



Integrating Financial Planning and Stress Testing

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Southeastern Actuaries Conference

June 22, 2018

Topics

- The Rise of Stress Testing in the Insurance Industry
- Uses of Stress Testing
- Case Study

Rise of Scenario and Stress Testing in Insurance Industry

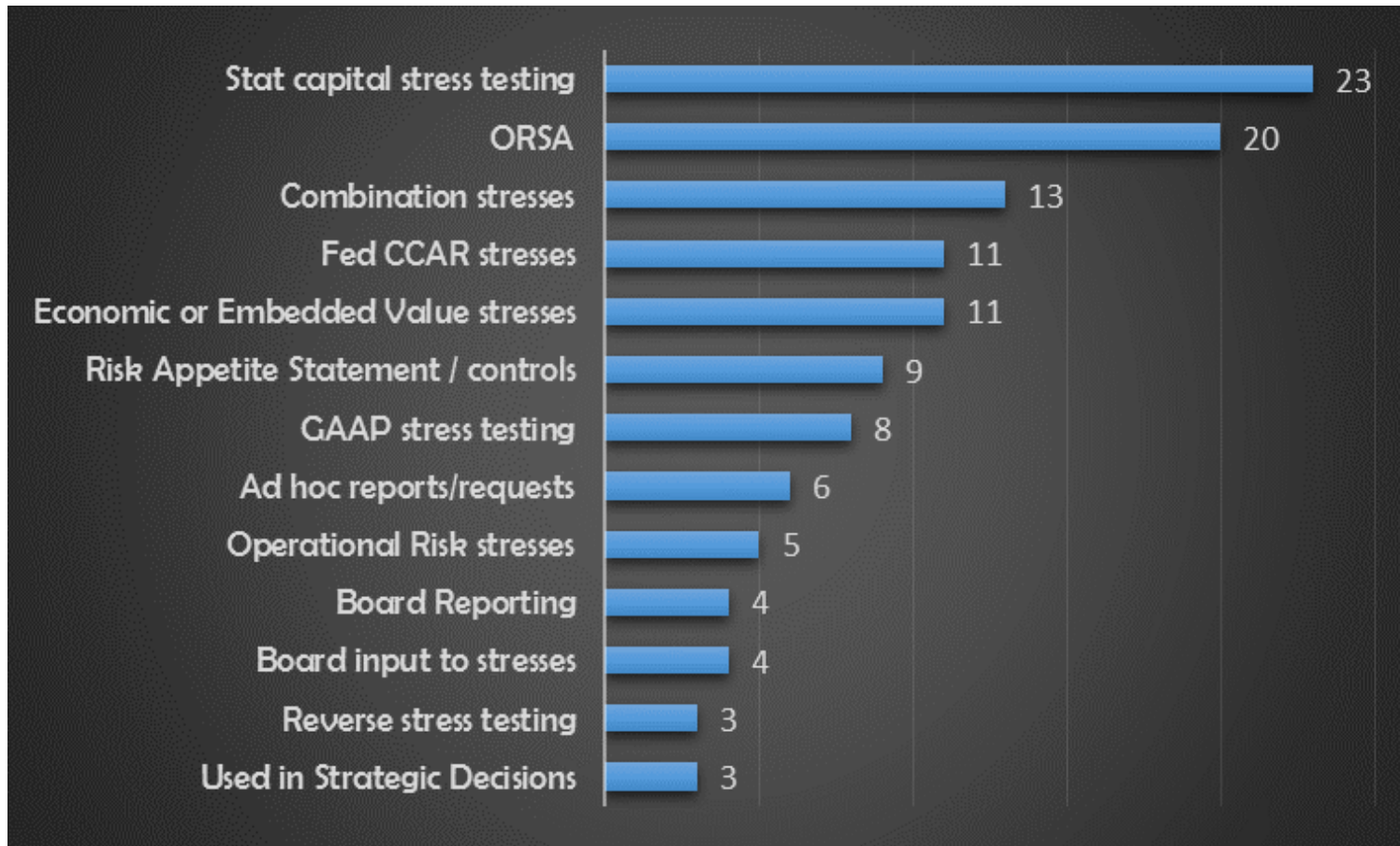
- Increasing emphasis placed on Scenario Testing (e.g., low interest rates for the foreseeable future) and Stress Testing (e.g., mortality rates shocked 10%)
 - Driven in part by the Fed's emphasis on stress testing (Fed stresses are now often used by insurers as a reference point, e.g., for developing an appropriate liquidity stress)
 - Also driven to some extent by the ORSA
 - But also driven to a large extent by the realization that for some risk exposures stress testing may simply be the best way to gauge that risk
 - Scenario/Stress Testing also has the advantages of relative simplicity and transparency, which vastly helps as far as senior-level buy-in and understanding is concerned.
- Historically, Stress/Scenario Testing has been something of an ad hoc exercise. Today, much more formal, on-going process.
- Testing will consider the impact from various lenses: stat, GAAP, liquidity, breach of limits etc.
- The relative simplicity of Scenario and Stress Testing means that the highest level of management can get involved in deciding what scenarios to test. In some cases, Board level input is brought into the process.
- Focus is very much on the practical, i.e., focus on the development of scenarios that are realistically plausible; also avoid spending excessive time on scenarios that have extremely low probability.

Regulatory Origins: CCAR Stress Tests

- Three Fed-provided Scenarios plus Internal Scenarios
 - Nine quarter projection – stat and GAAP
 - Baseline, Adverse and Severely Adverse (GDP, inflation, unemployment, rates, home prices, equities and volatilities)
 - Extensive process around scenario expansion required

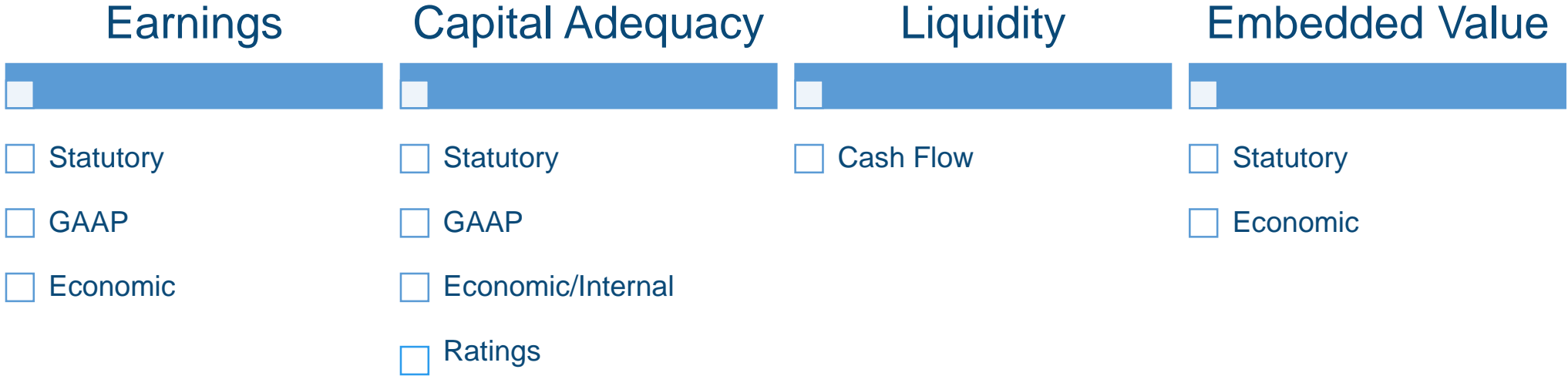
Uses of Stress and Scenario Testing

Feedback from Milliman ERM Survey (Life & Annuity Industry Focus)



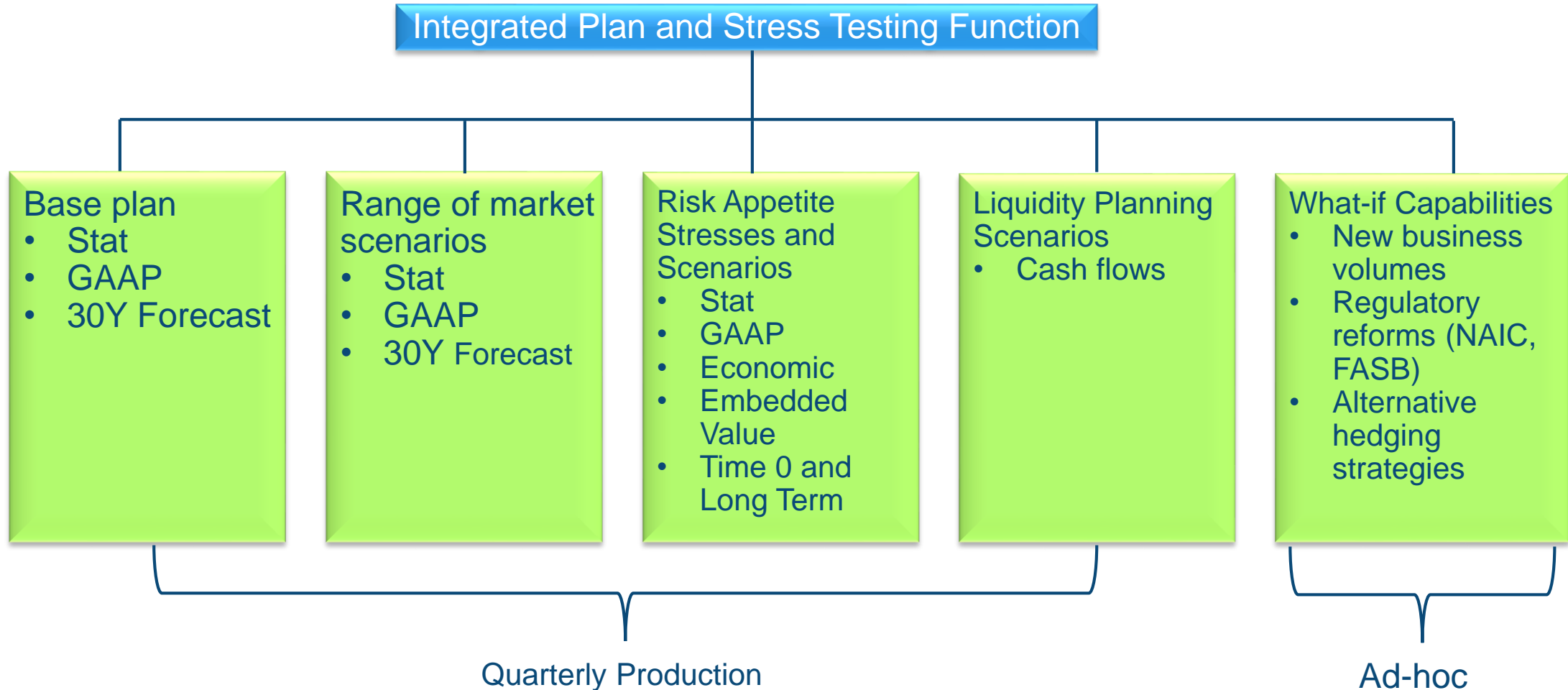
“Stress testing should yield insights that buy your organization time to react”

Expanded Universe of Financial Lenses



Case Study

Life and annuity writer with a material portfolio of equity based products



Success Factors

- Well-resourced FP&A function; separation of responsibilities (production v analysis)
- Detailed quarterly data and production schedule, coordinated with key stakeholders and data owners. Open communication channels.
- Robust models with detailed modeling of accounting measures, including nested stochastics where necessary
- Enabling technology
 - Data warehouse and modern visualization tools
 - Sufficient computing capacity



Thank you