The Financial Stability (E) Task Force met Sept. 30, 2021. The following Task Force members participated: Marlene Caride, Chair (NJ); Eric A. Cioppa, Vice Chair, represented by Vanessa Sullivan (ME); Alan McClain represented by Mel Anderson (AR); Ricardo Lara represented by Susan Bernard (CA); Andrew N. Mais represented by Kathy Belfi (CT); Karima M. Woods represented by Philip Barlow (DC); David Altmaier represented by Carolyn Morgan (FL); Doug Ommen represented by Carrie Mears (IA); Gary D. Anderson represented by John Turchi (MA); Kathleen A. Borrane represented by Lynn Beckner (MD); Eric Dunning represented by Justin Schrader (NE); Adrienne A. Harris represented by Bill Carmello (NY); Jessica K. Altman represented by Kimberly Rankin (PA); Raymond G. Farmer represented by Michael Shull (SC); Carter Lawrence represented by Trey Hancock (TN); and Cassie Brown represented by Jamie Walker (TX). Also participating were: Robert Wake (ME); and Cameron Piatt (OH).

1. **Heard Opening Remarks**

Commissioner Caride said materials for consideration and discussion for this meeting were sent by email to the member, interested state insurance regulator, and interested party distribution lists for the Task Force, but they are also available on the NAIC website in the Committees section under the Financial Condition (E) Committee.

2. **Considered Adoption of its Charges**

Mr. Carmello made a motion, seconded by Mr. Barlow, to adopt the Task Force’s charges (Attachment 1). The motion passed unanimously.

3. **Heard an Update on Private Equity**

Eric Kolchinsky (NAIC) reported that private equity (PE) firms have increasingly been intertwined with insurance companies because of low interest rates and the changing PE business model. He added that the NAIC’s Capital Markets Bureau (CMB) maintains a manually researched and constantly updated list of 177 companies owned or controlled by PE. He concluded that PE-owned companies focus far more on investing in asset-backed securities (ABS) than the insurance industry as a whole: 25% vs 10% of total bonds in 2020.

Mr. Kolchinsky summarized that concern about PE ownership of insurance companies has been broadly expressed but to be actionable, these concerns need to be translated into a specific characteristic or behavior that differentiates the PE ownership structure from other insurance companies. He suggested using a “first principles” approach to zero in on the concern and list potential next steps.

Mr. Kolchinsky said transactions of affiliates have been a key regulatory concern, but the current regulatory framework was developed in the context of stock companies and mutuals. He added that insurers may use dividends, salaries, or benefits to extract excessive value so regulations focus on the oversight of value extraction by, for example, gating dividends and salaries. He explained that unlike stock companies and mutuals, PE-owned insurance companies look to extract value via fees rather than primarily dividends or salaries. He noted that state insurance regulators review and approve affiliated transactions but cautioned that it is not clear if all appropriate PE transactions are captured.

Mr. Kolchinsky elaborated that PE-owned insurance companies seeking to generate fees are the ultimate risk taker, but the relationships between PE and the insurer are not always clear:

- 1st degree affiliates are structured vehicles, which are managed by the PE-owned company’s asset management affiliate, but it is common for PE-owned companies to report affiliate-managed collateral loan obligations (CLOs) and other structured finance products as unaffiliated.
2nd degree affiliates are the debt and equity of PE-owned companies held by CLOs or collateral funding obligations that are either affiliated or unaffiliated and are held by the insurer. For example, the CMB found that for one large insurer, about 70% of its CLOs hold some exposure to the PE’s portfolio companies.

In terms of next steps, Mr. Kolchinsky suggested a new definition for PE-owned insurer:

“Financial Entity Owned Insurer is a regulated insurer, which is controlled by or has a long-term investment management agreement with an entity, which:

1) Derives the majority of its revenue through the management of or investment in financial assets.
2) Is not itself a regulated insurer.
3) Has some minimum amount of assets under management.”

Mr. Kolchinsky also suggested enhanced disclosures that bolster the definition of affiliate to include entities managed by an affiliate of the Financial Entity Owned Insurer:

- Fees paid or accrued to 1st and 2nd degree affiliates.
- Assets under management of all affiliates.
- Investments where there are other relationships with 1st and 2nd degree affiliates.

Ms. Belfi said considerable work goes into approving affiliate and investment manager agreements because it is an affiliate relationship. She asked if creating an investment or charging a fee is what is not currently being captured. Mr. Kolchinsky agreed and noted that, for example, for a CLO, there is no disclosure of a contract of the asset manager’s part of the trustee as the investor, but an affiliate may be receiving fees where an insurance company is an investor in the trust.

Mr. Barlow suggested that at least a 1st degree affiliate should be captured under the Insurance Holding Company System Regulatory Act (#440), but he asked if the new definition of a PE-owned insurer should be included. Mr. Kolchinsky responded that the company studied had good reporting, but Model #440 may not capture the new definition of a PE-owned insurer.

Ms. Mears asked if there are recommendations for the Task Force. Mr. Kolchinsky responded that he is looking for feedback and then further work would be referred to the appropriate committees. Ms. Mears asked if traditional insurers that own an asset management firm would be included. Mr. Kolchinsky responded that if the insurer owns an asset management firm, that is excluded from the definition because the insurer is already regulated. Ms. Mears asked if the presentation (Attachment 2) covers the scope of the work to be done. Mr. Kolchinsky said he views the presentation as a starting point, but there needs to be an understanding of the relationships between affiliates to determine what the solutions are and if the relationships are de minimis, then maybe nothing needs to be done. Ms. Mears asked if enhanced reporting would capture the traditional insurer that owns the asset manager who sponsors a CLO. Mr. Kolchinsky responded he would be open to that if the Task Force agrees on broader disclosures.

Mr. Wake said definitions would be clearer if 1st and 2nd degree affiliates are called 2nd and 3rd degree affiliates with the understanding that 1st degree affiliate is what Model #440 already defines. He added that consideration should be given to sorting out traditional insurers from these PE-owned insurer business models by defining the kind of transactions in an officially neutral way to determine the activities of asset management that are problematic and those that are not, rather than just looking if the controlling entity happens to be a financial entity. He suggested screening out traditional insurance activities that are not problematic through careful definitions and de minimis standards. He concluded that a traditional insurer that adopts some of those problematic practices could be included, but a PE-owned insurer that behaves like a traditional insurer could be excluded. Mr. Kolchinsky agreed.

Mr. Piatt said some state insurance regulators may have been on the Sept. 29 call regarding referral of the multistate NAIC Uniform Certificate of Authority Application (UCAA), known as Form A, when a PE-owned insurer wants to acquire an insurer. He added that the definition of a PE-owned insurer in that context is different. He asked for clarification of the definition. Mr. Kolchinsky responded that defining is a difficult task, but the focus is on fee generation.
Commissioner Caride said Todd Sells (NAIC) will receive all emails with respect to feedback to Mr. Kolchinsky’s presentation from members and interested parties.

4. **Heard a Macroprudential Risk Assessment Update**

Tim Nauheimer (NAIC) reported that the International Association of Insurance Supervisors (IAIS) has completed a large component of the global monitoring exercise (GME), which included analysis of data received in connection with the individual insurer monitoring (IIM) and the sector wide monitoring (SWM) exercises. He added that several firms were identified for follow-up action, which included a questionnaire sent to the group wide supervisor. He said the IAIS plans to release the next draft of the public consultation on liquidity metrics in mid-November, which utilizes a company’s cash flow projections and more aligns with the NAIC’s approach to assessing liquidity risk.

Mr. Nauheimer reported that reminders were sent to lead states of the insurers in scope of the NAIC’s liquidity stress test in the event lead states wanted to follow up with their insurers’ filings due Sept. 30. He added that NAIC staff will compile submitted data from lead states and present them to the Macroprudential (E) Working Group. He said the Working Group will continue to develop the risk assessment framework, and a small drafting group of NAIC staff has been established to address the risk assessment details and finalize a proof of concept of the risk dashboard. The Working Group plans to use existing aggregated company data filed with the NAIC and public sources to conduct a risk assessment. The Working Group will have a call on Oct. 18 to receive the first version of the risk dashboard, and it hopes to have a first draft submitted for input by the Task Force later this year.

Stephen Broadie (American Property Casualty Insurance Association—APCIA) asked if the Oct. 18 Working Group call will be open or closed. Mr. Nauheimer responded that the initial call will be closed to get the framework for the risk dashboard in place, but some subsequent calls at the Task Force will be open.

Martin Mair (MetLife) asked what role the chief risk officer (CRO) council will play with respect to the development of the risk dashboard. Mr. Nauheimer responded that NAIC staff reached out to the CRO council for initial feedback on the risk dashboard, but he expects that NAIC staff will reach out again to collaborate.

Having no further business, the Financial Stability (E) Task Force adjourned.
The Financial Stability (E) Task Force met July 27, 2021. The following Task Force members participated: Marlene Caride, Chair, represented by David Wolf (NJ); Eric A. Cioppa, Vice Chair (ME); Ricardo Lara represented by Susan Bernard (CA); Andrew N. Mais and Kathy Belfi (CT); Karima M. Woods represented by Philip Barlow (DC); David Altmaier represented by Ray Spudeck (FL); Doug Ommen represented by Carrie Mears (IA); Gary D. Anderson represented by John Turchi (MA); Kathleen A. Birrane represented by Lynn Beckner (MD); Chloris Lindley-Myers and John Rehagen (MO); Eric Dunning represented by Justin Schrader (NE); Linda A. Lacewell represented by Bill Carmello (NY); Jessica K. Altman represented by Kimberly Rankin (PA); Raymond G. Farmer represented by Michael Shull (SC); Carter Lawrence (TN); Doug Slape represented by Jamie Walker (TX); and Scott A. White (VA).

1. **Heard Opening Remarks**

Superintendent Cioppa said materials for consideration and discussion for this meeting were sent by email to the member, interested state insurance regulator, and interested party distribution lists for the Task Force and the Liquidity Assessment (E) Subgroup, but they are also available on the NAIC website in the Committees section under the Financial Condition (E) Committee.

2. **Adopted its May 12 and Feb. 22 Minutes**

The Task Force met May 12 and Feb. 22. During its May 12 meeting, the Task Force took the following action: 1) heard an update on Financial Stability Oversight Council (FSOC) developments; 2) adopted its revised mission and charges; 3) adopted the 2020 Liquidity Stress Test (LST) Framework; 4) heard an international update; and 5) heard a macroprudential risk assessment update. During its Feb. 22 meeting, the Task Force took the following action: 1) adopted its Oct. 13, 2020, minutes; 2) announced the membership of the 2021 Liquidity Assessment (E) Subgroup and its charges; 3) received the report of the Receivership and Insolvency (E) Task Force; and 4) received an update from the Liquidity Assessment (E) Subgroup on progress in achieving its deliverables related to liquidity stress testing.

Commissioner White made a motion, seconded by Mr. Schrader, to adopt the Task Force’s May 12 (Attachment One) and Feb.22 (Attachment One) minutes.

3. **Received an Update on the 2020 LST Framework and Lead State Guidance**

Superintendent Cioppa reported that a final version of the 2020 LST Framework was posted to the Task Force’s web page after its adoption on May 12. He added that draft versions from prior meetings should not be used. He said that the LST Study Group continues to issue Lead State Guidance as needed for the 23 in-scope insurers performing the 2020 LST. Superintendent Cioppa added that the most current version is posted to the Task Force’s web page titled “2020 LST Framework with Lead State Guidance,” which is in track changes notation with comments included to reference the guidance number. He summarized that these tracked changes will be incorporated into the base document for the 2021 LST Framework. Todd Sells (NAIC) added that updated Lead State Guidance was also recently posted on the Task Force’s website.

4. **Adopted the Liquidity Assessment (E) Subgroup’s Revised Mission and Charges**

Superintendent Cioppa said that earlier this year, the Task Force moved from the Executive (EX) Committee to the Financial Condition (E) Committee and as part of that move was charged with building out the NAIC macroprudential surveillance system. He reported that in response, the Task Force exposed the proposal to repurpose the Liquidity Assessment (E) Subgroup into an ongoing group with broader responsibilities by renaming it the Macroprudential (E) Working Group and revising its 2021 charges, which are now in tracked changes to facilitate consideration for adoption.

Before addressing comments received, Superintendent Cioppa provided some general comments and reminders. He summarized that the new charges specifically reference the remaining MPI work because of the following facts:
Draft Pending Adoption

- The 2020 Liquidity Stress Test Framework was adopted, and though the ongoing charges include maintaining that project, it has been addressed for the MPI.
- The Receivership and Insolvency (E) Task Force addressed the Task Force referral letter, so that MPI item is complete.
- The Group Capital Calculation (E) Working Group has developed the Group Capital Calculation, but the MPI includes capital stress testing which has not yet been addressed.
- And though the Task Force performed a stock take of existing counterparty disclosures, this MPI item will be completed once we have performed the work of considering any gaps that exist and addressed any such gaps identified.

Superintendent Cioppa also reminded industry how the current legal entity and group insurance surveillance system has been shaped over the last thirty years, and most of the tools in that system are regulator only and use data from many regulatory filings. The macroprudential surveillance system the Task Force is building out will rely heavily on the same data and tools of the legal entity and group surveillance system, particularly in the early years of development.

Finally, Superintendent Cioppa stated that the NAIC is committed to working in an open manner where possible, ensuring our efforts include different ideas and opinions from regulators and all parties interested in the NAIC work. Though regulators may not always agree with interested parties on specific points and outcomes, this Task Force has worked very well with interested parties to date, and the Chair and Vice Chair intend to see that dynamic continue in the ongoing work.

Moving to address specific comments received, Superintendent Cioppa thanked the American Council of Life Insurers (ACLI), the National Association of Mutual Insurance Companies (NAMIC), and Travelers for their comments. He summarized the resolution of their comments:

- With respect to the ACLI comments, Superintendent Cioppa referenced his final general comment and agreed that the Liquidity Study Group has been a good model for dealing with complex and complicated work in a more focused, time-sensitive manner while ensuring those entities impacted are able to participate in the development work. He indicated the Macroprudential Working (E) Group will use other study groups with key state insurance regulator and industry participants to address some of the detail work included in its charges.

- To address NAMIC, Superintendent Cioppa referenced his general comments. The macroprudential surveillance system the Task Force is developing will have to review the existing data and tools from the legal entity and group insurance surveillance system. This will include assessing what works well for macroprudential purposes and considering ways to aggregate and manipulate existing data to tailor the outcomes for macroprudential needs. While the Task Force has no specific plans for new data collections across the entire industry, state regulators cannot guarantee they will not need to create a new data collection tool even in the near term. The Covid pandemic proved that state regulators must keep their options open. Since the existing charges already included language to develop data collection tools “as needed” and “leveraging existing data where feasible,” it is not appropriate to eliminate the term “develop,” and any cost/benefit analysis should be addressed for a specific proposal rather than included in the ongoing charges.

- With respect to the Travelers comments, the charges are drafted broadly to cover ongoing and future work of the Macroprudential (E) Working Group. Much of the microprudential and macroprudential financial analysis work uses historical data to identify potential issues. Thus, limiting the work to “activities” that lead to systemic risk would be too narrow of a charge. For Travelers’ remaining comments, Superintendent Cioppa reported that the Task Force sought feedback from the North American Chief Risk Officer (CRO) Council on the Macroprudential Risk Assessment document and noted that the Macroprudential (E) Working Group will take up that issue as work progresses.

Jonathan Rodgers (NAMIC) asked that the general discussion for this agenda item be made public. Mr. Sells responded that NAIC staff will include Superintendent Cioppa’s general comments in the posted minutes of the Task Force meeting on its website.

Commissioner Lindley-Myers made a motion, seconded by Mr. Spudeck, to adopt the revised charges for the Liquidity Assessment (E) Subgroup and renaming it the Macroprudential (E) Working Group (see NAIC Proceedings – Spring 2021, Financial Stability (E) Task Force, Attachment Two). The motion passed unanimously.

5. Heard an International Update
Mr. Nauheimer reported that the Individual Insurer Monitoring (IIM) and the Sector-Wide Monitoring (SWM) helped determine the scope for an annual collective discussion by the International Association of Insurance Supervisors (IAIS) on potential systemic risk issues. He added that the collective discussion will take place for the first time since the adoption of the Holistic Framework for Systemic Risk in the Insurance Sector (Holistic Framework) by the IAIS. Mr. Nauheimer explained that the collective discussion will focus on firms identified by a quantitative scoring, as well as some overarching themes related to financial stability that were identified by expert judgment. He said that the collective discussion will take place at the Macroprudential Committee and Executive Committee meetings at the end of September.

Mr. Nauheimer reported on the following IAIS projects:

- IIM’s ninth annual exercise was completed.
- SWM’s qualitative and quantitative exercise was completed, but work is ongoing to compare to IIM data.
- Re-insurance data for two years is due July 31.
- Publication of the *Global Insurance Market Report* (GIMAR) on climate-affected investments has been delayed until September.
- The IAIS Liquidity Workstream reviewed comments received on the public consultation on the Development of Liquidity Metrics – Phase I and will be working on a Phase II approach that uses a company’s cash-flow projections.
- The IAIS Macroprudential Supervision Working Group reviewed comments received on a draft of the Application Paper on Macroprudential Supervision, and the paper will go to the parent committee for final approval in August.

Mr. Nauheimer said that the NAIC has submitted three sets of questionnaire responses to the IAIS as part of a targeted jurisdictional assessment (TJA) of the implementation of the Holistic Framework’s supervisory materials. He added that the next step in the TJA will be either virtual or in-person meetings by the IAIS with a few state insurance regulators.

6. **Heard a Macroprudential Risk Assessment Update**

Mr. Nauheimer reported that NAIC staff have started to work on the Macroprudential Risk Assessment, which is a risk dashboard outlining proposed risk categories, key risk indicators, and an assessment scale. He added that the Macroprudential (E) Working Group will continue to develop the dashboard, and it plans to submit a draft to the Task Force for input and approval. He explained that the dashboard was shared in a meeting with the CRO Council to obtain some preliminary high-level feedback with industry experts. He added that the NAIC plans to expose the Macroprudential Risk Assessment document more broadly with interested parties in the future with time to comment.

Superintendent Cioppa said that Mr. Nauheimer will also report on the LST template. Mr. Nauheimer announced that the LST template was sent to the ACLI for feedback and once final, it will then be posted on the Task Force’s website for use by the in-scope companies for the 2020 LST.

Having no further business, the Financial Stability (E) Task Force adjourned.

W:\National Meetings\2021\Summer\FSTF
Regulatory Considerations Applicable (But Not Exclusive) to Private Equity (PE) Owned Insurers

A summary of currently identified regulatory considerations follows with no consideration of priority or importance (green underlined font indicates current or completed work by another NAIC committee group). Most of these considerations are not limited to PE owned insurers and are applicable to any insurers demonstrating the respective activities.

1. Regulators may not be obtaining clear pictures of risk due to holding companies structuring contractual agreements in a manner to avoid regulatory disclosures and requirements. Additionally, affiliated/related party agreements impacting the insurer’s risks may be structured to avoid disclosure (for example, by not including the insurer as a party to the agreement).

2. Control is presumed to exist where ownership is >=10%, but control considerations may exist with less than 10% ownership. For example, a party may exercise a controlling influence over an insurer through Board and management representation or contractual arrangements, including non-customary minority shareholder rights or covenants, investment management agreement (IMA) provisions such as onerous or costly IMA termination provisions, or excessive control or discretion given over the investment strategy and its implementation.

3. The material terms of the IMA and whether they are arm’s length—including the amount and types of investment management fees paid by the insurer, the termination provisions (how difficult or costly it would be for the insurer to terminate the IMA) and the degree of discretion or control of the investment manager over investment guidelines, allocation, and decisions.

4. Owners of insurers may be focused on short-term results which may not be in alignment with the long-term nature of liabilities in life products. For example, excessive investment management fees paid to an affiliate of the owner of an insurer may effectively act as a form of unauthorized dividend in addition to reducing the insurer’s overall investment returns. Similarly, owners of insurers may not be willing to transfer capital to a troubled insurer.

5. Operational, governance and market conduct practices being impacted by the different priorities and level of insurance experience possessed by entrants into the insurance market without prior insurance experience, including, but not limited to, PE owners. For example, a reliance on TPAs due to the acquiring firm’s lack of expertise may not be sufficient to administer the business. Such practices could lead to lapse, early surrender, and/or exchanges of contracts with in-the-money guarantees and other important policyholder coverage and benefits.

6. No uniform or widely accepted definition of PE and challenges in maintaining a complete list of insurers’ material relationships with PE firms. (UCAA (National Treatment WG) dealt with some items related to PE.) This definition may not be required as the considerations included in this document are applicable across insurance ownership types.

7. The lack of identification of related party-originated investments (including structured securities). For example, this may create potential conflicts of interests and excessive and/or hidden fees in the portfolio structure. Assets created and managed by affiliates may include fees at different levels of the value chain. Regulatory disclosures may be required to identify underlying related party/affiliated investments and/or collateral within structured security investments. (An agenda item and blanks proposal are being developed by SAPWG.)

8. Though the blanks include affiliated investment disclosures, it is not easy to identify underlying affiliated investments and/or collateral within structured security investments.

9. Broader considerations exist around asset manager affiliates (not just PE owners) and disclaimers of affiliation avoiding current affiliate investment disclosures. (A new Sc Y, Pt 3, has been adopted and will be in effect for year-end 2021. This schedule will identify all entities with greater than 10%...
The material increases in privately structured securities (both by affiliated and non-affiliated asset managers), which introduce other sources of risk or increase traditional credit risk, such as complexity risk and illiquidity risk, and involve a lack of transparency. (The NAIC Capital Markets Bureau continues to monitor this and issue regular reports, but much of the work is complex and time-intensive with a lot of manual research required. The NAIC Securities Valuation Office will begin receiving private rating rationale reports in 2022; these will offer some transparency into these private securities.)

11. The level of reliance on rating agency ratings and their appropriateness for regulatory purposes (e.g., accuracy, consistency, comparability, applicability, interchangeability, and transparency). (VOSTF has previously addressed and will continue to address this issue.)

12. The trend of life insurers in pension risk transfer (PRT) business and supporting such business with the more complex investments outlined above (LATF has exposed questions aimed at determining if an Actuarial Guideline is needed to achieve a primary goal of ensuring claims-paying ability even if the complex assets (often private equity-related) did not perform as the company expects, and a secondary goal to require stress testing and best practices related to valuation of non-publicly traded assets. Additionally, enhanced reporting in 2021 Separate Accounts blank will specifically identify assets backing PRT liabilities.) Considerations have also been raised regarding the RBC treatment of PRT business.
   a. Review applicability of Department of Labor protections resulting for pension beneficiaries in a PRT transaction.
   b. Review state guaranty associations’ coverage for group annuity certificate holders (pension beneficiaries) in receivership compared to Pension Benefit Guaranty Corporation (PBGC) protection.

13. Insurers’ use of offshore reinsurers (including captives) and complex affiliated sidecar vehicles to maximize capital efficiency and introduce complexities into the group structure.

ownership – regardless of any disclaimer of affiliation - and whether there is a disclaimer of control/disclaimer of affiliation. It will also identify the ultimate controlling party. Additionally, SAPWG is developing a proposal to revamp Schedule D reporting, with primary concepts to determine what reflects a qualifying bond and to identify different types of investments more clearly, including asset-backed securities.)
To: Commissioner Marlene Caride, Chair of the Financial Stability (E) Task Force
From: Mike Boerner, Chair of the Valuation Analysis (E) Working Group
Date: December 7, 2021
Re: Response to Request from the Financial Stability (E) Task Force

I. Executive Summary

In 2019, the Financial Stability (E) Task Force (FSTF) made a request to the Valuation Analysis (E) Working Group (VAWG) to assess a potential concern related to Economic Scenario Generators (ESGs) developed by the American Academy of Actuaries (Academy). It was suggested that there is a deficiency in the current ESG in that it doesn’t adequately consider a very low or negative interest rate environment, and more specifically that this raises a material risk at the macro prudential level in the U.S., particularly for variable annuities. To allay any concerns during the interim period until a new ESG is in place, the FSTF asked the VAWG to assess this concern and provide assurance that any issues either have been addressed, or will be able to be addressed.

An initial response was provided to the FSTF on November 27, 2019 (see Appendix A) based on the VAWG’s monitoring and review of companies representing over 90% of the U.S. variable annuity (VA) business inforce. Since then, the VAWG has continued to assess the materiality of variable annuity interest rate risk and the approaches companies have taken to measure and manage it. The most recent effort involved a request for the companies to perform two stress tests for disclosure (VA Stress Tests). The purpose was to assess, at an industry level, the impact of a continuation of persistently low interest rates on VA reserves and risk-based capital. This report provides details and key findings from the VA Stress Tests as well as an update on the development of the new ESG.

For both of the VA Stress Tests, the company’s actual reserves and risk-based capital as of 12/31/2020 were used as a baseline for comparison. For Stress Test #1, companies were asked to produce the same results, but replace the stochastic interest rate scenarios with a prescribed deterministic interest rate scenario. For Stress Test #2, companies were asked to repeat the calculation, but replace the prescribed deterministic scenario with one defined by the company as being the worst moderately adverse low interest rate condition.

For 23 companies combined, the baseline for pre-reinsurance ceded guaranteed benefit reserves plus risk-based capital was $55.7 billion. Stress Test #1 produced a total of $63.8 billion, an increase of $8.1 billion (15%). The result was similar for Stress Test #2, which produced an increase of $6.6 billion (12%). For additional context, this compares to the entire life and annuity sector’s capital and surplus of $451 billion as of 12/31/20.

Separating out the reserve and risk-based capital impacts, the results are as follows. In total, the baseline for the pre-reinsurance ceded reserves for guaranteed benefits was $48.2 billion, with Stress Test #1 showing an increase of $6.3 billion (13%) and Stress Test #2 showing an increase of $5.6 billion (12%). The total baseline for risk-based capital was $7.5 billion, with Stress Test #1 showing an increase of $1.8 billion (24%) and Stress Test #2 showing an increase of $1.0 billion (13%).

Most companies have taken actions or are planning future actions to address interest rate risk, such as: repricing, redesigning, or discontinuing products; changing hedging or adjusting investment strategies; or using a more conservative proprietary ESG. These actions provide a level of assurance that companies are addressing the impact of persistently low interest rates. The VAWG plans to continue to track this concern and, as appropriate, will provide referrals to domestic state regulators for additional review and follow-up of individual companies.

The implementation of a new ESG is in progress. An ESG Drafting Group is developing recommendations for ESG objectives and resulting ESG scenarios for the Life Actuarial (A) Task Force (LATF) to consider.
II. VA Stress Tests

A. Background

Variable Annuity writers that represent over 90% of the U.S. variable annuity business inforce were contacted in December 2020 and asked to perform two stress tests for disclosure by 3/31/2021. The purpose of the tests was for VAWG to assess, at an industry level, the impact of a continuation of persistently low interest rates on variable annuity reserves and risk-based capital.

B. Stress Test Instructions

Companies were asked to perform two stress tests according to the following instructions:

After calculating 12/31/2020 variable annuity reserves and risk-based capital as normal, repeat the calculations, replacing the stochastic interest rate scenarios with a single deterministic interest rate scenario.

Interest rate dependent scenarios under the VM-21 framework (e.g., bond fund returns, money market returns) should be adjusted to align with this deterministic interest rate scenario, but all other components of the modeling should remain the same (e.g., the same stochastic equity scenarios, investment strategy, clearly defined hedging strategy modeling, etc. should be used for the stress test).

Stress Test #1 (Regulator defined):
Start with the U.S. Treasury yield curve as of 12/31/20. Assume this Treasury curve remains level for the first 5 years of the projection period, and then has annual parallel shifts by the amount of max [0, (1.5% - T0)/5] in years 6-10 where T0 denotes the 10-year Treasury rate as of 12/31/20. Assume that the yield curve remains level thereafter.

<table>
<thead>
<tr>
<th>BOY</th>
<th>1-5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<th>10+</th>
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<tr>
<td>T0*</td>
<td>0.93%</td>
<td>1.044%</td>
<td>1.158%</td>
<td>1.272%</td>
<td>1.386%</td>
<td>1.5%</td>
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</table>


Stress Test #2 (Company defined):
The deterministic scenario should represent the worst moderately adverse low interest rate condition the company believes it would need to pass, starting with the U.S. Treasury yield curve as of 12/31/20 and developing afterwards in a way the company feels is appropriate. This may include either parallel or non-parallel shifts of the yield curve. Companies were asked to provide a complete description of the stress test used.

C. Summary of Results for Stress Test #1

Results for Stress Test #1 were calculated in comparison to a baseline of actual reserves and risk-based capital at year-end 2020. Shown below, for all surveyed companies combined, is the increase in total reserves for guaranteed benefits (which excludes the cash surrender value) plus risk-based capital over the baseline.

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Increase over Baseline</th>
<th>% Increase over Baseline</th>
</tr>
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<tbody>
<tr>
<td>Pre-Reinsurance Ceded Reserve for Guaranteed Benefits</td>
<td>$48.2 B</td>
<td>$6.3 B</td>
<td>13%</td>
</tr>
<tr>
<td>Risk-Based Capital</td>
<td>$7.5 B</td>
<td>$1.8 B</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>$55.7 B</td>
<td>$8.1 B</td>
<td>15%</td>
</tr>
</tbody>
</table>
Looking at the Reserve for Guaranteed Benefits at the company level, the results ranged from a 500% increase to a 20% decrease.

- Approximately 35% of the companies showed more than a 20% increase over baseline
- Approximately 40% of the companies showed an increase over baseline of 0% to 20%
- Approximately 25% of the companies showed a decrease from the baseline

Many companies provided comments to explain the stress test results. Companies that reported reserve increases gave reasons such as increased hedge costs, decreased investment yields, and higher claims. Companies that reported reserve decreases gave reasons such as using a proprietary ESG for baseline/actual that produced a more conservative result than the stress test, reflecting an increased hedge benefit, and producing improvements based on asset/liability management strategies.

At the company level, changes to Risk-Based Capital ranged from a 120% increase to a 20% decrease.

- Approximately 30% of the companies showed no change
- Approximately 50% of the companies showed an increase
- Approximately 20% of the companies showed a decrease

D. Summary of Results for Stress Test #2

Results for Stress Test #2 were calculated in comparison to a baseline of actual reserves and risk-based capital at year-end 2020. Shown below, for all surveyed companies combined, is the increase in total reserves for guaranteed benefits (which excludes the cash surrender value) plus risk-based capital over the baseline.

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Increase over Baseline</th>
<th>% Increase over Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Reinsurance Ceded Reserve for Guaranteed Benefits</td>
<td>$48.2 B</td>
<td>$5.6 B</td>
<td>12%</td>
</tr>
<tr>
<td>Risk-Based Capital</td>
<td>$7.5 B</td>
<td>$1.0 B</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>$55.7 B</td>
<td>$6.6 B</td>
<td>12%</td>
</tr>
</tbody>
</table>

Looking at the Reserve for Guaranteed Benefits at the company level, the results ranged from a 250% increase to a 60% decrease.

- Approximately 35% of the companies showed more than a 20% increase over baseline
- Approximately 45% of the companies showed an increase over baseline of 0% to 20%
- Approximately 20% of the companies showed a decrease from the baseline

Stress Test #2 allowed companies to select their own moderately adverse deterministic interest rate scenario. Companies had a wide range of views on what they considered to be the worst moderately adverse, and took a variety of approaches for performing Stress Test #2. These included:

- Assuming level interest rates throughout the projection period
- Using same design as Stress Test #1 but grading to a different long-term rate
- Grading to ultimate interest rate with parallel shift to other points on the treasury curve
- Using non-parallel yield curve shifts
- Setting stress test to produce results similar to the baseline, implying a view that the baseline was the worst moderately adverse

At the company level, changes to Risk-Based Capital ranged from a 100% increase to a 20% decrease.

- Approximately 30% of the companies showed no change
- Approximately 30% of the companies showed an increase
- Approximately 40% of the companies showed a decrease
E. Summary of Actions to Address Risk of Continued Low Interest Rates

Companies were asked, “If interest rates remain low for the next 15-20 years, what, if anything, would your company consider doing differently?” Companies provided open-ended responses that addressed actions already taken as well as potential future actions. A categorized summary of qualitative responses from 24 companies is shown below. (Note that 23 companies were used for the quantitative analysis, as disclosed in the Executive Summary. Due to a special case exception, one company was included in the qualitative count but not the quantitative count.)

<table>
<thead>
<tr>
<th>% of Companies Taking Specified Actions</th>
<th>Actions Already Taken</th>
<th>Potential Future Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reprice or Redesign Products*</td>
<td>13%</td>
<td>33%</td>
</tr>
<tr>
<td>Discontinue Products or Adjust Sales Mix</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Adjust Hedging, Asset/Liability Management, or Other Investment Strategies</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Reinsure</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Use of a More Conservative Proprietary ESG</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Other**</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>No Additional Actions Outside Usual Activities</td>
<td>17%</td>
<td></td>
</tr>
</tbody>
</table>

*Examples of repricing and redesigning products include increasing fees and reducing/redesigning rider benefits
**Other actions include forming a Low Interest Rate Task Force, restricting subsequent premium, reviewing scenarios that produce the worst results, and taking action on other products lines

III. Update on the Economic Scenario Generator

The implementation of a new ESG is in progress. An ESG Drafting Group, consisting of LATF members, Life Risk-Based Capital (E) Working Group members, the selected ESG vendor (Conning), Academy and ACLI representatives, and subject matter experts, is developing recommendations for calibrating the ESG. An industry field test is planned prior to finalizing the calibration. Ultimately, Valuation Manual amendments and RBC instruction changes will be necessary to incorporate prescription of the new ESG.
IV. Appendix A (Prior Report)

To: Commissioner Marlene Caride, Chair of the Financial Stability (EX) Task Force  
From: Mike Boerner, Chair of the Valuation Analysis (E) Working Group  
Date: November 27, 2019  
Re: Response to Request from the Financial Stability (EX) Task Force

Executive Summary

On 6/17/19, you made a request to the Valuation Analysis (E) Working Group (VAWG) to assess a potential concern related to Economic Scenario Generators (ESGs) developed by the American Academy of Actuaries (Academy). These ESGs are currently prescribed (or encouraged) for the following calculations: (1) Risk-Based Capital for Variable Annuities (C-3 Phase II) and certain annuities or single premium life insurance products (C-3 Phase 1); (2) Statutory Reserves for Variable Annuities (Actuarial Guideline 43 and VM-21 of the Valuation Manual); and (3) Statutory Reserves for Life & Variable Life Insurance (VM-20 of the Valuation Manual). One insurer suggested that there is a deficiency in the current ESG in that it doesn’t adequately consider a very low or negative interest rate environment, and more specifically that this raises a material risk at the macro prudential level in the U.S., particularly for variable annuities.

The Life Actuarial (A) Task Force (LATF) has begun a process to replace the Academy ESGs. However, to allay any concerns during the interim period until a new ESG is in place, you requested that the VAWG assess this insurer’s concern and provide assurance that any issues either have been addressed, or will be able to be addressed.

To assess the concern during the interim period (which is expected to be several years), the VAWG sent an information request to companies representing over 90% of the U.S. variable annuity business inforce. The responses indicate that overall, companies are aware of the significance of variable annuity interest rate risk, and have taken various actions to measure and manage it. However, there were findings for individual companies that will require further review and follow-up. The VAWG also sees a need for continued monitoring via coordinated reviews of companies’ future variable annuity filings, similar to those currently performed for LTC AG51 reports and the VM-31 Life PBR Actuarial Reports.

The VAWG plans to take the following actions to provide assurance that any issues regarding companies’ variable annuity interest rate risk will be addressed: 1) Questions regarding findings of concern and informational questions for individual companies will be developed, for referral to domestic state regulators for review and follow-up; 2) A communication will be sent to state regulators to alert them to the concern raised regarding interest rate risk for variable annuities, and to encourage them to focus on this as they assess risks, conduct financial reviews, and review companies’ asset adequacy testing; 3) A recommendation will be made to review and consider enhancements to the Financial Condition Examiner’s Handbook to address review of proprietary ESGs used for hedging and other purposes; and 4) A coordinated review of the VM-31 Variable Annuity PBR Actuarial Reports and C3 Phase II reports will be performed for all early adopters of the new variable annuity framework for reserves and capital. The framework becomes mandatory for all inforce business in 2020. However, companies may elect to early adopt as of 12/31/19.

This report provides key findings from the information request, including materiality of variable annuity interest rate risk and the approaches companies have taken to measure and manage it. The report concludes with information on current usage of the Academy ESGs, the status of the RFP for a new ESG, and the potential length of the interim period before the new ESG will be implemented.
Industry VA Information Request

To assess the concern raised regarding variable annuity interest rate risk in the interim period before a new ESG is implemented, an information request was sent to 24 companies representing over 90% of the U.S. variable annuity business in force. Companies were asked to provide the following information:

2. A discussion on how the company is addressing the risks to variable annuities from an extended period of low interest rates, including commentary on actions taken and planned beyond the use of the Academy ESG, if applicable. As part of this discussion companies were asked to include: a) a description of the types of guarantees provided on their variable annuities; b) information on how the company measures and manages interest rate risk from variable annuities and associated guarantees; and c) an assessment of the materiality of this risk to the company.

Key Findings

Summarized below are some of the key findings from the VAWG’s review of industry responses.

Types of Guarantees Provided on Variable Annuities

Nearly all companies offered a Guaranteed Minimum Death Benefit (GMDB) on their products. Most companies also offered one or more of the following types of guaranteed living benefits:

- Guaranteed Minimum Income Benefit (GMIB)
- Guaranteed Minimum Withdrawal Benefit (GMWB)
- Guaranteed Minimum Accumulation Benefit (GMAB)
- A fixed account with or without a market value adjustment, with a guaranteed minimum interest rate

Materiality of Interest Rate Risk

The vast majority of companies acknowledged that interest rate risk from VA guarantees represents a material risk for their company. For the few remaining companies, this risk was not viewed as material either because the VA block represents a relatively small percentage of total in force business, or because the risk was completely or largely transferred to a reinsurer.

Measurement and Management of Interest Rate Risk

ESGs produce stochastic interest rate scenarios which are used to measure and manage risk. However, ESGs are not the only tools used for this purpose. Pre-defined deterministic scenarios, such as the NY7 scenarios commonly used in asset adequacy testing, can be effective as well. Many companies also monitor earnings volatility (e.g. economic, Statutory, GAAP).

The vast majority of companies have a hedging program in place to manage interest rate risk, and typically other risks as well, such as equity risk. Many of these companies have a Clearly Defined Hedging Strategy, meaning that specific criteria defined in the Valuation Manual have been met. Some companies noted that they have recently made changes to their hedging approach, such as increasing the amount of interest rate hedging.

Some companies disclosed the results of their hedging programs and reported high hedge effectiveness. This information was not specifically requested and was not provided by most companies.

Nearly all companies with a hedging program indicated that they do not rely on the Academy ESGs for hedging. Proprietary ESGs are commonly used for this, as well as other purposes (e.g. economic capital, and day-to-day risk management).
Management Actions

In addition to the activities mentioned above, many companies have taken actions to further address interest rate risk. Actions cited in the survey include but are not limited to those listed below.

- Discontinuing sales - About a third of the companies surveyed are no longer selling variable annuities. Of those currently issuing new business, some have discontinued sales of one or more of their guaranteed living benefits.
- Lowering the guaranteed minimum interest rates offered on fixed accounts for new sales, or discontinuing fixed accounts altogether
- De-risking guaranteed living benefits, e.g. by adjusting fees and/or benefits
- Offering a lump sum to certain contract holders in exchange for termination of a guaranteed living benefit
- Some companies hold additional reserves beyond the minimum requirements

Use of Academy ESGs for Statutory Reserves and Capital

Nearly all companies provided information on the type of ESG used in calculating 2018 statutory reserves and capital. Approximately 75% used an Academy ESG, with or without modifications. Of these companies, many used the Academy VM-20 ESG, which will be prescribed in 2020 under the new VA framework. Some used an older Academy C-3 Phase 1 ESG, which has a higher, less conservative long-term interest rate assumption. However, some companies adjusted this assumption to bring it closer to that used in the Academy VM-20 ESG. Other companies did not specifically state which Academy ESG they used. The remaining 25% of the companies used a proprietary ESG, and about half of these appear to be more conservative than the Academy VM-20 ESG. Companies may continue to use these ESGs under the new VA framework, since the Academy VM-20 ESG is prescribed as the minimum standard.

ESG RFP Status and Potential Length of Interim Period

The process of implementing a new ESG is expected to take several years. There is agreement that the Academy ESGs must be replaced and that various enhancements will be necessary, including adequate consideration of a prolonged low interest rate environment. However, many steps will be needed prior to implementation, since the intent is to consider prescribing the new ESG for all of the calculations noted in the first paragraph of this report.

Progress has been made on this initiative. At the time of your request to the VAWG, an informal subgroup of LATF was considering various alternatives to replace the Academy ESGs. On 7/16/19, an open meeting of the Life RBC Working Group (LRBC WG) and LATF was held to discuss the alternatives, and a request was made that NAIC staff move forward with the RFP process to select an ESG vendor to develop and maintain a new prescribed ESG.

A group consisting of regulators, NAIC staff, Academy representatives, and other industry subject matter experts has been formed and has met several times to work on a draft RFP. The target timeframe for completion is Q1, 2020, although it may take longer. The RFP will then need to be adopted by LATF and the Life Insurance and Annuities (A) Committee and presented to the NAIC Executive (EX) Committee for final approval, including a request for appropriate funding. The NAIC will then issue the RFP, and submissions will be reviewed based upon weighted criteria as specified within the issued RFP. A recommendation for award will then be submitted to the NAIC Executive (EX) Committee for final approval.

Once an ESG vendor has been selected, implementation of the ESG will require additional steps such as the following: 1) consideration and adoption of any potential ESG parameter modifications desired by regulators; 2) an impact study to assess the results; 3) drafting, exposure, and adoption of any Valuation Manual amendments and RBC instruction changes necessary to incorporate prescription of the new ESG; 4) documentation on the ESG methodology and parameters; and 5) training on the use of the ESG. This entire process is expected to be completed no sooner than 2022 (i.e. effective for the 2022 Valuation Manual).