

GOES (E/A) Subgroup: Initial Yield Curve Fit and SERT Field Test Participant Feedback

October 9th, 2024



Agenda

Discussion of Field Test Participant Feedback on:

1. Initial Yield Curve Fitting
2. SERT Scenarios

Field Test Participant Feedback: Initial Yield Curve Fitting

Initial Yield Curve Fitting Methodology

Participant Feedback:

- Preference for alternative baseline.
- Adopt initial yield curve method used in the alternative baseline as the standard approach with exact method for error term runoff.
- Use ACLI's initial curve fitting methodology.

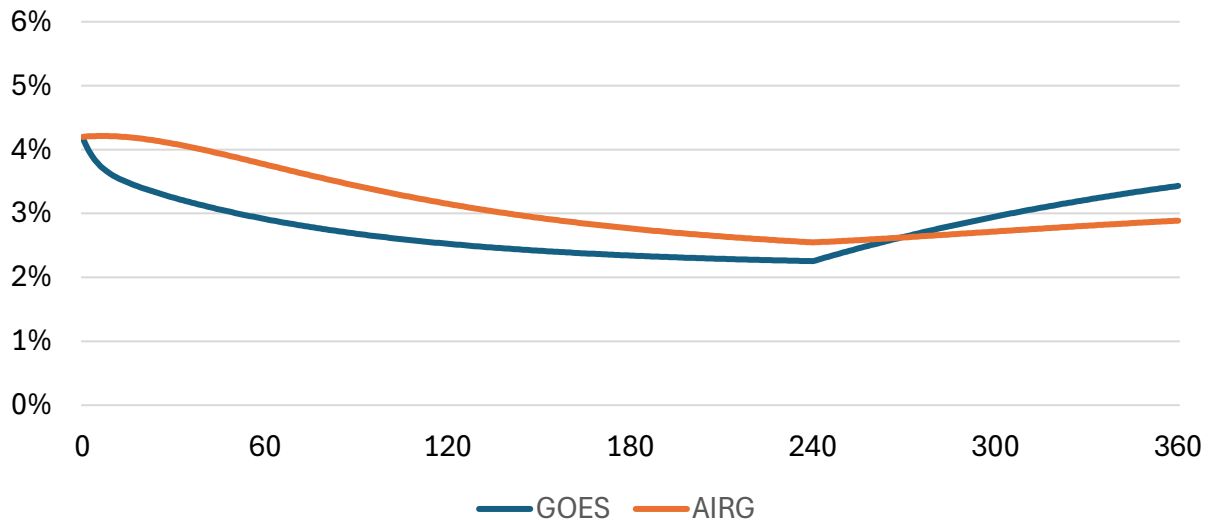
Field Test Participant Feedback: SERT Scenarios

SERT Scenarios

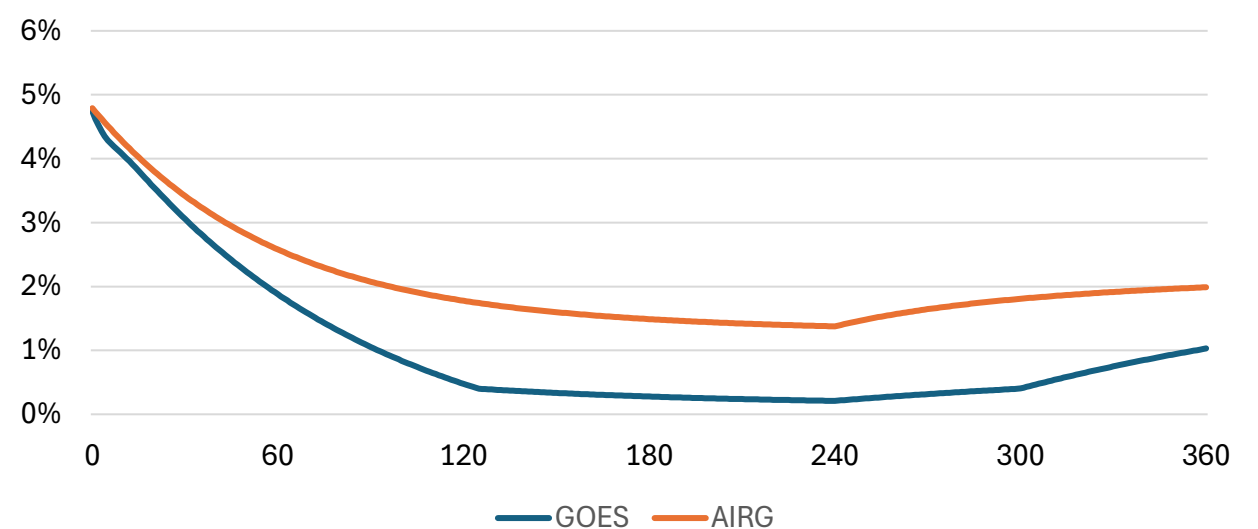
Participant Feedback:

- Recalibrate the SERT scenarios to be less extreme; Consider increasing the SERT passing threshold above 6% to address conservatism in the SERT scenarios.
- [One participant's Term model segment passed the SERT, but company calculated an SR that was in excess of both their DR and NPR for the baseline and field test scenarios. This was a new SR model for them.]
- Calibration of deterministic scenario for valuation is beyond moderately adverse.

Scenario 12 (DR Scenario), 20YR UST, 12/31/23



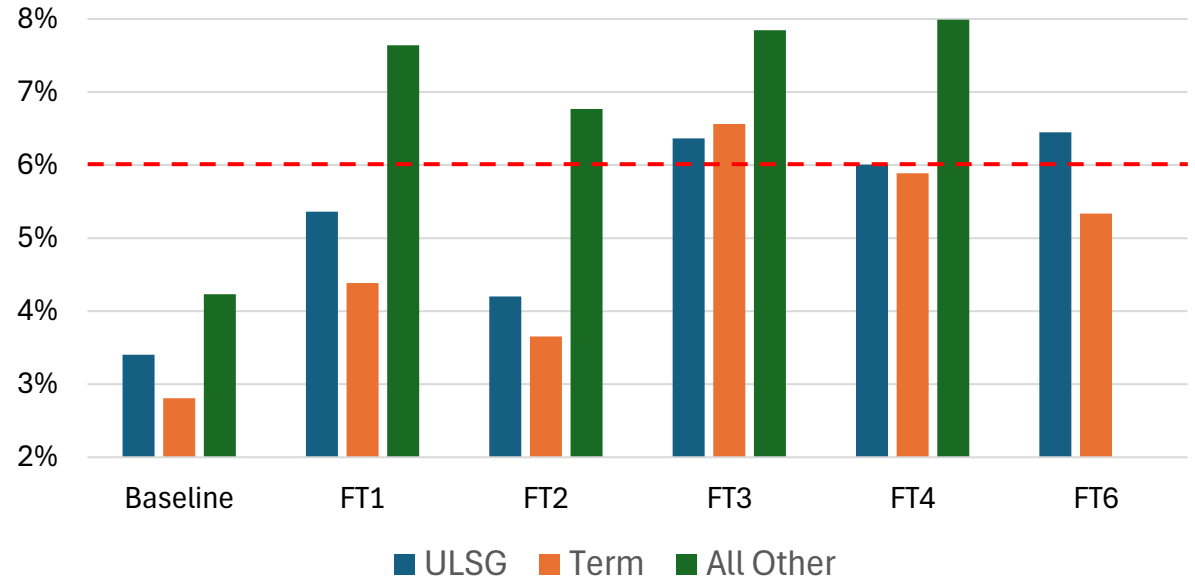
Scenario 12 (DR Scenario), 1YR UST, 12/31/23



2024 Field Test Participant SERT Results

- For the 12/31/23 GOES FT1 scenarios compared to the Baseline (AIRG) SERT scenarios:
 - The average SERT ratio increased across all VM-20 reserving categories, and
 - Each reserving category saw one participant's model segment that had passed with the Baseline fail with the GOES SERT scenarios.
- The average SERT ratio across each reserving category was significantly impacted by increases to the model segment that failed with the Baseline
- FT3 ("Up Rate Shock") saw the most model segments fail, particularly in the term model segment.
- No additional "All Other" model segments failed the field test SERT scenarios

Average Participant SERT Ratio by Reserving Category

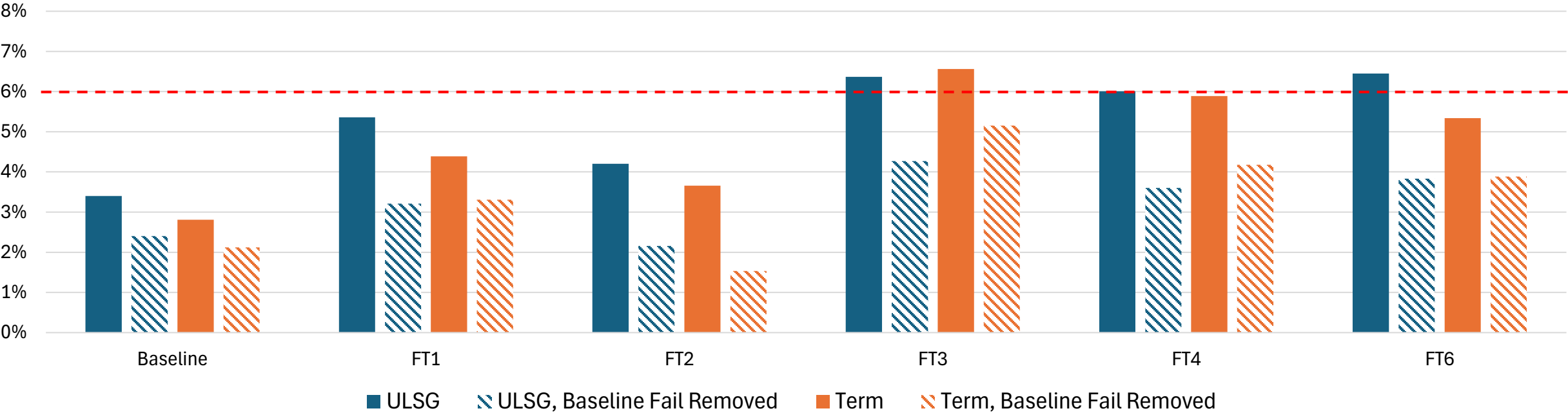


Number of Passing Participant Model Segments/Total Participant Model Segments

VM-20 Reserving Category	Baseline	FT1 12/31/23	FT2 Low Rate Shock	FT3 Up Rate Shock	FT4 Normal Yield Curve	FT6 Alt. Initial Yield Curve Fit
ULSG	6/7	5/7	6/7	4/7	5/7	4/6
Term	8/9	8/9	7/8	3/7	5/7	5/7
All Other	4/5	4/5	4/5	4/5	4/5	

2024 Field Test Participant SERT Results, continued

- For the Term and ULSG reserving categories, when the model segment that is failing in the baseline is removed:
 - the average SERT ratios go down significantly.
 - the average SERT ratio is never above the passing threshold.
- There were not enough participants to show for the "All Other" VM-20 Reserving Category



2024 Field Test Runs

Field Test Run	Scenario Sets	Inforce Assets and Liabilities	Comparison Scenario Set
Baseline Already exists; no new runs needed.	Scenario set(s) the company used for 12/31/23 statutory reporting of reserves and RBC**	As of 12/31/23**	N/A
Field Test 1	Conning scenarios as of 12/31/23**	As of 12/31/23**	Baseline
Field Test 2 - Low Rate Shock	Conning scenarios with a starting UST yield curve as of 3/9/20 but with 12/31/23 starting credit spreads.		Field Test 1
Field Test 3 - Up Rate Shock	Conning scenarios with a starting UST yield curve as of 10/31/89 but with 12/31/23 starting credit spreads.	As of 12/31/23, but modified as necessary for a different starting UST yield curve.*	Field Test 1
Field Test 4 - Normal Yield Curve	Conning scenarios with a starting UST yield curve as of 12/31/04 but with 12/31/23 starting credit spreads.		Field Test 1
Field Test 5 - Down Equity Shock (VM-21/C3P2 and VUL business only)	Conning scenarios as of 12/31/23 (same as Field Test 1)	As of 12/31/23, but modified for a 25% drop in equity markets.*	Field Test 1
OPTIONAL Field Test 6 - Alternative Initial Yield Curve Fit	Conning scenarios as of 12/31/23 with alternative initial yield curve fitting methodology that emphasizes longer maturities.	As of 12/31/23	Field Test 1

2024 Field Test Runs (continued)

Field Test Run	Scenario Sets	Inforce Assets and Liabilities	Comparison Scenario Set
OPTIONAL Field Test 7 – High Credit Spread	Conning scenarios as of with 12/31/23 starting interest rate conditions and starting corporate bond spread environment as of 12/31/2008	As of 12/31/23, but modified as necessary for a different starting corporate bond spread environment*	Field Test 1
OPTIONAL Field Test 8 – Low Credit Spread	Conning scenarios as of with 12/31/23 starting interest rate conditions and starting corporate bond spread environment as of 12/31/2021	As of 12/31/23, but modified as necessary for a different starting corporate bond spread environment*	Field Test 1
OPTIONAL Field Test 9 – Extreme Up Rate with Inversion	Conning scenarios with a starting UST yield curve as of 3/31/80 but with 12/31/23 starting credit spreads.	As of 12/31/23, but modified as necessary for a different starting UST yield curve.*	Field Test 1
OPTIONAL Field Test 10 – Low Equity/Low Interest	Conning scenarios with a starting UST yield curve as of 3/9/20 but with 12/31/23 starting credit spreads.	As of 12/31/23, but modified for a 25% drop in equity markets.*	Field Test 1
OPTIONAL Field Test 11 – Low Equity/High Interest	Conning scenarios with a starting UST yield curve as of 10/31/89 but with 12/31/23 starting credit spreads.	As of 12/31/23, but modified for a 25% drop in equity markets.*	Field Test 1
OPTIONAL Field Test 12 – Up Equity Shock	Conning scenarios as of 12/31/23**	As of 12/31/23, but modified for a 25% increase in equity markets.*	Field Test 1