving Risk Assessment analysis is focused on reserve adequacy. The analysis of reserves relies heavily on the review of the Statement of Actuarial Opinion and other related filings. The following discussion of procedures provides suggested data, benchmarks and procedures that analysts can consider in their review. 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

Overview of Actuarial Opinion & Actuarial Opinion Summary

A. 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.)

Annual Statement Instructions – Actuarial Opinion

Section 1 of the *Annual Statement Instructions* (Instructions) identifies the insurer's responsibilities regarding 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. Most of this is straightforward; therefore, the following is a summary of what is included within each section.

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. With respect to filing exemptions, it should be noted that a commissioner is not obligated to grant an exemption merely due to the presence of one or more conditions. Consideration of an exemption request should include the size and uncertainty in the reserves, both the direct and assumed as well as the net.

Section 1C applies only to insurers that participate in intercompany pooling agreements. 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.

The remainder of the Instructions provides guidance to company management and its Appointed Actuary (as these terms are defined in the Instructions) regarding regulatory expectations around the reported information.

Section 2 states that the Actuarial Opinion should contain four clearly designated sections: Identification, Scope, Opinion, and Relevant Comments. While illustrative language is presented in the Instructions, specific language is not required, provided the Appointed Actuary clearly conveys the information.

Section 3 (Identification) is self-explanatory. The Appointed Actuary is rendering his or her opinion as an individual, not the firm or insurer the Appointed Actuary represents.

Section 4 (Scope) is self-explanatory. Required reserve amounts upon which the Actuarial Opinion is based are presented in Exhibit A. Additional related disclosures and dollar amounts are presented in Exhibit B. The exhibit structure lends itself to easier identification of zero and non-zero amounts and allows for comparisons to amounts in the Annual Statement.

Section 4 requires the Appointed Actuary to disclose the name and affiliation of the person(s) upon whom the Appointed Actuary relied for the data used in the reserve analysis. This reliance is expected to be based on an individual(s) from the company who has both authority and responsibility for relevant data and data systems. An Appointed Actuary employed by the company 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.

Section 5 (Opinion) requires the Appointed Actuary to explicitly state his or her opinion using one of five opinion types. The illustrative language provided in the Instructions is based on the most commonly rendered opinion—that the carried reserves are reasonable. Should any other type of opinion be presented, the Actuarial Opinion calls for immediate further attention by the state insurance regulator to determine the need for follow-up action?

Section 6 (Relevant Comments) identifies specific areas on which the Appointed Actuary is required to comment. The purpose of this requirement is to provide the regulator with information that numbers alone cannot convey. The most important relevant comment relates to the 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 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.

Section 7 (Actuarial Report) provides guidance for both the Appointed Actuary (regarding required content of the report) and for the regulator (regarding what to expect from the report). State insurance regulators place a high level of trust in the work of a qualified actuary. State insurance regulators rely upon the Appointed Actuary's work to evaluate balance sheet entries—most notably, the loss and LAE reserves–that represent management's best estimates; these estimates can be highly uncertain. State insurance regulators' trust in Appointed Actuaries is only justified if the Appointed Actuary can readily provide support for the opinion provided. That support should be available in the Actuarial Report.

Section 8 (Signature) is self-explanatory. The Appointed Actuary must sign and date both the Actuarial Opinion and the Actuarial Report.

Section 9 (Error Correction) addresses required actions if an Appointed Actuary determines that the Actuarial Opinion submitted to the domiciliary commissioner was in error. If the insurer or its Appointed Actuary notifies the domiciliary commissioner that the Actuarial Opinion was in error, analysts should immediately determine if additional regulatory action is needed.

Section 10 (Exhibits) relates to the data Exhibits A (Scope) and B (Disclosures).

B. Actuarial Opinion Summary

The Actuarial Opinion Summary (AOS) is a confidential document that provides valuable insight into an Appointed Actuary's conclusion regarding the reasonableness of the carried reserves. Nearly all Actuarial Opinions state that the carried reserves are reasonable. The AOS provides quantitative information to more clearly show analysts how the Appointed Actuary reached that conclusion. With the additional information provided in the AOS, analysts can make a judgment regarding the need for further regulatory attention.

Annual Statement Instructions – Actuarial Opinion Summary Supplement

As with the Actuarial Opinion, the *Annual Statement Instructions* for the AOS are directed to the insurer.

Section 1 of the AOS Supplement identifies the specific responsibilities of the insurer regarding this document. Analysts should first determine if the domiciliary state requires the AOS. If so, the AOS should be reviewed in tandem with the Actuarial Opinion and factored into the decision on further regulatory attention.

Section 2 restates regulatory expectations that the AOS be consistent with professional standards that guide a "qualified actuary" as defined in the Actuarial Opinion Instructions.

Section 3 relates to exemption considerations for filing the AOS, which are the same for filing the Actuarial Opinion.

Section 4 addresses confidentiality. As noted above, analysts should understand the state's requirements for submission of the AOS.

Section 5 provides guidance to the company and its Appointed Actuary regarding the specific content that is expected in the AOS. This is the quantitative information that analysts should focus on in order to develop a recommendation for further regulatory action.

Parts A, B, C and D of Section 5 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, analysts might 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 analysts should 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.

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:

- Is the development concentrated in one or two exposure segments, or is it broad across all segments?
- How does the development in the carried reserve compare to the change in the Appointed Actuary's estimates?
- Is the development related to specific and identifiable situations that are unique to the company?
- Is the development judged to be random fluctuation attributable to loss emergence?
- Do 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.

Section 6 of the AOS Instructions is regarding the AOS for a pooled company, which includes the same information provided in the Actuarial Opinion Instructions.

Section 7 indicates that net and gross reserve values in the AOS should reconcile to the corresponding values in the Annual Statement.

Section 8 outlines the notification requirements of the Appointed Actuary if an AOS submitted to the domiciliary commissioner contained errors.

Section 9 is a legal disclaimer that no Appointed Actuary shall be liable for any statement made in connection with the AOS if such statements were made in a good faith effort.

Considerations

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.

Initial Steps

The Statement of Actuarial Opinion Worksheet (SAO Worksheet) provides guidance for a reviewing 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.

a. 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.

b. 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.

c. 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.

d. 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.

Next Steps

a. 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.

b. 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.

c. 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.

Discussion of the Statement of Actuarial Opinion Worksheet

Using the Worksheet

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.

ANALYSIS DOCUMENTATION: Results of the analysis should be documented in Section III: Risk Assessment of the insurer. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the repository document.

Actuarial Opinion – General and Identification

PROCEDURES #1, #2 AND #3 assist analysts in determining whether: 1) the insurer is exempt from filing the Actuarial Opinion; 2) if not, 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; and 3) the Appointed Actuary made the required disclosures if the insurer is a member of an intercompany pooling arrangement. Pool members' financial results may need to be evaluated differently than those of insurers that operate independently.

Actuarial Opinion - Scope

PROCEDURE #4 assists analysts in determining 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 assists analysts in determining 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.)

Actuarial Opinion - Opinion

PROCEDURES #6 AND #7 assist analysts in determining 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. 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.

Actuarial Opinion – Relevant Comments and Exhibit B Disclosures

PROCEDURE #8 assists analysts in determining whether the actuary commented on various topics and issues in Exhibit B of the Actuarial Opinion (including the materiality standard, anticipated salvage and subrogation, discounting, asbestos and environmental reserves, extended claims made reserves, etc.) as required by the *Annual Statement Instructions Property/Casualty*. The Actuarial Opinion should also indicate if any of the reserving IRIS ratios produce exceptional values and discuss any exceptional values.

Bright Line Indicator: This test is only applicable if the Company is subject to RBC. This indicator is triggered if 10% of the insurer's net reserves (Liabilities, Surplus and Other Funds page, sum of losses and LAE) is greater than the difference between the Total Adjusted Capital (Five-Year Historical Data page) and Company Action Level RBC (twice the Authorized Control Level RBC amount in the Five-Year Historical Data page). If the Bright Line Indicator is triggered and the Appointed Actuary opines that there is not a significant risk of material adverse deviation, analysts should request commentary from the Appointed Actuary. A special report on the Bright Line Indicator is located on StateNet under the Financial Analysis link.

Actuarial Opinion – Assurance That an Actuarial Report Has Been Prepared, Signature, Requirements for Actuarial Report

PROCEDURE #9 assists analysts in determining 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

The AOS is a confidential document that compares the Appointed Actuary's estimates to the company's carried reserves. The AOS procedures guide analysts through reviewing this document. The procedures should be supplemented with comments and questions as needed.

PROCEDURE #10 verifies the regulatory requirements for filing the AOS and the company's compliance with the requirement.

PROCEDURE #11 verifies that the AOS discloses required pooling information if the insurer is a member of an intercompany pooling arrangement.

PROCEDURE #12 verifies that 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 verifies 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). See the above discussion for guidance on evaluating the comparison between the Appointed Actuary's estimates and the company's carried reserves.

PROCEDURE #14 verifies compliance with the AOS reporting requirement regarding persistent adverse development. Analysts should note concerns regarding the nature of historical adverse development. See the above discussion for guidance on evaluating the comments provided by the Appointed Actuary.

Overview of Property/Casualty Reserving Risk

The single largest liability reported by most P/C insurers is the liability for unpaid losses (commonly known as loss reserves). Loss reserves are based on estimates rather than payments, so they cannot be precisely determined in advance. The underlying goal in estimating reserves is for unpaid losses to reflect the outstanding liability, net of reinsurance, for all losses that have occurred and not been paid as of the financial statement date. Except for claims-made policies, losses are recognized as they occur, not as they are reported. Typically, claims-made policies only cover losses that are reported during the policy period or renewal term. Under these policies, a loss is recognized when it is reported to the insurer rather than when it occurs, and the report date is substituted for the incurred date for the loss.

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, an insurer must also reserve for the future costs of settling the unpaid losses, otherwise known as LAE. The reserve for LAE is an estimate of all expenses that will be incurred in connection with the settlement of unpaid losses, which includes 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 in order 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 do not use actuaries to estimate their reserves, they are required to obtain an annual opinion from a qualified actuary regarding the reasonableness of the carried reserves.

Since these liabilities must be estimated, they are generally considered a high-risk area for P/C insurers. The reasonableness of an insurer's liabilities for unpaid losses and LAE must be closely monitored on an ongoing basis. A deficiency in these liabilities directly affects surplus, which affects the insurer's overall financial solvency. Therefore, the primary concern of analysts in the review of unpaid losses and LAE is whether the

liabilities established by the insurer 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.

Discussion of Annual Reserving Risk Repository

The Annual Reserving Risk Repository is designed to identify potential areas of concern as to whether the insurer's reserves are sufficient to cover the costs of settling all of its losses that have occurred as of the financial statement date.

Using the Repository

The Reserving Risk Repository is a list of possible quantitative and qualitative data, benchmarks and procedures that the analyst or actuary may use in the review of reserving risk. Analysts are not expected to respond to all procedures, data and benchmark results listed in the repository. Rather, analysts and supervisors should use their expertise, knowledge of the insurer and professional judgment to tailor the analysis to the specific risks of the insurer and document completion of the analysis. The repository is not an all-inclusive list of possible procedures. The department should consider the nature and scope of the risk when analyzing risks for which no procedure is described.

In using procedures in the repository, analysts should review the results in conjunction with the Supervisory Plan and Insurer Profile Summary and the prior period analysis. Communication and coordination with other internal departments is a critical step in the overall risk assessment process and is crucial to the review of certain procedures in the repository.

The placement of the following data and procedures in the reserving risk repository is based on "best fit." Analysts should use their professional judgment in categorizing risks when documenting results of the analysis. Analysts should also recognize that examiners or company management may classify a risk differently from what is outlined in this repository. Key insurance operations/activities or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with reserves. For example, reserves are also addressed in the Actuarial Opinion Risk Assessment Repository.

ANALYSIS DOCUMENTATION: Results of the reserving risk analysis should be documented in Section III: Risk Assessment of the insurer.

Quantitative and Qualitative Data and Procedures

Understated Loss and LAE Reserves

PROCEDURE #1 asks analysts to 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.

PROCEDURE #2 assists analysts in determining 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, analysts should 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.

PROCEDURE #3 assists analysts in determining 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.

Analysts may 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.

Analysts may 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, analysts should 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, analysts should consider having an actuary review the analysis performed.

PROCEDURE #4 provides metrics for assessing the insurer's exposure to asbestos and environmental liabilities. Asbestos and environmental liabilities are particularly difficult to estimate. Many years may pass between exposure and the realization of adverse effects; in insurance terms, there may be a long lag between the occurrence and the reporting of a loss. Legal decisions may change the value of outstanding claims and lead to new claim filings. Different courts may interpret policy language differently, and questions may arise on which policy covers a claim. If the insurer has significant exposure to asbestos or environmental claims, analysts may want to review Note #33 to gain information on the nature of the liabilities.

Exposure to Discounted Losses and LAE Reserves

PROCEDURE #5 assists analysts in determining 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. Present value discounting of P/C loss reserves is generally not an accepted statutory accounting practice except in the case of fixed and determinable payments such as those resulting from workers' compensation tabular indemnity reserves and long-term disability claims. However, some state insurance departments permit insurers to discount other types of business on a non-tabular basis. All discounting, other than tabular discounting on the types of claims specified in *Statement of Statutory Accounting Principles* (SSAP) *No. 65—Property and Casualty Contracts*, must be approved by 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 discount, and disclosure of discounting is required in the Annual Financial Statement, Notes to Financial Statements #32. This disclosure includes a discussion of the discount rates used and the basis for using those rates. 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 may also consider reviewing the information in Note #32 in more detail and comparing the interest rates used to discount reserves to the insurer's investment yield. Analysts may consider comparing the maturities of the insurer's investment portfolio and the estimated timing of future payments on unpaid claims.

Exposure to Salvage and Subrogation

PROCEDURE #6 assists analysts in determining 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 is the proceeds received by an insurer 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, the insurer takes title to the automobile. The insurer then sells the damaged automobile and uses the proceeds to reduce its ultimate loss on the claim. Subrogation is the statutory or legal right of an insurer to recover from a third party who is wholly or partially responsible for a loss paid by the insurer under the terms of a policy. For example, when an insurer pays its not-at-fault insured for an auto collision loss, the insurer may subrogate against the third party responsible for the accident and collect the amount paid, or 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, it is generally recognized in the Annual Financial Statement only after it has 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 amount of such anticipated salvage and subrogation must be disclosed in Schedule P.

Analysts may also consider reviewing the Annual Financial Statement, Schedule P – Part 1 to determine which lines of business have anticipated salvage and subrogation recoverables. For the more significant lines of business, analysts might 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 help determine the reasonableness of the anticipated salvage and subrogation.

Additional Analysis and Follow-Up Procedures

EXAMINATION FINDINGS directs analysts to 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 directs analysts to 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.

***OWN RISK AND SOLVENCY ASSESSMENT* (ORSA)** directs analysts to 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.

HOLDING COMPANY ANALYSIS directs analysts to 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.

Example Prospective Risk Considerations

The table provides analysts with suggested risk components for use in the Risk Assessment and Insurer Profile Summary branded risk analysis section and a general description of the risk component. Note that the risks listed are only examples and do not represent a complete list of all risks available for the reserving risk category.

Discussion of Quarterly Procedures

The Quarterly Reserve Risk procedures are designed to identify the following:

1. Significant changes in unpaid losses and LAE since the prior year-end
2. Significant changes in incurred losses and LAE since the prior year period
3. Whether there has been significant adverse development on the liabilities for unpaid losses and LAE established at the prior year-end
4. Significant changes pertaining to loss reserve discounting

For additional guidance on inidividual procedure steps, please see the corresponding annual procedures dicussed above.

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

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with reserving. For example:

- Reserves also are addressed in the Actuarial Opinion Risk Assessment Repository.
- Separate accounts also are addressed in the Operations and Liquidity Risk Assessment Repositories.
- Surrender activity also is addressed in the Liquidity Risk Assessment Repository.

Involvement of an Actuary: The analyst should involve an actuary where indicated in the procedures or as needed. To stay within any required deadlines for reviews, the analyst should document any greater in-depth reviews being performed by the actuary (such as involving the confidential actuarial memorandum or the confidential principle-based reserving (PBR) report for life reserves) and supplement the documentation when such actuarial review is complete. Questions or requests for assistance regarding PBR and for asset adequacy analysis may be made to the NAIC actuarial resources. Please see the NAIC website for the Valuation Analysis (E) Working Group for contact information regarding the use of NAIC actuarial resources and use of the Working Group if needed.

Depth of Review: Life, annuity, PBR and accident and health (A&H) involve many products and complex requirements. A complete determination of compliance with all of these requirements during the course of an annual financial analysis review is typically not practical for many companies. Judgment in a risk-focused approach will need to be exercised regarding greater focus and use of actuarial expertise in any procedure provided below.

Analysis Documentation: Results of reserving risk analysis should be documented in Section III: Risk Assessment of the insurer.

Valuation of Life Reserves

1. Determine whether anything has occurred since the last reporting period to raise concern that the insurer's life policies are not valued in accordance with the minimum formula statutory valuation standards.

	Other Risks
a. Review the results of the Statement of Actuarial Opinion repository. Were any concerns noted regarding the valuation of the insurer's reserves in accordance with minimum statutory valuation standards?	OP
b. Review the Notes to Financial Statements, Note #31 – Reserves for Life Contracts and Annuity Contracts and note any unusual items regarding the valuation of life reserves.	OP
c. Review the trends of reserve amounts for the various basis groupings in Exhibit 5 over recent annual statements. Contact the state insurance department's actuary or other actuarial resource for assistance with this analysis.	
d. If questions or concerns are noted, contact the state insurance department's actuary or other actuarial resource to discuss the nature and scope of the life reserve valuation procedures performed.	

2. Assess information on policy benefits offered that may indicate the impact of type of business on reserving assumptions and methodologies.

	Other Risks
a. Through the analyst's interdepartmental communication with the policy forms department, inquire as to whether the insurer had any new and unusual policy forms approved during the past 12 months by either the department or Interstate Insurance Product Regulation Commission (IIPRC). Unusual filings could be product lines the company has not written before or contain new or innovative product or benefit designs	OP, PR/UW, ST
b. If concerns are noted about the types of life policies written, review the insurer's life insurance plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy features and benefits.	OP, PR/UW
c. If questions or concerns are noted, contact the state insurance department's actuary for assistance in completing the analysis.	
d. If concerns are noted, consider a target examination of reserves in which the field examination staff request a valuation listing by plan and issue year, and test a sample of individual policy reserves from each of the major life insurance plans for accuracy.	
e. In considering any limited scope examination or any analysis needed, the analyst may consider use of the state's equivalent authority to the NAIC Standard Valuation Law (#820), Section 11F, which provides the commissioner may engage a qualified actuary at the expense of the company to perform an actuarial examination of the company and opine on the appropriateness of any reserve assumption or method used by the company, or to review and opine on a company's compliance with any requirement set forth in Model #820.	

3. Determine whether any changes in life reserve valuation bases during the year were appropriate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Has been a weakening of reserves resulting from a change in the basis of valuation during the year that resulted in an increase in capital and surplus greater than 5% of current year capital and surplus. [Annual Financial Statement, Exhibit 5A]	OP	> 5%	[Data]	[Data]
				Other Risks
b. Review the specific changes in valuation bases applied to life products noted in Annual Financial Statement, Exhibit 5A, and determine that individual changes in specific mortality tables, interest rates, or valuation methods meet the minimum statutory valuation standards.				OP
c. Did changes in life reserve valuation bases received appropriate regulatory approval, if required?				OP

Valuation of PBR Life Reserves

4. Determine whether the insurer's life reserves, on contracts subject to a principle-based valuation methodology, are valued in accordance with the VM-20, Requirements for Principle-Based Reserves for Life Products. The NAIC actuarial resources may be contacted for questions or assistance in performing these procedures. Please see the NAIC website for the Valuation Analysis (E) Working Group for contact information regarding the use of NAIC actuarial resources and use of the Working Group if needed.

	Other Risks
a. Review Section 1 of the VM-20 Supplement to the annual statement for the business PBR and the resulting reported PBR reserves. Consider the business PBR was applied with respect to the applicability of PBR provided in the *Valuation Manual* (VM), Section II for products within the scope of VM-20 requirements.	OP
b. Review Section 2 of the VM-20 Supplement to determine if the company has chosen to delay implementation of VM-20 requirements per Section II(c) of the VM.	OP
c. Review Section 3 of the VM-20 Supplement to the annual statement to determine if the company qualifies for the companywide exemption.	OP
d. Based on the judgment of the analyst and after discussing with the department actuary or the NAIC actuarial resources, determine if the VM-31, PBR Report Requirements, report should be requested from the company for review. The state insurance department actuary should perform the following procedures for any VM-31 Actuarial Report to be reviewed. The NAIC actuarial resources may be contacted for any questions or help in this review.	
e. Review the VM-31 Actuarial Report to identify the insurer's life insurance plan descriptions to understand the types of plans offered and the specific policy features and benefits.	OP, PR/UW
f. Review the VM-31 Actuarial Report to identify valuation assumptions based on company experience and valuation assumptions based on industry experience tables.	
g. For valuation assumptions based on company experience, contact the company valuation actuary to request to see the latest experience studies for those assumptions and evaluate the process used to establish the assumptions and the margins for those assumptions and the credibility factors used for each experience assumption.	
h. For mortality based on company experience, review the determination of the credibility percentage, the sufficient data period, the mortality segments and the industry mortality tables that company experience mortality is graded to. Review whether the level of company mortality experience is appropriate in determining the credibility percentage and the sufficient data period. This is significant as the larger the body of experience used the smaller the resulting mortality margins and the lower the PBR reserves. Review to assure the use of any larger body of aggregate mortality experience is appropriate. As mentioned above, the NAIC actuarial resources may be consulted for any questions or support in this review.	
i. Review the VM-31 Actuarial Report to determine the contracts or plans that passed the stochastic and deterministic exclusion tests. Consider requesting the assistance of the NAIC actuarial resources to independently verify that such contracts and plans do pass the deterministic and stochastic exclusion tests.	
j. Consider whether to request that a limited-scope examination (or interim examination procedures) be performed to address concerns by reproducing net premium reserve (NPR) calculations on a sample basis. Reproducing calculations may be conducted by asking the	

company to calculate NPR reserves for a sample of contracts and plans or requesting the NAIC actuarial resources to recalculate the NPR reserves for the same sample of contracts and plans and compare results. Also consider whether to request the NAIC actuarial resources for help in any testing of the deterministic (DR) and stochastic reserve (SR) if there are unusual relationships between the NPR, DR and SR.	
k. In considering any limited scope examination or any analysis needed, the analyst may consider use of the state's equivalent authority to Model #820, Section 11F, which provides the insurance commissioner may engage a qualified actuary at the expense of the company to perform an actuarial examination of the company and opine on the appropriateness of any reserve assumption or method used by the company, or to review and opine on a company's compliance with any requirement set forth in this model.	

Adequacy of Life Reserves

5. Determine whether the insurer's underlying assets are adequate to support the future obligations of its life insurance policies.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net interest spread on life reserves (net investment income, less tabular interest, divided by average life reserves)	MK, OP	< 2%	[Data]	[Data]
b. Change in Asset Mix (IRIS Ratio 11)	OP, ST	> 5%	[Data]	[Data]
				Other Risks
c. If the insurer filed a Statement of Actuarial Opinion based on an asset adequacy analysis, review the results of the Actuarial Opinion Repository and note any concerns regarding the adequacy of the insurer's underlying assets to support future life insurance policy obligations.				
d. Pursuant to the review of the Regulatory Asset Adequacy Issues Summary (RAAIS) in the Actuarial Opinion Repository, note whether the responses to the questions were satisfactory.				
e. If concerns still exist upon review of the asset adequacy analysis, discuss with the appointed actuary and the company and request any additional information or work to be performed to address these concerns. If the insurance commissioner determines that the supporting actuarial memorandum fails to meet the standards prescribed by the Valuation Manual or is otherwise unacceptable to the insurance commissioner, the insurance commissioner may engage a qualified actuary at the expense of the company to review the opinion and basis for the opinion and prepare the supporting actuarial memorandum required by the insurance commissioner. See the state's equivalent authority to NAIC Model #820, Section 3B(3)(b). This also is noted in the Actuarial Opinion Repository.				
f. Review the Actuarial Guideline 53 reporting relating to assumptions and sensitivity testing for reinvested high-yielding complex assets within the asset adequacy analysis, if applicable. Determine whether concerns exist in meeting asset adequacy requirements. See further guidance in the AOMR procedures and reference guide.				

Reserve Requirements Associated with Separate Account Products & Guarantees

6. Review the Notes to the Financial Statements and the Separate Accounts General Interrogatories to determine concerns exist regarding Maximum Guarantees.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. What is the variable annuity account value - general account? List the variable annuity account value, percentage of capital and surplus, and percentage of total admitted assets.	OP	N.A.	[Data]	N.A.
b. Have any separate accounts collected amounts from the general account within the past five years related to separate account guarantees? [Annual Financial Statement, Separate Account General Interrogatories, #2.2]	OP	= Yes	[Data]	[Data]
				Other Risks
c. If 6.b is "yes", does the department have any concerns regarding the amounts or trend of guarantees paid?				OP
d. If 6.b is "yes", were the guarantees appropriately reserved for in the general account?				
e. Perform an industry peer comparison of the total maximum guarantee and the guarantee amounts paid by the general account on a company-by-company basis to determine if the amounts appear reasonable.				OP

7. Review the results of the Actuarial Opinion Repository to determine if concerns exist regarding reserve liabilities for separate accounts.

	Other Risks
a. Was there any indication of contingent liabilities created by the separate accounts for the general account?	OP
b. Were separate account assets and liabilities subject to asset adequacy analysis? If "no," did the actuarial opinion explain why?	LQ

8. Review the Separate Account General Interrogatories to determine if concerns exist regarding risk charges paid.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Have there been any risk charges paid to the general account related to separate account guarantees? [Annual Financial Statement, Separate Account General Interrogatories, #2.6]	OP	N.A.	[Data]	N.A.
b. Did the insurer report maximum guarantees that the general account would provide or pay amounts on guarantees in the current year, and report no risk charges to the general account?	OP	= Yes	[Data]	[Data]

9. Determine the type of products included in the separate account to further understand and assess separate account reserve liabilities.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Do any of the separate accounts have guarantees that are designed to mirror an established index (Annual Financial Statement, Note #35B)?	OP	> 0	[Data]	[Data]
b. Do any of the separate accounts have non-indexed guarantees greater than 4% [Annual Financial Statement, Note #35B]?	OP	> 0	[Data]	[Data]

	Other Risks
c. If material guarantees exist, or if non-insulated products exist, determine whether the assets associated with these products are being invested in accordance with statutory guidelines.	OP
d. Review Separate Account General Interrogatory #5 to identify if the insurer reported a material amount of assets in the separate account at amortized cost rather than fair value. If yes, consider additional analysis of actuarial and asset adequacy reporting.	OP
e. Review Separate Account Analysis of Operations by Line of Business (Page 5) and Analysis of Increase in Reserves During the Year (Page 6) to identify if any concerns exist regarding the types of products included in the Separate Account and reserving for those products. If yes, consider additional analysis of actuarial and asset adequacy reporting.	OP
f. Based upon an overall understanding of the insurer's separate accounts products, is there evidence that such products may be creating contingent liabilities to the general account with product features such as minimum guaranteed death benefits, minimum guaranteed interest rates, etc.?	OP
g. If concerns or questions are noted, contact the state insurance department's actuary or other actuarial resource to discuss the nature and scope of the valuation procedures performed relating to guarantees included with separate accounts products. If determined to be necessary, contact the company's qualified actuary.	
h. Determine whether growth in separate accounts appears to be financed through borrowings of the general account and, if so, whether any concerns exist regarding the terms of repayment or collateralization.	OP
i. Determine whether the insurer writes any modified guaranteed annuities and, if so, the overall materiality and potential negative impact on the insurer's general account.	OP
j. Through the analyst's quarterly interdepartmental communication with the policy forms department, inquire as to whether the insurer filed any new and unusual separate account policy forms during the past 12 months.	OP
k. If concerns are noted about the types of policies included in separate accounts, review the insurer's separate accounts plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy features and benefits, particularly minimum guarantees.	OP

l. If concerns are noted about reserving for separate accounts, consider a target examination of reserves, request that the field examination staff request a valuation listing by plan and issue year, and test a sample of the individual policy reserves for accuracy.	

Valuation of Annuity Reserves

10. Has anything occurred since the last reporting period to raise concern that the insurer's annuity contracts are not valued in accordance with the minimum formula statutory valuation standards?

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in individual annuity reserves for the year as a percentage of individual annuity premiums (plus annuity investment income less annuity benefits and other fund withdrawals)		< 50% or > 120%	[Data]	[Data]
b. Change in group annuity reserves as a percentage of group annuity premiums (plus annuity investment income less annuity benefits and other fund withdrawals)		< 50% or > 120%	[Data]	[Data]
				Other Risks
c. Review the results of the Actuarial Opinion repository. Were any concerns noted regarding the valuation of the insurer's reserves in accordance with minimum statutory valuation standards?				
d. Review the Annual Financial Statement, Notes to Financial Statements, Note #31 – Reserves for Life Contracts and Annuity Contracts and note any unusual items regarding the valuation of annuity reserves (surrender values promised in excess of the reserve, significant changes in components of reserves, etc.).				
e. Review the trends of reserve amounts for the various basis groupings in Exhibit 5 over recent Annual Statements. Contact the state insurance department's actuary or other actuarial resource for assistance with this analysis.				
f. If questions or concerns are noted, contact the state insurance department's actuary or other actuarial resource to discuss the nature and scope of the annuity reserve valuation procedures performed. If determined to be necessary, contact the company's qualified actuary.				

11. Assess information on annuity contract benefits offered that may indicate the impact of type of business, reserving assumptions and methodologies.

	Other Risks
a. Through the analyst's quarterly interdepartmental communication with the policy forms department, inquire as to whether the insurer filed new and unusual policy forms during the past 12 months.	OP
b. If concerns are noted about the types of policies, review the insurer's annuity plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy features and benefits	

c. If concerns are noted about reserving for annuity products, consider a target examination of reserves, request that the field examination staff request a valuation listing by plan and issue year, and test a sample of individual policy reserves from each of the major annuity plans for accuracy.	
d. In considering any limited scope examination or any analysis needed, the analyst may consider use of the state's equivalent authority to Model #820, Section 11F, which provides the insurance commissioner may engage a qualified actuary at the expense of the company to perform an actuarial examination of the company and opine on the appropriateness of any reserve assumption or method used by the company, or to review and opine on a company's compliance with any requirement set forth in this model.	
e. Request a spread analysis where the current spread earned is compared to the original pricing spread on the annuity block in question. Products with higher guaranteed minimum interest rates relative to the current interest environment. The state insurance department actuary can assist in this review.	MK

12. Determine whether any changes in annuity reserve valuation bases during the year were appropriate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Note whether there has been a weakening of reserves resulting from a change in the basis of valuation during the year that resulted in an increase in capital and surplus. [Annual Financial Statement, Exhibit 5A – Changes in Bases of Valuation During the Year]		< -5%	[Data]	[Data]
				Other Risks
b. Review the specific changes in valuation basis applied to annuity products noted in Annual Financial Statement, Exhibit 5A – Changes in Bases of Valuation During the Year and determine that individual changes in specific mortality tables, interest rates, or valuation methods meet the minimum statutory valuation standards.				
c. Did changes in annuity reserve valuation bases receive appropriate regulatory approval, if required?				
d. Test check the calculations involved in applying a change in valuation basis. Contact the state insurance department's actuary or other actuarial resource for assistance with this assessment.				

Adequacy of Annuity Reserves

13. Determine whether the insurer's underlying assets are adequate to support the future obligations of its annuity policies.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Net interest spread (net investment income, less tabular interest, divided by average annuity reserves) on individual annuity reserves.	MK, ST	< 0.5%	[Data]	[Data]

b. Net interest spread (net investment income, less tabular interest, divided by average annuity reserves) on group annuity reserves.	MK, ST	< 0.25%	[Data]	[Data]
c. Change in Asset Mix (IRIS Ratio 11).	OP	> 5%	[Data]	[Data]
				Other Risks
d. If the insurer filed a statement of actuarial opinion based on an asset adequacy analysis, review the results of the Actuarial Opinion Repository and note any concerns regarding the adequacy of the insurer's underlying assets to support future annuity policy obligations. Review the actuary's comments regarding the analysis performed and conclusions reached.				
e. If available, or if concerns or questions are noted, request and review the RAAIS, and note whether the responses to the questions were satisfactory.				
f. If concerns exist upon review of the asset adequacy analysis, conduct an independent asset adequacy analysis.				

14. Determine whether any other concerns exist regarding annuity withdrawal and surrenders that may affect reserves.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Guaranteed interest contracts as percent of capital and surplus	OP, ST	> 25%	[Data]	[Data]
b. Annuity benefits, surrenders and other fund withdrawals for individual and group annuities as a percent of capital and surplus	LQ	> 50%	[Data]	[Data]
c. Change in annuity benefits, surrenders, and other fund withdrawals for individual and group annuities and deposits, as a percentage of premiums	LQ	+/- 25 pts	[Data]	[Data]
d. Note significant amounts subject to withdrawal without any surrender charge or market value adjustment (i.e., as a percent of capital and surplus). [Annual Financial Statement, Notes to Financial Statements, Note #32]	OP	> 5%	[Data]	[Data]
				Other Risks
e. Review the insurer's annuity plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy withdrawal features and surrender charges.				OP

Adequacy of A&H Reserves

15. Determine whether an understatement of A&H reserves would be significant.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. For non-life insurers, the gross A&H reserves to capital and surplus ratio.	OP	>300%	[Data]	[Data]

b. Net A&H reserves to capital and surplus ratio.	OP	> 150%	[Data]	[Data]

16. Determine whether the insurer's A&H reserves are valued in accordance with the minimum formula statutory valuation standards.

	Other Risks
a. Review the results of the Actuarial Opinion repository. Were any concerns noted regarding the valuation of the insurer's reserves in accordance with minimum statutory valuation standards?	OP
b. Review the insurer's description of the valuation standards used in calculating the additional contract reserves (which is required to be attached to and filed with the Annual Financial Statement) and consider whether the reserve basis, interest rates and methods appear reasonable.	
c. If questions or concerns are noted, contact the qualified actuary who signed the insurer's Statement of Actuarial Opinion to discuss the nature and scope of the A&H reserve valuation procedures performed.	

17. Review reserve development to assess if reserves are adequate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. For non-life insurers:				
i. A&H reserve deficiency ratio.		> 0%	[Data]	[Data]
ii. Review the Schedule H claims test and note/explain any adverse trend or unusual fluctuation of one-year A&H loss development during the past five years.		+/- 10	[Data]	[Data]
				Other Risks
b. Review Annual Financial Statement, Schedule H – Accident and Health Exhibit, and perform the following: i. Determine which A&H lines of business are being written by the insurer. ii. Review Schedule H – Part 3, to determine which A&H lines of business had positive development during the year.				

18. Assess loss ratios as indicators of reserve adequacy.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in A&H loss ratio from the prior year.	OP, PR/UW	+/- 10 pts	[Data]	[Data]
				Other Risks
b. Review the A&H loss percentage ratio for unusual fluctuations or trends over a multiyear period.				OP, PR/UW

c. Compare the A&H loss percentage ratio to the industry average to determine any significant deviations from the industry average.	OP, PR/UW

19. Assess information on policy benefits offered that may indicate the impact of type of business on reserving assumptions and methodologies.

	Other Risks
a. Review the Notes to Financial Statements, MD&A, or other correspondence with the insurer and note whether the insurer initiated any internal changes that could impact the reserve estimates.	OP, ST
b. Through the analyst's quarterly interdepartmental communication with the policy forms department, inquire as to whether the insurer has filed any new and unusual A&H policy forms during the past year.	OP
c. If concerns are noted about the types of policies, review the insurer's A&H insurance plan descriptions and/or policy forms to better understand the types of plans offered and the specific features and benefits.	OP
d. If concerns are noted about reserving for A&H, consider a target examination of reserves, request that the field examination staff request a valuation listing of A&H policy reserves by policy and test a sample of policies to determine that the reserve factors used were appropriate and that the reserves were correctly computed.	

20. Review and assess long-term care (LTC) insurance reserves.

	Other Risks
a. Review the information reported in the LTC Experience Reporting Form of the Annual Financial Statement the *Actuarial Guideline-LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) reporting, actuarial memorandum or any other related actuarial information filed to the department and identify any concerns with reserve adequacy of LTC insurance business. Request a department actuary to assist in the review, if available. i. Gain an understanding of the asset adequacy and cash-flow testing for LTCI on a stand-alone basis. ii. Consider any negative development in total LTCI reserve, asset adequacy reserves (if available), active life reserves, disabled lives reserves and premium deficiency reserves over the last five years. iii. Evaluate the appropriateness of investment return assumptions factoring in the status of the current economic and low interest rate environment. b. If concerns exist: i. Evaluate actual results vs. original or revised assumptions and financial projections to identify trends and concerns. ii. Consider evaluating legacy blocks of business separately from newer blocks of business. iii. Rate Increases: Obtain and review the following information related to the status of rate increases and reduced benefit options. Consider that some information may be available from rate review staff for recent rate increase filings.	

1. Track the progress of rate increases across states where a material amount of business is written. 2. Review projections illustrating the impact of proposed rate increases or reduced benefit options on the company's future profitability. 3. Determine the extent that future rate increases are included in the amount ($) of reserve offsets, asset adequacy/cash-flow testing and the reasonableness of the assumptions. 4. Consider the impact of historical approvals on the company's ability to obtain the rate increases presented in the projections. If concerns are identified in this area, obtain and review information on the company's plans to address these issues. 5. Compare the average percent of rate increases requested to the average approved. 6. Identify the amount of written premium change due to approved rate increases. iv. Regarding the adequacy of internal capital to support the LTCI business, compare the current total LTC reserves (active life and other), net of reinsurance, to the amount of internal capital the company has set aside for LTCI (e.g., internal capital per Own Risk and Solvency Assessment [ORSA] if applicable, or rating agency if higher than internal). If necessary, request information to gain an understanding of the degree of conservatism in such capital assumptions.	

21. Assess the impact on changes in valuation bases on reserves.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Note whether there has been a weakening of reserves resulting from a change in the basis of valuation during the year that resulted in an increase in capital and surplus. [Annual Financial Statement, Exhibit 5A]		< 5%	[Data]	[Data]
				Other Risks
b. If there was a change in the valuation basis of the A&H policies during the year, consider performing the following: i. Obtain information regarding the reason for the change in valuation basis and assess the change in the actuarial reserve. ii. Did changes in A&H reserve valuation bases receive appropriate regulatory approval, if required?				

Adequacy of Reserves on Captive (Non-Traditional) Reinsurance

22. If business is ceded to a captive (non-traditional) reinsurer, consider the following procedures.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Determine the percentage of gross premium written that is ceded to affiliated captive reinsurers (Schedule S, Part 3, Sections 1 and 2).	CR, ST	N.A.	[Data]	N.A.
				Other Risks
b. Review the information provided in the Form D application for compliance with reserve valuation standards for fixed annuities.				CR, ST
c. Consider Handbook procedures similar to the procedures required for XXX/AXXX captive reinsurance (III.C. Special Analysis Procedures).				CR, ST
d. Within the Actuarial Opinion Memorandum, require the insurer provide the results of cash flow testing and true-up of the statutory sufficiency of the reserve credit taken on gross reserves ceded to the affiliated reinsurer, including appropriate sensitivity tests (e.g., lapse, utilization, combined surrender and utilization, and credit defaults, etc.).				CR, ST
e. Consider including confidential disclosure in the Insurer Profile Summary to other state insurance departments if the commissioner approved assets not meeting criteria A–C defined within the *Credit for Reinsurance Model Regulation* (#785) for Funds Withheld.				CR, ST

Additional Analysis and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding reserving risks. If outstanding issues are identified perform follow-up procedures as necessary to address concerns.

Inquire of the Insurer:

If concerns exist, consider requesting information form the insurer regarding:

- Request separate accounts plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy features and benefits, particularly minimum guarantees.
- Request annuity plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy withdrawal features and surrender charges.
- Request A&H insurance plan descriptions and/or policy forms to better understand the types of plans offered and the specific features and benefits.
- Request that the field examination staff request a valuation listing by plan and issue year and test a sample of the individual policy reserves for accuracy.
- Request an explanation from the insurer for any adverse loss development results or adverse trends indicated in the analyst's review of the Schedule H claims test.
- Request information from the insurer regarding A&H claims paid after year-end that were incurred prior to year-end and test the reasonableness of the year-end claim liabilities established by the insurer.

- If questions or concerns are noted, contact the insurer to request if the insurer initiated any internal changes that could impact the reserve estimates.
- Request the insurer's description of the valuation standards used in calculating the additional contract reserves (which is required to be attached to and filed with the Annual Financial Statement) and consider whether the reserve basis, interest rates and methods appear reasonable.
- Request information regarding the reason for the change in valuation basis and assess the change in the actuarial reserve.
- Request of 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 level of reserves to be booked by the insurer 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 director's' 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.

ORSA Summary Report:

If the insurer is required to file an ORSA or is part of a group that is required to file an ORSA,

- Did the ORSA Summary Report analysis conducted by the lead state indicate any reserving risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective reserving risks?

Holding Company Analysis:

- Did the Holding Company analysis conducted by the lead state indicate any reserving risks impacting the insurer that require further monitoring or follow-up?
- Did the Holding Company Analysis conducted by the lead state indicate any mitigating strategies for existing or prospective reserving risks impacting the insurer?

Example Prospective Risk Considerations

	Example Risk Components for IPS	*Explanation of Risk Component*
1	Accuracy of reserve computations.	Reserves are understated due to reserve computations that are not performed correctly.
2	Reasonableness of actuarial methodologies or assumptions.	Reserves are understated due to assumptions that are unreasonable or not compliant with minimum requirements.
3	Potential for understated reserves.	Unusual or specific policy features and benefits are not valued and reserved for correctly, resulting in understated reserves.
4	Approval/control over changes in valuation bases.	Changes in valuation bases do not receive appropriate approvals.

5	Insufficient asset adequacy.	Asset adequacy results reflect the assets held and may not be sufficient to support future policy obligations.
6	PBR life reserve exemption computations.	Exemption tests are not computed correctly, resulting in inaccurate exemptions.
7	Potential for understated life reserves due to spread analysis.	Spread analysis may indicate either the need to record additional asset adequacy reserves (asset liability matching (ALM)), changes to policy design to limit guaranteed returns, or potential for investment portfolio changes to improve returns.
8	High expenses affecting cash flow assumptions.	Excessive expense levels also can lead to cash flow deficiencies.
9	Potential for understated reserves on separate account guarantees.	Separate account guarantees impose a contingent liability on the general account that may not be sufficiently reserved for on the general account.
10	Potential for high surrender activity on reserve amounts subject to withdrawal.	Unexpected high surrender activity results in liquidity concerns. Future changes in the external market (changes in interest rates, economic environment) may result in high surrenders/withdrawal activity as policyholders switch to higher return products.
11	A&H reserve deficiency.	Reserve deficiency trends may indicate an inability to accurately compute reserves.
12	A&H reserve deficiency/trend impact on capital and surplus.	Current or prospective reserve deficiency represents a material impact on the insurer's capital and surplus.

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

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

Analysis Documentation: Results of reserve risk analysis should be documented in Section III: Risk Assessment of the insurer.

Changes in Life Reserves and Reserve Adequacy

1. Determine changes in life reserves to assess any change in the adequacy of reserves.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in reserve from the prior year-end where the aggregate reserve for life contracts exceeds 10% of capital and surplus.	OP	+/- 25%	[Data]	[Data]
b. Change (greater than +/–25 points) in any asset categories from the prior year-end. [Quarterly Financial Profile – "Mix of Cash & Invested Assets" section]	OP, ST	+/- 25 pts	[Data]	[Data]
c. Review, by line of business, the year-to-date direct premiums for the current and prior year quarter and note significant changes in direct premiums for any line of business from the prior year, same quarter. [Quarterly Financial Statement, Exhibit 1]	OP, ST	+/- 25%	[Data]	[Data]

Changes in Accident and Health (A&H) Reserves and Reserve Adequacy

2. Determine changes in accident and health reserves to assess any change in the adequacy of reserves.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in reserve from the prior year-end where the aggregate reserve for A&H contracts exceeds 10% of capital and surplus.	OP	+/- 10%	[Data]	[Data]
b. Change in policy and contract claims from the prior year-end, where the A&H policy and contract claims exceeds 10% of capital and surplus.	OP	+/- 10%	[Data]	[Data]
c. Change in benefits from the prior year, same quarter where the disability benefits and benefits under A&H contracts exceeds 10% of capital and surplus.	OP	+/- 10%	[Data]	[Data]
d. Aggregate reserve for A&H contracts to capital and surplus ratio.	OP	> 300%	[Data]	[Data]
e. Review, by line of business, the year-to-date direct premiums for the current and prior year quarter and	OP, ST	+/- 25%	[Data]	[Data]

note significant changes in direct premiums for any line of business from the prior year, same quarter. [Quarterly Financial Statement, Exhibit 1]				

Changes in Annuity Reserves and Reserve Adequacy

3. Determine changes in annuity reserves to assess any change in the adequacy of reserves.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Change in liability from the prior year-end where the liability for deposit-type contracts exceeds 3.5% of capital and surplus.	OP	+/- 15%	[Data]	[Data]
b. Change in surrender benefits and other fund withdrawals change from the prior year, same quarter. [Quarterly Financial Statement, Summary of Operations]	OP	+/- 25%	[Data]	[Data]
c. Change in any asset categories from the prior year-end. [Quarterly Financial Profile – "Mix of Cash & Invested Assets" section]	OP, ST	+/- 25 pts	[Data]	[Data]
d. Review, by line of business, the year-to-date direct premiums and deposit-type contract funds for the current and prior year and note whether direct premiums for any line of business or deposit-type contract funds has changed significantly from the prior year, same quarter. [Quarterly Financial Statement, Exhibit 1]	OP, ST	+/- 25%	[Data]	[Data]

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

Analysis Documentation: The Actuarial Opinion Repository is intended to provide procedures for reviewing the Statement of Actuarial Opinion (SAO) and other actuarial filings for compliance and assessment of risks. In many states, the Actuarial Opinion and related filings are reviewed by actuarial staff. Whether the SAO review is performed by the analyst or the actuary, the Repository provides for the results of the SAO review to be documented, and if performed by the actuary, communicated to the analyst. Analysts should document overall results of the Actuarial Opinion Analysis and risk identified in Section III: Risk Assessment of the insurer within reserving risk or other relevant risk category.

The analyst should involve an actuary where indicated in the procedures or as needed. To stay within any required deadlines for reviews, the analyst should document any greater in-depth reviews being performed by the actuary (such as those involving the confidential actuarial memorandum) and supplement the documentation when such actuarial review is complete. Questions or requests for assistance regarding asset adequacy analysis in this repository may be made to the NAIC actuarial resources. Please see the NAIC website for the Valuation Analysis (E) Working Group for contact information regarding the use of NAIC actuarial resources and use of the Working Group, if needed.

Note that reserving risks also are included in the Reserving Risk Repository.

SAO Based on an Asset Adequacy Analysis

1. Determine if the following were included in the SAO or otherwise provided.

	Comments
a. Reserve amounts included in the SAO agree with the amounts per the Annual Financial Statement.	
b. The insurer provided a notification letter to the domiciliary state that includes the name, title (and in the case of a consulting actuary, the name of the firm) and manner of appointment or retention of each person appointed or retained by the insurer as an appointed actuary, and the notice states that the person meets the definition of a qualified actuary.	
c. Is this actuary the same actuary who was appointed for the previous Actuarial Opinion? If no: i. Did the insurer notify the domiciliary state insurance regulator within five days of the replacement? ii. Within 10 days of above notification, did the insurer provide an additional letter stating whether in the 24 months preceding such event there were any material disagreements with the former actuary and also in writing request the former actuary for a letter of agreement? iii. Did the insurer furnish the former actuary's responsive letter?	
d. The SAO covers at least the following items and amounts from the Annual Financial Statement: aggregate reserve for life contracts (Exhibit 5); aggregate reserve for accident and health contracts (Exhibit 6); deposit-type contracts (Exhibit 7); and contract claims – liability end of current year (Exhibit 8 – Part 1).	

e. The SAO includes a table that indicates those reserves that have been analyzed for asset adequacy, including the method of analysis, and provides any additional actuarial reserves that must be established. i. Review Annual Financial Statement, Exhibit 5, 6 and 7. Were the additional actuarial reserves properly included as a result of the asset/liability analysis?	
f. Does the SAO include the table of key indicators described in VM-30 Section 3A.3? i. If so, note the type of opinion (Unqualified, Adverse, Qualified, or Inconclusive) and if it was not Unqualified, note the reasons.	
g. Review the table of key indicators. If it notes that prescribed language was not used, assess the differences. The prescribed language within the opinion section is as follows: i. Are computed in accordance with those presently accepted actuarial standards consistently applied and are fairly stated, in accordance with sound actuarial principles. ii. Are based on actuarial assumptions that produce reserves at least as great as those called for in any contract provision as to reserve basis and method and are in accordance with all other contract provisions. iii. Meet the requirements of the insurance laws and regulations of the state of domicile; and are at least as great as the minimum aggregate amounts required by the state in which the statement is filed. iv. Are computed on the basis of assumptions consistent with those used in computing the corresponding items in the Annual Financial Statement of the preceding year-end (with any exceptions noted). v. Include provisions for all actuarial reserves and related statement items that ought to be established. vi. The reserves and related actuarial items, when considered in the light of the assets held by the company with respect to such reserves and related actuarial items including, but not limited to, the investment earnings on the assets, and the considerations anticipated to be received and retained under the policies and contracts, make adequate provision, according to presently accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the company. *Note: This language is provided unless exempted by the commissioner for a company licensed and doing business only in this state and no other state. This language may be adjusted if additional reserves are set up as indicated in (e) above.*	

Regulatory Asset Adequacy Issues Summary (RAAIS)

2. Determine if the following were included in the RAAIS.

	Comments
a. Did the RAAIS include the following? i. Whether the opinion clearly states it is unqualified or not. If the opinion is not unqualified, the reason(s) why. ii. Descriptions of scenarios tested and sensitivity testing performed relative to those scenarios. iii. Were any negative surplus results noted? Were additional reserves posted as a result of those tests? iv. A summary of the testing results providing a clear understanding of the basis for the actuarial opinion. v. Extent to which assumptions used are materially different from assumptions in the previous asset adequacy analysis. vi. Amount of reserves and product lines not subject to asset adequacy analysis in the current opinion that were subject to analysis in the prior opinion. vii. Comments on interim results that may be of significant concern to the appointed actuary. viii. Methods used to recognize the impact of reinsurance on cash flows under each scenario tested. ix. Whether the appointed actuary has been satisfied that all options in any asset or liability and equity-like features in any investments have been appropriately considered in the asset adequacy analysis	

3. Review the information provided in the RAAIS and note any concerns. Based on the review of the RAAIS, if concerns exist, consider assessing the following additional prospective risks:

	Comments
a. Did the company book additional reserves for any scenario or interim result that was identified as a problem?	
b. If not provided, request the following additional information from the insurer: i. Has the company modified its business plan in light of current economic conditions or the stress test that have been placed on its products as a result of economic trends? ii. Is further stress testing needed in order to determine how the company would perform in other economic scenarios? iii. How does the insurer consider the prospective risks involved in the products within the insurer's overall business plan? iv. How does the insurer mitigate any such risks within its business strategy (e.g., specific types of hedges, diversified products with natural corollaries)? v. How does the insurer evaluate the effectiveness of such mitigation strategies and document such within its operations? Obtain a copy of such documentation from the insurer to better understand the results of such programs.	

Actuarial Memorandum

4. Consider the following procedures for reviewing the Actuarial Memorandum.

	Comments
a. Did the qualified actuary conduct an asset adequacy test on the insurer's total reserves?	
b. For any reserve or other liability reported as not analyzed, did the qualified actuary indicate that such reserve or other liability was immaterial?	
c. Based upon the judgment of the analyst and after reviewing the SAO and RAAIS and discussing with the department actuary, determine if the actuarial memorandum should be requested from the insurer. *If "yes", the department actuary should perform the review of the Actuarial Memorandum*. *If no, skip the remaining procedures in this sub-section.*	
d. If the company does not have or provide an Actuarial Memorandum or in the review of the Actuarial Memorandum it is determined that the memorandum fails to meet the standards prescribed by the *Valuation Manual* or is otherwise unacceptable to the insurance commissioner, the insurance commissioner may engage a qualified actuary at the expense of the company to review the opinion and basis for the opinion and prepare the supporting Actuarial Memorandum required by the insurance commissioner. See the state's equivalent authority to the NAIC *Standard Valuation Law* (#820), Section 3B(3)(b).	
e. Does the Actuarial Memorandum include an asset adequacy analysis for the following? *(Note that the items required to be included may vary from state to state.)*	
i. For reserves: • Product descriptions. • Source of liability in-force. • Reserve method and basis. • Investment reserves. • Reinsurance arrangements. • Persistency of in-force business. • Identification of any guarantees made by the separate account in support of benefits provided through a separate account. • Discussion of assumptions to test reserves.	
ii. For assets: • Portfolio descriptions. • Investment and disinvestment assumptions. • Source of asset data. • Asset valuation bases. • Documentation of assumptions made.	
iii. For the analysis basis: • Methodology. • Rationale for inclusion or exclusion of different blocks of business and how pertinent risks were analyzed.	

• Rationale for degree of rigor in analyzing different blocks of business. • Criteria for determining asset adequacy. • Effect of federal income taxes and method of treating reinsurance in the asset adequacy analysis.	
iv. Summary of material changes.	
v. Summary of results.	
vi. Conclusions.	
vii. A statement that the actuarial methods, considerations and analyses used in the preparation of this memorandum conform to the appropriate Actuarial Standards of Practice as promulgated by the Actuarial Standards Boards, which standards form the basis for the memorandum.	
viii. Method for aggregating reserves and assets.	
ix. Method for selecting and/or allocating assets supporting the Asset Valuation Reserve.	
x. Analysis of the effect of required interest rate scenarios.	
f. If required within the scope of Actuarial Guidelines 53 (AG-53) and as required under VM-30, did the AOMR include a separate section documenting the assumptions and sensitivity testing for reinvested high-yielding complex assets?	

5. Identify any concerns from the review of the Actuarial Memorandum including, but not limited to, the areas of assets, liabilities, scenario results, actuarial assumptions, sensitivity tests and the general overall adequacy of the asset adequacy analysis.

	Comments
If additional concerns are noted based on the review of the RAAIS and/or Actuarial Memorandum, consider performing the following additional procedures *[Note: Procedures "a" through "d" are applicable to insurers utilizing the New York 7 actuarial interest rate scenario tests. Procedure "e" is applicable to other cash flow scenario testing.]*	
a. Request from the company's appointed actuary the year-by-year cash flow testing results from the five worst scenarios tested.	
b. Review the five worst year-by-year scenario test results and determine the largest cash flow deficiency.	
c. Assess the materiality of the largest deficiency(ies).	
d. If the worst scenario were to play out, determine the impact on the current RBC ratio.	
e. In the review of interim year-by-year scenario test results, review appropriateness of assumptions to fund negative cash flow, for example: i. Review explanations provided for how the insurer will fund negative cash flows.	

ii. Request borrowing agreements from the insurer and assess the insurer's borrowing capacity and ability to execute a borrowing strategy. Compare cash flow requirements to the borrowing capacity. iii. If borrowing capacity is insufficient, what are the alternative options within the cash flow model to fund cash flow shortfalls (e.g., selling assets)? iv. Assess the insurer's asset selling strategy.	
f. Review the AG-53 reporting in the AOMR regarding assumptions and sensitivity testing for high-yielding complex assets within the asset adequacy analysis, if within scope of AG-53. Determine whether concerns exist in meeting asset adequacy requirements, such as: i. the adequacy of assumptions utilized ii. the sensitivity testing and attributions analysis performed and its results iii. the determination of fair value of high-yielding assets originated by the company	

Non-Guaranteed Elements Opinion (if applicable)

6. Consider the following procedures for reviewing and assessing risk for the non-guaranteed elements (NGE) opinion, if applicable.

	Comments
a. Determine if the NGE actuary has satisfied the continuing education requirement for the Society of Actuaries and/or the American Academy of Actuaries. (The actuaries' profile in the SOA membership directory has a compliance indicator. Please see the website: SOA.org.)	
b. Determine if the NGE opinion includes the following sections. i. Determination procedure section that defines the insurer's policy in determining non-guaranteed elements, particularly the degree of discretion allowed by the insurer ii. Actuarial Interrogatories section iii. Actuarial Opinion section that includes the following: "I, (name, title), am (relationship to Company) and a Member of the American Academy of Actuaries. I have examined the actuarial assumptions and methods used in determining nonguaranteed elements for the individual life insurance and annuity contracts of the reporting entity used for delivery in the United States. The non-guaranteed elements for individual life and annuities policies have been determined in accordance with generally accepted actuarial principles and practices."	
c. Are any risks identified within the comments of the qualified actuary?	

Reserving Risk Assessment

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

The objective of the Reserving Risk Assessment analysis is focused primarily on two key aspects of reserving: 1) reserve valuation; and 2) reserve adequacy. Analysis of reserves relies heavily on the review of the Statement of Actuarial Opinion (SAO) and other related filings. The following overview and discussion of procedures provides information on life insurer reserving and suggested data, benchmarks, and procedures the analyst can consider in his/her review. In analyzing reserving risk, the analyst may analyze specific types of reserves established by life insurers, reserving methodologies and various aspects of life insurance that affect reserving. For example, an analyst's risk-focused assessment of reserving risk may consider the following areas (but not limited to):

- Reserve valuation in accordance with the appropriate valuation requirements.
- Reasonableness of valuation bases, testing, assumptions and methodologies to determine reserves.
- Adequacy of assets to support policyholder benefits.
- Appropriate reporting of reserves.
- Lines of business written by the insurer.
- Types of reserves for life, accident and health (A&H) and annuity lines of business.
- Reserve development.
- Reinsurance.
- Reserving for guarantees on separate accounts.

Overview of Actuarial Opinion and Regulatory Asset Adequacy Issues Summary Assessment (RAAIS)

Life insurers required to file an Annual Financial Statement are also required to file an SAO as a supplement to the Annual Financial Statement. The specific requirements for the SAO are described in the NAIC *Valuation Manual*, VM-30, Actuarial Opinion and Memorandum Requirements (AOMR). The SAO must be issued by an Appointed Actuary. The Appointed Actuary must be a qualified actuary appointed either directly by, or by the authority of, the board of directors through an executive officer of the company other than the qualified actuary. "Qualified actuary" as used herein means a member in good standing of the American Academy of Actuaries, or an individual who has otherwise demonstrated his or her actuarial competence to the satisfaction of the domiciliary state insurance department. Requirements regarding the Appointed Actuary and Qualified Actuary must conform to those prescribed by the *Valuation Manual* authorized by Section 3B of the Standard Valuation Law as amended by the NAIC in December 2009. The Actuarial Opinion should include the general account and the separate accounts.

Life insurers are required to file a comprehensive SAO based on an asset adequacy analysis. The actuarial opinion is supported by an actuarial memorandum. The actuarial memorandum includes the results of the qualified actuary's asset adequacy analysis. While the SAO must be filed with the Annual Financial Statement, the actuarial memorandum is only provided to the regulator upon request. There is also a confidential executive summary, the RAAIS, filed with the insurance departments. In addition to an actuarial opinion, the insurer must also file a non-guaranteed elements opinion if policies containing non-guaranteed elements are currently being issued or are in-force. The specific requirements for the non-guaranteed elements opinion are described in the NAIC *Annual Financial Statement Instructions for Life, Accident and Health Insurance Companies*.

The SAO must follow the guidelines and standards for statements of actuarial opinion prescribed by the *Valuation Manual* authorized by Section 3B of the Standard Valuation Law as amended by the NAIC in December 2009. The SAO should consist of a paragraph identifying the qualified actuary, a scope section identifying the subjects on which an opinion is to be expressed and describing the scope of the qualified actuary's work, and an opinion paragraph expressing the qualified actuary's opinion with respect to such subjects. If there has been a material change in the actuarial assumptions from those previously employed, that change should be described in either the Annual Financial Statement or in a paragraph of the SAO. In addition, the scope paragraph should list those items and amounts to which the qualified actuary is expressing an opinion, including the following from the Annual Financial Statement: 1) aggregate reserves for life contracts (Exhibit 5); 2) aggregate reserves for A&H contracts (Exhibit 6); 3) deposit-type contracts (Exhibit 7); and 4) contract claims – liability end of current year (Exhibit 8, Part 1). If the actuary has not examined the underlying records but has relied upon listings and summaries of policies in force prepared by the company, the scope paragraph should include a sentence to this effect.

The Appointed Actuary must report to the board of directors or the Audit Committee each year on the items within the scope of the SAO. The minutes of the board of directors shall indicate that the Appointed Actuary has presented such information to the board of directors or the Audit Committee. A separate SAO is required for each company filing an Annual Statement. If the qualified actuary is unable to form an opinion, the actuary should issue a statement specifically stating the reason(s) why an opinion cannot be formed. If the qualified actuary's opinion is adverse or qualified, the actuary should issue an adverse or qualified actuarial opinion specifically stating the reason(s) for such an opinion. An adverse opinion is an actuarial opinion which the Appointed Actuary determines that the reserves and liabilities are not adequate.

Discussion of Actuarial Opinion Assessment Procedures

In most instances, proper review and analysis of the SAO will require a greater in-depth knowledge of actuarial science. In order to achieve this as a part of the financial review process, most opinions will be reviewed in detail by the Department's actuarial staff members. The review should encompass procedures discussed in the next section covering the Actuarial Opinion Assessment for the SAO. Although the analysis of the SAO, Actuarial Memorandum and RAAIS are often performed by the actuarial staff, analysts should have a basic understanding of interest rate risk and should consider reviewing the RAAIS and the New York 7, if available (see below for further discussion), or other stochastic testing results and discussing such results with the Department's actuary. When risks are identified in the RAAIS or actuarial memorandum, the analysts, examiners and regulatory actuaries should communicate with each other the risk identified so that an overall understanding of the current and prospective risks of the insurer are documented and considered in the overall prioritization and profile of the insurer.

However, if the Annual Financial Statement is received, a cursory review of the opinion should be performed to identify if any extraordinary item is detailed in the opinion. The primary goal of the Actuarial Opinion Assessment Procedures for the SAO is to determine if a SAO was to be filed and, if so, was it received and available for later review.

Every life insurer must file an SAO including an asset adequacy analysis unless granted exemption of such analysis based on doing business only in one state.

An actuarial memorandum, which supports the findings expressed in the SAO, is available upon request by the regulator. The insurer will also file with the commissioner by March 15 a confidential RAAIS.

If the insurer presently issues or has in-force policies that contain non-guaranteed elements, then a Non-guaranteed Elements Actuarial Opinion must also be filed. Other opinions may be required. For example, for business subject to an actuarial guideline—such as *Actuarial Guideline XXXV—The Application of the Commissioners Annuity Reserve Method to Equity Indexed Annuities* (AG 35) or XXXVI, which includes an opinion requirement, a compliant actuarial opinion must also be filed. The domestic insurance regulator should be familiar with all of the opinions each life insurer is required to submit. Reviewing the previous year checklist is useful, but

the state insurance regulator should be aware of new policy forms issued during the year that may add additional opinion requirements.

Asset Adequacy Analysis

Asset adequacy analysis is a process the appointed actuary uses to ascertain that the assets supporting a block of liabilities, along with future premium payments and investment income, are adequate under moderately adverse conditions to pay future expenses and policy obligations. This analysis may include cash flow testing, gross premium valuations, demonstrations of extreme conservatism, risk theory techniques, or loss ratio methods. Prior to 2001, requirements similar to the AOMR specified seven scenarios for cash flow testing (commonly referred to as the New York 7). Amendments adopted in 2001 removed those required scenarios and allowed the appointed actuary to determine the scenarios to use for cash flow testing.

The asset adequacy analysis is testing the adequacy of the reserves on a block of business as of a valuation date, not the solvency of the company. Typically, cash flow testing includes assets approximately equal to the reserves and therefore does not include assets equal to the surplus. In addition, future new business is not included in the cash flow testing.

The asset adequacy analysis typically includes approximately 95% of the total of life insurance reserves, annuity reserves and reserves for deposit-type contracts. This 95% threshold is included in *procedure #4,* but it is a recommendation, and the standard of materiality may vary among actuaries and among state regulators.

Actuarial Guideline 53:

Beginning with annual 2022, certain insurers will be required to document support for asset~~s~~ adequacy analysis for high-yielding complex assets pursuant to Actuarial Guideline 53 – Application of the Valuation Manual for Testing of Adequacy of Life Insurer Reserves (AG-53).

As noted in AG-53, "regulators have observed a lack of uniform practice in the implementation of asset adequacy analysis. The variety of practice in incorporating the risk of complex assets into testing does not provide regulators comfort as to reserve adequacy. Examples of complex assets are structured securities, including asset-backed securities and collateralized loan obligations, as well as assets originated by the company or an affiliated or contracted entity. An initial increase of this activity has been noted in support of general account annuity blocks; however, recent activity was noted in other life insurer blocks. AG-53 is intended to provide uniform guidance and clarification of requirements for the appropriate support of certain assumptions for asset adequacy analysis performed by life insurers."

This Guideline applies to a limited scope of life insurers, specifically those with:

A. Over $5 billion of general account actuarial reserves (from Exhibits 5, 6, 7, and 8 of the Annual Statement) and non-unitized separate account assets; or,
B. Over $100 million of general account actuarial reserves (from Exhibits 5, 6, 7, and 8 of the Annual Statement) and non-unitized separate account assets and over 5% of supporting assets (selected for asset adequacy analysis) in the category of Projected High Net Yield Assets, as defined in Section 3.F. of the AG-53.

The NAIC Life Actuarial (A) Task Force has developed a template for reporting of AG-53 documentation. The templates include reporting by asset classes, affiliated vs. non-affiliated, and initial assets vs. reinvestment assets. The template along with a narrative are submitted for the filing.[1]

The NAIC Valuation Analysis Working Group (VAWG) anticipates conducting reviews of AG-53 filings and can serve as a resource for state insurance departments for their own AG-53 reviews.

[1] Given this is a new reporting requirement in 2022, additional analysis guidance in this area may be added to the Handbook in the future.

Discussion of Actuarial Opinion Risk Assessment Procedures

Using the Repository

The Actuarial Opinion Repository is intended to provide procedures for reviewing the Actuarial Opinion and other actuarial filings for compliance and assessment of risks. In many states, the Actuarial Opinion and related filings are reviewed by actuarial staff. Whether the SAO review is performed by the analyst or the actuary, the Repository provides for the results of the SAO review to be documented and communicated to the analyst.

Analysts should document overall results of the actuarial opinion analysis and risk identified in Section III: Risk Assessment of the insurer within reserving risk or other relevant risk category. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the repository document.

Statement of Actuarial Opinion Based on an Asset Adequacy Analysis

PROCEDURES #1A AND #1B assist the analyst in determining that the SAO was prepared by a qualified actuary and that the reserve amounts agree with the Annual Financial Statement.

PROCEDURES #1C–#1F assist the analyst in determining that the insurer's policy reserves were calculated properly in accordance with the minimum standards required by the NAIC Model Standard Valuation Law, and that the insurer's assets will adequately support the insurer's future policy obligations. The qualified actuary's opinion that the insurer's assets are adequate with regard to policy reserves provides significant comfort to the analyst that policy obligations will be met in the future.

RAAIS and Actuarial Memorandum

PROCEDURES #2 AND #3 request the analyst to review the RAAIS and document any concerns noted. For example, the analyst should further review any comments made by the appointed actuary on any interim results that may be of significant concern.

Additional prospective risk procedures the analyst may consider performing are provided if concerns exist based on the review of the RAAIS. The analyst should take into consideration the current economic environment (i.e., interest rate trends) when performing the analysis.

PROCEDURE #4 assists the analyst in reviewing the actuarial memorandum that supports the SAO. The actuarial memorandum is a comprehensive document that provides an understanding of the insurer's reserves, the assets available to support the reserves, and the projected impact on the insurer's financial condition of varying economic and interest rate projection scenarios. It is not automatically filed with the Annual Financial Statement but is provided to the regulator only upon request. The decision as to whether to request the actuarial memorandum is an important one. The actuarial memorandum should be requested for insurers with known financial problems, significant changes in product mix or investment strategy, or significant growth in a particular product line.

The RAAIS is filed with the Annual Financial Statement and is designed to assist the regulatory actuary in determining whether to request the actuarial memorandum. The RAAIS includes the eight data requests shown below. Note that some items, such as 1), 2) and 5) specifically refer to cash flow testing results.

1) The number of additional interest rate scenarios that were tested identifying separately the number of deterministic scenarios and stochastic scenarios. Also identify the number of such scenarios which produced ending negative surplus values on market value basis.

2) If sensitivity testing was performed, identify the assumptions tested and describe the variation in ending surplus values on a market value basis from the base case values.

3) If negative ending surplus results under certain tests in the aggregate, the amount of additional reserve which, if held, would eliminate the aggregate negative ending surplus values.

4) The extent to which the appointed actuary uses assumptions in the asset adequacy analysis which are materially different than the assumptions used in the previous asset adequacy analysis.

5) The amount of reserves and the identity of the product lines which have been subject to asset adequacy analysis in the prior opinion but were not subject to such analysis for the current opinion.

6) Comments should be provided on any interim results that may be of significant concern to the appointed actuary.

7) The methods used by the actuary to recognize the impact of reinsurance on the company's cash flows, including both assets and liabilities, under each of the scenarios tested.

8) Whether the actuary has verified that all options embedded in fixed income securities and equity-like features in any investments have been appropriately considered in the asset adequacy analysis.

While most states do not require the New York 7 actuarial interest rate scenario tests, states do require other stochastic scenario tests for life insurers and many life insurers, even though not required, still run the New York 7 interest rate scenario tests. The New York 7 interest rate scenario test which is an immediate decrease of 3% and then level would highlight the impact of prolonged low interest rates given the current interest rate environment. Also, the stochastically generated interest rate scenarios will also likely contain an interest rate scenario that represents a prolonged low interest rate environment.

The Department actuary and analyst should understand each scenario in the insurer's scenario testing and its limitations and assess the likelihood of each scenario in the current economic environment. For example, the New York 7 interest rate scenarios consist of the following scenarios:

- Level with no deviation.
- Uniformity increasing over 10 years at 0.5% per year and then level.
- Uniformity increasing at 1% per year over five years and then uniformly decreasing at 1% per year to the original level at the end of the 10 years and then level.
- An immediate increase of 3% and then level.
- Uniformly decreasing over 10 years at 0.5% per year and then level.
- Uniformly decreasing at 1% per year over five years and then uniformly increasing at 1% per year to the original level at the end of 10 years and then level. An immediate decrease of 3% and then level.

Procedures 4.f. asks the analyst if an insurer that is within the scope of AG-53 has filed the required reporting within the AOMR. Further guidance on that reporting is provided below in procedure #5.

PROCEDURE #5 asks the analyst to document any concerns based on the review of the actuarial memorandum. Additional procedures the analyst may consider performing are provided if additional concerns exist based on the review of the RAAIS, the actuarial memorandum and the asset adequacy testing performed. The procedures should be used to help identify how the insurer will fund a negative cash flow. Procedures 5.a. through 5.d. are applicable to insurers utilizing the New York 7 actuarial interest rate scenario tests. Procedure 5.e. is applicable to other cash flow scenario testing. Explanations of negative cash flow provided by the appointed actuary should explain how the insurer will: 1) sell marketable assets and which type; or 2) borrow, with an explanation of any existing agreements to include security, duration and notice period required. If the appointed actuary wrote in his/her report that the insurer expects to sell assets, the modeling should be consistent for the sale of assets. Likewise, if the appointed actuary wrote that the insurer expects to borrow, then the modeling should be

consistent with borrowing. If the insurer expects to borrow, the analyst should consider asking the insurer if a formal Lending Agreement is in place.

Procedure 5.f. is applicable to AG-53 reporting on high-yield complex assets. Refer to the guidance above regarding the scope of which insurers are included in this reporting requirement. In line with the goals of AG-53 to provide uniform guidance and clarification of requirements for the appropriate support of certain assumptions for asset adequacy analysis performed by life insurers, the analyst or reviewing state actuary, should consider if the reporting identifies any concerns, including the following examples that may warrant further investigation or follow-up with the insurer.

1. Reserve adequacy and claims-paying ability in moderately adverse conditions, including conditions negatively impacting cash flows from complex assets;
2. Rationale supporting changes in assumptions, year-over-year;
3. Expected gross returns and related risks (including default rates);
4. Factors supporting margins on asset-related assumptions;
5. That assumptions fit reasonably within the risk-return spectrum;
6. The extent to which high-yielding assets are supporting major product categories;
7. Sensitivity testing results regarding reinvested complex assets supporting life insurer business;
8. Identifies expectations in practice regarding the valuation of complex assets within asset adequacy analysis; and,
9. Investment fee income relationships with affiliated entities or entities close to the company.

Non-Guaranteed Elements Opinion (if applicable)

PROCEDURE #6 assists the analyst in determining that a qualified actuary prepared the non-guaranteed elements opinion.

PROCEDURES #6B AND #6C assist the analyst in reviewing the non-guaranteed elements opinion in order to determine that the insurer's reserves were determined in a manner that considered the non-guaranteed elements for individual life and annuities policies.

Overview of Life Reserving Risk Assessment (Including Principle-Based Reserving)

Life insurance reserves represent the liability established by the insurance company to pay future policy benefits such as death benefits upon the death of the insured, endowment benefits upon the maturity of a life insurance policy and cash surrender benefits upon the surrender of the life insurance policy. Historically, the company liability to pay future policy benefits has been determined by calculating a reserve based on a formula valuation methodology as described below. Life insurance products have evolved over time. Today, such products may be quite complex, offering multiple benefits and/or options to the policyowner or the insured or both the policyowner and the insured within a single contract such as death benefits, accelerated death benefits, secondary guarantees such as no lapse guarantees, policy loans, retirement income benefits such as guaranteed lifetime income benefits, and long-term care (LTC) benefits. The value of some of these complex benefits depends upon the current and future market value of the underlying assets. State insurance regulators have found it increasingly difficult to define or modify a formula-based valuation methodology to value all the options and/or benefits in a single contract. This complexity of current insurance products, along with the fact that the value of certain benefits depends upon the current and future market value of underlying assets, has led to the development of a principle-based valuation methodology that incorporates the value of both asset and liability cash flows. The principle-based valuation methodology is described below.

To implement the principle-based valuation methodology, amendments to the Standard Valuation Law were adopted in 2009, and a *Valuation Manual* was developed. The *Valuation Manual*, which is referred to in the amended Standard Valuation Law, provides reserve requirements for life, health and annuity products issued on and after the manual's operative date. Requirements include all of the details of the methodology for determining

a principle-based reserve (PBR), as well as any changes to the formula-based valuation methodology that occurs on and after the operative date of the *Valuation Manual*. The operative date of the *Valuation Manual* is Jan. 1 of the first calendar year following the first July 1 date in which the Standard Valuation Law as amended by the NAIC in 2009 has been enacted by at least 42 of the 55 jurisdictions representing NAIC membership and such jurisdictions represent greater than 75% of the direct premiums written as reported in the life, A&H annual statements; health annual statements; or fraternal annual statements submitted for 2008.

Unless a change in the *Valuation Manual* specifies a later effective date, changes to the *Valuation Manual* shall be effective Jan. 1 following the date when the change to the *Valuation Manual* has been adopted by the NAIC by an affirmative vote of at least three-fourths of the members of the NAIC voting but not less than a majority of the total membership and such members voting in the affirmative represent jurisdictions totaling greater than 75% of the direct premiums written as reported in the most recent life, A&H annual statements; health annual statements; or fraternal annual statements. No state legislative adoption is needed to effect changes to the valuation manual.

The *Valuation Manual* defines the insurance contracts that are subject to a principle-based valuation (Section II). Unless otherwise specified in Section II, the principle-based valuation methodology will apply to life insurance contracts issued on and after the operative date of the *Valuation Manual*. However, a company may elect to defer the implementation of the principle-based valuation methodology to life insurance contracts issued during the first three years following the operative date of the *Valuation Manual*.

The Valuation Analysis (E) Working Group consisting of state insurance regulators with expertise in actuarial, financial analysis and examination experience reports to the Financial Condition (E) Committee and supports the states in the review of PBR to ensure consistent implementation and application of the methodology. The Working Group will also suggest necessary changes to the *Valuation Manual* to enhance clarification and interpretation of application of the principle-based valuation methodology.

The NAIC will acquire modeling software and develop actuarial staff expertise in modeling insurance cash flows to assist the Valuation Analysis (E) Working Group and the individual states in conducting analysis and examinations to verify the PBR and exclusion test calculations performed by the company.

As mentioned in the procedures, any questions or requests for assistance regarding PBR and for asset adequacy analysis may be made to the NAIC actuarial resources. Please see the NAIC website for the Valuation Analysis (E) Working Group for contact information regarding the use of NAIC actuarial resources and use of the Working Group if needed.

Formula-Based Valuation Methodology

Theoretically, the formula-based reserves represent the present value of future guaranteed benefits reduced by the present value of expected future net premiums. The insurance policy is a unilateral contract whereby the insured can cancel the agreement to pay premiums at any time. However, the insurer is “locked in” regardless of future experience and cannot forfeit on its guarantees as long as the premiums are paid. Life reserves are required in order to ensure that commitments made to policyholders and their beneficiaries will be met, even though the obligations may not be due for many years. Since the primary purpose of life reserves is to pay claims when they become due, life reserves must be adequate, and the funds must be safely invested.

The *Valuation Manual* prescribes the minimum standards to be used in determining the formula-based reserves as applicable in addition to PBR as discussed elsewhere in this document. Currently for most formula-based reserves, the manual refers to requirements in the NAIC *Accounting Practices and Procedures Manual* (AP&P Manual). Insurers may establish life reserves, which equal or exceed these minimum standards. These minimum life reserve standards specify a: 1) valuation mortality table; 2) maximum valuation rate of interest; and 3) valuation method. The valuation method used to define minimum life reserves for statutory accounting purposes is referred to as the Commissioners Reserve Valuation Method (CRVM). The mortality rate assumptions are substantially higher than what the insurer can expect to realize from medically underwritten insurance policies.

The interest rate assumptions are intended to be significantly lower than current money and capital market yields. Thus, the life reserves developed are generally conservative.

There are three general valuation methods under a formula-based valuation methodology used to value life reserves. The net level premium method does not provide for a first-year acquisition cost allowance in determining life reserves. Therefore, this method results in the most conservative, or highest, life reserve valuation of the three methods. The full preliminary term method does provide a first-year expense allowance and then assumes that the remaining premium stream is used to cover policy benefits. The CRVM is a form of the full preliminary method. This method allows for a lower life reserve valuation than the net level premium method in the earlier years of the policy term. The modified preliminary term method is a variation of the two methods described above and results in a reserve valuation between the net level premium and preliminary term methods.

As described below, the type of life insurance policy dictates the amount of the life reserve that must be established and the duration for maintaining the reserve. In addition, special situations arise which require unique reserving techniques. The following summarizes the major types of life insurance policies, and the related reserving implications under a formula-based valuation methodology:

1. **Ordinary Life Reserves**

   Under a whole life plan of insurance, the insurer is obligated to maintain a reserve until the death of the insured. Term life insurance provides coverage only for the period that is specified in the policy. Under a term insurance plan, the insurer must maintain a reserve, which reduces to zero upon expiration of the term period. Similar to term insurance, endowment life insurance provides coverage for a period specified in the policies. Unlike term insurance, the proceeds of endowment insurance are payable if the insured lives to the end of the period. Policies which permit flexible premium payments, are referred to as “universal life” policies and those with fixed premiums are referred to as “interest sensitive” policies. Universal life policies are accumulation type policies where the current account value is determined based upon the accumulation of premiums, less mortality charges and expense charges, plus a current interest rate credit. The account value less surrender charges is the cash value. Because of the unique features of universal life and interest sensitive types of policies, unique reserving requirements are specified for them in Appendix A-585, *Universal Life Insurance*, of the AP&P Manual. The minimum standard for universal life reserves consider guarantees within the policy at the time of issue, present value of future guaranteed benefits, account value and cash value.

2. **Group Life Reserves**

   Most group life insurance is monthly renewable term insurance. For these policies, gross premiums are typically recalculated periodically, most often annually, using the age and sex census of the group along with experience adjustments. Therefore, the reserve is usually calculated as the unearned premiums or a percentage thereof to estimate the claim exposure. However, some group life insurance policies provide permanent or longer-term benefits analogous to individual coverages. In these cases, the reserving methods are similar to those employed for individual insurance, using appropriate mortality tables. Appendix A-820 does not specify a mortality table for group life insurance but leaves that to the discretion and approval of the domiciliary state.

3. **Industrial Life Reserves**

   Industrial life insurance is unique in that it involves higher unit premiums, smaller face amount policies and higher mortality expectations. The minimum standards for reserves are the same as the traditional life insurance except that a unique mortality table is used.

4. **Life Reserves Relating to Riders**

   Life insurance policies frequently include riders for additional benefits such as accidental death and disability and waiver of premium upon disability. The minimum valuation standards for reserves are the same as for the base life insurance except that specialized mortality and disability tables are used, and the net level premium valuation method is required.

5. **Miscellaneous Life Reserves**

   There are various other special situations involving life reserves. First, a deficiency reserve may be required in situations where the actual policy gross premium is less than the valuation net level premium. This situation occurs when pricing assumptions are used that are different from the minimum reserve valuation standards. This does not necessarily indicate that the policy is being sold at a loss by the insurer, but rather is a reflection of the highly conservative nature of the minimum reserve valuation standards. Second, there may be unusual situations where the cash surrender value of a life insurance policy is greater than the minimum reserve standard. In these situations, life reserves must be increased by the amount of this excess.

6. **Minimum Aggregate Reserves**

   In the aggregate, policy reserves for all life insurance policies valued under a formula-based valuation methodology that are reported in the statutory financial statements must equal or exceed reserves calculated by using the assumption and methods that produce the minimum formula standard valuation.

Principle-Based Valuation Methodology

In general, under a principle-based valuation methodology, all of the liability cash flows emanating from the contract benefits provided in the product are determined for each period and compared with all of the asset cash flows for each period determined from the assets the insurance company has purchased or plans to purchase or sell to fund the liability cash flows. The resulting differences between the asset and liability cash flows for each period are valued under a range of likely or plausible economic scenarios. Economic scenarios may consist of interest rates or market returns or both depending on the nature of the asset and liability cash flows. A single economic scenario represents multiple consecutive periods (such as 30 or 40 years) of movements in the underlying interest rate or market rate returns. The length of the scenario period is determined by the length of the liabilities being valued. The economic scenarios are stochastically (randomly) generated using a prescribed economic scenario generator (ESG). The prescribed ESG can be found on the Society of Actuaries (SOA) website.

The reserve liability under a principle-based valuation methodology is determined as a function of the discounted value of the differences between the asset and liability cash flows for each period over the range of economic scenarios. The objective is to determine if there is a reasonable likelihood that assets are insufficient to cover the obligations of the company, and by what amount they may be insufficient. Under economic scenarios where assets are insufficient, the principle-based methodology determines all the amounts of the insufficiencies and discounts them back to the valuation date. The largest discounted value is known as the Greatest Present Value of Accumulated Deficiencies (GPVAD) for that scenario. The stochastic reserves may be set at a CTE (70) level (conditional tail expectation at the 70% level). The function CTE (70) means the average of the 30% (100% - 70%) worst (largest) GPVADs. So, for example, if a company randomly generates 1,000 economic scenarios, it would then determine the largest accumulated amount of deficiency for each of the 1,000 scenarios. The CTE (70) stochastic reserve (SR) level would be determined by taking the average of the 300 [1,000 x (100% - 70%)] worst GPVADs out of the 1,000 scenarios.

The principle-based valuation methodology developed for life insurance contracts defines three components of a PBR: 1) a net premium reserve (NPR); 2) a deterministic reserve (DR); and 3) an SR. The level of risk embedded in a life insurance contract will determine whether the PBR will consist of all three reserve components (NPR, DR, SR), only two reserve components (NPR, DR), or only one reserve component (NPR). The principle-based valuation methodology defines a stochastic exclusion test and a deterministic exclusion test, each of which are designed to measure the level of risk embedded in a life insurance contract. Life insurance contracts that pass an exclusion test are then exempt from the calculation of the associated PBR component. For example, all life insurance contracts that pass the stochastic exclusion test but fail the deterministic exclusion test must calculate the NPR and DR components. Life insurance contracts that pass both the stochastic and deterministic exclusion tests must only calculate the NPR component. For groups of policies other than variable life or universal life with a secondary guarantee (ULSG), a company may provide a certification by a qualified actuary that the group of policies is not subject to material interest rate risk or asset return volatility risk in lieu of performing the stochastic exclusion

test. In addition, a company is not required to compute SR and DR on any of its ordinary life policies if it meets the requirements for a "Companywide Exemption" provided in Section II of the *Valuation Manual*. If the domestic commissioner does not reject a company's application for the companywide exemption pursuant to the *Valuation Manual*, Section II, then the company will compute reserves for its ordinary life policies per the requirements provided in VM-A and VM-C of the *Valuation Manual*.

Note that some states incorporated a "companywide exemption" in the Standard Valuation Law that may override Section II of the VM-20, Requirements for Principle-Based Reserves for Life Products. In such cases, the state's Standard Valuation Law will determine whether a company is not subject to computing the stochastic and deterministic reserves. Note also, the insurance commissioner may exempt specific product forms or product lines of a domestic company that is licensed and doing business only in a single state as defined in Section 15 of the amended Standard Valuation Law.

As part of the calculation process, the principle-based valuation methodology allows companies to aggregate or group policies with similar risk characteristics. For example, all term policies that provide only a death benefit and do not provide any cash surrender values may be grouped together by underwriting class. The exclusion tests are then applied on a group or aggregated basis and not a contract-by-contract basis. Also, the DR and the SR are calculated on the aggregated or group basis. The NPR component is a fully prescribed formula-based reserve and can be applied on a contract-by-contract basis.

The annual statement blank contains a VM-20 Supplement. This supplement breaks out the PBR into its various components of NPR, DR and SR. State insurance regulators may request the assistance of NAIC modeling staff and or the Valuation Analysis (E) Working Group in verifying exclusion testing, as well as various components of the PBR on a smaller sample set of company contracts.

Actuarial Opinion and Asset Adequacy Analysis

Due to the complexity in determining life reserves, insurers must rely on actuaries to assist with valuation of these reserves. Insurers are required to annually obtain an opinion regarding the reasonableness of the reserves by a qualified actuary who is appointed by the company. The actuarial opinion requirements are provided in VM-30 of the *Valuation Manual*. These requirements also include requirements for asset adequacy analysis. As a result of the asset adequacy analysis conducted by the appointed actuary, the actuary may conclude that the insurer's assets are not adequate to cover future liabilities as valued by the calculated reserves. When this occurs, reserves must be increased by the estimated deficiency resulting from asset adequacy testing. Additional procedures regarding the SAO are found in Section III.B.8.b.ii.

Accident and Health Reserves Overview

The purpose of A&H insurance is to protect the insured against economic losses resulting from accident and/or sickness. There are many different types of A&H policies issued by insurers. The economic losses covered, and the types of benefits provided, vary with the different types of A&H policies. For example, a medical insurance policy may provide reimbursement for hospital, surgical, medical and drug expenses and a dental insurance policy may cover dental expenses. Another type of A&H insurance policy issued is disability insurance which provides monthly benefits for loss of income due to disability on either a short-term or long-term basis. A&H insurance is provided through individual policies, group policies and certain special types of policies such as credit disability insurance.

A&H reserves are complex and difficult to analyze because of the wide variety of types of coverage included in the A&H lines of business and the diversity of benefits which must be reserved for. A&H reserves are comprised of two separate liability line items in the Annual Financial Statement: 1) the aggregate reserve for A&H policies; and 2) the A&H policy and contract claims liability. These liabilities are discussed in more detail below.

1. **Aggregate Reserve for A&H Policies**

The aggregate reserve for A&H policies consists of two different components: 1) policy reserves; and 2) claim reserves.

a. **Policy Reserves**

Policy reserves are required in recognition of the fact that premiums cover future liabilities as well as current claims and expenses. Policy reserves include unearned premium reserves, additional contract and actuarial reserves, reserves for future contingent benefits, and reserves for rate credits. The various types of policy reserves are discussed in more detail below.

Unearned premium reserves represent the amount of the premium applicable to coverage which extends beyond the valuation date (date of the statement). The unearned portion of the premium is generally computed on a pro rata basis.

Additional contract reserves are required for those policies with level premiums where the risk of loss increases with the age of the insured. For these policies, the insurer is required to set aside a portion of the current premium to pay claims that experience indicates will be incurred as the policy continues in force. These reserves are actuarially determined and are similar in concept to life reserves with the added requirement to consider morbidity assumptions as well as mortality and interest assumptions. The NAIC AP&P Manual prescribes the minimum standards used in determining the A&H policy reserves. Insurers may establish A&H policy reserves which equal or exceed these minimum standards. These minimum A&H policy reserve standards for most types of A&H insurance include: 1) a given morbidity table; 2) a maximum rate of interest; and 3) a valuation method. In no event, however, may the aggregate reserve for all policies be less than the unearned gross premiums under such policies. For financial statement purposes, the additional contract reserves represent the excess of the required A&H policy reserves over the unearned gross premiums on A&H policies. The insurer is required to attach to the Annual Financial Statement a description of the valuation standards used in calculating the additional contract reserves, specifying the reserve bases, interest rates and methods.

Determine if additional actuarial reserves are required as a result of actuarial cash flow testing and asset adequacy analysis.

If the A&H policy provides for future contingent benefits, a portion of the current premium must also be reserved for such coverage. For example, some A&H policies provide for deferred maternity benefits (which cover medical expenses incurred in childbirth for approximately nine months after the cessation of premium payments, even though the policy has been canceled, so long as conception occurred prior to the policy being canceled). An actuarially determined estimate of the costs associated with this future contingent benefit must be reserved for out of the current premium.

Some A&H policies provide for rate refunds based on policy year experience. For these policies, a reserve is required to be established for the rate credits based on the amount of the expected credit as of the valuation date. The reserve for rate credits is a difficult liability to establish because many policy years do not end on the valuation date (date of the statement) and subsequent experience may cause the rate credit to be greater or less than the liability established. However, the liability established must be reasonable under the circumstances and consistently calculated.

b. **Claim Reserves**

Claim reserves (sometimes referred to as disabled life reserves) are required for claims which involve continuing loss. The claim reserves represent the actuarially determined present value of future benefits or future covered benefits not yet due as of the valuation date (date of the statement) which are expected to arise under claims which have been incurred as of the statement date. However, although the liability for future covered benefits which are expected to arise under claims which have been incurred as of the statement date on medical insurance policies should be included in claim reserves according to *Statement*

of Statutory Accounting Principles (*SSAP) No. 55—Unpaid Claims, Losses and Loss Adjustment Expenses*, some insurers include this liability in the A&H policy and contract claims liability which is discussed below.

2. **A&H Policy and Contract Claims Liability**

   The A&H policy and contract claims liability includes: 1) due and unpaid claims; 2) claims in the course of settlement; and 3) incurred but not reported (IBNR) claims.

   a. **Due and Unpaid Claims**

      Due and unpaid claims are those which are complete except for the payment of the amount due. The amount of an insurer's due and unpaid claims is generally very small, and this liability is generally determined on an exact inventory basis of claims ready to be paid.

   b. **Claims in the Course of Settlement**

      Claims in the course of settlement include claims which have not been paid because all of the required information has not yet been received as of the statement date, resisted claims and the accrued portion (amount that is payable as of the statement date) of the next periodic payment on disability claims. The unaccrued portion of the next periodic payment on disability claims would be included in claim reserves discussed above. The liability for claims in the course of settlement, other than disability claims, may be determined based on estimates for each outstanding claim or the development of average claim factors or formulas based on historical experience.

   c. **IBNR Claims**

      IBNR claims are those claims which have occurred but have not yet been reported to the insurer. Since neither the number nor dollar amount of IBNR claims are known as of the statement date, the liability for IBNR claims is difficult to estimate. The liability for IBNR claims is generally estimated based on an actuarial analysis of past experience or on the development of lag studies using historical experience.

Due to the variety of types of A&H policies issued and the complexity of determining the aggregate reserve for A&H policies and the A&H policy and contract claims liability, most insurers rely on actuaries or individuals with actuarial training to assist in estimating these liabilities. Although some insurers do not use actuaries to actually set the A&H reserves, insurers are required to annually obtain an opinion regarding the reasonableness of the established A&H reserves by a qualified actuary. Therefore, qualified actuaries are involved in setting and/or reviewing the A&H reserve liabilities established for virtually all insurers.

Annuity Reserves Overview

Annuity reserves represent the liability established by the insurer to pay future policy benefits. While life insurance provides protection from the loss arising from dying too soon, an annuity protects against the loss from living too long. Theoretically, annuity reserves represent the present value of future guaranteed benefits reduced by the present value of expected future net premiums. An annuity can be in either an accumulation mode or a payout mode. Annuity policies take three forms: 1) annual premium deferred annuity; 2) single premium deferred annuity; and 3) single premium immediate annuity. Under an annual premium deferred annuity, annual premiums are paid during an accumulation period until such time as the policyholder (i.e., annuitant) receives income, surrenders the policy, or it terminates upon death. These annual premiums may be a specified amount or subject to the discretion of the owner under "flexible premium" annuities. Even if premiums are discontinued, the cash value of the policy will continue to accumulate until income is elected or the policy is otherwise terminated for its value. At income commencement, the annuitant receives the monthly income based upon cash value of the policy at that time and the annuity factor guaranteed in the policy or currently being applied, if more favorable, for the annuitant's attained age. The single premium deferred annuity also accumulates until such time as the annuitant desires to take income or the policy is otherwise terminated. However, only a single premium is paid at the time the annuity is purchased.

The AP&P Manual prescribes the minimum standards to be used in determining reserves. Appendix A-820*, Minimum Life & Annuity Reserve Standards* of the AP&P Manual defines the minimum standards for all types of policy reserves, including life & annuity policies. Insurers may establish annuity reserves, which equal or exceed these minimum standards. These minimum annuity reserve standards specify a: 1) given mortality table (if applicable); 2) maximum rate of interest; and 3) valuation method. The valuation method used to define minimum annuity reserves for statutory accounting purposes is referred to as the Commissioners Annuity Reserve Valuation Method (CARVM). The mortality rate assumptions, if applicable, are substantially lower than what the insurer can expect to realize from medically underwritten insurance policies. The interest rate assumptions are intended to be significantly lower than current money and capital market yields. Thus, the annuity reserves developed are generally conservative.

As described below, the type of annuity dictates the amount of the annuity reserve that must be established and the duration for maintaining the reserve. In addition, special situations arise that require unique reserving techniques. The following summarizes the major types of annuities and the related reserving implications:

1. **Deferred Annuities (Annual Premium and Single Premium)**

   All deferred annuities are reserved using the CARVM method. The reserve on any specific valuation date requires a calculation of the present value of future guaranteed benefits less the present value of future required net premiums for the current duration of the policy and for each future duration. For purposes of calculating this series of "excesses," premiums are only considered to be payable for the specific duration for which the excess is being calculated. The reserve is the greatest of these excesses. Reserves for guaranteed benefits must consider all contractual guarantees including cash values, death benefits, annuity income, etc. Cash values are those actually guaranteed under the policy provisions.

2. **Immediate Annuities**

   Immediate annuities are those that are in a payout mode. Reserves are determined using the CARVM method, except that, in the case of supplemental contracts without life contingencies, mortality tables are not used.

3. **Guaranteed Interest Contracts**

   Guaranteed interest contracts (GICs) represent a type of funding vehicle used where group deferred annuities are involved. Under a basic GIC, the insurer accepts a single deposit from the plan sponsor (i.e., the employer) for a specified period of time, such as five years. Interest earned during the period may be accumulated until the period expires, or the earned interest may be paid out annually. At the end of the period, the account balance, including any accumulated interest, is returned to the plan sponsor. Numerous variations of this basic guaranteed interest contract have been developed that: 1) allow the plan sponsor to make monthly contributions rather than the single deposit; and 2) provide that the principal and interest can be paid out in installments to make benefit payments to plan participants.

4. **Structured Settlements**

   Structured settlements are a form of immediate annuity generally established in connection with the settlement of a property/casualty claim wherein a predetermined future benefit stream is desired. Reserves are determined using the CARVM method with special actuarial guidelines that prescribe specialized mortality tables and govern the use of lump sum balloon payments.

5. **Variable Annuities**

   Variable annuities are annuities where the amount of each benefit payment is not specified in the annuity contract, but rather fluctuates according to the earnings of a separate account fund. The primary concern relating to variable annuities reserves relates to the treatment of the CARVM expense allowance in the general account. The CARVM method is generally used, but the current thinking is that CARVM may not be appropriate for certain types of variable annuities that do not include guaranteed benefits.

Due to the complexity in determining annuity reserves, insurers must rely on actuaries to assist with valuation of these reserves. Insurers are required to annually obtain an opinion regarding the reasonableness of the reserves

by a qualified actuary. In the aggregate, policy reserves for all annuity policies that are reported in the statutory financial statements must equal or exceed reserves calculated by using the assumptions and methods that produce the minimum standard valuation.

Long-Term Care Insurance (LTCI) Overview

"Long-term care insurance" means any insurance policy or rider advertised, marketed, offered or designed to provide coverage for not less than 12 consecutive months for each covered person on an expense incurred, indemnity, prepaid or other basis, for one or more necessary or medically necessary diagnostic, preventive, therapeutic, rehabilitative, maintenance or personal care services, provided in a setting other than an acute care unit of a hospital[2]. Historically, insurers that wrote LTCI encountered difficulties accurately projecting claims costs, lapse rates, investment returns, and other factors associated with LTCI, and subsequently many writers have experienced unprofitability in older (legacy) blocks of LTCI business. This has led many companies to request significant rate increases, modify product benefits or exit the product line altogether. Therefore, many insurers continue to experience significant solvency challenges related to this line of business, and state insurance regulators should continue to carefully evaluate and monitor the solvency position of all insurers with a material amount of LTCI business.

These same risks also affect reinsurers because the reinsurance contract may not arbitrarily allow for ceded premium increases. Additionally, in order to effectuate a true transfer of risk, the reinsurer may not have the ability to require the direct writer to request rate increases. As some insurers look for avenues to minimize or eliminate its risk from the LTCI block, they may look to new reinsurance opportunities or nontraditional buyers.

In addition, periods of economic downturn and low interest rates increase the risk that LTCI writers will be challenged to generate sufficient returns to support this line. In addition, declines in projected investment returns could have a significant impact on LTCI reserve assumptions.

***Actuarial Guideline 51—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51)**

Effective for reserves reported with the Dec. 31, 2017, financial statement, *Actuarial Guideline 51—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) now applies. The *Health Insurance Reserves Model Regulation* (#10) and the *Valuation Manual* VM-25, Health Insurance Reserves Minimum Reserve Requirements, contain requirements for the calculation of LTCI reserves. AG 51 requires companies with more than 10,000 LTCI enrollees to submit stand-alone LTCI asset adequacy analyses to the state. AG 51 is intended to provide uniform guidance and clarification of requirements for the appropriate support of certain assumptions for the asset adequacy testing applied to a company's LTCI block of contracts. AG 51 requires reporting to the department within the appointed actuary's actuarial memorandum required by VM-30 or in a special actuarial memorandum containing LTCI-specific information on the results of the analysis, assumptions on mortality, voluntary lapse, morbidity, investment returns and rate increase assumptions.

Factors Affecting LTCI Reserves and Rates

This following guidance provides additional information that may assist state insurance department staff in understanding the differences in premium rate review and approval, and valuation review of reserve adequacy assumptions in order to maintain or improve state insurance departments' current intra-departmental coordination/communication practices between the states' rate reviewers, valuation actuaries and analysts/ examiners.

[2] Definition per *Long-term Care Insurance Model Act* (#640) Section 4.A.

Reserve Increase Factors

1. **Background**

   Ever since asset adequacy testing became a requirement for life insurers in the 1980s, actuaries have been required to analyze reserve adequacy assumptions on an annual basis and make the assumptions more conservative when experience or expectations become more adverse. If the result of the more conservative assumptions was inadequate reserves, companies have been required to establish higher reserves to ensure future claims could be paid in the more adverse environment.

   In some cases, the chain of events is straightforward. For instance, for life insurance, if more people die at earlier ages than expected and the experience is highly credible, then the actuary increases mortality rates in the upcoming year-end filing, leading to higher reserves being established.

   In other cases, the chain of events is less straightforward. For instance, it is expected that cash surrenders on deferred annuity products will increase if interest rates rise. However, most deferred annuities have been sold during a period of decreasing interest rates. Actuarial and regulatory practice require reserves to be adequate in moderately adverse conditions, even if those conditions have not been recently experienced. There is typically judgment by the company actuary and another layer of judgment by regulators in play in this type of complex situation. The *Standard Valuation Law* (#820), the *Valuation Manual* and the Actuarial Standards Board's (ASB's) Actuarial Standards of Practice (ASOPs) describe how these complex situations should be handled.

2. **Long-Term Care Insurance**

   For LTCI blocks of business that experience higher morbidity than expected, this experience will likely lead to changes in expectations on future morbidity for both the observed block and other blocks.

   With LTCI, some factors are likely to play out in a straightforward manner. A combination of higher life expectancy and lower lapses will lead to more people than expected reaching prime LTCI claims ages of 80 and above, which leads to companies holding higher reserves than originally anticipated. Similarly, all companies have experienced the decreasing interest rate environment, which has led to lower-than-expected investment returns and the need to hold higher reserves because investment income is relied upon to help pay claims.

   Mortality, lapse and interest rate factors become observable and can develop credibility during the premium-paying years prior to policy years when significant claims tend to occur.

3. **Morbidity Assumptions**

   Morbidity, however, has tended to fall into the category of a complex factor. The three main aspects of LTCI morbidity are: 1) incidence, the percentage of people at a given age who start a claim; 2) average length of claim; and 3) utilization, which is less than 100% if, e.g., the daily nursing home cost is lower than the maximum daily benefit in the insurance policy.

   There has not been uniform experience development in morbidity, except that length of claim has tended to increase, likely because cognitive (e.g., dementia and Alzheimer's disease) claims tend to be longer than average and incidence has been higher than expected, likely due to more people reaching the age when cognitive claims tend to occur.

   Because of divergent experience among companies and because morbidity becomes observable and credible during the later claim-paying years, establishing and regulating LTCI morbidity assumptions has not been straightforward. However, as with other factors and other products, the handling of these situations is addressed in Model #820, *Valuation Manual* and ASOPs. Examples of these standards include:

   - Model #820 Section 12A(3)(a): "Assumptions shall, to the extent that company data is not available, relevant or statistically credible, be established using other relevant, statistically credible experience."

- Model #820 Section 12A(4): "Provide margins for uncertainty … such that the greater uncertainty, the larger the margin and resulting reserve."
- AG 51 (providing guidance on VM-30) Section 4.B.: "The analysis shall comply with applicable Actuarial Standards of Practice, including standards regarding identification of key risks. Material assumptions associated with the LTCI business shall be determined testing moderately adverse deviations in actuarial assumptions."
- *Acounting Practices and Procedures Manual* (AP&P Manual), Appendix A-010 paragraph 48.e (referenced in VM-30): "The total contract reserve established shall incorporate provisions for moderately adverse deviations."
- AP&P Manual, Appendix A-010 paragraph 51 (referenced in VM-30): "Annually, an appropriate review shall be made of the insurer's prospective contract liabilities … and appropriate increments … if such tests indicate that the basis of such reserves is no longer adequate."

The result is that whether credible experience exists or not, the company actuary needs to set assumptions underlying reserves, and the factors underlying the assumptions are often complex and frequently changing. Company and regulatory actuaries are experienced in working in this complex, changing environment with many life insurer products, such as variable annuities, indexed products and LTCI having product features and factors underlying reserves that are complex and changing.

4. **Rate Increases**

A unique aspect of LTCI products is being a long-term product with rate increases that require review by states. Besides states with the largest insurance departments, the actuaries reviewing LTCI reserves are often the same staff reviewing LTCI rate increases. For larger states, there is typically coordination or training to ensure the reserve and rate teams are on the same page regarding developments in, for example, life expectancy and morbidity. State insurance regulator experience in reviews of LTCI reserves and rate increase filings show that reserve increases and requests for rate increases are due to similar factors, including higher life expectancy, lower lapses, lower investment returns and worsened morbidity.

There has been additional regulatory attention on ensuring the companies asking for rate increases based on adversity of certain factors are holding reserves based on at least the same level of adversity in those factors. The questions used in many states' rate increase reviews require the company to explain the consistency between the rate increase filing assumptions and reserve adequacy assumptions.

To date, the most common complex, non-straightforward case is the applicability of a company's adverse morbidity experience of an older LTCI block to morbidity assumptions on a newer block. This complex dynamic comes into play when establishing reserve and rate increase assumptions.

The reserve assumption changes can occur with initiation by the company, through formal or informal agreement between regulators or companies, or by relying on Model #820 Section 11.6., which allows a commissioner to require a company to change reserve assumptions and adjust reserves.

Example:

A typical example of a chain of events would first involve a block issued in 1995 to 1998 to policyholders with issue ages ranging from 52 to 62. By 2019, enough policyholders have reached prime LTC claim ages of 80+. This experience is what drives reserve assumption changes. As policyholders enter ages in the upper 80s and 90s, additional experience will be attained that will predict future LTCI costs and result in further changes in reserve assumptions. The development of older-age morbidity experience is expected to generate volatility in LTCI reserves. For some companies, the older-age morbidity experience will likely be unfavorable, with increased reserves needed. For most other companies, the older-age morbidity experience will likely be as expected, leading to no significant, unforeseen reserve increases.

Companies will be expected to apply lessons learned from older blocks of business to their newer blocks. Those lessons will likely differ by situation. For example, to the extent underwriting is different, the newer and older blocks may experience different morbidity trends.

5. **Rate Increase Factors**

   Factors affecting LTC reserves, including higher life expectancy, lower lapses, lower investment returns and changes in morbidity also potentially affect LTC rate increases.

   If a company's reserve adequacy testing is dependent upon assumption of future LTC rate increases, the state insurance department staff performing reserve valuation should evaluate that assumption for reasonableness. The company's rate increase assumptions and documentation should be consistent with the requirements specified in AG 51 related to rate increase plans. The state insurance department staff performing reserve valuation may wish to coordinate and communicate with the state's rate review staff to help evaluate the appropriateness and reasonableness of the company's future rate increase assumption.

6. **Intra-Department Communication and Coordination of Actuarial Review Work**

   While every state insurance department may be structured differently, many state insurance departments have the same staff members perform work on both LTCI reserve valuation analysis and rate increase reviews, while others have separate staff perform these functions. In the latter instance, department staff should be aware of or coordinate the intra-department review work related to each function.

   The following are suggested steps a state may consider to ensure that actuarial assumptions associated with the rate increase request are consistent with the assumptions embedded in the asset adequacy testing.

   - Inquire of the company's actuary or senior management regarding:
     - The relationship of the actuarial assumptions embedded in the rate filing versus those made for annual statement reporting.
     - Explanation if there is inconsistency between assumptions reported.
     - How AG 51 affects the company's rates and reserves.
     - Affirmation that the assumptions underlying the projections are consistent with the assumptions used in asset adequacy analysis.
     - A copy of the company's rate increase plan when rate increase filings disclose that future rate increase filings, beyond what is currently being requested, are planned.
   - Consider reviews of different filings for consistency. For example:
     - Compare reserving assumptions to rate increase assumptions,
       - e.g., review the RAAIS and the Actuarial Opinion and Memorandum (AOM) to ensure that assumptions used for pricing and reserving are similar in nature.
     - Identify assumptions underlying the asset adequacy testing memorandum that appear to be an outlier and then compare against a subsequent rate increase filing.

Discussion of the Reserve Risk Assessment Repository

The Annual Reserve Risk Assessment Procedures are designed to identify potential areas of concern to the analyst. While the underlying actuarial techniques relating to life reserves are quite complicated, the analyst should remember that there are two basic objectives regarding life reserves. The first objective is that the insurer's life reserves are calculated using the appropriate valuation methodology (formula or principle-based), and the second objective is that the insurer's assets are adequate to support the future policy obligations. To meet the first objective, reserves for policies and contracts subject to the formula-based valuation methodology, including the formula reserves required by VM-20, should be calculated in accordance with the minimum formula statutory

valuation standards, using the appropriate valuation assumptions and valuation methods. For policies and contracts subject to a principle-based valuation methodology, in addition to the formula reserves, reserves should be calculated in accordance with the principle-based valuation requirements of VM-20.

Instructions for Using the Reserving Risk Repository

The reserve risk repository is a list of possible quantitative and qualitative data, benchmarks, and procedures from which the analyst or actuary may select to use in his/her review of reserving risk. Analysts are not expected to respond to all procedures, data or benchmark results listed in the repository. Rather, analysts and supervisors should use their expertise, knowledge of the insurer and professional judgement to tailor the analysis to address the specific risks of the insurer and document completion of the analysis. The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

In using procedures in the repository, the analyst should review the results in conjunction with the Supervisory Plan and Insurer Profile Summary and the prior period analysis. The Insurer Profile Summary may be updated periodically to include information on policy forms sold in a state other than the state of domicile when a similar form is not used in the state of domicile. Communication with the company is important. Communication and/or coordination with other internal departments are a critical step in the overall risk assessment process and are a crucial consideration in the review of certain procedures in the repository.

The analyst should also consider the health entity's corporate governance which includes the assessment of the risk environment facing the health entity in order to identify current or prospective solvency risks, oversight provided by the board of directors and the effectiveness of management, including the code of conduct established by the board.

The placement of the following data and procedures in the reserving risk repository is based on "best fit." Analysts should use their professional judgement in categorizing risks when documenting results of the analysis. Analysts should also recognize that examiners or company management may classify a risk differently from what is outlined in this repository. Key insurance operations/activities or lines of business, for example, may have related risks addressed in different repositories. Therefore, the analyst may need to review other repositories in conjunction with reserves. For example:

- Reserves are also addressed in the Actuarial Opinion Risk Assessment Repository.
- Separate Accounts are also addressed in the Operations and Liquidity Risk Assessment Repositories.
- Surrender activity is also addressed in the Liquidity Risk Assessment Repository.

ANALYSIS DOCUMENTATION: Results of reserving risk analysis should be documented in the branded Risk Assessment of the insurer. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses of the insurer.

Quantitative and Qualitative Data and Procedures

Valuation of Life Reserves

PROCEDURE #1 assists the analyst in determining whether the insurer's life reserves for policies and contracts subject to a formula-based valuation methodology are valued in accordance with the minimum formula statutory valuation standards. In this regard, the analyst must rely, to a large extent, on the opinion provided by the qualified actuary, the information provided in the actuarial memorandum documenting all of the asset and liability assumptions, and the methods used, and scenarios run to determine the reserve adequacy.

PROCEDURE #2 provides procedures the analyst may consider in assessing the lines of business written by the insurer and gaining an understanding of the impact that the difference in types of plans may have on reserving risk.

PROCEDURE #3 assists the analyst in determining whether any changes in life reserve valuation bases during the year were proper for policies and contracts. From time to time, an insurer may decide to change the valuation basis for a particular segment of the business. The insurer may change the valuation mortality table used, the valuation rate of interest or the valuation method. Reserve strengthening occurs when the insurer substitutes a more conservative basis of valuation for any given block of business. Reserve weakening may also occur but normally requires approval of the domiciliary state and reserves cannot be reduced below the minimum reserve standard as defined in the Standard Valuation Law.

The analyst may also consider performing procedures that involve testing the actual reserve calculations for a sampling of individual life insurance policies to ensure that the minimum statutory valuation standards have been met.

Valuation of PBR Life Reserves

PROCEDURE #4 assists the analyst in determining whether the insurer's life reserves for policies and contracts subject to a principle-based valuation methodology appear to be valued in accordance with the requirements of VM-20. In this regard, the analyst will need to review and rely on the VM-31, PBR Actuarial Report Requirements for Business Subject to a Principle-Based Reserve Valuation, actuarial report that documents the deterministic and stochastic exemption tests, all company experience assumptions and margins, and all the procedures and processes used to calculate the reserves under a principle-based valuation methodology. In addition, the analyst will need to review the VM-20 supplement, which is part of the annual statement filing and contains the various components of the PBR. The analyst may seek the assistance of actuarial staff at the NAIC related to any verification of exclusion test calculations, as well as validation of PBR for a small random sample of policies and contracts subject to a principle-based valuation methodology.

Adequacy of Life Reserves

PROCEDURE #5 assists the analyst in determining whether the insurer's underlying assets are adequate to support the future obligations of its life insurance policies. If the insurer filed an SAO based on an asset adequacy analysis, then the SAO itself, and the supporting actuarial memorandum, if requested, can provide the analyst with comfort in this regard. If a SAO that does not include an asset adequacy analysis is filed, the analyst can review net interest spread ratios for insights regarding the relationship of investment income with tabular interest. Insurance Regulatory Information System (IRIS) ratio #11 is included in the procedures as a test of reserve consistency between the current year and the prior year.

The analyst may also consider performing a review of the actuarial memorandum, if available. This will provide the analyst with substantial analyses with regard to asset adequacy. If an actuarial memorandum is not available, the analyst should consider the need to have an independent asset adequacy analysis conducted. Additional procedures regarding the SAO are found in Section III.B.8.b.ii. Additional guidance for new reporting requirements for AG-53 regarding high-yielding complex assets is found above.

Reserve Requirements Associated with Separate Account Products & Guarantees

PROCEDURES #6–#9 assists the analyst in identifying situations where separate accounts products may be creating contingent liabilities to the general account. This is largely a function of the types of separate accounts products offered by the insurer, and the analyst should rely on general knowledge of the insurer's products at this stage of the analysis.

The analyst should review disclosures in Separate Accounts General Interrogatories, Analysis of Operations by Line of Business (Page 6), Analysis of Increase in Reserves During the Year (Page 7) and the Notes to the Financial Statements of the general account to gain an understanding of the types of products included in the separate account and the general account guarantees on separate account products, as well as identify any concerns with reserving or asset adequacy that may require additional analysis of actuarial filings. The analyst should gain an understanding of any products in the separate account that contain guarantees that are held in the separate

account instead of the general account and the types of guarantees (guaranteed minimum death benefit [GMDB], guaranteed minimum income benefit [GMIB], etc.).

***PROCEDURE #8**:* The analyst should note that, if the insurer reports a maximum guarantee exposure amount in Separate Accounts Annual Financial Statement, General Interrogatory #2.2 and guarantees paid in Separate Accounts General Interrogatory #2.3 but does not report risk charges paid in Separate Accounts General Interrogatory #2.6, the insurer is providing guarantees and may not be receiving a risk fee in return for that guarantee. Note that, while group products require risk charges, there may be no requirements for risk charges on individual products. Also note that in some instances, risk fees may be imbedded in the management fees paid to the general account. The analyst should gain an understanding of how risk fees are reported by the insurer and if concerns exist regarding the risk fees, the analyst should consider requesting additional details from the insurer. Additional procedures assist the analyst in determining that contingent liabilities to the general account of the insurer created by separate accounts assets are properly recorded. Guarantees included with separate accounts products must be recorded as a liability of the general account.

Valuation of Annuity Reserves

PROCEDURE #10 AND #11 assists the analyst in determining whether the insurer's annuity reserves are valued in accordance with the minimum formula statutory valuation standards. In this regard, the analyst must rely, to a large extent, on the opinion provided by the qualified actuary. The analyst can also gain comfort in this regard by evaluating the change in reserves in relation to increases or decreases in premiums during the year.

PROCEDURE #12 assists the analyst in determining whether any changes in annuity reserve valuation basis during the year were proper. From time to time, an insurer may decide to change the valuation basis for a particular segment of the business. The insurer may change the mortality table used, the rate of interest or the valuation method. Reserve strengthening occurs when the insurer substitutes a more conservative basis of valuation for any given block of business. Reserve weakening may also occur but normally requires approval of the domiciliary state.

The analyst may also consider testing the actual reserve calculations for a sampling of individual annuity policies to ensure that the minimum statutory valuation standards have been met.

Adequacy of Annuity Reserves

PROCEDURE #13 assists the analyst in determining whether the insurer's underlying assets are adequate to support the future obligations of its annuity policies. If the insurer filed an SAO based on an asset adequacy analysis, then the actuarial opinion itself, and the supporting actuarial memorandum, if requested, can provide the analyst with comfort in this regard. If an SAO that does not include an asset adequacy analysis is filed, the analyst can review net interest spread ratios for insights regarding the relationship of investment income with tabular interest.

The analyst may also consider a review of the actuarial memorandum, is available, as this will provide the analyst with substantial analyses with regard to asset adequacy. If an actuarial memorandum is not available, the analyst should consider the need to have an independent asset adequacy analysis conducted.

PROCEDURE #14 assists the analyst in identifying other areas of concern. For example, annuities can have a significant impact on the insurer's liquidity position, particularly significant levels of GICs or amounts subject to withdrawal at minimal or no surrender charge.

Adequacy of A&H Reserves

PROCEDURE #15 assists the analyst in determining whether an understatement of A&H reserves would be significant to the insurer. The ratios of gross and net A&H reserves to capital and surplus are leverage ratios which are calculated gross and net of reinsurance ceded. The net A&H reserves to capital and surplus ratio indicates the margin of error an insurer has in estimating its A&H reserves. For an insurer with a net A&H reserves to capital

and surplus ratio of 300%, a 33% understatement of its A&H reserves would eliminate its entire surplus. In evaluating these leverage ratios, the analyst should also consider the nature of the insurer's business. For example, an insurer which has written primarily A&H business for many years and has proven that it can manage the business profitably is probably not as risky as an insurer which has just begun writing A&H business, even if both insurers have the same leverage ratio results.

PROCEDURE #16 assists the analyst in determining whether A&H policies appear to have been adequately reserved. In this regard, the analyst must rely, to a large extent, on the opinion provided by the qualified actuary. Therefore, the analyst should review the results of the SAO Procedures to determine whether any concerns were noted regarding the valuation of the insurer's A&H reserves in accordance with Appendix A-010, *Minimum Reserve Standards for Individual and Group Health Insurance Contracts*, of the AP&P Manual.

The analyst might want to contact the qualified actuary who signed the insurer's SAO to discuss the nature and scope of A&H valuation procedures performed and/or request a copy of the qualified actuary's actuarial memorandum to review for comments regarding the analysis of A&H reserves performed and the conclusions reached.

PROCEDURE #17*:* The ratio of A&H reserve deficiency measures the adequacy of A&H reserves established in the prior year. A positive result for this ratio represents additional or "adverse" development on the reserves originally established by the insurer (the amount by which the A&H reserves originally established have proved to be understated based on subsequent activity). If the insurer's ratio results consistently show additional development, this could be an indication that the insurer is intentionally understating its A&H reserves. The A&H loss ratio is also reviewed as a part of this procedure. Significant increases in this ratio might be indicative of additional A&H reserves being established due to prior understatements while significant decreases might be indicative of current A&H reserve understatements. Other steps included in this procedure include the review of Exhibit 5A – Changes in Bases of Valuation During the Year, of the Annual Financial Statement to determine whether there has been a change in the valuation basis of the A&H policies during the year which resulted in a decrease in A&H reserves in an amount greater than 5% of capital and surplus.

The analyst may also consider reviewing Annual Financial Statement, Schedule H – Accident and Health Exhibit to determine which A&H lines of business are being written and which A&H lines of business had positive development in reserves during the year.

PROCEDURE #18: The analyst should review of the A&H loss ratios for the past five years for unusual fluctuations or trends between years and, if the loss ratio appears unusual, comparing it to the industry average loss ratio to determine any significant deviations.

PROCEDURE #19: The analyst should also consider: 1) reviewing the insurer's A&H insurance plan descriptions and/or policy forms to better understand the types of plans offered and the specific policy features and benefits; and 2) contacting the policy forms section of the insurance department and inquiring as to whether the insurer has filed any new and unusual A&H policy forms during the past year.

The analyst might also consider requesting that the field examination staff request a valuation listing of A&H reserves by policy and testing a sample of policies to determine that the reserve factors were appropriate and that the reserves were correctly computed. If the adequacy of claim liabilities is a concern, the analyst might want to request information from the insurer regarding claims paid after year-end that were incurred prior to year-end, in order to test the reasonableness of the year-end claim liabilities established by the insurer.

PROCEDURE #20 instructs the analyst to review the LTC Experience Reporting Form of the Annual Financial Statement and the AG 51 reporting filed to the department if the insurer writes LTCI to gain an understanding of the reserve adequacy of the LTCI line of business. If concerns exist, consider requesting additional information as necessary to assess actual vs. projected results, legacy vs. newer blocks of business separately, any recent rate increases and capital support. If the insurer has recently filed for rate increases on LTCI blocks, consider intra-departmental discussion with the rate increase analysis and outcome with the rate review staff (if a different person than the analyst/actuary performing the valuation reserve analysis).

PROCEDURE #21: The analyst could review the insurer's description of the valuation standards used in calculating the additional contract reserves and consider whether the reserve bases, interest rates, and methods used appear reasonable. The insurer's description of the valuation standards used is required to be attached to the filed Annual Financial Statement.

If there was a change in the valuation basis of A&H policies during the year, the analyst should consider the following: 1) obtaining information regarding the reason for the change in the valuation basis; 2) determining whether the amount of the change in the actuarial reserve as a result of the change in the valuation basis is reasonable; and 3) determining whether the change in the valuation basis was approved by the domiciliary state insurance department, if required.

PROCEDURE #22 assists the analyst in reviewing reserve valuation of captive reinsurance transactions. Refer to the guidance in Chapter III.B.9.b. Strategic Risk Repository – Analyst Reference Guide, Procedure 9cc for an explanation of potential risks. Also, for affiliated transactions, refer to the guidance for Form D captive reinsurance transactions in Chapter V.C. Domestic and/or Non-Lead State Analysis for procedures that may have been conducted at the time the transaction was approved.

Additional Analysis and Follow-Up Procedures

EXAMINATION FINDINGS direct the analyst to consider a review of 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 directs the analyst to consider requesting additional information from the insurer if reserving risk concerns exist in a specific area. The list provided includes 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, such as reserve methodologies, assumptions and oversight of reserve setting.

OWN RISK AND SOLVENCY ASSESSMENT (ORSA) directs the analyst to 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.

HOLDING COMPANY ANALYSIS directs the analyst to obtain and review the holding company analysis work completed by the lead state to assist in identifying, assessing and addressing reserving risks that could affect the insurer.

Example Prospective Risk Considerations

The table provides the analyst with example risk components for use in the Risk Assessment and Insurer Profile Summary branded risk analysis section and a general description of the risk component. Note that the risks listed are only examples and do not represent a complete list of all risks available for the reserving risk category.

Discussion of Quarterly Reserving Risk Assessment

The procedures described in the Quarterly Reserving Risk Assessment Repository are intended to identify significant changes in reserves that have occurred since the prior year Annual Financial Statement or the prior Quarterly Financial Statement.

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

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk. Also, note that key insurance operations or lines of business, for example, may have related risks addressed in different repositories. Therefore, analysts may need to review other repositories in conjunction with reserving. For example, reserves also are addressed in the Statement of Actuarial Opinion Worksheet.

In addition, if significant reserving risks are identified, analysts should consider seeking the assistance of an actuary to conduct analysis procedures in support of an assessment of reserving risk.

Analysis Documentation: Results of reserving risk analysis should be documented in Section III: Risk Assessment of the insurer.

Reserve Adequacy and Valuation

1. Review the results of the Actuarial Opinion Assessment.

	Other Risks
Review the results of the Statement of Actuarial Opinion Worksheet. Were any concerns noted regarding the valuation of the insurer's reserves in accordance with minimum statutory valuation standards?	

2. Determine whether an understatement of health reserves would be significant.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of gross claims unpaid and gross aggregate health reserves to capital and surplus	OP	>300%	[Data]	[Data]
b. Ratio of net claim unpaid and net aggregate health reserves to capital and surplus	OP	>200%	[Data]	[Data]
c. Would a 10% understatement of net claims unpaid and aggregate claim reserves drop the insurer's risk-based capital (RBC) ratio below 200%?	OP	<200%	[Data]	[Data]

3. Review reserve development to assess if reserves are adequate.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Compare the one-year reserve development to capital and surplus and review and explain any adverse loss development results. [Annual Financial Statement, Underwriting and Investment Exhibit – Part 2B]				
i. Did the insurer report a reserve deficiency that is greater than 5% of capital and surplus?		=YES	[Data]	[Data]

ii. Has there been an increase or decrease in the claim reserve and claim liability as a percentage of incurred claims since prior year-end?		>10% or <-10%	[Data]	[Data]
				Other Risks
b. Review the Annual Financial Statement, Underwriting and Investment Exhibit – Part 2C. Has there been an adverse trend or unusual fluctuation over the last five years?				
c. Review the Annual Financial Statement, Underwriting and Investment Exhibit – Part 2B and Part 2C. Has the reserve been adequate to pay actual claims?				
d. Review the Annual Financial Statement, Underwriting and Investment Exhibit to determine which lines of business may have been under reserved at the prior year-end.				OP
e. 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.				

4. Assess loss ratios and underwriting losses as indicators of reserve adequacy.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Underwriting loss by line of business	OP	<0	[Data]	[Data]
b. Change in the loss ratio for any product line from the prior year	OP	>10 pts or <-10 pts	[Data]	[Data]
				Other Risks
c. Compare the direction of any changes in the loss ratio to the direction of changes in membership. Is there an indication that increased loss ratios may be resulting from falling membership?				OP
d. Review the ratio of claims unpaid plus aggregate health reserve to incurred claims by line of business for past years to determine unusual fluctuations or trends between years.				
e. Has the annual per member per month medical claims expense increased from last year-end compared to similarly situated health entities?				OP
f. Compare the ratio of claims unpaid plus aggregate health reserve to incurred claims to similar companies in the industry to determine any significant deviations from the industry average.				

5. Assess claims adjudication.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Amount of claims in process of adjudication to the average incurred non-capitated claims per day. Is the number of days represented by the reserve greater than 30 days?	OP	>30 days	[Data]	[Data]

6. Assess unpaid claims adjustment expenses.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of unpaid claims adjustment expenses to claims unpaid	OP	>10%	[Data]	[Data]
b. Ratio of unpaid claims adjustment expenses to incurred claims adjustment expenses	OP	>20%	[Data]	[Data]

7. Assess business plans, policy benefits offered and RBC information that may indicate the impact of type of business on reserving assumptions and methodologies.

	Other Risks
a. Determine which health lines of business are being written by the insurer.	OP, ST
b. Review the insurer's risk-based capital filing to better understand the types of risk and risk management techniques being used, such as the types of managed care arrangements being used.	OP
c. Review the insurer's most recent business plan to determine how it intends to reduce its risk exposure.	ST
d. Review the Annual Financial Statement, Notes to Financial Statements, MD&A or other correspondence with the insurer. Has the insurer initiated any internal changes that may impact the reserve estimates?	OP, ST
e. Review the insurer's health insurance plan descriptions and/or policy forms to better understand the types of plans offered and the specific features and benefits.	OP, ST, PR/UW
f. Contact the policy forms section of the insurance department and inquire as to whether the insurer has filed any new and unusual health policy forms during the past year.	OP, PR/UW

8. Review and assess long-term care (LTC) insurance reserves.

	Other Risks
a. Review the information reported in the LTC Experience Reporting Form of the Annual Statement, the *Actuarial Guideline LI -The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves (AG51)* reporting, actuarial memorandum or any other related actuarial information filed to the department, and identify any concerns with reserve adequacy of the LTC insurance business. Request a department actuary to assist in the review, if available. i. Gain an understanding of the asset adequacy and cash-flow testing for LTCI on a stand-alone basis. ii. Consider any negative development in total LTCI reserve, asset adequacy reserves (if available), active life reserves, disabled lives reserves and premium deficiency reserves over the last five years, iii. Evaluate the appropriateness of investment return assumptions factoring in the status of the current economic and low interest rate environment.	

b. If concerns exist: i. Evaluate actual results vs. original or revised assumptions and financial projections to identify trends and concerns. ii. Consider evaluating legacy blocks of business separately from newer blocks of business. iii. Rate Increases: Obtain and review the following information related to the status of rate increases and reduced benefit options. Consider that some information may be available from rate review staff for recent rate increase filings. 1. Track the progress of rate increases across states where a material amount of business is written. 2. Review projections illustrating the impact of proposed rate increases or reduced benefit options on the company's future profitability. 3. Determine the extent that future rate increases are included in the amount ($) of reserve offsets, asset adequacy/cash-flow testing and the reasonableness of the assumptions. 4. Consider the impact of historical approvals on the company's ability to obtain the rate increases presented in the projections. If concerns are identified in this area, obtain and review information on the company's plans to address these issues. 5. Compare the average percent of rate increases requested to the average approved. 6. Identify the amount of written premium change due to approved rate increases. iv. Regarding the adequacy of internal capital to support the LTCI business, compare the current total LTC reserves (active life and other), net of reinsurance, to the amount of internal capital the company has set aside for LTCI (e.g., internal capital per ORSA if applicable, or rating agency if higher than internal). If necessary, request information to gain an understanding of the degree of conservatism in such capital assumptions.	

9. Review other information available or requested to assess reserve valuation and adequacy.

	Other Risks
a. Review the insurer's description of the valuation standards used in calculating the additional contract reserves (which is required to be attached to and filed with the Annual Financial Statement) and consider whether the reserve bases, interest rates, and/or methods appear reasonable.	

Additional Analysis and Follow-Up Procedures

Examination Findings:

Review the most recent examination report and Summary Review Memorandum (SRM) for any findings regarding reserving risks. If outstanding issues are identified, perform follow-up procedures as necessary to address concerns.

Inquire of the Insurer:

If concerns exist, consider requesting information form the insurer regarding:

- If questions or concerns are noted, contact the qualified actuary who signed the insurer's actuarial opinion to discuss the nature and scope of the health reserve valuation procedures performed.
- If questions or concerns are noted, request a copy of the qualified actuary's actuarial memorandum and review the actuary's comments regarding the analysis performed and conclusions reached regarding health reserves.
- If questions or concerns are noted, obtain information from the insurer regarding health claims paid after year-end, which were incurred prior to year-end, and test the reasonableness of the year-end claim liabilities established, by the insurer.
- Request a copy of the insurer's business plan and review the insurer's plans to assess and mitigate reserve risks.
- Request and review assumptions for reserve, utilization and benefit costs projected in the development of the contracts.
- 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 level of reserves to be booked by the insurer 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 director's' 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) Summary Report:

If the insurer is required to file an ORSA or is part of a group that is required to file ORSA:

- Did the ORSA Summary Report analysis conducted by the lead state indicate any reserving risks that require further monitoring or follow-up?
- Did the ORSA Summary Report analysis conducted by the lead state indicate any mitigating strategies for existing or prospective reserving risks?

Holding Company Analysis:

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

Example Prospective Risk Considerations		
Example Risk Components for IPS		***Explanation of Risk Components***
1	Adverse findings from Statement of Actuarial Opinion Assessment	Issues or concerns identified through a review of the actuarial opinion assessment may indicate prospective risks. Examples include concerns regarding the qualifications of the appointed actuary, limitations in the scope of the opinion, an inability to reconcile to the Annual Statement, problems with the nature of the opinion, etc.
2	Reserve adequacy and valuation of [specify type of reserve and/or line of business]	If claims unpaid, claims reserve, policy reserve and premium deficiency reserve computations are not performed correctly or the selected estimates are unreasonable, capital and surplus could be negatively affected.
3	Reasonableness of actuarial methodologies or assumptions	Reasonableness may be identified through follow-up to examination, review of actuarial filings that summarize changes in assumptions/methodologies, discussions with the company, etc.
4	Adverse reserve development [and development trend]	Reserve development can be used as a measure to assess the insurer's ability to accurately estimate reserves. Analysts also should consider the reserve development trend.
5	Large reserve adjustments	Reserve adjustments made or anticipated to correct assumptions or other estimates result in a reduction to surplus.
6	Understatement of reserves due to delayed claims adjudication/payment	An insurer having trouble paying claims when payments come due may result in understated reserves.
7	High reserve leverage	High reserve leverage is represented by a high ratio of net claim unpaid and net aggregate health reserves to capital and surplus.
8	Exposure to LTC reserves	Given the level of volatility and uncertainty associated with LTC reserves, material exposure in this area can represent a prospective risk to the insurer and should be closely evaluated and monitored.
9	Change in opining actuary	If there is a change in actuary, consider if the management change results in any changes in reserving assumptions, methodologies, etc.
10	Minimum statutory standards not met	Analyst identifies that certain minimum statutory reserving standards have not been met as required by state law/regulation.

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

Note: The repository is not an all-inclusive list of possible procedures. Therefore, risks identified for which no procedure is available should be analyzed by the state insurance department based on the nature and scope of the risk.

Analysis Documentation: Results of reserving risk analysis should be documented in Section III: Risk Assessment of the insurer.

Changes in Reserves and Reserve Adequacy

1. Determine whether an understatement of health reserves would be significant.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Ratio of net claims unpaid and net aggregate health reserves to capital and surplus		>300%	[Data]	[Data]
b. Would the current estimate of the insurer's claims unpaid and aggregate claim reserves drop the insurer's prior year risk-based capital ratio below 200%?		<200%	[Data]	[Data]

2. Determine whether health policies appear to have been adequately reserved.

	Other Risks	*Benchmark*	*Result*	*Outside Benchmark*
a. Have claims unpaid, the aggregate policy reserves, or aggregate claim reserves changed from the prior year-end?		>10% or <-10%	[Data]	[Data]
b. Has there been a change in the claim reserve and claim liability as a percent of incurred claims since prior year-end? [Quarterly Financial Statement, Underwriting and Investment Exhibit]		>10% or <-10%	[Data]	[Data]
c. Have member months for any line of business changed from the prior year, same period? [Quarterly Financial Statement, Exhibit of Premiums, Enrollment, and Utilization]	OP	>20% or <-20%	[Data]	[Data]
d. Point change in the medical loss ratio for any product line from the same period in the prior year.	OP	>10 pts or <-10 pts	[Data]	[Data]
				Other Risks
e. Compare the direction of any changes in loss ratio to the direction of changes in membership. Is there an indication that increased loss ratios may be resulting from falling membership? (See Quarterly Financial Profile).				OP
f. Has the annual per member per month hospital and medical claims expense increased since last year-end and/or since last quarter more than similarly situated health entities?				

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

Analysis Documentation: The Statement of Actuarial Opinion Worksheet is intended to provide procedures for reviewing the Actuarial Opinion and other actuarial filings for compliance and assessment of risks. In many states, the Actuarial Opinion and related filings are reviewed by actuarial staff. Whether the Statement of Actuarial Opinion (SAO) review is performed by the analyst or the actuary, the Worksheet provides for the results of the SAO review to be documented and communicated to the analyst. Analysts should document overall results of the actuarial opinion analysis and risk identified in Section III: Risk Assessment of the insurer within reserving risk or other relevant risk category.

Note that reserving risks also are included in the Reserving Risk Repository.

Statement of Actuarial Opinion

1. Determine if the following were included in the SAO or otherwise provided.

	Comments
a. Does the SAO include a completed Table of Key Indicators?	
b. Does the SAO state the actuary's qualifications and affiliation?	
c. Was the actuary appointed by the board of directors (or its equivalent) or by a committee of the board by December 31 of the calendar year for which the SAO was rendered?	
d. Is this the same actuary who was appointed for the previous SAO? i. If "no", did the health entity notify the domiciliary state insurance regulator within 5 business days of the replacement? (When reviewing compliance with Section 1, note that the publication of the changes to the Health SAO Annual Statement Instructions in September 2009 may impact the timeliness of notification and compliance.) ii. Within 10 business days of the above notification, did the health entity also provide an additional letter stating whether or not there were any disagreements with the former actuary during the preceding 24 months and also in writing requested the former actuary provide a letter of agreement? iii. Did the company provide the responsive letter from the replaced actuary?	
e. Do the reserve amounts included in the SAO agree with the amounts per the Annual Financial Statement?	
f. If the Appointed Actuary has not examined the underlying records and has relied upon the data prepared by the health entity or a third party, is there a certification letter attached to the SAO signed by the individual or firm who prepared such underlying data?	

2. Determine if the following were included in the SAO regarding source data and prescribed items.

	Comments
a. The Health Annual Statement Instructions list A through I as prescribed items. If the following items are included in the Annual Financial Statement and required by the Annual Statement Instructions, does the SAO cover the following in the scope and opinion of amounts. Per Annual Statement Instruction: A. Claims unpaid (Page 3, Line 1); B. Accrued medical incentive pool and bonus payments (Page 3, Line 2); C. Unpaid claims adjustment expenses (Page 3, Line 3); D. Aggregate health policy reserves (Page 3, Line 4) including unearned premium reserves, premium deficiency reserves, and additional policy reserves from the Underwriting and Investment Exhibit – Part 2D; E. Aggregate life policy reserves (Page 3, Line 5); F. Property/casualty unearned premium reserves (Page 3, Line 6); G. Aggregate health claim reserves (Page 3, Line 7); H. Any other loss reserves, actuarial liabilities, or related items presented as liabilities in the annual statement; I. Specified actuarial items presented as assets in the annual statement.	
b. Any examples of an item included in H above include the retrospective premium asset (Page 2, line 15.3). If any of the above are "no," identify item(s) that are missing.	

3. Does the SAO state the following:

	Comments
a. Does the SAO state: "In my opinion, the amounts carried in the balance sheet on account of the items identified above": i. Are in accordance with accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles? ii. Are based on actuarial assumptions relevant to contract provisions and appropriate to the purpose for which the statement was prepared? iii. Meet the requirements of the insurance laws and regulations of the state of domicile and are at least as great as the minimum aggregate amounts required by any state in which this statement is filed or are at least as great as the minimum aggregate amounts required by any state with the exception of the following states. For each listed state a separate SAO was submitted to that state that complies with the requirements of that state?	

iv. Make good and sufficient provision for all unpaid claims and other actuarial liabilities of the organization under the terms of its contracts and agreements. v. Are computed on the basis of assumptions consistent with those used in computing the corresponding items in the Annual Statement of the preceding year-end? vi. Include appropriate provisions for all actuarial items that ought to be established.	
b. The Annual Financial Statement, Underwriting and Investment Exhibit – Part 2B was reviewed for reasonableness and consistency with the applicable Actuarial Standards of Practice.	
c. Actuarial methods, considerations, and analyses used in forming my opinion conform to the relevant Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis of this SAO.	

Asset Adequacy Analysis

4. Assess the Asset Adequacy Analysis. *[If an asset adequacy analysis was not required, do not proceed with the following procedures for asset adequacy analysis.]*

	Comments
a. If the SAO was based on an asset adequacy analysis: i. Did the actuary determine that the reserves were sufficient in light of the assets held to meet future policy obligations? ii. Based upon the judgment of the analyst and after reviewing the SAO and Regulatory Asset Adequacy Issues Summary, if available, should the actuarial memorandum or other supporting documentation be requested from the health entity? If "no," skip to the summary and conclusion.	

5. Assess the Actuarial Memorandum or other supporting documentation.

	Comments
Based on an asset adequacy analysis, does the actuarial memorandum or other supporting documentation include the following: a. For reserves: i. Product descriptions ii. Source of liability in-force iii. Reserve method and basis iv. Investment reserves v. Reinsurance arrangements vi. Persistency of in-force business	

b. For assets (if the SAO is based on an asset adequacy analysis that involved the direct analysis of investments): i. Portfolio descriptions ii. Investment and disinvestment assumptions iii. Source of asset data iv. Asset valuation bases	
c. For analysis basis: i. Methodology ii. Rationale for inclusion/exclusion of different blocks of business and how pertinent risks were analyzed iii. Rationale for degree of rigor in analyzing different blocks of business iv. Criteria for determining asset adequacy v. Effect of federal income taxes, reinsurance and other relevant factors such as dividends, commissions, etc.	
d. Summary of results.	
e. Conclusions.	
f. A statement that the actuarial methods, considerations and analyses used in the preparation of this memorandum conform to the appropriate Actuarial Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis for the memorandum.	
g. Method for aggregating reserves and assets.	

Reserving Risk Assessment

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

The objective of the Reserving Risk Assessment is focused primarily on two key aspects of reserving: 1) reserve valuation and 2) reserve adequacy. Analysis of reserves relies heavily on the review of the Statement of Actuarial Opinion (SAO) and other related filings. The following Overview and Discussion of Procedures provides information on health entity reserving and suggested data, benchmarks and procedures analysts can consider in his/her review. In analyzing reserving risk, analysts may analyze specific types of reserves established by health entities, reserving methodologies and various aspects of health insurance that affect reserving. For example, an analyst's risk-focused assessment of reserving risk may consider the following areas (but not limited to):

- Reserve valuation in accordance with the appropriate valuation requirements
- Reasonableness of valuation bases, testing, assumptions and methodologies to determine reserves
- Adequacy of assets to support policyholder benefits
- Appropriate reporting of reserves
- Lines of business written by the insurer
- Types of reserves for health lines of business
- Reserve development
- Reinsurance
- Loss adjustment expenses (LAE)
- Claims adjudication

Overview of Actuarial Opinion Assessment

The Table of Key Indicators included in the SAO notes where prescribed language has not been used, as well as if the Statement is other than unqualified. Generally, analysts can focus on the following four steps to compose much of the initial Actuarial Opinion Assessment Procedures.

1. Review Table of Key Indicators for use of other than prescribed language.
2. Review Table of Key Indicators for use of an unqualified opinion.
3. Determine if the Company has provided a notification letter to the domiciliary state describing the appointment of the actuary.
4. Determine if a certification letter is attached if the actuary has relied upon someone for data.

As noted in the discussion of the Actuarial Opinion Assessment Procedures below, in most instances proper review and analysis of the SAO beyond the Actuarial Opinion Assessment Procedures will use in-depth knowledge of actuarial science where most SAOs will be reviewed in detail by actuarial staff members. However, it is up to each state to determine how best to address this review with available resources.

The following provides an in-depth description of elements of the SAO.

The Health Annual Statement instructions contain 10 sections that provide instructions for the SAO, including instructions relevant to the Actuarial Memorandum that supports the SAO. These 10 sections are summarized below.

Section 1 requires a Qualified Health Actuary (actuary) to render the SAO. For this SAO, an actuary means a member of the American Academy of Actuaries (Academy), or a person recognized by the Academy as qualified for such actuarial valuation. The actuary must be appointed (Appointed Actuary) by the board of directors (or a committee of the board) to render the SAO. Section 1 includes specific responsibilities of the insurer regarding the appointment of the Appointed Actuary and addresses documentation, and replacement requirements. Requirements include notification of any replacement of the Appointed Actuary to the commissioner with disclosure of any disagreements with the prior actuary relevant to the SAO. Requirements are also provided regarding a responsive letter from the prior actuary addressing agreement or disagreement to reasons for replacement provided by the company. When reviewing compliance with Section 1, note that the publication of the changes to the Health Actuarial Opinion Annual Statement Instructions in September 2009 may impact the timeliness of notification and compliance. Section 1 also provides for reporting and documentation requirements between the Appointed Actuary and the board of directors or the Audit Committee. Section 1A provides definitions, Section 1B discusses exemption options and Section 1C provides requirements for the Actuarial Memorandum which supports the SAO.

An insurer who intends to file for one of the exemptions under this Section must submit a letter of intent to its domiciliary commissioner no later than Dec. 1 of the calendar year for which the exemption is to be claimed. The commissioner may deny the exemption prior to Dec. 31 of the same year if he or she deems the exemption inappropriate. A copy of the approved exemption must be provided in lieu of the SAO with the Annual Statement in all jurisdictions in which the company is authorized.

To qualify for an exemption, an insurer must meet one of the four following criteria:

1. An insurer that reports less than $1,000,000 total gross written premiums during a calendar year, and less than $1,000,000 total gross loss and loss adjustment expense reserves at year-end, in lieu of filing the SAO required for the calendar year, may instead file an affidavit under oath of an officer of the insurer that specifies the amounts of gross written premiums and gross loss and loss adjustment reserves.
2. Unless ordered by the domiciliary commissioner, an insurer that is under supervision or conservatorship is exempt from the filing requirements.
3. An insurer otherwise subject to the requirement and not eligible for any of the exemptions previously described, may apply to its domiciliary commissioner for an exemption based on the nature of business written.
4. An insurer otherwise subject to this requirement and not eligible for any of the previously discussed exemptions may apply to the commissioner for a financial hardship exemption. A financial hardship exists if the projected reasonable cost of the SAO would exceed the lesser of:
    a) 1% of the insurer's capital and surplus as stated in the insurer's latest quarterly statement for the calendar year for the calendar year for that the exemption is sought; or
    b) 3% of the insurer's gross premium written during the calendar year for which the exemption is sought as projected from the insurer's latest quarterly statements filed with its domiciliary commissioner.

Section 2 requires that the SAO contain four clearly designated sections: Identification, Scope, Reliance, and Opinion. A fifth section, Relevant Comments, may be provided at the option of the actuary. A Table of Key Indicators must be provided which indicate whether these five sections use prescribed wording only, prescribed wording with additional wording, or revised wording. The Table of Key Indicators also provides whether the SAO is unqualified, qualified, adverse, or inconclusive.

Section 3 provides a Table of Key Indicators, which indicates whether the sections of Identification, Scope, Reliance, or Opinion use prescribed wording only, prescribed wording with additional wording, or revised wording. The Relevant Comments section provides boxes to be checked that indicate if there is revised wording or if any of the actuary's work, as detailed in the Actuarial Memorandum deviates from Actuarial Standards of

Practice. The Table of Key Indicators also provides whether the SAO is unqualified, qualified, adverse, or inconclusive.

Section 4 (Identification section) is self-explanatory.

Section 5 (Scope section) is also self-explanatory where all actuarial items listed in the instructions should be provided even if amounts are zero.

Section 6 (Reliance section) requires the actuary to identify any person upon whom the actuary relied for data used in the reserve analysis. A statement from the person relied on is also required by this section. The actuary may choose to accept responsibility for the data without reliance on another. The actuary would state this by using prescribed language in this section.

Section 7 (Opinion section) provides the prescribed statements the actuary is to make that opine on the items identified in Section 5. This is a key section to review for deviations from prescribed language that form the basis for whether the SAO is unqualified, qualified, adverse, or inconclusive as indicated in Section 3.

Section 8 (Relevant Comments section) is optional. The actuary may use this section to state a qualification of his or her opinion or provide greater explanation of that qualification. The actuary may also address topics of regulatory importance or explain some aspect of the annual statement. Examples may include explanations of any material changes in assumptions or methods that were made during the year.

Section 9 of the SAO instructions provides additional guidance to the actuary regarding adverse, qualified, or inconclusive opinions. The determination of adverse, qualified, or inconclusive must be explicitly stated in the Table of Key Indicators provided in the Opinion. It is expected that adequate explanation of this determination be provided in the Opinion.

Section 10 of the Opinion provides for signatures which is self-explanatory.

Considerations

Requirements for the SAO provide for conformance with specific Standards of Practice adopted by the Actuarial Standards Board (ASB) of the Academy, including standards relating to follow-up studies and standards of what should be included in a SAO. For managed-care health plans, ASB standards for SAPs (ASOP 5, "Incurred Health and Disability Claims" or ASOP 42," Determining Health and Disability Liabilities Other than Liabilities for Incurred Claims") require consideration by the actuary of any capitated risk contracts that exist. Such consideration should also include or indicate whether the actuary has evaluated the financial position of the provider entities.

There is a significant difference between the SAO requirements as found in the Life, Accident & Health or Property & Casualty Annual Financial Statements and the Health Annual Financial Statement. Effective for 2003 Statutory Statements, companies with over 95% of specific types of health insurance would file the Health Annual Financial Statement regardless of their state license. Such companies must comply with not only the SAO requirements of the Health Annual Financial Statement but also with the SAO requirements based on their state license. For example, life insurance companies who file the Health Annual Financial Statement are still subject to any asset adequacy SAO requirements as required by the SAO and Memorandum Regulation pursuant to the Standard Valuation Law.

The NAIC *Health Insurance Reserves Model Regulation* (#10) if implemented by a state with respect to health entities defines the minimum reserve requirements. The NAIC *Accounting Practices and Procedures Manual* (AP&P Manual) Appendix A-010 defines minimum health reserve requirements when there are no other state specific requirements[1]. Although Appendix A-010 describes the separate minimum standard for each type of

[1] The NAIC *Accounting Practices and Procedures Manual Appendix A-010* incorporate minimum reserve requirements from the *Health Insurance Reserves Model Regulation.*

reserve separately, *Statement of Statutory Accounting Principles (SSAP) 54R—Individual and Group Accident and Health Contracts* requires a health entity's health insurance reserves to also be tested in total using the gross premium valuation method. The SAO for the Health Annual Financial Statement is required to address certain other liabilities as well as these specific reserves. The *Annual Financial Statement Instructions* specifically include:

A. Claims unpaid (Page 3, Line 1).

B. Accrued medical incentive pool and bonus payments (Page 3, Line 2).

C. Unpaid claims adjustment expenses (Page 3, Line 3).

D. Aggregate health policy reserves (Page 3, Line 4) including unearned premium reserves, premium deficiency reserves, and additional policy reserves from the Underwriting and Investment Exhibit – Part 2D.

E. Aggregate life policy reserves (Page 3, Line 5).

F. Property/casualty unearned premium reserves (Page 3, Line 6).

G. Aggregate health claim reserves (Page 3, Line 7).

H. Any other loss reserves, actuarial liabilities, or related items presented as liabilities in the annual statement.

I. Specified actuarial items presented as assets in the annual statement.

Although the instructions specifically identify the above actuarial items for review, certain other actuarial items also require review as provided in the general item H above. Some actuarial items are often incorporated into the required items while others have not been incorporated in the required list.

Actuarial reserves and liabilities that are incorporated into the required items above are as follows (note items 1a & 1b are specifically referenced in item D in the list above):

1. Aggregate Health Policy Reserves (Page 3, Line 4) includes:
    a. Unearned Premium Reserve (Underwriting and Investment Exhibit – Part 2D, Line 1).
    b. Additional Policy Reserves (Underwriting and Investment Exhibit – Part 2D, Line 2).
    c. Reserve For Future Contingent Benefits (Underwriting and Investment Exhibit – Part 2D, Line 3).
    d. Reserve For Rate Credits or Experience Rating Refunds (Underwriting and Investment Exhibit – Part 2D, Line 4).
    e. Aggregate Write-ins for Other Policy Reserves (Underwriting and Investment Exhibit – Part 2D, Line 5).
2. Aggregate Health Claim Reserves (Page 3, Line 7) includes:
    a. Present Values of Amounts Not Yet Due on Claims (Underwriting and Investment Exhibit – Part 2D, Line 9).
    b. Reserve For Future Contingent Benefits (Underwriting and Investment Exhibit, Part 2D, Line 10).
    c. Aggregate Write-ins for Other Claim Reserves; Actuarial Reserves Should Be Included in the SAO (Underwriting and Investment Exhibit – Part 2D, Line 11).

Note that additional policy reserves include premium deficiency reserves. Premium deficiency reserves are identified in Underwriting and Investment Exhibit – Part 2D, Footnote a.

Scope section, discussed above for Section 5 of the Annual Statement SAO Instructions, should specifically identify those items and amounts to which the actuary is expressing an opinion, including but not limited to the above specifically identified lines from the Annual Financial Statement. Where the actuary determines that no liability exists, the value $0.00 should be entered. Lines should not be deleted.

If there has been a material change in the actuarial assumptions from those previously employed, that change should be described in the Annual Financial Statement and in the Relevant Comments section of the SAO. (See Section 8 of the Annual Statement SAO Instructions and summarized above.)

If the actuary has not examined the underlying records, but has relied upon product definitions, computer listings and summaries of enrollment and claims payments prepared by the health entity, a prescribed statement to this effect is required by the Reliance section of the SAO. A signed statement by the person relied on is also required by this Reliance section for items provided, confirming the accuracy, completeness, and/or reasonableness of the items. Instructions for the Reliance section of the SAO are provided in Section 6 of the Annual Statement SAO Instructions.

Most health coverages do not require extensive cash flow testing, due to the short duration of the claim liabilities. The ASB has issued Actuarial Standards of Practice to guide actuaries in determining when an asset adequacy analysis should be performed and methods of asset adequacy analysis to consider. One of these is a prospective gross premium valuation. There is also guidance in the *AP&P Manual*, Appendix A-822 Asset Adequacy Analysis Requirements. If required by either regulation or professional standards, the actuary should have included an opinion of the asset adequacy.[2] Unlike life insurance opinions, there is currently no specific guidance for health asset adequacy opinions.

As provided in the instructions and mentioned above, the SAO can take four forms:

- Unqualified SAO
- Qualified SAO
- Adverse SAO
- Inconclusive SAO

In cases where the SAO is other than unqualified, analysts should determine what the weakness is that prevents an unqualified SAO. A qualified SAO would state that the reserves may be adequate, but there are somewhat likely circumstances under which they would not be adequate. An adverse SAO is one in which the amounts reviewed do not satisfy opining statement "D" in the SAO section of the SAO. This opining statement "D" reads as, "Make a good and sufficient provision for all unpaid claims and other actuarial liabilities of the organization under the terms of its contracts and agreements." An adverse SAO implies that amounts reviewed are not adequate under state regulations and/or actuarial standards. If the actuary's SAO is adverse or qualified, the actuary should specifically state the reason(s) for such an SAO in the Opinion section and/or Relevant Comments section of the SAO. If the actuary is unable to form an opinion, the actuary should issue an inconclusive SAO and specifically state the reason(s) for this.

Discussion of Statement of Actuarial Opinion Worksheet

Using the Worksheet

The Statement of Actuarial Opinion Worksheet is intended to provide procedures for reviewing the Actuarial Opinion and other actuarial filings for compliance and assessment of risks. In many states, actuarial staff review the Actuarial Opinion and related filings. Whether the analyst or the actuary performs the SAO review, the Worksheet provides for the results of the SAO review to be documented and communicated to the analyst. Analysts should document overall results of the actuarial opinion analysis and risk identified in Section III: Risk Assessment of the insurer within reserving risk or other relevant risk category. Documentation of the risk assessment analysis should be sufficiently robust to explain the risks and reflect the strengths and weaknesses

2 *Accounting Practices and Procedures Manual, Appendix A-822* provides guidance for Asset Adequacy Analysis Requirements. The only companies filing the Health Annual Financial Statement that are subject to the requirements of Appendix A-822 are those licensed as life insurance companies.

of the insurer. Analysts are not expected to respond to procedures, data or benchmark results directly in the worksheet document.

Statement of Actuarial Opinion

The SAO must be issued by the Appointed Actuary who is a qualified health actuary appointed by the board of directors. For purposes of the health SAO, the Health Annual Statement Instructions define a qualified health actuary as a member in good standing of the Academy or a person recognized by the Academy as qualified for such health actuarial valuation.

PROCEDURE #1A assists analysts in determining that the Table of Key Indicators has been completed. Analysts should note that within each section of the Table, only one box should be checked. The Table assists analysts in identifying those sections of the SAO for which it may be appropriate to perform additional analysis, specifically when "Prescribed Wording with Additional Wording" or "Revised Wording" has been checked.

PROCEDURES #1B–#1E assists analysts in determining that the SAO was prepared by a qualified actuary and that the reserve amounts agree with the Annual Financial Statement.

PROCEDURE #1F assists analysts in determining if the health entity's actuary, the health entity's accounting firm, or an officer of the health entity has verified the accuracy and completeness of source data.

PROCEDURES #2A AND #2B assists analysts in determining if the health entity's actuary has covered the required reserves.

PROCEDURE #3A assists analysts in determining that the health entity's actuary's SAO on reserves is in accordance with the criteria found in the *Health Annual Financial Statement Instructions* Section 7 and in particular that the SAO states that the reserves meet the requirements of the state of domicile. The *Annual Financial Statement Instructions* list certain items to include in the SAO paragraph, A through H. Certain other items have been included as separate lines in the past. For 2009, these items should be included within item H. Analysts should also determine the actuary's conclusion concerning reserve adequacy in total. It is important for the actuary to document the reasons for his or her conclusion, which should be available upon request by analysts.

PROCEDURES #3B AND #3C are intended to assist analysts in determining that the health entity's actuarial methods, considerations and analyses used in forming the actuary's opinion conform to the relevant Standards of Practice as promulgated by the Actuarial Standards Board.

PROCEDURES #4 AND #5 are performed only in the situation where an asset adequacy test has been performed by the actuary. These procedures assist analysts in reviewing the actuary's asset adequacy testing and actuarial memorandum that supports the SAO. The *Annual Financial Statement Instructions* and *Health Insurance Reserves Model Regulation* (#10) do not specifically require asset adequacy testing for health entities but may be required by actuarial standards of practices in some specific situations. A small number of health entities hold life insurance licenses and may, therefore, be subject to the asset adequacy and memorandum regulations. Analysts should become familiar with his or her state requirements and special situations that may exist.

For the small number of health entities that are subject to actuarial memorandum requirements, the actuarial memorandum is a comprehensive document that provides an understanding of the health entity's reserves, the assets available to support the reserves, and the projected impact on the health entity's financial condition of varying economic and interest rate projection scenarios. It is not automatically filed with the Annual Financial Statement but is provided to the regulator only upon request. The decision as to whether to request the actuarial memorandum is an important one. The actuarial memorandum should be requested for health entities with known financial problems, significant changes in product mix or investment strategy, or significant growth in a particular product line. The Regulatory Asset Adequacy Issues Summary (RAAIS), which is filed with the Annual Financial Statement, assists the regulatory actuary in determining whether to request the actuarial memorandum. The RAAIS would include the following eight data requests, many of which may not apply to

health asset adequacy analysis. (Refer to the NAIC *Actuarial Opinion and Memorandum Regulation* (#822), Section 7.):

1. For interest sensitive products, the amount of any negative ending surplus values on a market value basis under each of the Required Interest Scenarios.
2. The extent to which the Appointed Actuary uses assumptions in the asset adequacy analysis which are materially different than the assumptions used in the previous asset adequacy analysis.
3. The amount of reserves and the identity of the product lines which have been subject to asset adequacy analysis in the prior SAO but were not subject to such analysis for the current SAO.
4. The number of additional interest rate scenarios that were tested identifying separately the number of deterministic scenarios and stochastic scenarios. Also, identify the number of such scenarios which produced ending negative surplus values on market value basis.
5. If sensitivity testing was performed, identify the assumptions tested and describe the variation in ending surplus values on a market value basis from the base case values.
6. Comments should be provided on any interim results that may be of significant concern to the Appointed Actuary.
7. The methods used by the actuary to recognize the impact of reinsurance on the company's cash flows, including both assets and liabilities, under each of the scenarios tested.
8. Whether the actuary has verified that all options embedded in fixed income securities and equity-like features in any investments have been appropriately considered in the asset adequacy analysis.

Overview of Reserving Risk Assessment

Health reserves are intended to: 1) cover claims payments for claims that have been incurred prior to the valuation date and have not yet been paid; or 2) to retain a portion of current revenues to cover future incurred claims that the company anticipates it will be obligated to pay. The NAIC *Annual Financial Statement Instructions* and the AP&P Manual contain specific guidance for distinguishing between certain types of claim liabilities. Specifically, SSAP No. 54R and *SSAP No. 55—Unpaid Claims, Losses and Loss Adjustment Expenses* differentiate between claims that have accrued costs (claim liabilities) and claims that may have been incurred but for which costs will be accrued in the future (claim reserves). For this handbook the term reserve will be used in its broader sense to include items denoted as reserves as well as other items called liabilities.

When there are reserves and liabilities for claim amounts to be paid in the future there will also be expenses associated with paying these claims. The liability for the administrative expense associated with paying these claims is entered in "Unpaid Claims Adjustment Expenses."

The incurred date of a claim is the first date on which the company has an obligation to pay for a contracted benefit. The incurred date of a claim depends on the type of product and the contract language. Some examples of incurred date determination would include:

- Hospital claims are incurred on the date of admission.
- Some claims related to one diagnosis may be grouped and considered incurred on first date of service.
- Maternity claims are incurred on the date of the first service related to the maternity.
- Other medical, dental and vision services are incurred on the date of service.
- Disability income claims are incurred on the date of disability.
- Long term care claims are incurred on the date of eligibility for benefits or date of first service, depending on the reserving method.
- Stop loss claims are incurred based on the contract specifications.

Other reserves are associated with provider contracts and experience rating contracts with employer groups. Provider contracts often result in funds being held for future payment based on claims experience for the members assigned to a provider group. Similarly, some contracts with employer groups result in future premium due or premium refunds owed based on actual claims experience.

Health reserves and methods used for their estimation are discussed in detail in the NAIC *Health Reserve Guidance Manual*. Analysts should be familiar with the information addressed in that manual and should use it as a reference when looking for guidance about a particular item under review. Before contacting a company or a company's actuary, analysts should review the NAIC *Health Reserves Guidance Manual* to become more familiar with the terms and techniques for reserve estimation.

Due to the variety of types of health policies issued and the complexity of determining the aggregate reserves and liabilities for health policies, most health entities rely on actuaries or individuals with actuarial training to assist in estimating these liabilities. Although some health entities do not use actuaries to actually set the health reserves, health entities are required to annually obtain an opinion regarding the reasonableness of the established health reserves by a qualified actuary. Therefore, qualified actuaries are involved in setting and/or reviewing the health reserve liabilities established for virtually all health entities.

There are eight categories of health reserves and liabilities:

1. **Unearned premium reserves**

   The unearned premium reserve is the amount of paid premium covering future periods. For example, an annual premium paid on January first is 75% unearned at the end of the first quarter. Health products often have monthly premiums that do not require unearned premium reserves if coverage is from the first of the month to the end of each month (typically the case for employer-based coverage).

   If a premium is paid before it is due it is considered an advanced premium. For example, if January's monthly premium is paid on December 15 of the prior year it is advanced premium. Advanced premiums are entered in premiums received in advance on the Annual and Quarterly Financial Statements. See SSAP No. 54R for further guidance on this distinction.

2. **Claim reserves**

   Claim reserves are intended to cover claims that have been incurred but have not been paid. They can be further divided into three categories based on where the claim is in the process of being reported, approved and paid. The allocation among these categories is usually based on past statistics and they are usually not estimated separately. In general, incurred claims are estimated using one of the techniques described in the NAIC *Health Reserves Guidance Manual* and paid claims are deducted from the incurred claims to get a claim reserve. Other methods may be used for non-medical lines of business.

   Claim reserves can fluctuate as a percentage of incurred claims. A possible reason for this fluctuation is a large increase or decrease in the health entity's claims inventory. This often happens when a new claims system is installed. Other reasons for fluctuations in claims inventory can include a larger than normal turn over in claims processors, changes in the percentage of claims submitted electronically, changes in provider agreements such as moving to or from capitation arrangements and adding large amounts of new business. One concern may be that a change in the ratio of claim reserve to incurred claims could indicate that reserves are being lowered to improve profits or raised to justify rate increases.

   a. <u>Claims reported and in process of adjudication:</u>

      Claims reported and in process of adjudication may be waiting for additional information or may be ready for payment. States have different laws and regulations concerning the maximum number of days between the time that a claim is received and paid or otherwise adjudicated. An average backlog can be very roughly estimated by comparing the Reported in Process of Adjustment in the Underwriting and Investment Exhibit – Part 2A to the average daily-incurred claims amount (incurred claims divided by 365).

i. Due and unpaid claims:

These are claims that have been received, approved and adjudicated, but have not yet been paid. They generally represent a very small part of the claim reserve compared to the incurred-but-not-reported liability. Typically claims are considered paid when the check is issued.

ii. Claims in course of settlement:

These are claims that have been received by the company but have not been paid. They are often claims that are waiting for some additional information before they can be adjudicated and approved for payment.

b. Incurred but not reported (IBNR) claims:

Although claim reserves are often called IBNR, technically the only part of the reserve that is IBNR is the part that represents claims that have NOT been reported to the company. This is almost always the largest part of the claim reserve.

Historically, physician claims take longer to be reported than hospital claims, but electronic filing of claim information is shortening the lag between the date of service and the date that a claim is submitted to the health entity.

The amount of claim reserve per member or per incurred claim dollar differs significantly between types of companies. If a company pays most of its claims on a capitated basis, its claim reserve will result only from services that are not covered by the capitation. Claims not covered by the capitation generally include claims for out-of-area emergencies and claims for referrals to non-capitated specialists. Also, because some companies pay a budgeted amount to the largest hospitals providing services to their insured's with a periodic reconciliation for actual claims, there are additional reporting rules for these payments. *SSAP No. 84—Health Care and Government Insured Plan Receivables* defines these payments as advances or loans to providers and distinguishes between advances to hospitals and advances to non-hospital providers. Regarding advances to hospitals, as long as a reconciliation is performed within the strict parameters set forth in SSAP No. 84, these advances are admitted assets up to the estimated amount of incurred claims still unpaid to the hospital (includes IBNR). For non-hospital providers, and when the advances to a hospital do not meet the specific reconciliation requirements of SSAP No. 84, the admitted asset is limited to the amount of claims due and unpaid or in course of settlement (does not include IBNR) to that particular provider. The claim reserve is not to be reduced in either situation. Accounting guidance found in *SSAP No. 25—Affiliates and Other Related Parties* should be followed for loans and advances to related party providers.

When companies contract with providers on a capitated basis, they may consider it appropriate to include an amount in the IBNR reserve for the contingency that the provider group becomes insolvent and is not able to perform under its contract. For example, if a capitation has been paid to a provider group for medical services and the provider group becomes insolvent and does not have the funds to pay member doctors, then the company may have to pay doctors directly for services rendered to members.

Claim reserves are estimated with some level of conservatism based on the health entity's and the actuary's determination of the amount of margin needed for potential adverse experience. Factors affecting the need for conservatism in reserve estimates include: 1) statistical fluctuation in incurred claims; 2) data problems due to system changes or inadequate data reporting; 3) new or growing product lines; and 4) changes in plan design or provider arrangements that may affect claims payment patterns. Conservatism can be achieved by using a tabular method based on a conservative table, by using conservative assumptions and/or by adding explicit margins to reserve estimates. The conservatism of past claim reserve estimates can be observed by comparing Claims Incurred in Prior Years with the Estimated Claim Reserve and Claim Liability December 31 of the Prior Year in the Annual Financial Statement from the Underwriting and Investment Exhibit Part 2B.

c. Disabled life reserves:

Disabled life reserves are reserves for individuals who are currently eligible for claim payment on coverage such as disability income and long-term care (LTC). These claims will continue to be paid even if the contract ends until the individual is no longer eligible for claim payments due to an improvement in health status. More guidance can be found in SSAP No. 54R under claim reserves.

3. Reserves for future contingent benefits

In some situations and for some types of products, benefits resulting from an incurred claim can extend beyond the valuation date and may extend even beyond the end of the contract period. For a hospitalization that extends past the end of the contract period, either the contract itself or state law may require payment of charges up to a specific time past the end of the contract period. Maternity claims may also result in a reserve for future contingent benefits, if the delivery is covered even if the contract is terminated. The federal Health Insurance Portability and Accountability Act (HIPAA) places restrictions on pre-existing condition exclusions resulting in new policies being responsible for continuing hospitalizations and maternity benefits, thus reducing the need for future contingent benefit reserves, but under state laws the prior carrier may still remain liable for the claim. A contingency benefit reserve may still be needed since there may be no replacement policy or the replacement policy may not cover all of the benefits of the old policy. Company experience and tabular methods are used to calculate these types of reserves.

Future benefits for disability income and LTC claims are included in disabled life reserves rather than as reserves for future contingent benefits.

4. Claims or LAE liability

When incurred claims have not been paid as of the valuation date and a reserve is set up for their future payment, there will generally be an expense to process and pay the claims. This expense, although paid in the future, is associated with claims incurred prior to the valuation date. To achieve consistent financial reporting a liability is set up for the future claims payment expense.

Also, when provider contract provisions require a payment at the end of the contract period for financial and/or operational performance, there will be a cost of determining and paying the contingent payment. A liability should be included for the expense of processing the provider liability.

5. Contract reserves

Contract reserves are in addition to claim and premium reserves. A contract reserve is a reserve set up when a portion of the premium collected in the early years is meant to help pay for higher claim costs arising in later years. The reserve is calculated using actuarial assumptions and techniques, and in general, equates to the amount that the present value of future benefits exceeds the present value of a consistent portion of future premiums (the portion of the "gross premium" used for contract reserves is called the "net premium").

Contract reserves are needed when premiums are collected in the early years of a policy and are intended to offset increasing claims in later years. This is usually seen when premiums are level over the life of a policy, but can occur when premiums are structured to increase, but still are not proportional to expected claims. Issue age rated policies often fall into this category where premiums can increase, but the ratio of expected claims to premiums are lower in early durations, by design, in order to avoid rate increases at later durations (or at least reduce their size).

The types of products that generally require contract reserves include: 1) individual disability income (if premiums are not based on attained age); 2) LTC; and 3) issue age rated medical policies (including those for specified diseases). Issue age rated medical policies are rare except for issue age Medicare Supplement and some issue age hospital indemnity policies. Many other types of health policies (accident coverage or AD&D coverage) may not need contract reserves because the likelihood of claims is the same for each age. Those

contracts (most employer-based coverage) that are re-rated each year to cover the expected claims for the year do not need contract reserves.

Contract reserves may be needed for policies with multi-year rate guarantees. Many medical policies with multi-year rate guarantees have built in rate increases to cover anticipated increases in claims cost, but if premiums are level, contract reserves will be needed.

Appendix A-010, *Minimum Reserve Standards for Individual and Group Health Insurance Contracts*, (Appendix A-010) of the AP&P Manual prescribes the minimum standards used in determining the health policy reserves and specify some of the assumptions to use such as morbidity tables, maximum interest rate and valuation method. Health entities may establish health policy reserves that equal or exceed these minimum standards. Analysts should review that all changes to contract reserve assumptions for in force policies have been approved in accordance with State regulations.

6. Premium stabilization reserves

These are reserves set aside to reduce the potential for large rate increases and smooth out the underwriting cycle. They are often associated with retrospectively rated contracts that require additional premium if claims are more than a specific percentage over expected or a premium refund if claims are less than a specific percentage of expected claims. The use of premium stabilization reserves due to retrospectively rated contracts is described in *SSAP No. 66—Retrospectively Rated Contracts*.

There are other experience rating arrangements besides retrospectively rated contracts that build up premium stabilization reserves. These reserves are used in years of higher-than-expected claims cost and result in a smoothing effect on premiums since premiums will not have to be increased to compensate for one year of poor experience.

Most premium stabilization reserves are determined by contract, but a company may use a similar concept on a block of business. Care should be taken to ensure that positive reserves from one contract are not used to offset material claims on other contracts that should be recognized. The reserve would be used to smooth out the need for large rate increases by building up a reserve in years when claims are less than expected and then drawing it down in years of larger than expected claims.

7. Provider liabilities

There are many types of provider contracting arrangements in the marketplace today. Many of these arrangements base some portion of the amount paid to the provider on financial and/or operational goals that are measured periodically. Under these types of arrangements, payment for reaching goals is not dependent on any specific service, but rather is based on overall performance. As of the valuation date, a payment for performance under a provider contract may have been earned, but not paid. This payment must be set up as a liability to the company.

If a contract period has ended and there has not been a final settlement, any potential settlement with respect to provider liability should be included. If the valuation date occurs during a contract period, then an appropriate liability should be determined that represents the time period from the beginning of the contract period through the valuation date. When provider risks are minimized using stop-loss arrangements that take large claims out of the calculation, the effect of the stop-loss coverage should be estimated and included in the claim reserve calculation. In some situations, the provider contracts may allow for an additional provider payment to the company. These payments, which may be determined in a similar manner should be separated (not netted against the company's liability) and may be admitted if recorded in accordance with SSAP 84.

Some conservatism for adverse fluctuations should be included when estimating provider liabilities. The level of conservatism depends on the variability of the liability, time period being estimated, and the quality of the data being used. Please note, conservatism that increases the claim reserve estimate and anticipates