



**RICARDO LARA**  
CALIFORNIA INSURANCE COMMISSIONER

Ahmad Kamil, FSA, FIA, MAAA  
Acting Chief Life Actuary  
Life Actuarial Office  
Financial Surveillance Branch  
California Department of Insurance  
Phone: (213) 346-6147

TO: Appointed Actuaries of all Life and Disability Insurance Companies and Fraternal Benefit Societies licensed in California, and other Interested Persons

SUBJECT: 2021 Actuarial Memorandum and Regulatory Asset Adequacy Issues Summary

DATE: November 22, 2021

Virtually all Life and Disability Insurance Companies and Fraternal Benefit Societies licensed in California (“companies”), with the exception of companies that meet the definition of “reinsurers” under the Federal Dodd-Frank Act, are required to submit the prescribed Actuarial Opinion based on Asset Adequacy Analysis.

Certain companies are required to submit their Actuarial Memorandum with additional items as outlined in the attached **Appendix I**.

**All** licensed companies, with the exception of companies that meet the definition of “reinsurers” under the Federal Dodd-Frank Act, are required to submit the Regulatory Asset Adequacy Issues Summary (“RAAIS”). The items to be addressed are outlined in the attached **Appendix II**.

All companies with variable annuity business subject to Actuarial Guideline 43 (“AG 43”)/Valuation Manual VM-21 are required to submit a PBR Actuarial Report per VM-31, including the AG 43/VM-21 Analysis.

The 2021 Actuarial Memorandum, the electronically signed copy of the RAAIS, the full PBR Actuarial Report per VM-31 and the AG 43 Analysis are required to be submitted online using the Online Assistance System for Insurer Submittal (“OASIS”). Electronic filing instructions and mailing information are outlined in the attached **Appendix III**.

**Please note that all submissions are due no later than April 1<sup>st</sup>, 2022.** Extension requests beyond this date will be approved when justified.

*Ahmad Kamil*

Ahmad Kamil, FSA, FIA, MAAA  
Acting Chief Life Actuary

### Appendix I

**The following categories of companies are automatically requested to electronically submit their 2021 Actuarial Memorandum and the full PBR Actuarial Report per VM-31, as specified in Appendix III. (All page and line references below refer to the 2021 Life, Accident & Health/Fraternal Annual Statement; some references may be different for Health Statement blanks.)**

**COMPANIES THAT SUBMIT A MEMORANDUM SHOULD INDICATE IN THEIR COVER LETTER WHICH OF THE FOLLOWING FIVE CATEGORIES APPLY:**

1. California domestic companies.
2. Companies whose 2021 California Premiums Written (Schedule T, Line 5, sum of Columns 6 & 7) exceeds 20% of the Total Premiums Written (Schedule T, Line 59, sum of Columns 6 & 7).
3. Companies whose ratio of Capital & Surplus (Page 3, Column 1, Line 38) to Net Admitted – Cash & Invested Assets (Page 2, Column 3, Line 12) as of 12/31/21 is below 6%.
4. Companies whose Long Term Care:
  - Earned Premiums (A&H Policy Experience Exhibit, Column 1, sum of Lines A10 & B12) represents more than 5% of direct total premiums (Exhibit 1, Part 1, Column 1, Line 20.1) as of 12/31/21, or
  - Contract reserves (Exhibit 6, Column 12, Line 7) represent more than 5% of aggregate reserves for life and accident & health contracts (Page 3, Column 1, sum of Lines 1 & 2) as of 12/31/21.
5. Companies that used Principle-Based Reserves (“PBR”) following the requirements of VM-20 and/or VM-21 should include, along with the 2021 Actuarial Memorandum, the full PBR Actuarial Report (per VM-31), if applicable.

Note that details of the Memorandum section documenting Asset Adequacy Analysis should be prepared in accordance with California Code of Regulations (“CCR”), Title 10, §2580.6(b), and NAIC VM-30 if applicable.

**Additional items to be included in the Actuarial Memorandum:**

**ADDRESS ALL THE FOLLOWING ITEMS IN ORDER** (If an item is not applicable or is immaterial, indicate that and provide a justification):

1. Projected income statement for each year of projection period for the baseline level interest rate scenario with items not limited to the following:
  - Premium
  - Gross investment income (as opposed to net investment income)
  - Investment expense
  - Default cost
  - Death benefit
  - Annuity benefit
  - Disability benefit
  - Surrender benefit
  - Other benefits (specify)
  - Maintenance expense
  - Commission
  - Change in reserves
  - Effect of reinsurance

Explain the rationale for the number of years projected for each modeling group and provide the projections in a spreadsheet.
2. A comparison of prior 3 years' Actual to 2022 Projected for cash-flow components in Item 1 above, and an explanation of any significant difference in terms of dollar amount or rate. For example, while the 2021 actual investment income may differ from the 2022 projected amount, investment rates of return should be comparable. Confirm that the 2021 actual amounts used in the comparison have been reconciled to the company's 2021 Annual Statement.
3. Provide in a spreadsheet:
  - i. Amounts of modeled assets and statement assets as of the projection start date, on both a book basis and market basis, and by asset classes at least as detailed as the asset page of the statutory statement (e.g. bond, stock, etc.);
  - ii. Amounts of modeled liabilities and statement liabilities as of the projection start date, by major inforce blocks or lines of business;
  - iii. Aggregate invested assets, policy reserves, and investment reserves (IMR & AVR) for each year of the projection period.
4. Describe the asset default assumptions for each category and quality of assets. Justify the assumptions by comparing with company default experience.
5. Describe the assumptions of asset spread over Treasury for reinvestment. Justify the assumptions by comparing with recent company reinvestment experience.

6. Quantify and discuss the exposure to non-investment grade bonds, equities, real-estate, commercial mortgages, commercial mortgage backed securities, credit default swaps, collateralized debt obligations, and other structured financial products. Discuss the assumptions and sensitivity testing performed.
7. As a stress test, run at least one “baseline” level interest rate scenario using the yield curve as of the projection date (e.g. 9/30/2021 or 12/31/2021). Perform for this scenario a “zero-equity return” sensitivity test in which investment return rates are assumed to be zero throughout the projection period for the separate account assets and those general account assets which may have substantial volatility of returns, e.g., common stock, real estate, Schedule BA assets, etc. Include a discussion of the results.
8. For all mortgage backed securities, discuss the prepayment assumptions used, including a justification for the assumptions. Provide a comparison with actual experience, and explain differences.
9. For all alternative assets, describe and discuss the assumptions of their return, run-off, and acquisition over the projection periods, including a justification for the assumptions. Provide a comparison with actual experience, and explain differences.
10. Discuss the modeled derivatives with respect to basis risk, counterparty risk, etc. Describe in detail the calculation of projected market values of the modeled derivatives.
11. Describe any non-modeled derivatives (e.g., futures and swaps) which may be a liability for the general account in the future, and discuss such a likelihood under the scenarios tested.
12. Confirm that the deferred premium assets from the annual statement are included in the asset adequacy analysis. If not included in the analysis, explain why not.
13. Confirm that no financial borrowing (e.g. FHLB loans), nor pledged (encumbered) collateral, has been included in the asset adequacy analysis. If borrowings or pledged collateral have been included in the analysis, give the rationale for doing so.

## Appendix II

### Regulatory Asset Adequacy Issues Summary (RAAIS)

All companies are required to send their RAAIS by April 1<sup>st</sup>, 2022 (note this is an extension from the date in CCR, Title 10, §2580.6(a)(5)). The electronically signed copy of the RAAIS is required, which along with the Statement of Actuarial Opinion, should be submitted online as outlined in Appendix III.

INDICATE IN THE COVER LETTER ALL THE CATEGORIES ON PAGE 2 THAT APPLY TO THE COMPANY. REPLY “NONE” IF NONE APPLY.

ADDRESS ALL THE FOLLOWING ITEMS IN ORDER:

Details required under CCR, Title 10, §2580.6(c)(1) sub-sections (A) through (F); and

The following, as provided for by CCR, Title 10, §2580.6(c)(1)(G):

1. In addition to the descriptions of scenarios tested in §2580.6(c)(1)(A) above, for both the general and separate accounts, provide the rationale for the scenarios. Discuss how the scenarios and the sensitivity tests reflect a range of conditions consistent with the purpose of the analysis. Provide both the ending surplus and interim annual surplus results for each scenario tested.
2. In determining the market value of liabilities at the end of the projection period, confirm that the Appointed Actuary has used the present value of future cash flows or statutory reserves. The Appointed Actuary should not use cash surrender value as a proxy, particularly in the cases of universal life policies with secondary guarantee, term insurance, annuities in payout stage, and other policies expected to provide future benefits with little or no cash value.
3. In addition to descriptions and comments under §2580.6(c)(1)(A) and (D) above, additional reserves are to be established as of 12/31/2021 to cover surplus shortfalls. If negative interim or ending surplus results are of no significant concern to the Appointed Actuary, explain why.
4. If additional reserves were established, (i) provide the amount of additional reserve established, (ii) confirm that projections were re-run to verify that the additional reserve set up is sufficient to eliminate negative surplus, and (iii) provide the re-run results.
5. Explain why any additional reserves were released or reduced in 2021.
6. If stochastic scenarios of interest rates and/or equity returns were used in the analysis, (i) describe the underlying stochastic models, and explain why they are appropriate, (ii) describe how the model inputs/parameters are determined/derived, (iii) discuss why such determination/derivation is appropriate and reasonable, and (iv) discuss the sensitivity testing done or not done on each model input/parameter.

7. Explain how negative cash flows are funded in the model. Explain why this modeling assumption might be different than what would happen in practice. If selling assets is the company's practice but is not assumed in the model, conduct sensitivity tests for this assumption and discuss the results.
8. In addition to §2580.6(c)(1)(B) above, for key asset and liability assumptions including but not limited to asset spread, default rate, prepayments, mortality, morbidity, lapse, and expenses,
  - (i) Explain changes in any of the key assumptions this year from the previous Asset Adequacy Analysis,
  - (ii) Discuss how COVID-19 pandemic affects any of the key assumptions, and whether any assumption changes are based on actual experience deviating from the expected over the past two years,
  - (iii) Discuss and provide numeric results of sensitivity tests for each key assumption, including any particular concerns. If no sensitivity testing was performed, explain why such testing was not needed.
9. Explain why there are any recommendations not yet fully implemented from the company's last statutory examination.
10. By what percentage did the company's Capital & Surplus (Page 3, Column 1, Line 38) increase as a result of new reinsurance treaties entered into during 2021? Explain how Capital & Surplus increased as a result of new reinsurance entered in 2021.
11. State whether the Opinion is qualified or unqualified.
12. Specify any deviations from the prescribed Opinion wording in either the CCR Title 10 §2580.5(b) or VM-30, and explain the need for such modifications.
13. Confirm that if the 2001 Preferred Class Structure Mortality Table is being used for valuation, it conforms to the Reinsurance Deferred Premium Asset restrictions outlined in CCR Title 10, §2582.3(c).
14. For Long Term Care insurance, attach company's response to NAIC Actuarial Guideline 51. Refer to AG 51, and the "AG 51 Guidance Document– year-end 2021" which is posted on the NAIC website's LTC Valuation (B) Subgroup page, under the Related Documents tab (links below). The responses to the guidance document will be contained within the company's AG 51 submission.

NAIC AG 51 page link:

[https://content.naic.org/cipr\\_topics/topic\\_actuarial\\_guideline\\_li\\_ag\\_51.htm](https://content.naic.org/cipr_topics/topic_actuarial_guideline_li_ag_51.htm)

Direct AG 51 Guidance Document link:

<https://content.naic.org/sites/default/files/inline-files/AG%2051%20guidance%20-%20YE%202021.docx>

15. Provide the LTC Premium Deficiency Reserve (PDR) amount with:
- a) An itemized breakdown of the PDR calculation (active life reserve, claim reserve, benefit, premium, etc.)
  - b) Length of projection period
  - c) Reinvestment and discount rate with justification, and
  - d) The amount of PDR held at the end of 2021 before taking reinsurance into consideration.
16. If Predictive Analytics was utilized for any actuarial assumptions in the analysis:
- a) Describe how each model was selected and explain why it was appropriate for the purpose,
  - b) Describe each algorithm in use, its parameterization, and changes in the parameter values from last year if applicable,
  - c) Describe how common data issues (e.g., cleaning, partitioning, and overfitting, etc.) were addressed,
  - d) Provide an attribution analysis for each resultant assumption.
17. For Health Insurance claim reserves (including claims unpaid) reported in the Annual Statement, provide sufficient documentation and disclosure how the reserves were calculated, showing the analysis from the basic data (e.g., claim lags) to the reported reserves.
- Include:
- a) An exhibit which ties to the Annual Statement and compares the actuary's calculations to the carried amounts
  - b) Documentation of the reconciliation from the data used for analysis to the Annual Statement
  - c) Any other follow-up studies documenting the prior year's claim liability and claim reserve run-off as considered necessary by the Appointed Actuary.

The RAAIS should be electronically signed and dated by the Appointed Actuary, who should specify his/her employer, title, telephone number and e-mail address.

The RAAIS will be treated as confidential.

### **Appendix III**

1. The 2021 Actuarial Memorandum, the electronically signed copy of the RAAIS, the full PBR Actuarial Report per VM-31, and the AG 43/VM-21 Analysis are to be submitted online using the **Online Assistance System for Insurer Submittal (“OASIS”)**.

**For any questions regarding submissions on OASIS, email: [OASIS@insurance.ca.gov](mailto:OASIS@insurance.ca.gov).**

2. Electronic copies of the Actuarial Memorandum, the electronically signed copy of the RAAIS, the full PBR Actuarial Report per VM-31, and the AG 43/VM-21 Analysis are required on OASIS in **“accessible” PDF or Word** formats. Note that an “accessible” PDF document should not contain any scanned pages, and therefore the text should be searchable and extractable, except for scanned signature pages. Modeling results and other attachments with many numbers should be included in electronic **Excel** format. Companies not required to submit an Actuarial Memorandum, the full PBR Actuarial Report per VM-31, or the AG 43/VM-21 Analysis should file “Not Applicable” on OASIS, **including “Not Applicable” in the filename.**
3. Provide on OASIS, in electronic **Excel** format, the ending Book Value and Market Value surplus for all the stochastic scenarios used.
4. Make the Memorandum as "user friendly" as possible. For example, if the requested information is in section III, Appendix B, page 4, part (a) of the Memorandum, then put it there. In particular,
  - a. A complete table of contents should be included with page numbers;
  - b. All pages should be numbered;
  - c. Tabs or similar method should be used to indicate the beginning of different sections, attachments, appendices, etc.
5. **Note that all submissions are due no later than April 1st, 2022.**

Actuarial Memoranda and the PBR Actuarial Reports will be treated as confidential.

**For all inquiries such as filing extension requests and questions for actuarial and non-actuarial matters**  
E-mail: [LAO@insurance.ca.gov](mailto:LAO@insurance.ca.gov)

Mailing address:  
California Department of Insurance  
Life Actuarial Office  
300 S. Spring Street, South Tower, 14th floor  
Los Angeles, CA 90013