LATF Summer National Meeting
Supplemental Packet

LIFE ACTUARIAL (A) TASK FORCE
August 8-9, 2022

NAIC SUMMER NATIONAL MEETING
Hybrid Format
## August 8-9, 2022

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Agenda Item 7

Hear an Update on Society of Actuaries (SOA) Framework for Developing, Evaluating, and Implementing Economic Scenario Generators (ESGs)
A Framework for Developing, Evaluating, and Implementing Economic Scenario Generators (ESGs)

Hal Pedersen, MAAA, ASA
Member, Economic Scenario Generator Work Group (ESGWG)

Jason Kehrberg, MAAA, FSA
Chairperson, Economic Scenario Generator Work Group (ESGWG)
Agenda

1. Goals of this session
2. Ideal process for ESG development and maintenance
3. Stylized facts (SF)
4. Acceptance criteria (AC)
5. Discussion and Q&A
Goals of this session

1. Explain a sound process for developing and maintaining an ESG.
2. Understand the role of stylized facts and acceptance criteria.
3. Ensure that the importance of calibration targets and calibration methods are clear.
4. Provide an understanding of how stylized facts and acceptance criteria are used to select and assess models and/or calibrations and generate scenarios that are suitable for purpose.
What is a Sound Process for Developing and Maintaining an ESG?

- Determine the general application
- Understand the financial variables that must be modeled and obtain data for these variables
- Compile a list of important features of the variables, often referred to as stylized facts, that serve to define the development and performance characteristics of the model
- Not all stylized facts can be accommodated by a model so a prioritization is needed
- Select candidate component models with necessary dynamical properties guided by vital stylized facts
- Develop acceptance criteria
- Determine an estimation/calibration process for the model
- Estimate/calibrate the ESG models
- Validate models against previously agreed upon acceptance criteria
- Test and understand dynamics of selected model and calibration when used for intended purpose (e.g., field test)
- Models need to be regularly estimated/calibrated and validated. This is part of an ongoing ESG maintenance process that may result in a need for model changes

The above steps overlap with each other and involve a significant amount of expert judgement.
What is a Sound Process for Developing and Maintaining an ESG? – More Detail

- **General application (Purpose)**
  - Real world risk simulation, risk-neutral pricing application, combination real world and risk-neutral such as outer/inner loop applications
  - Time horizon for the analysis
  - Simulation detail required
  - NAIC application is real world risk simulation for U.S. Statutory Reserve & Capital Reporting for Long-Duration Life & Annuity Products

- **Financial variables**
  - Obtain publicly verifiable data for the economic variables to be modeled
  - What data window? Consider the relevance and credibility of the data, e.g., balancing need for insight against relevant changes like Treasury-Federal Reserve (Fed) Accord (1951) and inflation targeting (1993)
  - Examine qualitative and statistical aspects of data

- **Develop stylized facts**
  - Broadly generalized observations that characterize the most important relationships in the data
  - Establish and prioritize the properties that the ESG model must have to be useful for the application at hand
  - Basic techniques provide valuable insights; more sophisticated econometric tools are needed to understand other features of the data
  - The essential point is to identify the most important stylized facts that must be captured by the ESG models
  - More discussion of stylized facts can be found in the Society of Actuaries “Economic Scenario Generators: A Practical Guide”
    
What is a Sound Process for Developing and Maintaining an ESG? – More Detail

Quoting from the Society of Actuaries “Economic Scenario Generators: A Practical Guide”

- Stylized facts refer to generalized interpretations of empirical findings that provide a basis for consistent understanding of markets or economic drivers across a wide range of instruments, markets and time periods. Analysis of historical data is commonly used as the basis for determining stylized facts and setting calibration targets; however, stylized facts can also be based on expert judgement. Stylized facts are important in guiding the design of an ESG in that they help establish and prioritize the properties that the ESG model must have to be useful for a given application. The historical record of economic and financial markets is an indispensable guide to the dynamics that govern ESG model simulations. Detailed knowledge of these dynamics is essential for setting ESG model calibration targets and understanding strengths and weaknesses of various ESG model frameworks.

- It is natural to summarize financial market variables in terms of their averages, standard deviations and correlations such as in a mean-variance framework. These summary statistics tell a good bit of the story, but they do not inform the subtle but important aspects of how markets are experienced through time. **More advanced applications such as those used for pricing and risk management typically require additional specifications that may include information related to distributional shapes (fat tails), pathwise behavior (how variables move over time) and the ways characteristics of modeled variables change under different economic environments**.

  *[emphasis added]*
What is a Sound Process for Developing and Maintaining an ESG? – More Detail

- Identify models with necessary dynamics
  - Requires an understanding of the stochastic properties of candidate model classes
  - Estimation and validation process will ultimately determine if the selected model classes are acceptable
  - Obtaining a successful model is an iterative estimation/calibration and validation process—hard scientific R&D

- Estimate/calibrate the models
  - Might simply select a data window (1953-2020 for example) and apply an econometric estimation process such as maximum likelihood.
  - In this approach the data window will speak to all aspects of the model (means, mean reversion, volatility, etc.). This process may have to be supplemented with expert judgment in order to obtain practical results. Past history determines future dynamics in this approach.
  - One can also base the estimation process on an optimization to calibration targets. The calibration targets might be based on expert judgment, forecasting, or statistical formula.
  - Key issue is the method by which the targets are set. Different methods can lead to significant differences in calibrations based on the same data set.
  - There are many ways to set calibration targets and one must ensure that the calibration is consistent with the purpose of the model.
  - The process for setting calibration targets and performing the calibrations must be transparent, reproducible, and well-documented because it is such a fundamental input to the model. It is what brings the model alive!
What is a Sound Process for Developing and Maintaining an ESG? – More Detail

- Validate/acceptance criteria
  - Can apply statistical checks such as Percentiles Exponentially Weighted (PEWs) or matching simulation statistics against calibration targets.
  - In practice, a mixture of checks might get applied such as initial yield curve fit, average level of rates across simulation, steady state means and volatilities of rates and returns, relative risk-return position of various asset classes, overall check that the simulation produces extreme but plausible scenarios.
  - Back-testing is important. Did the models generate scenarios that encompassed future outcomes when the established maintenance process was applied?
  - The Academy’s ESGWG believes that the pathwise characteristics of the scenarios are very important for the NAIC application. Two important examples are:
    - Distributions of gross wealth factors across the entire simulation horizon
    - Low-for-long scenarios

- Maintenance process
  - Market conditions may drive a model out of the acceptable category.
  - At some point there may not be a calibration that can accommodate the acceptance criteria (or implications of market data).
  - Sensitivity of parameters to changes in market data is not known until a model is developed and understood.
Three components of the ESG process (that determine ESG performance)

• An interactive and dynamic process.
• Once a suite of models has been chosen, they are brought alive by the calibration.
• The limitations of the model become apparent over time as the model is calibrated and validated in changing economic environments.
• At some point it might happen that an ESG model component can no longer be calibrated to produce scenarios that meet current validation/acceptance criterion.
• In such a case one would need to revisit model design.
• Since models must work together in an ESG ensemble, changing model components is a major issue.
Life Insurer Invested Assets at Year-End 2020

Source: ACLI’s 2021 Life Insurers Fact Book (Table 2.1)

About 1/3 of balance sheet is corporate bonds. A vital asset class!
Stylized Facts

- Data is for the period the Fed has engaged in inflation targeting.
- Average US yield curve is upward sloping.
- Curve flattens at long end.
- Suggests that one should get higher returns from longer dated bonds.

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

Source: Federal Reserve H.15 data set.
Stylized Facts

- Volatility is stochastic.
- Long-term interest rate volatility can be greater than short-term interest rate volatility.
- We can use some additional econometric techniques to gain a more detailed understanding of the nature of volatility.
- I will now follow the ideas developed by Phil Dybvig in his paper “Exploration of Interest Rates.”

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

• If we use a daily series of U.S. short-term interest rates we can develop stylized facts on volatility.

• Volatility is highest in the ‘80s. A square root transformation of the series makes it more homoskedastic.

• This hints at a square-root diffusion Cox-Ingersoll-Ross (CIR) model class.

• However, if we look more carefully at the volatility behavior of the series we see that we are missing something important.

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

- The volatility in the square-root transformed series is still very irregular and it is unclear how one might model it.
- Econometricians say that this is a heteroskedastic series. We see this type of behavior across financial return series as well.
- However, if we take the logarithm of this series we see that there is a very manageable structure in the data!

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

- The logarithm of the volatility is a homoskedastic mean reverting process.
- This we can model using mean reverting diffusion processes.
- We arrive at the useful stylized fact that the square root of the interest rate has stochastic volatility that looks like a homoskedastic mean-reverting diffusion.
- This suggests that square-root diffusion models with stochastic volatility would be a good candidate model class.

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

- Longer term bonds tend to return more than shorter term bonds.
- There is a cyclical aspect to bond maturity premia (bull and bear bond markets).
- Generally, financial economists expect bond maturity premia increase with tenor.
- This is an ex-post analysis, different from other term premia estimates.

Source: Global Financial Data (GFD) and Hal Pedersen analysis.
Stylized Facts

Source: Global Financial Data (GFD)
Stylized Facts

Source: Global Financial Data (GFD)
Stylized Facts

- Extended periods of low long-term interest rates are a recurring feature of international bond markets.
- Low-for-long behavior can persist for decades.
- Recent experience post-financial crisis has been a short interval of low-for-long by historical standards.
- We see similar behavior in other developed economies.

Source: UK Government Debt Management Office
Stylized Facts

- Level, Slope and Curvature provide a robust description of yield curve movements over most data.
- Three “factors” are sufficient to model term structure movements.
- However, the dynamics of the weights for level, slope and curvature are subtle.

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

\[ R = \overline{R} + \widetilde{V}\widetilde{Z} = \overline{R} + V(:, 1)Z_1 + V(:, 2)Z_2 + V(:, 3)Z_3 \]

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

- The three processes driving the model have a change point during the financial crisis.
- Note the strong correlation between the level and slope beginning with 2009.

Source: Federal Reserve H.15 data set and Hal Pedersen analysis.
Stylized Facts

- Equity returns have stochastic volatility and jump behavior.

Source: Federal Reserve (FRED)
S&P 500 Daily Returns have significant kurtosis and are not well approximated by normal distributions.

Source: Federal Reserve (FRED) and Hal Pedersen analysis.
Stylized Facts

- S&P 500 has not experienced a loss over any 20-year period using the last 95 years of data.
- If we model stochastic volatility and jump aspects of the data faithfully we will see some large simulated losses over a 20-year period.
- How do we reconcile what the data says about model characteristics with our historical experience?

Source: Federal Reserve (FRED) and Hal Pedersen analysis.
Stylized Facts

- How can stylized facts be used to eliminate model classes from consideration?
  - If a class of models cannot capture what is determined to be a vital stylized fact then that model class should not be developed.
  - This requires a detailed knowledge of the dynamics and stochastic properties of various model classes.
  - Sometimes one can make simple determinations based on general properties. For example, if stochastic volatility is needed then models that cannot produce that feature would be removed from consideration.
  - If it is required that a model produce scenarios representative of recent low-for-long experience, short rates at zero and longer rates moving; then many classical models are not a good choice. If one can accept periods of relatively low long-term rates regardless of what is going on at the short end of the yield curve, then a specialized parameterization may allow some classical models to capture part of the stylized fact.
  - There is an aspect of expert judgment because many stylized facts are qualitative rather than hard statistical criteria.
Acceptance Criteria

Quoting from the Society of Actuaries “Economic Scenario Generators: A Practical Guide”

pp. 11-12: VALIDATION

Validation ensures that the estimation of an ESG’s parameters results in simulated behavior that is a good representation of the variable or market under consideration. Effective validation of an ESG requires comparing simulated output data with some predefined benchmark of acceptance criteria.

For a typical insurance or pension undertaking, the list of financial and economic variables that may be of interest is typically quite large. For this reason, the validation system and validation environment require careful design at inception, in order to organize the various data elements in an ordered fashion.

An automated validation system is preferable to manual validation. Validation should be repeatable and consistent through time. Before any data are analyzed or validation performed, it is helpful to form the acceptance criteria upon which the model output will be judged. This type of approach to validation, whereby the particular desirable features of an ESG are based on analysis of a firm’s risk exposures, is preferable to what might be called a “problem discovery” approach. In a problem discovery approach, a user first runs the ESG, creating a large output data set, and then tries to discover problems with the output.

The paper can be found at https://www.soa.org/globalassets/assets/files/research/projects/research-2016-economic-scenario-generators.pdf
Acceptance Criteria


Before any data are analyzed or validation performed, it is helpful to form the acceptance criteria upon which the model output will be judged. These acceptance criteria should be based on what the end user expects the model to do. An idealized process for forming acceptance criteria might be as follows:

1. Select a person or persons to formulate acceptance criteria. Ideally, this would be a group made up of the direct users of the system, the end user of the scenarios or derived data, participants in the market to be validated and risk model experts, as well as individuals who are independent of the system usage to provide oversight.

2. Decide which economic variables are to be validated and determine the materiality of these variables.

3. Formulate concrete acceptance criteria, which should be based on a combination of analysis of market data, expert judgment and an understanding of the sensitivities to and materiality of particular risk factors of a firm. Acceptance criteria should not be arbitrary but instead justifiable and based on data analysis and informed judgment.

4. Define when a model is accepted and when rejected. This is usually best dealt with by scoring the ESG output against particular acceptance criteria and holistically considering the extent to which it matches all the acceptance criteria. For all but the most simplistic uses of an ESG, it is likely that some areas will perform better than other areas; therefore, it is better to answer the question “How well does the ESG as a whole perform?” than to reject a model because a single acceptance criterion is not adequately met.

Therefore, it is recommended that the validation process start with acceptance criteria and then move on to the validation stage. Chapter 6 discussed the model specification process and the development of stylized facts that form the basis of the acceptance criteria.

With the acceptance criteria in place, the next stage is to actually validate the ESG and determine its appropriateness to the application for which it is intended. Usually, validation entails comparing the output of the ESG with market data, and finally with the acceptance criteria, which may be based on market data or a combination of market data and expert judgment. In this process, there are several considerations to take into account.
Basic Statistical Chart

Source: Hal Pedersen illustrative analysis.
Simulation versus History

Source: Hal Pedersen illustrative analysis.
Questions?
Thank You

Contact: Amanda Barry-Moilanen,
Life Policy Analyst: barrymoilanen@actuary.org
Agenda Item 11

Hear an Update on Mortality Improvement
Dear Mr. Boerner:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit feedback on the historical mortality improvement (HMI) and future mortality improvement (FMI) scales presented by Mortality Improvements Life Work Group (MILWG) and SOA Mortality and Longevity Oversight Advisory Council (MLOAC).

We appreciate the continued regulator effort for greater refinement of PBR to get to a fair and prudent level of reserves. The adoption of a structure to allow an FMI scale was an important step towards a true principles-based framework and achieved better alignment with company and industry expectations and therefore reduced certain disparities with market-driven provisions (such as YRT reinsurance premium rates).

ACLI commends the thoughtful analysis that went into the scale development and supports the adoption of the recommended HMI and FMI scales proposed by the MILWG and MLOAC. We agree with the MILWG and MLOAC position that updates to the FMI scale should not create material reserve volatility. We recognize the inherent challenges associated with this work, including the necessity of relying on general population data, and the uncertainty around COVID-19. The proposed approach to addressing COVID-19 mortality in the FMI scale is balanced, as it is based on historic experience with appropriate margins for uncertainty. The HMI scale similarly reflects a reasonable approach to differentiate the mortality risk that should be covered by reserves rather than capital.

The proposed approaches utilize the best available assumptions and data. Both scales will be subject to annual review and refinement, and regulators will have an opportunity next year to update the scales, considering any new data. We encourage the MILWG and MLOAC to continue to analyze mortality expectations from the Social Security Administration Trustees Reports and other sources and to assess future studies on COVID-19 mortality. Further, we encourage continued development of insured population-specific HMI and FMI scales through continued industry-wide mortality data collection.
Thank you for your consideration.

cc: Reggie Mazyck, NAIC
Future Mortality Improvement Scale Development (VM-20)  
2022 HMI and FMI Recommendations

Mortality Improvements Life Work Group (MILWG),  
SOA Mortality and Longevity Oversight Advisory Council (MLOAC)

Life Actuarial Task Force (LATF) Meeting—August 8-9, 2022
Agenda

- Items addressed in the 2022 scale recommendation
- Mortality/Mortality Improvement (MI) Industry Group—Principles for COVID-19 Impact on Valuation Mortality/Longevity Assumptions
- Recommendation for 2022 Historical Mortality Improvement (HMI) and Future Mortality Improvement (FMI) scales
- Next steps
Items addressed in 2022 scale recommendation

Develop HMI and FMI scales for use in 2022 valuation year.

The 2022 recommendations include:

- Reflecting COVID-19 impacts for HMI and FMI
- FMI margin
Mortality/MI Industry Group - COVID-19 Impact

- Group representing members of the American Academy of Actuaries ("Academy"), the Society of Actuaries, and members of the National Association of Insurance Commissioners (NAIC), Life Actuarial (A) Task Force (LATF).
- Convened in January 2022.
- Focused on developing a set of consistent principles to be considered in reflecting the impact of COVID-19 in mortality and longevity valuation work.
Industry Group Principles

Valuation mortality assumption should represent:
“the expected ongoing mortality level” over the full period of the reserve projection.

Therefore, the basic valuation mortality and MI assumption

- Should not reflect the full initial shock of the pandemic on mortality as an ongoing event
- Should reflect expected ongoing impacts
HMI Recommendation: Apply Standard Methodology with Full COVID Impact for 2020

Change from 7/7/22 LATF Call Discussion

- Interim approach
- Standard longer term approach for COVID-19 impact will be considered in 2023 subgroup work along with additional data
HMI 2022 Recommended Scale

Change from 7/7/22 LATF Call Discussion

Males

Females

-1.00%
-0.50%
0.00%
0.50%
1.00%
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115

-1.00%
-0.50%
0.00%
0.50%
1.00%
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115

Males - 2022  Males - 2021  Males - 2020

Females - 2022  Females - 2021  Females - 2020

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FMI Recommendation:
Apply approved methodology with additional temporary COVID-19 margin

- Basic FMI
  - Grade from 2022 HMI to long-term (LT) MI level based on Social Security Administration (SSA) Alt 2 Intermediate Projection (2022 Trustees Report)

- General Margin
  - Reduce improvement by 25% or
  - Increase deterioration by 25%

- Short term additional COVID-19 Margin
  - 25% grading down to zero over 5 years
FMI 2022 Recommended Scale (with margins)

Males 2022 FMI Scale
- 2023
- 2032 - MI LTR
- 2042+

Females 2022 FMI Scale
- 2023
- 2032 - MI LTR
- 2042+
Additional Considerations

- Insured population mortality materially lower than general population mortality
  - Insured population is generally in higher socioeconomic categories
  - Lower mortality and higher mortality improvement seen in higher socioeconomic categories (implicit margin in our recommendations)

- MI improvement scale annual updates should not create reserve volatility

- Individual companies should also consider their own business and make appropriate additional adjustments
Reserve Impact - NAIC Model Office

- Universal Life with Secondary Guarantees (ULSG) focus—long-duration product, larger potential for reserve reduction
  - Model office and assumptions same as used in the yearly renewable term (YRT) representative model analysis
  - Lifetime shadow account secondary guarantee
  - No reinsurance in the model
- Combined model office

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# Reserve Impact Results

## Change from 7/7/22 LATF Call Discussion

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<th>$$\text{Deterministic Reserve}$$</th>
<th>% change in starting reserve</th>
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<td><strong>Baseline:</strong></td>
<td></td>
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<tr>
<td>HMI: 2021 HMI recommendation</td>
<td>1,895,591</td>
<td></td>
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<tr>
<td>FMI: no FMI</td>
<td></td>
<td></td>
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<td><strong>Illustrative Only:</strong></td>
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<td>HMI: apply standard methodology - include full COVID shock impact</td>
<td>2,029,821</td>
<td>+ 7.1%</td>
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<tr>
<td>FMI: no FMI</td>
<td></td>
<td></td>
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<td><strong>2022 HMI and FMI Recommendation:</strong></td>
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<tr>
<td>HMI: apply standard methodology - include full COVID shock impact</td>
<td>1,882,679</td>
<td>- 0.68%</td>
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<tr>
<td>FMI: grade to LTR with margin for general uncertainty plus margin for uncertainty in COVID impact</td>
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2023 Plan

- Revisit HMI historical component calculation method in light of recent and expected experience
- Review applicability of MI scale methodology for 2008 VBT Limited Underwriting (LU) table
- Insured vs. general population MI recommendation
- Revisit smoothing and margin structure
Questions?
Contact Information

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Appendix

Mortality/Mortality Improvement Principles
These principles are consistent with international views on mortality projection and COVID-19 impacts...

- Social Security Administration 2022 Trustees Report
  - “Projected death rates for years after 2023 are unchanged from the levels that would have been projected in the absence of the pandemic, under the assumption that increased deaths from the residual effects of living through the pandemic (both physiological and psychological) will be roughly offset by decreased deaths that instead happened sooner (during the pandemic).”

- Continuous Mortality Investigation (CMI) Mortality Projections Committee
  - “If we gave full weight to 2020 data ... the reduction in life expectancy would have been in excess of what most users of the model would consider reasonable.”
  - CMI_2021 incorporates mortality data to 31 December 2021
    - 2020 and 2021 data is given 0% weight in the Core version – Consistent with approach for CMI_2020 supported by consultation – Data for 2020 and 2021 is unlikely to be indicative of future trends – Using 100% weight for 2020 and 2021 data would lead to excessive falls in life expectancy

- Mortality projections for Social Security Programs in Canada (Actuarial Studies No. 22 and 23)
Matthew Sonduck, 8/5/2022
Mortality Rates: Ratio of Insured Mortality to General Population

Implicit margin exists in using general population as basis for the MI scale development.

Source: COVID-19 Mortality Study: Analytics – 2020 Q1-2021 Q2 – SOA, LIMRA, RGA, TAI
Actual = Insured, Expected = General Population
Adjusted text box on the right to fix strange formatting separating "development" and "."]"
Approach for Smoothing (HMI and FMI)

- By age
- Use same approach for 2022 as past years
  - Ages 0-15 = 1.5 x adult average improvement/deterioration
  - Ages 16-20 = Grade to adult average
  - Ages 21-84 = Assumed adult average
  - Ages 85-94 = Grade to ultimate level of at 95
  - Ages 95+ = 0.1%
Appendix

NAIC Model Office: Background Information
FMI - Reserve Impact Estimates
NAIC Model Office

- Universal Life with Secondary Guarantees (ULSG) focus—long-duration product, larger potential for reserve reduction
  - Model office and assumptions same as used in the YRT representative model analysis
  - Lifetime shadow account secondary guarantee
  - No reinsurance in the model

- Combined model office

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Reserve Impact Estimates
Future Mortality Improvement Assumption Model Implementation

- The 2021 and prior versions of VM-20 prohibited including FMI in the calculation of deterministic and stochastic reserves, while allowing the mortality assumption to be improved up to the valuation date using a historical mortality improvement (HMI) assumption developed by the MILWG.

- An “exact” approach to including FMI in the calculation of deterministic and stochastic reserves would utilize the MILWG’s HMI assumption to bring the mortality table up to the valuation date and then apply the separate FMI assumptions beyond the valuation date.

Historical mortality improvement (HMI) application period for 2015 VBT and a 12/31/2020 valuation date

7/1/2015

12/31/2020

Applicable date from which to start applying HMI for 2015 VBT

HMI is allowed to be applied up to the current valuation date
A **modeling simplification** was employed that utilized the new MILWG FMI assumption as both HMI and FMI in the deterministic reserve projection.

This simplification allows for the impact of including FMI in current and future deterministic reserve calculations to be quantified.

**Historical mortality improvement (HMI) application period for 2015 VBT and a 12/31/2020 valuation date**

- 7/1/2015: Applicable date from which to start applying HMI for 2015 VBT
- 12/31/2020: HMI is allowed to be applied up to the current valuation date
Agenda Item 13
Hear an Update from the Academy
Life Practice Council
Life Practice Council Update

Ben Slutsker, MAAA, FSA
Vice President, Life Practice Council

Life Actuarial Task Force (LATF) Meeting—August 7, 2022
Webinars and Events

- **Recent**
  - ASOP No. 2 Webinar related to Nonguaranteed Elements (April 5)
  - Life Policy Update Webinar (May 4)
  - ASOP No. 11 Webinar on Reinsurance (May 12)

- **Upcoming**
  - ASOP No. 22 Webinar related to Asset Adequacy Testing—*The Revised ASOP No. 22: What You Need to Know* (July 28)
  - American Academy of Actuaries Annual Meeting (Nov 2-3)
  - Webinar on VM-31 PBR Actuarial Report Reviews (Fall 2022)
  - Webinar on VM-22 Updates (Fall 2022)
Recent Activity

- Presented recommendations for C-2 mortality factors to the NAIC’s Life Risk-Based Capital (E) Working Group
  - The Working Group ultimately adopted an alternative version based on the Academy’s proposal

- Proposed an amendment proposal form to LATF on transitioning from LIBOR to SOFR (APF 2022-04)
  - Also submitted subsequent follow-up letters to provide support and input on the transition, leading up to the adoption of the amendment
Recent Activity (continued)

- Published a “COVID-19 in Life Insurance Mortality Improvement” Discussion Brief
- In collaboration with the Society of Actuaries Research Institute provided future mortality improvement scale development
- Developed a document that summarizes sources of information on Life Insurance COVID-19 mortality
Recent Activity (continued)

- Submitted comments to LATF on high yielding asset actuarial guideline for asset adequacy analysis
- Shared a comment letter with the Index-Linked Variable Annuity (A) Subgroup on the nonforfeiture interim value actuarial guideline exposure
- Developed a C-3 Phase I template for the upcoming economic scenario generator field test
- Gave a presentation to the NAIC VM-22 Subgroup on an overview of longevity reinsurance transactions
Ongoing Activities

- Developing fixed annuity principle-based approach joint field study for non-variable annuities in coordination with the NAIC and ACLI
- Providing input on economic scenario generator transition and field study
- Updating the practice note on life insurance illustrations and starting a practice note on non-guaranteed elements
- Continuing to provide comments and ideas on active LATF issues
Thank You

☐ Questions?

☐ For more information, please contact the Academy’s policy analyst Life, Amanda Barry-Moilanen, at barrymoilanen@actuary.org.