A proposed discussion schedule for the National Association of Insurance Commissioners (NAIC) Life Actuarial (A) Task Force and Life Risk-Based Capital (E) (LRBC) Working Group to develop acceptance criteria for stochastic sets of economic scenarios.

A presentation by the Economic Scenario Generator Work Group (ESGWG) of the American Academy of Actuaries.

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Background

- The planning work for phase one of the field test on the NAIC’s Economic Scenario Generator (ESG) is now complete and the field test is now underway.

- With that work complete the ESWG appreciates the opportunity to propose a discussion schedule for LATF and LRBC to develop a robust and comprehensive set of “acceptance criteria” to replace the rougher “boundary guidance” currently being used to evaluate stochastic sets of economic scenarios.

- Developing such a set of quantitative acceptance criteria, and the qualitative “stylized facts” they are based on will provide for an industry-standard framework for evaluating and implementing ESGs and the stochastic sets of economic scenarios they produce.
  - For example, see https://www.soa.org/resources/research-reports/2016/2016-economic-scenario-generators/
Definitions

- Stylized facts and acceptance criteria are two important concepts in the field of ESGs
  - Stylized facts are qualitative statements about the economic variables being simulated (e.g., equity returns are more often positive than negative)
  - Acceptance criteria are quantitative in nature and used to validate stochastic sets of economic scenarios prior to use (e.g., the mean equity return over 30 years should be between 8% and 9%)
Goals and regulatory benefit

- The goal of the proposed schedule is to:
  - Facilitate discussions on stylized facts and acceptance criteria for the three risk factors being modeled by the ESG (i.e., interest rates, equity returns, and corporate credit spreads)
  - Develop, expose, and adopt qualitative stylized facts
  - Develop, expose, and adopt quantitative acceptance criteria
- The adopted stylized facts and acceptance criteria are then used as a framework for further evaluation and implementation of ESGs and the stochastic sets of economic scenarios they produce
How are stylized facts and acceptance criteria developed and agreed upon?

- The first session in the proposed schedule will provide an overview of standard processes for developing stylized facts and acceptance criteria.
- In subsequent sessions the ESGWG can provide input on proposing stylized facts for consideration and discussion.
- Once agreed upon, the ESGWG can provide input on turning those qualitative stylized facts into a related set of quantitative acceptance criteria for consideration by regulators.
Proposed schedule

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<tr>
<th>Session</th>
<th>Duration (hours)</th>
<th>Topic</th>
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<tr>
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<td>Overview - A process for implementing and evaluating ESG scenario sets</td>
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<td>2</td>
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<td>Equity Model - Stylized facts (1 of 2)</td>
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<td>3</td>
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<td>Equity Model - Stylized facts (2 of 2)</td>
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<td>1.5</td>
<td>Corporate Credit Model - Stylized facts and acceptance criteria (1 of 1)</td>
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<td>Corporate Credit Model - AAA simplified corporate credit model (1 of 1)</td>
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<td>6</td>
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<td>Equity Model - Acceptance criteria (1 of 1)</td>
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<td>7</td>
<td>1.5</td>
<td>Interest Rate Model - Stylized facts and acceptance criteria (1 of 2)</td>
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<td>8</td>
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<td>Interest Rate Model - Stylized facts and acceptance criteria (2 of 2)</td>
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<tr>
<td>9</td>
<td>1.0</td>
<td>Interest Rate Model - ACLI alternative interest rate model (1 of 1)</td>
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<tr>
<td>10</td>
<td>1.0</td>
<td>Interest Rate Model - Other interest rate models (1 of 1)</td>
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Timing and next steps

- The ESGWG proposes starting the proposed discussions sometime in July and wrapping them up, and having the resulting framework for scenario set evaluation, by the end of September.
  - This will allow for a framework in time for a phase two ESG field test.

- The ESGWG looks forward to discussing the proposed schedule and next steps with regulators on future LATF/LRBC WG calls.
Questions?

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