

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

Session	Duration (hours)	Topic
1	1.5	Overview - A process for implementing and evaluating ESG scenario sets
2	1.5	Equity Model - Stylized facts (1 of 2)
3	1.5	Equity Model - Stylized facts (2 of 2)
4	1.5	Corporate Credit Model - Stylized facts and acceptance criteria (1 of 1)
5	1.5	Corporate Credit Model - AAA simplified corporate credit model (1 of 1)
6	1.5	Equity Model - Acceptance criteria (1 of 1)
7	1.5	Interest Rate Model - Stylized facts and acceptance criteria (1 of 2)
8	1.5	Interest Rate Model - Stylized facts and acceptance criteria (2 of 2)
9	1.0	Interest Rate Model - ACLI alternative interest rate model (1 of 1)
10	1.0	Interest Rate Model - Other interest rate models (1 of 1)



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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