

Inforce Management

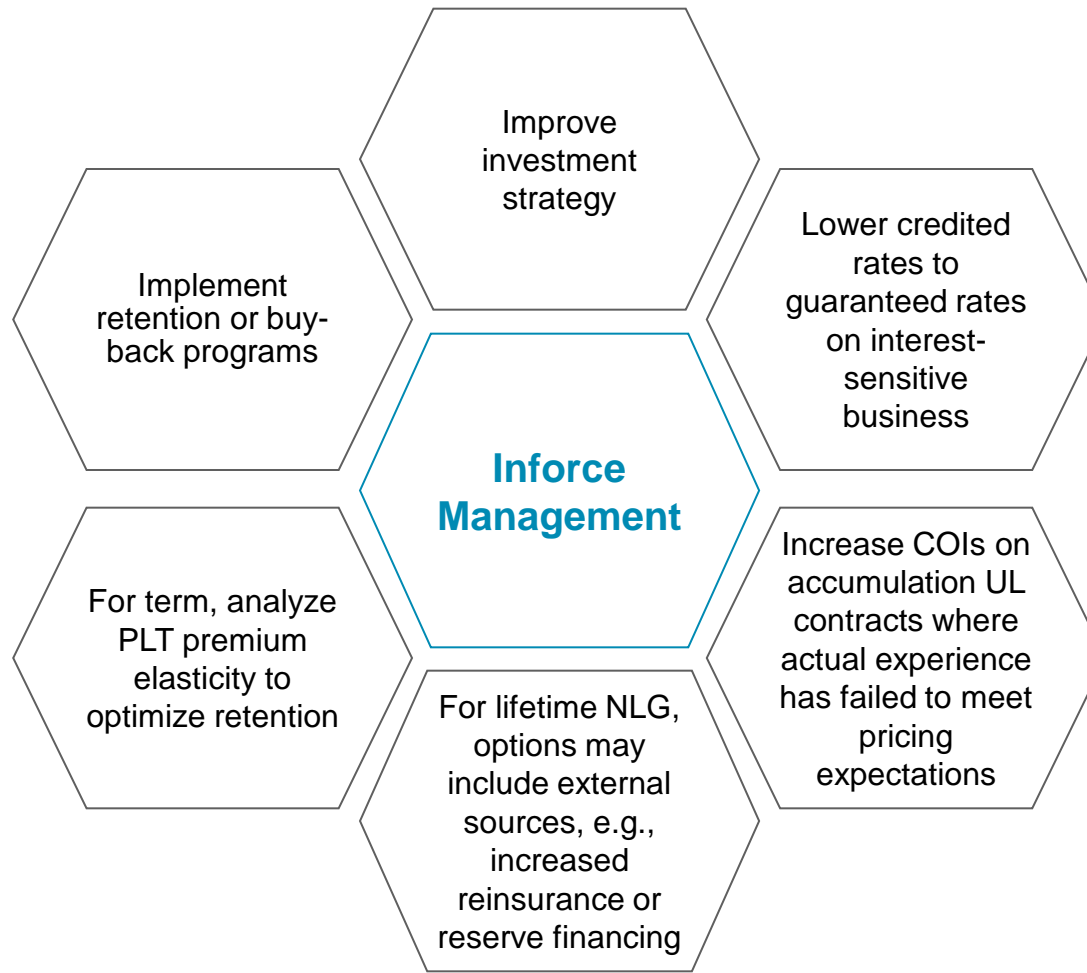
2014 ACHS Fall Meeting

November 11, 2014

Katie Cantor, FSA, MAAA

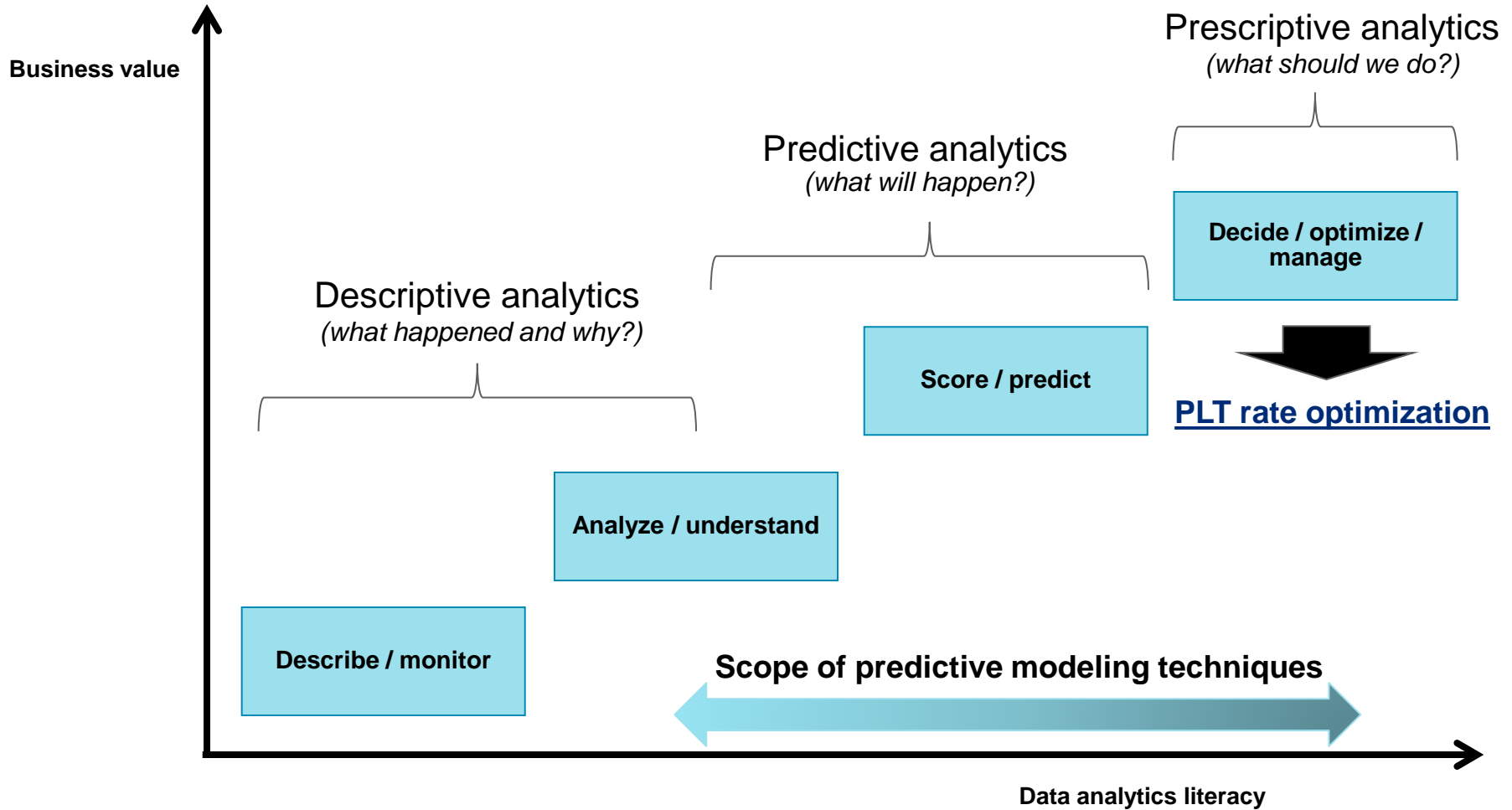
Many companies have taken action on inforce blocks of life insurance

Inforce management can take a number of forms depending on the business



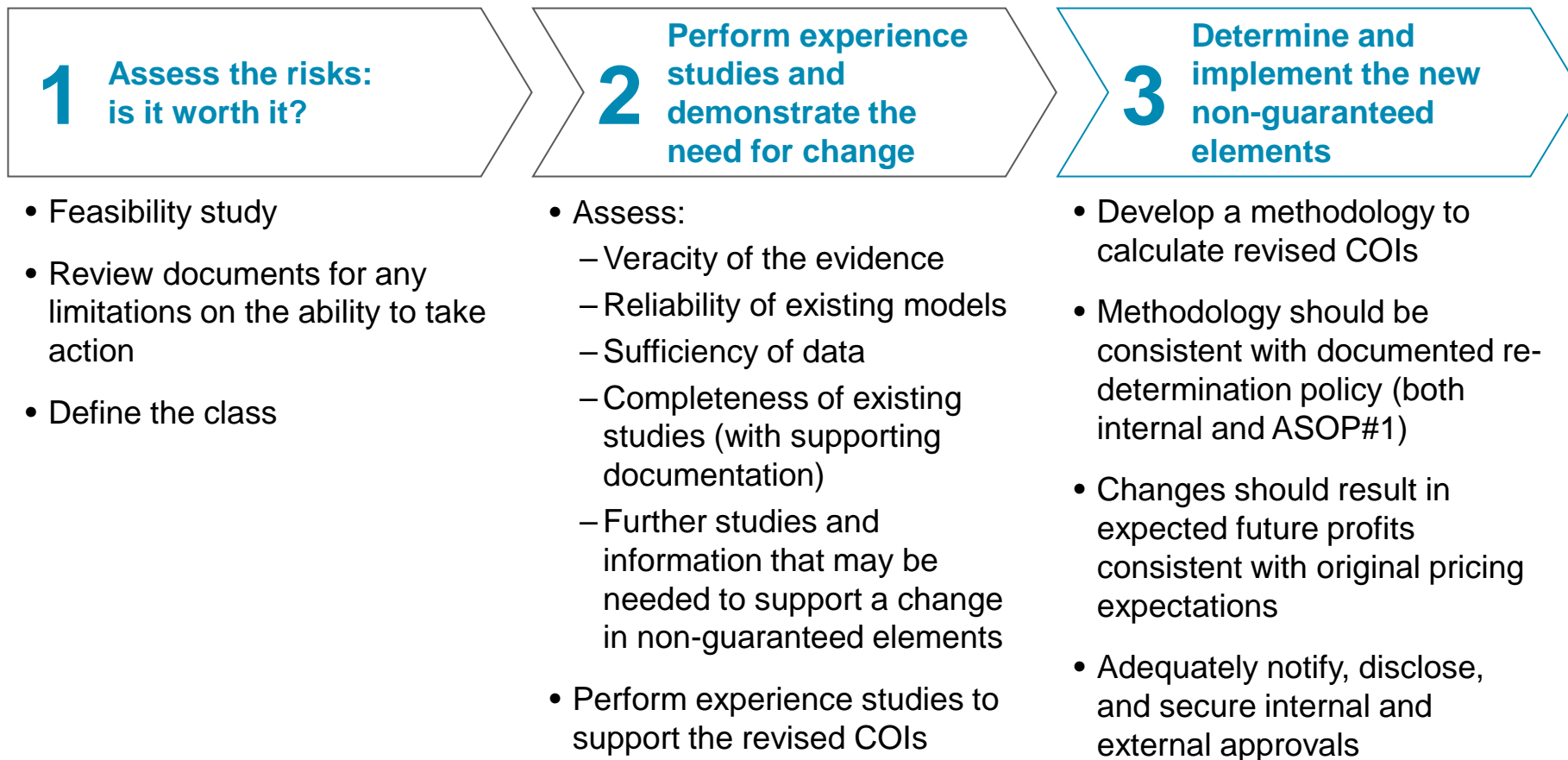
Post-level term (PLT) rate optimization

PLT rate optimization is an advanced application of data analytics



COI management on UL

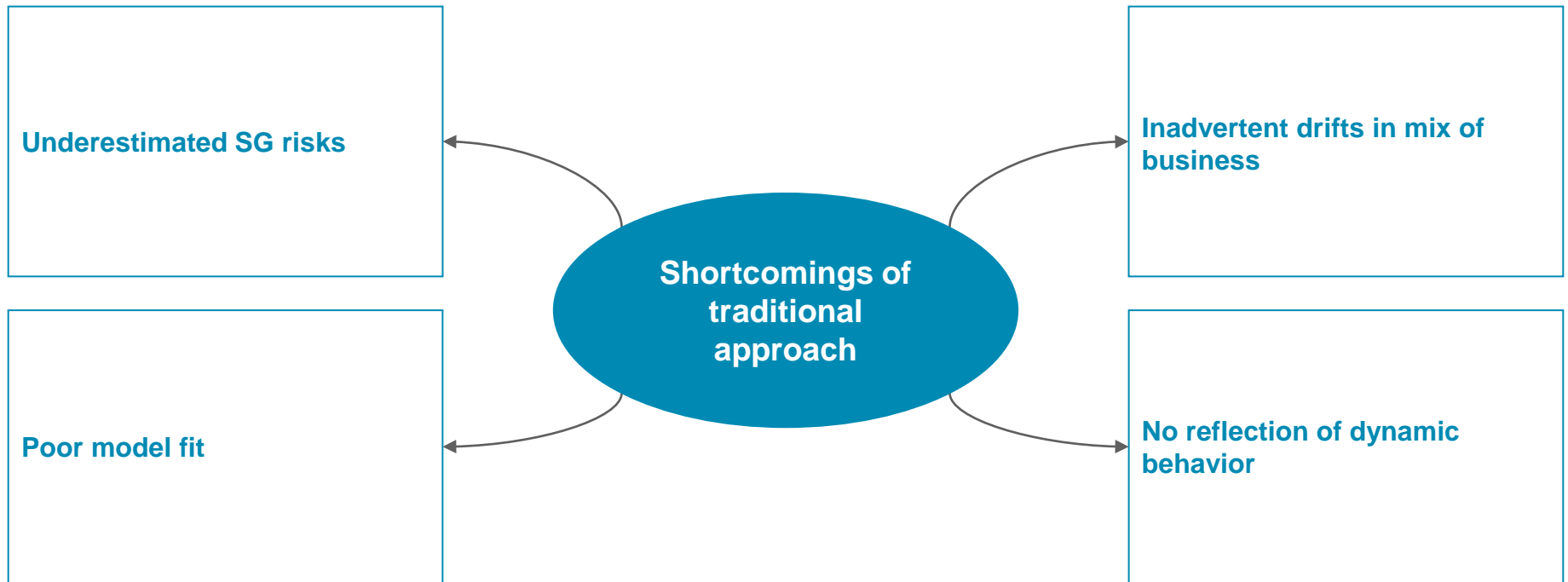
It is prudent to take a three-stage approach to understanding the feasibility and impact of increasing COIs on inforce UL



Meticulous planning is essential!

The traditional approach to ULSG policyholder behavior modeling can lead to a misaligned picture of the performance and risks of the business

The traditional approach assumes a single premium pattern and voluntary surrender rates that do not vary by funding cohort



Based on a 2012 SOA study¹, only 50% of companies reflect multiple premium patterns in their inforce models

¹Report on Premium Persistency Assumptions Study of Flexible Premium Universal Life Products

Benchmarking the range of current practices for ULSG inforce modeling



Traditional Practice

- Single premium pattern
- Surrender assumption does not vary by premium pattern or fundedness
- Dynamic formula based only on in-the-moneyness



Emerging practice

- 3-5 premium patterns modeled
- Surrender and premium suspension assumptions based on refined experience studies and vary by premium cohort
- Dynamic adjustment for in-the-money policies and “imminent lapsers”

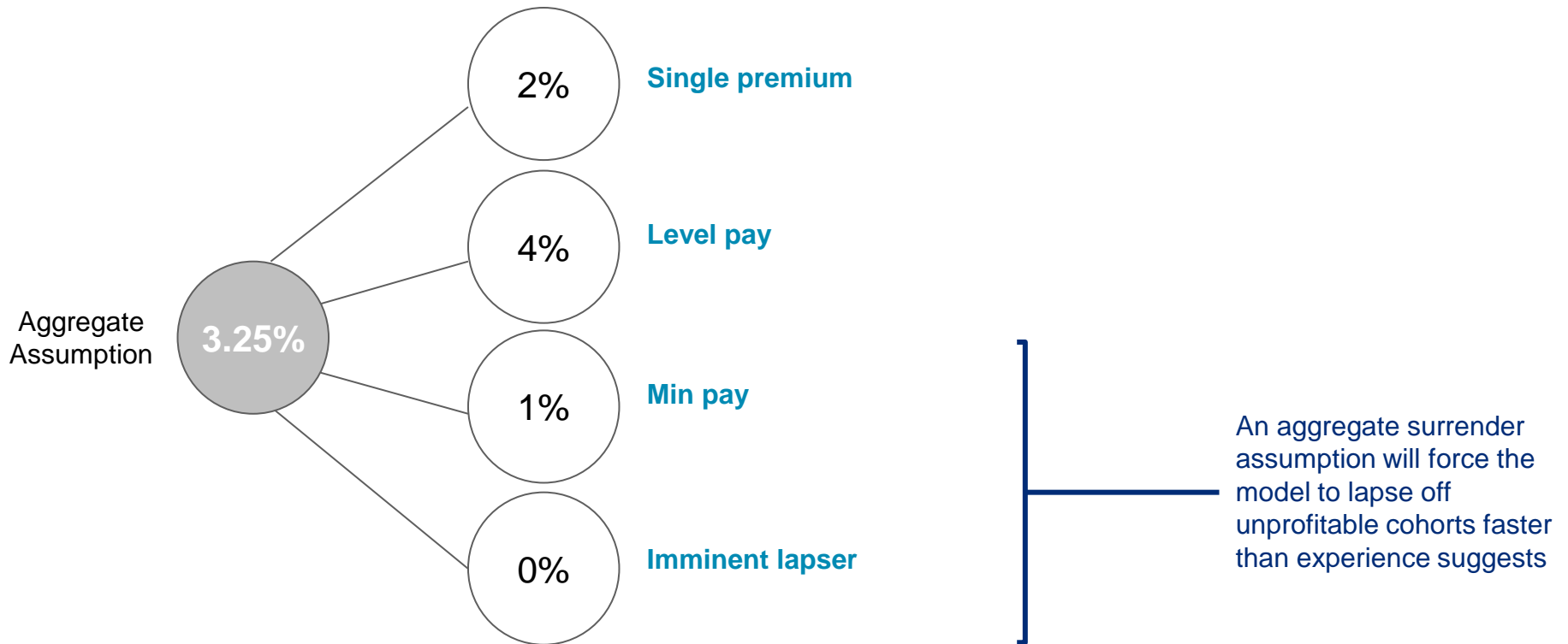


Best Practice

- Premium buckets defined by both fundedness and premium pattern (typically 5+ buckets)
- Policyholder behavior assumptions reflect additional predictive modeling factors
- Bifurcate fund lapses into shock lapse and catch-up premium (with anti-selection)
- Cease future premiums if policy reaches paid-up status

A refined experience study will reveal behavior differences across a set of pre-defined funding cohorts

Illustrative example

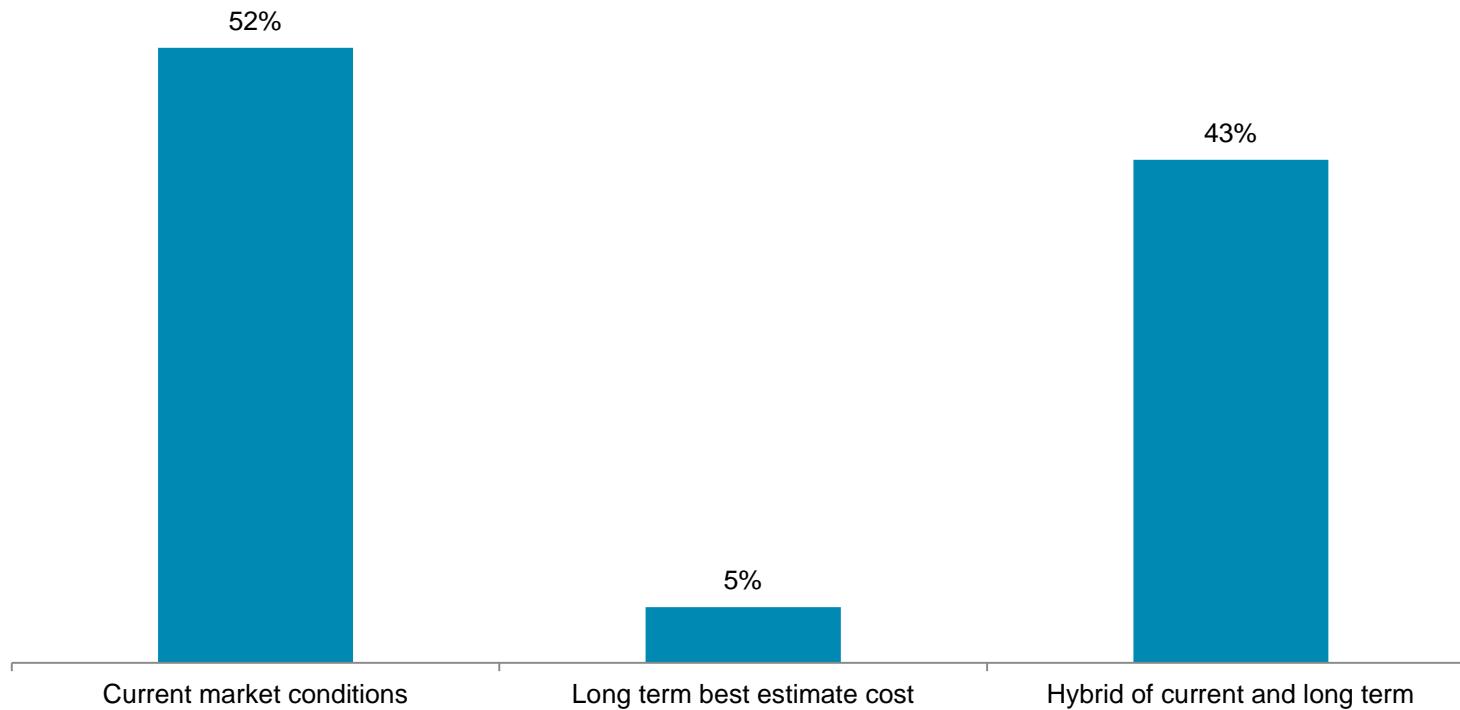


In this example, by eliminating the subsidization impact of applying an aggregate surrender assumption across funding cohorts, the model will produce a more reliable profitability/risk profile

Basis for indexed life inforce cap management

For indexed products, the basis for calculating option costs used for cap-setting varies

Basis for the option cost used for cap setting



Challenges to managing closed blocks of LTC business

Carriers often struggle with a number of common issues

Rate increases

- Obtaining timely and sufficient state approvals
- Potential impact of proposed regulatory changes
- Inability to recoup past losses
- Capping inforce rates at new business rate levels
- Inability to get a rate increase for low interest rates
- Time/cost/resources needed in preparing/managing state filings

Experience monitoring & management

- Limitations in claim data
- Credibility of data where volume is lacking
- Need for more robust dashboards
- Managing the claim continuum (incidence, utilization, continuance, mix of claims, cost of claim, claim expenses)

Actuarial system & reporting/analytics

- Model limitations that limit precision of projection outcomes
 - Claim costs versus first principles
 - Active versus disabled life mortality

Fixed deferred annuity inforce management

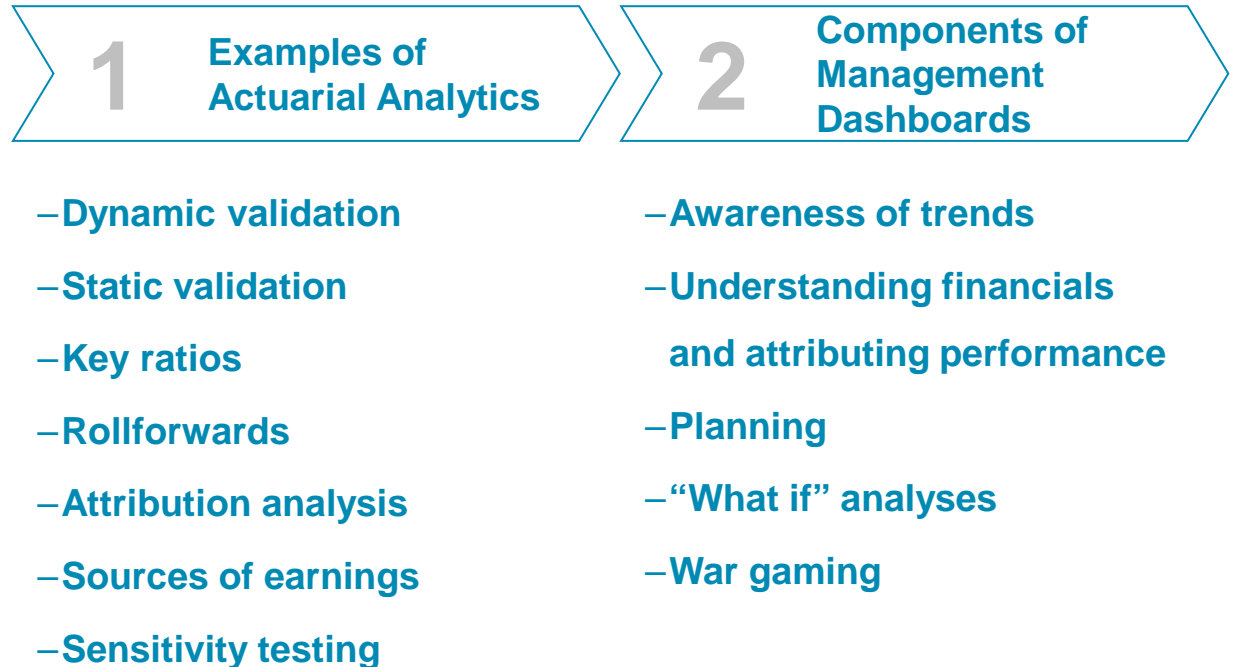
Reliable analytics and management dashboards must be in place to make informed risk management and strategic decisions

Actuarial Analytics

- Standard reports and drill-down capabilities to explain results and confirm reasonableness
- Tools to enhance and automate the analysis of results
- Efficient, repeatable and “smart” analytics tailored to the product and application

Dashboards

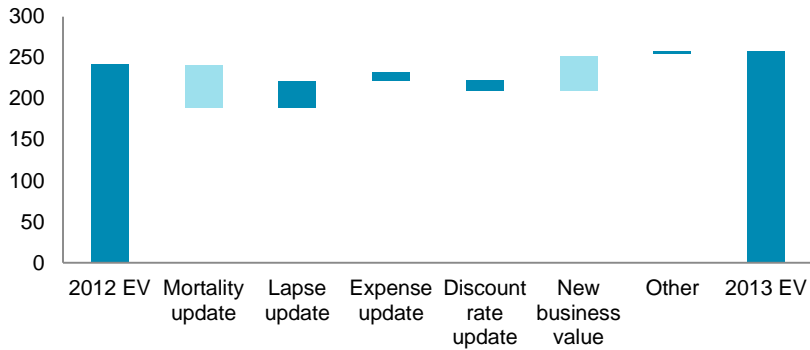
- Management-level presentation of results and Key Performance Indicators (KPIs) that explain business drivers and variances
- Presentation of results to support informed management decisions
- Dashboards customized to management’s needs



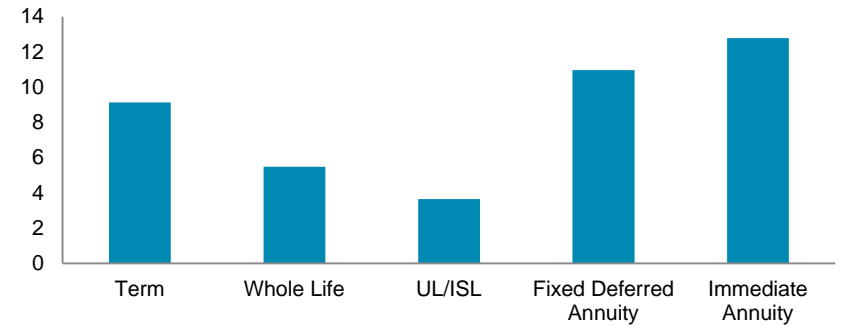
Dashboards are customized to explain business drivers and variances and inform management decisions

Embedded value results (\$ MM)

Attribution analysis

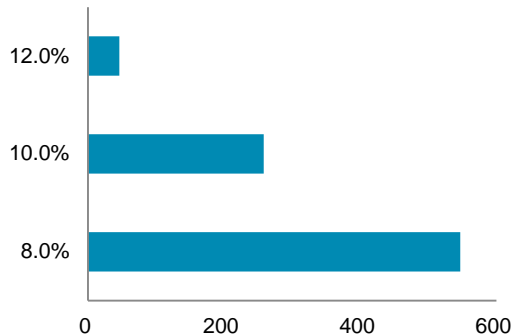


New business contribution

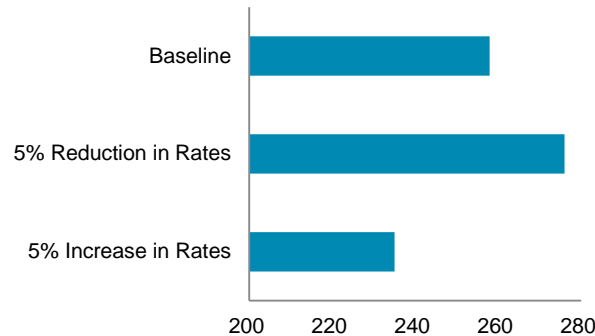


Sensitivity analyses

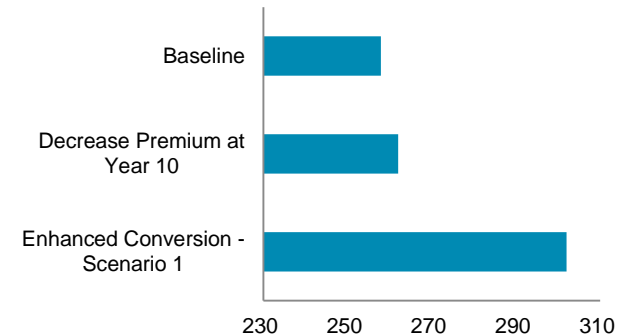
Discount rate sensitivity



Lapse rate sensitivity



Inforce management sensitivity



Drivers of accounting volatility for FIA with GLWBs

Hedging index credits

Volatility drivers

- **Statutory.** Movement of the AG 33 (or AG 43) reserve is less sensitive to AV credits than the asset hedges aimed to match AV credits
- **US GAAP.** FAS 133 reserve doesn't always change dollar-for-dollar per unit of AV credit

Possible solution

- Refine hedging strategy to increase alignment