

Stress & Scenario Testing

Matthew Creech

SEAC Spring 2016 Meeting

Stress & Scenario Testing

OVERVIEW

Sensitivity Tests

Stressing one assumption at a time, providing assessment of individual risk exposures

Scenario Tests

Stressing multiple assumptions, historical or hypothetical scenarios about which a story could be told or used to answer a question

Reverse Stress Tests

Tests in which sensitivity or scenario tests are determined that lead to pre-defined results

Risks Measured

Strategic Risk

Market Risk

Credit Risk

Capital / Liquidity Risk

Insurance Risk

Operational Risk

Reputational Risk

Pricing

Decision Making

Valuation

Risk & Capital Mgmt

Planning & Analysis

Assumption Monitoring

Strategic Initiatives

Contingency Planning

Risk Limits

Pre-emptive actions

Risk & Capital Mgmt

Uses/ Application

Stress & Scenario Testing

SENSITIVITY TESTING

Definition & Approach

- Statistical analysis of data, along with subject matter expertise, is used to determine stress levels that commensurate with a specific probability
- Calibrations allow us to look at the various risks on a more consistent basis, leading to a better understanding of our risk exposure
- Stochastic modeling and Value at Risk (VaR) measures are common approaches for market risks

Key Applications

Pricing Assumption Monitoring

Assumption	Act.	Exp.	A/E	IRR Impact	Status
Incidence	5%	5.5%	1.1	-3%	●
Lapse	10%	9%	0.9	+2%	●
Business Distribution	50% F	55% F	1.1	-1%	●
Overall				-2%	●

Risk Exposure: Sensitivity Heat Map



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SCENARIO TESTING

Definition & Approach

- Stressing multiple assumptions, historical or hypothetical scenarios about which a story could be told or used to answer a question
- Incorporated mitigating actions and develop capital plan

Key Applications



Explain Risks to Management



Quantify Operational Risks



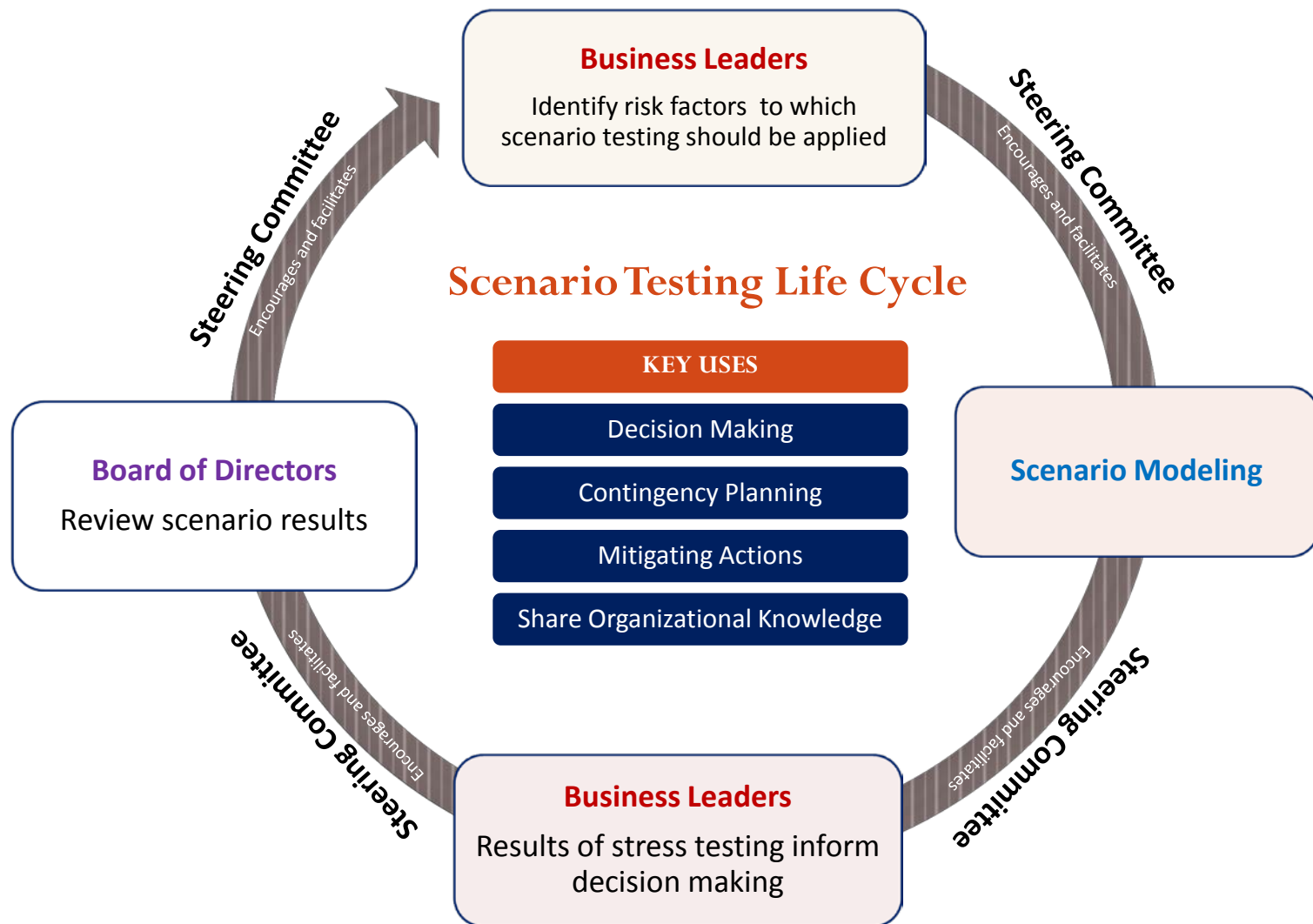
Risk Based Decision Making

Develop a Game Plan



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SCENARIO TESTING CYCLE



Stress & Scenario Testing

REVERSE STRESS TESTING

Definition & Approach

- Reverse stress testing is designed to quantify the amount of capital that could be lost before breaching a defined loss
- Helps management gain a better understanding of risks, mitigating actions, and capital plan impacts
- Focused on trigger levels that are most relevant and critical to Unum
- Assessed against Unum's capital plan over the next 3 years

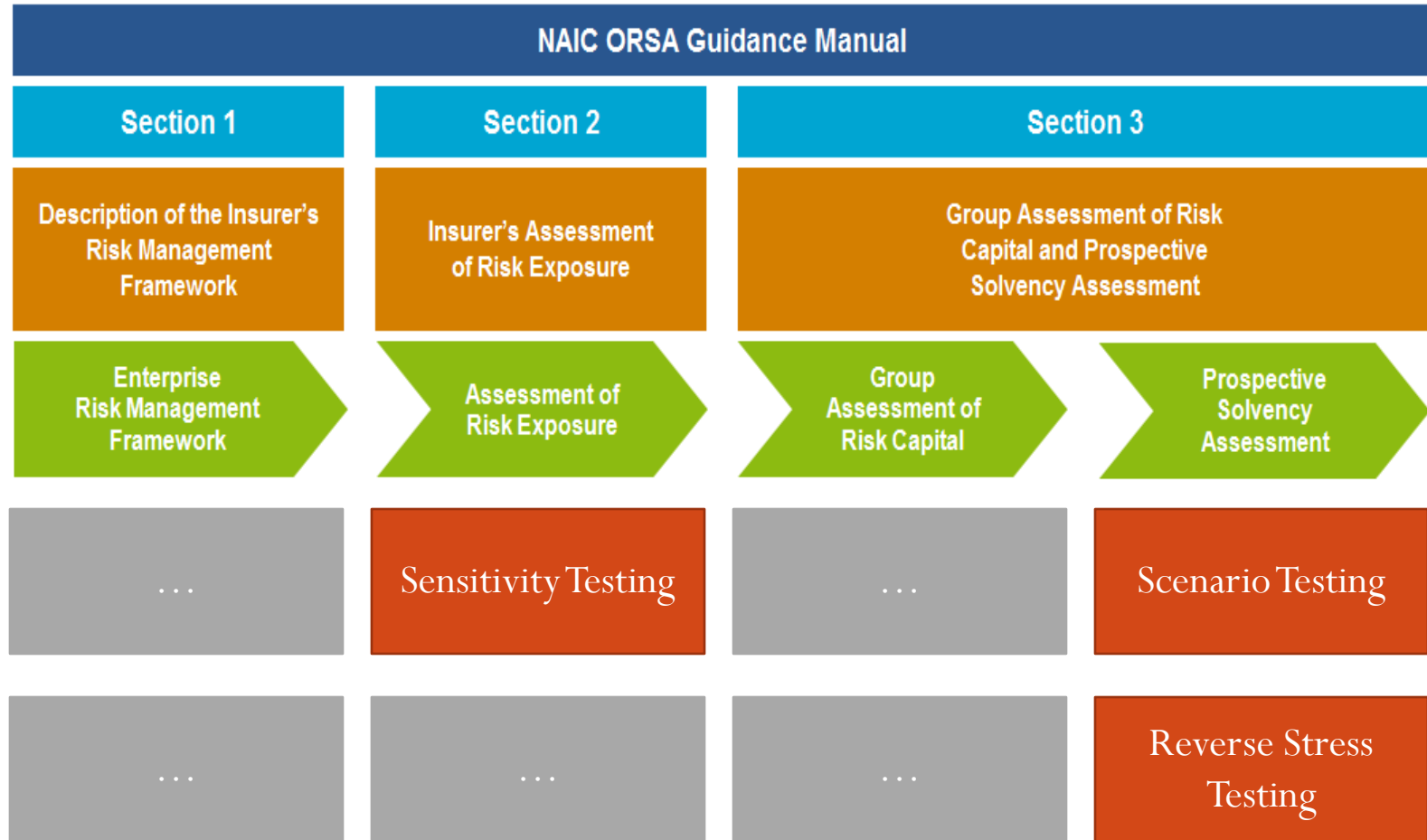
Key Applications

- Determine loss it would take to:
 - Breach key financial metrics of the risk appetite statement
 - Deterioration of metrics to levels that may result in a rating agency downgrade
 - Breach regulatory capital requirements (200% RBC level)
 - Ability to pay dividend or continue share repurchases
 - Insolvency
- Compare to scenarios and/or sensitivities for context



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