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| April 7, 2022Mike Boerner Chair, NAIC Life Actuarial (A) Task Force (LATF)Philip BarlowChair, NAIC Life Risk-Based Capital (E) Working Group (Life RBC) |

RE: Recommended Models for ESG Field Testing

Dear Mr. Boerner & Mr. Barlow:

Lincoln Financial Group (Lincoln) appreciates the opportunity to comment on the presentation for Recommended Models for ESG Field Testing. We support the NAIC effort to replace the American Academy of Actuaries Interest Rate Generator (AIRG) with one that is fit-for-purpose for US statutory reserves and capital. Our views are closely aligned with the ACLI. In particular, we continue to have significant concerns about:

* The appropriateness of the scenarios being generated by Conning’s model (GEMs) driven by the current calibration methodology
* The scope of the field test being too narrow if it is limited solely to output from different variations of the Conning model. Including the ACLI alternative model in the field test is critical to meeting the project’s goals, as its inclusion provides helpful insights toward refining the Conning model and addressing the notable concerns identified below.

A wide variety of ESG models exist, and each model is designed for a specific purpose. The Conning model was originally designed to serve the Property/Casualty industry, which has a short-term view, unlike the Life/Annuity industry, which is long-term and path-dependent in nature. Certain aspects of the Conning model and calibration process do not appear to be well suited for the Life/Annuity industry, so it is important that we correctly identify the issues and work collectively to find appropriate solutions. Our primary focus is consistent with the NAIC goal of ensuring that the new ESG model be fit for the intended purpose and produce reasonable scenarios.

**Key Concerns with models currently proposed to be used in Field Testing**

We encourage the development of an ESG that addresses the shortcomings in the current model, particularly by reflecting more “low-for-long” and high interest rates without going so far that it becomes disconnected from relevant historical experience and sound economic theory.

As seen in the Academy’s model office results, drastic changes in the scenarios can have dramatic impacts on the industry’s reserve and capital requirements. Ideally, we would support developing a model that both reflects additional low-for-long rates while maintaining the reasonableness of the scenario set, which we believe has been accomplished with the ACLI alternative model. We continue to have significant concerns as to the reasonableness of the scenarios being produced by Conning’s model (GEMs) as currently calibrated, given the below significant shortcomings:

Interest Rates

We are concerned about the tendency of the Conning model to produce excessively frequent and severe negative rates, distorted terms premiums, frequent and severe yield curve inversions, extreme high rates, etc. For example, as noted in the ACLI’s Comments on ESG for the Feb 17, 2022, LATF meeting, over the first 30 years of the projection:

* 98% of unfloored scenarios produce at least 1 month of negative 1-year UST rates
* 73% of unfloored scenarios produce at least 5 years of negative 1-year UST rates
* 50% of unfloored scenarios produce at least 10 years of negative 1-year UST rates

This has never occurred in history. We are comfortable including a reasonable number of negative rates, but the frequency and severity needs to be reasonable in light of historical experience.

We appreciate regulators including a floor in order to mitigate the frequency and severity of negative rates, but we have concerns both that the floor affects the majority of the distribution and that the frequency and severity of negative rates still appears elevated after flooring. In addition, a model requiring significant flooring has the potential to introduce other distortions and introducing floors to such an extreme degree has the potential to introduce unintended and material impacts.

Equities

We are concerned that the Conning model appears to be changing calibration criteria and moving away from previous cumulative return / Gross Wealth Factor (GWF) targets, which were grounded in relevant history and used for AIRG. Unlike the interest rate scenarios’ lack of low rates, we do not see the need for significant change on the equity side and believe the proposed changes are unjustified. In addition, we are not aware of any basis for the addition of low-for-long rate scenarios to result in significantly more severe low equity performance distributions. We believe the long-term equity growth rate should be disconnected from the interest rate targets. Specifically,

* The Conning equity model should be calibrated to align relatively closely with the GWFs used in AIRG (although more frequent recalibrations are likely needed to maintain that relationship). GWFs are more appropriate for this purpose than any single year results given the long-term, path dependent nature of liabilities.
* We do not believe that it is appropriate to allow the equity calibration points to move up / down based on changes in risk free rates due to the potential for a significant increase in procyclicality and artificial volatility. This is supported by historical evidence that the Equity Risk Premium (ERP) tends to move inversely to changes in Treasury rates, particularly in the deep tails as noted in the ERP materials ACLI shared with the ESG Drafting Group.
* If the Conning model cannot maintain calibration points based on GWFs aligned with the prior approach used for the AIRG, then another approach that aligns with history / academic theory should be used, i.e. using a constant mean return similar to the current generator (ERP moves inversely to changes in risk-free rate) versus a constant ERP. For example, in 2020, the risk-free rate dropped more than 1%. Under Conning’s constant ERP approach, this would have reduced the average cumulative equity return more than 20% over a 20-year horizon.

The current version of GEMS has equity returns that are much more severe than what was deemed conservative when used by the AIRG, which will introduce excessive conservatism into the reserve and capital projections. GEMS distribution of annualized returns become more distorted relative to history the longer the time horizon. For example, the worst 30-year period in US history yielded a GWF of more than 800%, which is better than half of the scenarios produced by GEMS under both the Conning calibration proposals.

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| Year 30 GWFPercentile | GEMS Calibration | GEMS Recalibrated to Target Lower AIRG Volatility | AIRG |
| 1% | 39.1% | 55.3% | 122.7% |
| 5% | 95.9% | 118.7% | 229.9% |
| 25% | 295.1% | 317.7% | 523.9% |
| 50% | 588.2% | 610.3% | 897.0% |

* Regarding the inclusion of the Great Depression, we reiterate the comments from ACLI in their March 2018 Comment Letter to the VAIWG on the relevance of including S&P return data prior 1954 in the calibration. Specifically, the modernization of the legal, financial, and regulatory architecture, evolution of macro-prudential responses to economic and financial crises (implementation of expansionary fiscal and monetary policies in response to shocks), and expansion of the S&P index makes data from this time period much less relevant to use for calibrating the ESG for this purpose
* A robust ESG should have some scenarios that go well beyond historical experience (e.g. negative total returns / GWF over 30Y), but with less frequency and severity than is currently proposed by the Conning model. Such scenarios should comprise a much smaller portion of the distribution, i.e. a portion of the scenarios driving capital, and scenarios where US equity indices lose almost all their value in the worst case is too severe. We also question the appropriate calibration of the proposed jump process, given the extreme tails produced by the Conning model.

Corporate Model

We support refinements to align the scenarios from this model more closely with historical dynamics and VM-20 rates / spreads, but we believe it is important to have transparent model.

Stochastic Exclusion Ratio (SERT) and Deterministic Reserve (DR)

We believe further study is needed on these items. The scenario behavior could change if the prior methodology or the methodology proposed in January 2021 is applied to a scenario distribution with marked differently characteristics, e.g. dispersion, volatility, low for long, etc. in way that causes these scenarios to no longer be aligned with the original intent. We support revisiting the methodology for the Stochastic Exclusion Ratio (SERT) and Deterministic Reserve (DR) scenarios given the change in ESG to ensure that the scenario properties still align with the original intention / risks they are intended to capture.

**We support the inclusion of the ACLI model to make the field test more informative**

We support holding a field test this summer to gain a better understanding of how the new ESG could affect companies blocks of business. However, to maximize the value of such a time and resource intensive effort, we also urge the NAIC to include both the Conning model and an alternative model developed by the ACLI as a part of this exercise to maximize the information obtained in the initial iteration. We believe that the inclusion of the ACLI alternative model will be beneficial to everyone in this process because it will provide an alternative model/scenario set with different trade-offs than the Conning model for analysis to facilitate meeting the project’s goals.

Further, in order to bring this process more in line with actuarial best practices on the selection of an economic scenario generator, we strongly support the following ACLI-suggested steps:

* As part of the field test, regulators develop a comprehensive set of properties and acceptance criteria across different economic conditions. We would appreciate the opportunity to work with regulators to develop such metrics.
* After the field test, regulators have a comprehensive and clearly defined assessment process, including final acceptance criteria across all 3 model forms, quantitative assessments of the impacts, and qualitative assessments based on the survey.

This is essential to ensure timely implementation of scenarios that appropriately reflect risks and avoid non-economic requirements or artificial volatility. Inappropriately onerous, exaggerated, and procyclical risk measurement would ultimately hurt consumers by reducing industry’s ability to provide valuable guaranteed benefits. Including the ACLI alternative model reduces the likelihood of needing additional field test(s), leading to further delay.

We remain committed to helping the NAIC develop and implement an improved ESG and thank you for your time and consideration of our comments. We are happy to discuss them in more detail.

Regards,



Elizabeth Ann Braswell

Vice President, Appointed Actuary

Elizabeth.braswell@lfg.com

678-867-1090