SOCIETY OF ACTUARIES®

2019 ANNUAL MEETING & EXHIBIT

October 27-30
Toronto, Canada

Session 159: Implementation of In-force Management Programs

[SOA Antitrust Compliance Guidelines]
[SOA Presentation Disclaimer]

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Session 159: Implementation of In-force Management Programs

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October 30, 2019

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In-force management:
Increasing customer and company value

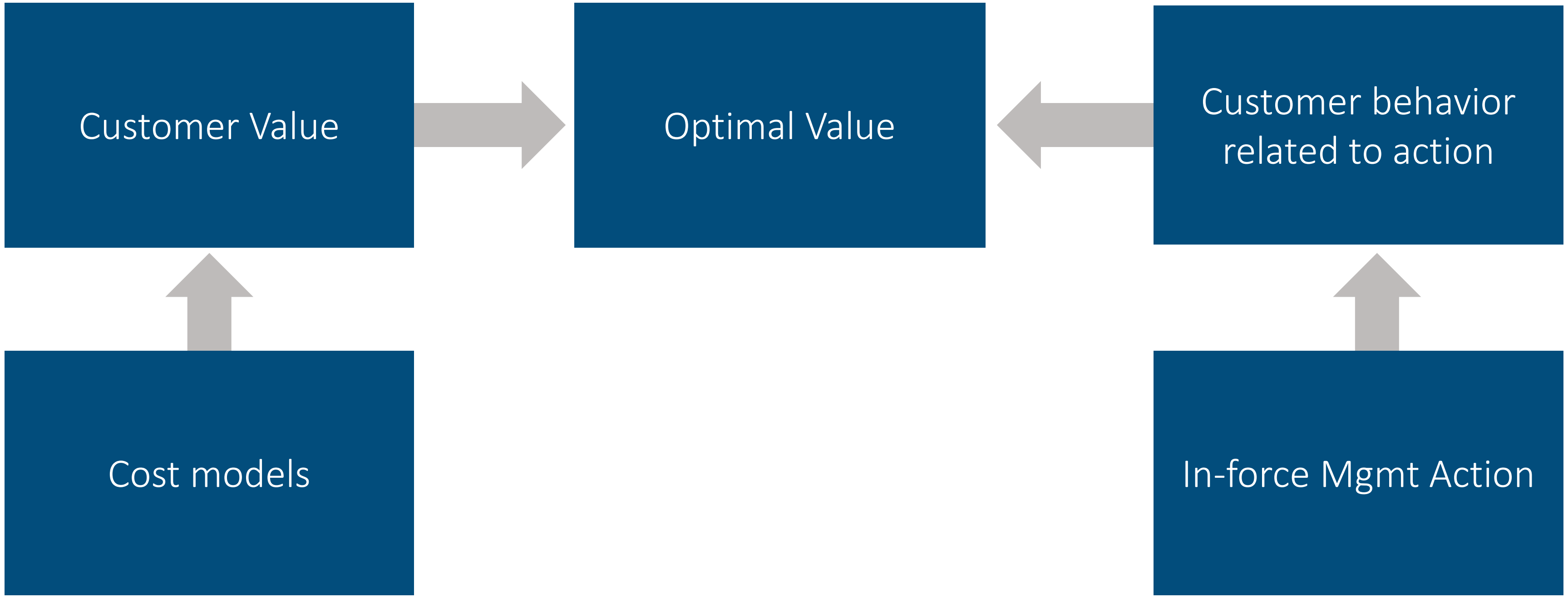
Companies can increase the value of their in-force block (and associated customers) by

- utilizing appropriate metrics and analytical tools,
- understanding current profitability and customer behavior, and
- taking appropriate actions

which can improve consumer value proposition while also increasing profitability.

In-force management is a hot topic in the life insurance industry

Understanding customer value can inform in-force management



Key components are understanding customer value, using appropriate analytical tools and accessing appropriate software tools

Companies are considering in-force management actions

Increasing value on in-force business

- Non-guaranteed elements
- Customized service levels
- Buy-outs
- Cross-sell / up-sell opportunities

Need to determine how customers will react to actions and how actions will impact profitability

In addition, critical to communicate across the organization – including Compliance and Legal!

In assessing value, selecting the appropriate metric(s) is important

- Different metrics may be used depending on the objective
- For many types of analysis, it makes sense to calculate some measure of lifetime value
  - Needs to reflect impact of decisions made now on lifetime value of a customer
- Metrics to consider
  - GAAP measures not really helpful as the impact of actions taken today can take a very long time to emerge
    - ✓ BUT need to consider!!
  - Statutory income is not helpful as the primary focus there is on solvency
  - Embedded value can be a good choice
    - ❑ PV of future distributable (statutory with capital) profits
  - Maximum reduction in capital due to an action

In utilizing the metric, a fairly granular analysis is important

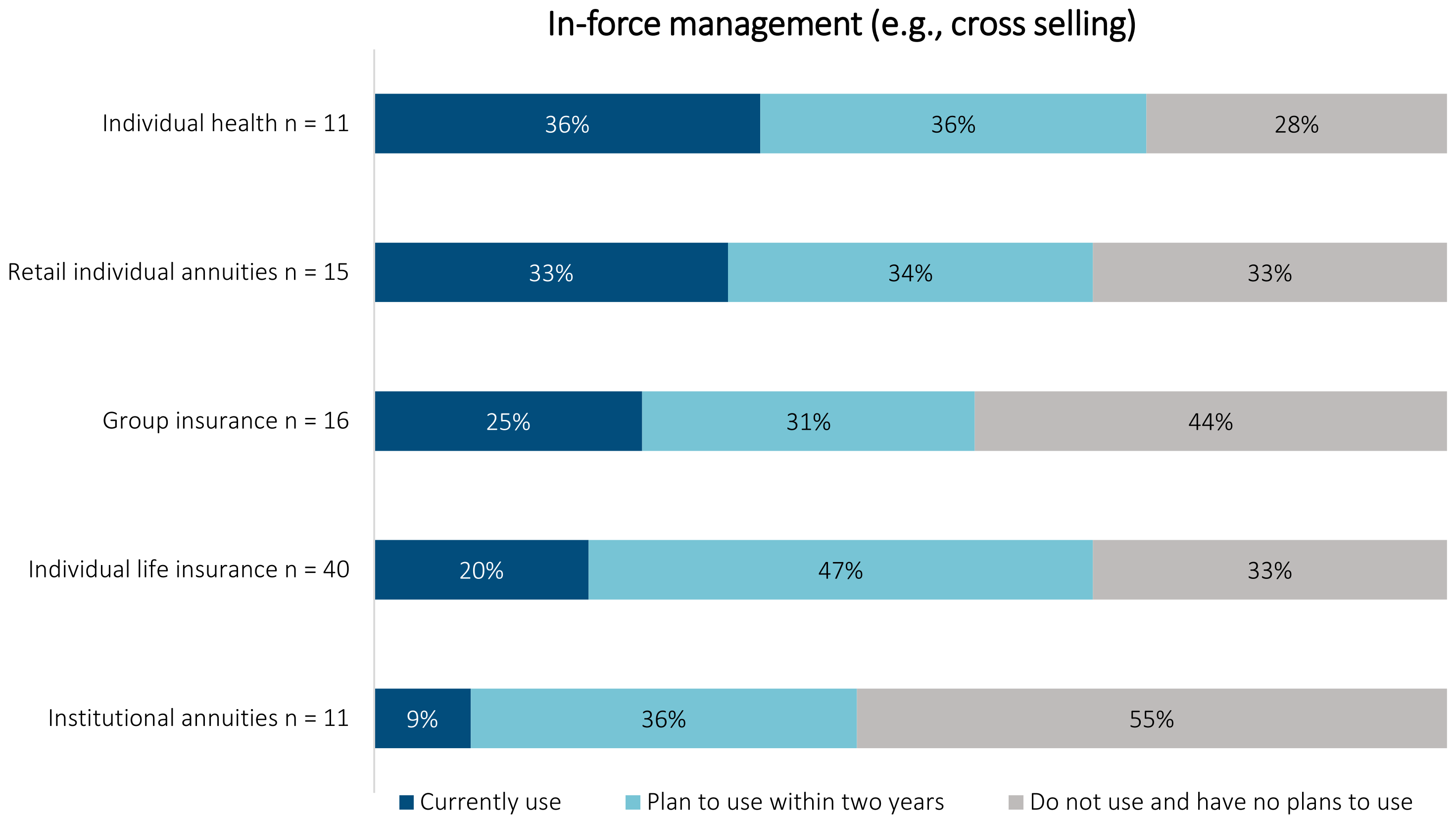
- Not enough to look at just one overall aggregate result

- Need to consider key splits of business, e.g.:
    - Age bucket
    - Duration bucket
    - Product type (group by richness of features)
    - Policy size
    - Components of policyholder behavior
    - Distribution channel
    - Service characteristics

- Increasingly companies are also considering additional data sources, e.g., geographical, external source

Predictive analytic techniques can help to understand the impact and interplay of various factors

- *Utilized with increasing frequency within the industry*



Source: 2018 Willis Towers Watson Life Predictive Analytics Survey

Illustrative Case Study

VA in-force block

- VA business written over past 10 years with guaranteed benefits
  - Richness of which varies over time
  - Sold through multiple distribution outlets

- **Business segments to analyze:**
  - Issue age
  - Duration
  - Gender
  - Policy size
  - Richness of XB
  - Time of first withdrawal
  - Amount of withdrawal(s)
  - Life circumstances
  - Geographical
  - Distribution outlet
  - Fund mix
  - Service frequency
  - Existing company customer

- **Baseline:** Understand profitability by segment

Then, examine the impact of various actions

- **What actions might you consider taking**
  - Develop relative rankings of value for both policyholder and company
    - Is policyholder really utilizing policy features?
  - For your higher value customers
    - Route them to more qualified (i.e., better) customer service reps
    - Have a company person visit them once a year (for very best)
    - Send them personalized messages
    - Offer additional products at discounted price
    - Allow some exceptions to administrative rules
- **Exploration of reinsurance/divestiture opportunities**
  - Several consolidators aggressively pursing blocks of business
  - Many companies with very high standards for a deal being executed (risk transfer, credit ratings, structure, etc.)
- **Review of contractual levers**
  - Room for movement in fees/charges and potential impact on retention and/or distribution
  - Review of marketing allowances and/or potential commutation of trail commissions
- **Exploration of buy-back**
  - Internal exchanges to less risky/capital intensive products being performed and/or explored.
  - These initiatives typically require the same level of SEC communication/approval for registered products.

The following illustrative figures show how this might be utilized

	Segment	Current Value[1]	Suggested Conservation Effort
1	IA 60-69, duration 11-20, early withdrawals, richest XB, aggressive funds	(2.0)%	Minimal
2	Same as 1, but have other products sold by company	.5	Significant
3	IA 80-84, duration 6-10, less rich XB, moderate funds	3.0	Extensive

[1] PV of future distributable earnings/current account value

There are a number of practical considerations in developing the analysis and taking action

- Data
  - Overall access and quality
  - Ability to collect historical data (e.g., underwriting information on historic life sales)
  - Ability to access third party data
- Tying metric to current financial results
  - Willingness to make an investment (if that is what is required)
- Ability and resources to undertake analysis
- Discriminatory aspects require careful consideration
  - Engage in discussions with legal advisors
- Communication throughout organization is critical!
  - Avoid unintended consequences

In-force management: Industry perspectives and approaches

In-force books are not compendiums of consistent policies. Rather, they contain different products with different cohorts and small but sometimes material differences in profitability.
Taking a systematic approach to review them is therefore essential.

– MAXIMISING VALUE FROM THE IN-FORCE BOOK
(Armbruster, Erasmus, Kirk, Kotanko)

Industry perspectives on in-force management

Why are insurers looking at in-force management?

?

- Seek to generate value from in-force blocks
- Common drivers
- Advancements in data & analytics capabilities

Where are peers?

- Insurers operating in mature markets have advanced furthest
- Leading peers have undertaken systematic, top-down efforts
- Approach tends to be multi-disciplinary

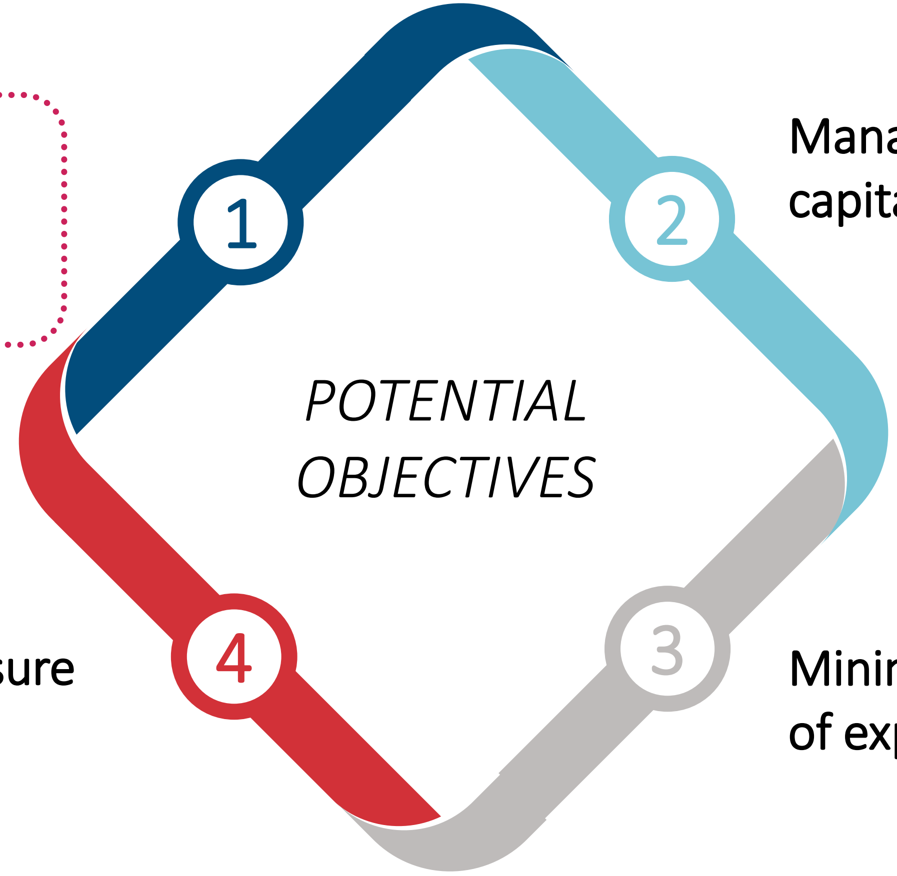
What are risks of not ramping up your capabilities?

- Not lethal in the foreseeable future – but would represent missed opportunities
- Initiatives in-flight by most mid/large-size peers
- Successful programs can deliver significant uplift

What are we trying to accomplish with in-force management?

In-force management is not solely about profitably running off existing business; the potential for growth opportunities should not be overlooked

Increase value
- Profitability
- Embedded value
- Growth



1. Increase value
2. Manage capital/reserves
3. Minimize risk per unit of exposure
4. Minimize exposure

Four key levers to in-force optimization

Levers		Actions	
1	Contractual	• Re-pricing • Crediting rate	• Partner negotiation • Contract terms optimization
2	Operational	• Cost optimization • Cost variabilization	• Claims management
3	Extra-contractual	• Customer base leverage • Retention and extension	• Buy-outs and exchange offers • Communication (nudging)
4	Financial	• Risk transfer (sale / reinsurance) • Investment strategy / ALM	• Capital optimization • Accounting restructuring

- Regardless of the strategy chosen, for capital planning and risk analysis it is critical to have the necessary tools to forecast consolidated financials

Example: COI revisions on UL (1/2)

It is prudent to take a three-stage approach to understanding the feasibility and impact of changing COIs on in-force UL

1 Assess the risks: is it worth it?

- Feasibility study
- Review documents for any limitations on the ability to take action
- Define the class

2 Perform experience studies and demonstrate the need for change

- Assess:
  - Veracity of the evidence
  - Reliability of existing models
  - Sufficiency of data
  - Completeness of existing studies (with supporting documentation)
  - Further studies and information that may be needed to support a change in non-guaranteed elements
- Perform experience studies to support the revised COIs

3 Determine and implement the new non-guaranteed elements

- Develop a methodology to calculate revised COIs
- Methodology should be consistent with documented re-determination policy (both internal and ASOP 2)
- Changes should result in expected future profits consistent with original pricing expectations
- Adequately notify, disclose, and secure internal and external approvals

Example: COI revisions on UL (2/2)

Increasing numbers of carriers have been raising COIs in recent years, creating precedents for others to follow

The motivation

- Slew of carriers imposing rate changes since 2015 suggests a “momentum” effect
  - Carriers unwilling to cede relative profitability advantage to peers
  - Lessens adverse distribution impact (“everyone’s doing it”)

The goal

- Restore profitability of contracts on a prospective basis

The instrument

- Large variation in revisions across carriers, with 5% to 50% “typical”
- Most COI revisions impact policies issued in 1990s to early 2000s

The path

- Historical revisions have often been insufficient, because carriers did not account for effects such as changes in policyholder behavior (e.g., lapses, premium funding)

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In-force management: Adjusting non-guarantee elements (NGEs) under current regulatory framework

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New Regulations on Re-adjusting NGEs keep coming

- New York – Regulation 210

- California – Section 10113.70 of the insurance code
  - 90 days before the effective date of the adverse change
    - Notification of adverse change (starting July 2019)
    - Illustration with adverse change (starting July 2020)

- Texas – Section 10113.70 of the insurance code
  - 90 days before the effective date of the adverse change
    - Notification of adverse change
    - Scale of non-guaranteed charge (current, new, guaranteed)
  - For crediting rates need to notify and show current/new/guaranteed
  - Applies to non-guaranteed charge changes on or after January 1 2020, credited interest rate decreases after January 1 2021

Considerations in Non-Guaranteed Element Review

- You are the In-force Management Actuary on a block of universal life policies. Your board approved NGE policy states:
  - *"Reviews of anticipated experience factors and non-guaranteed elements for reasonableness must be completed at least once every five years."*

- You've identified one product to be reviewed this year and embark on the process below

Review Contract Language → Identify Policy Classes → Review change in anticipated experience factors → Determine Readjustment Amount → Roll-out

Contract Language

- Can't include past losses
- Readjustment methodology should ignore anything historical

"The Cost of Insurance Rate will be prospective and will be subject to our expectations of future cost factors. Such cost factors include: mortality, expenses, investment returns, and persistency.

We review our cost of insurance from time to time, and may re-determine rates on a basis that is not unfairly discriminatory to any class of lives insured"

- Need to determine
  - What is a class?
  - What is unfairly discriminatory?

Identify the Policy Classes

New York 210 Section 48.2

'(2) *An insurer, in the assignment of policies into classes of policies, for the purpose of determining nonguaranteed elements:*

(i) shall not unfairly discriminate among policies with similar expectations as to anticipated experience factors;

(ii) shall assign policies into classes based on sound actuarial principles;

(iii) shall assign policies with material differences in expected costs into different classes;

(iv) shall have sufficient refinement of classes to place reasonable limits on anti-selection;

(v) ….'

- Do these create a material difference in expected costs:
  - Issue age?
  - Risk Class?
  - Gender?

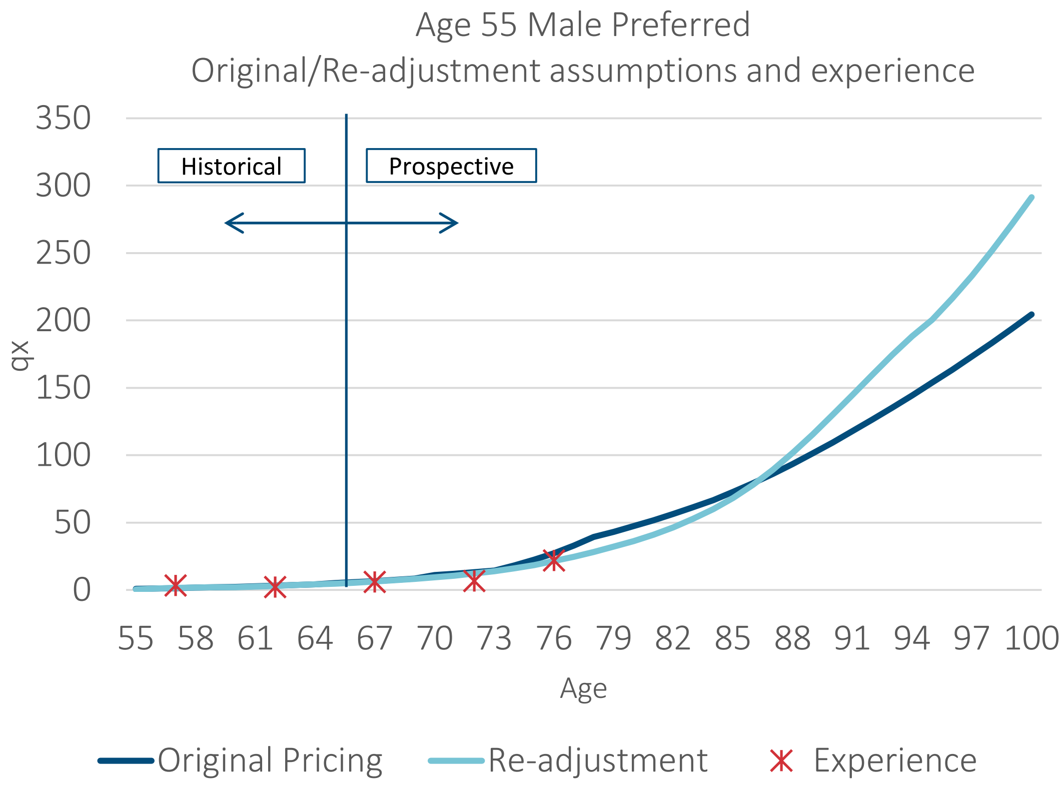
Decision – Policy Classes chosen as follows

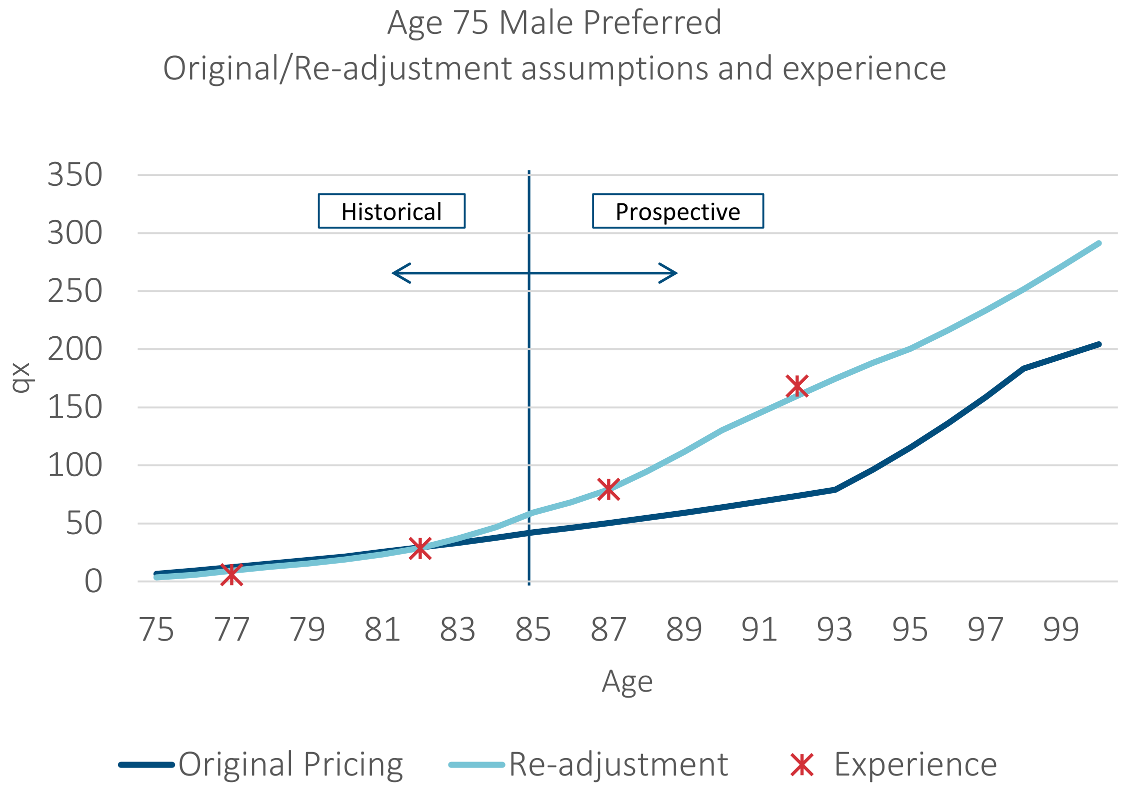
Risk Class	Gender	Issue Age	
Preferred	Male	20-25	56-60
Standard	Female	26-30	61-65
Smoker		31-35	66-70
		36-40	71-75
		41-45	76-80
		46-50	81-85
		51-55	86-90

For example, *'Male Preferred issue age 51-55'* is one policy class

Review change in anticipated experience factors - Mortality

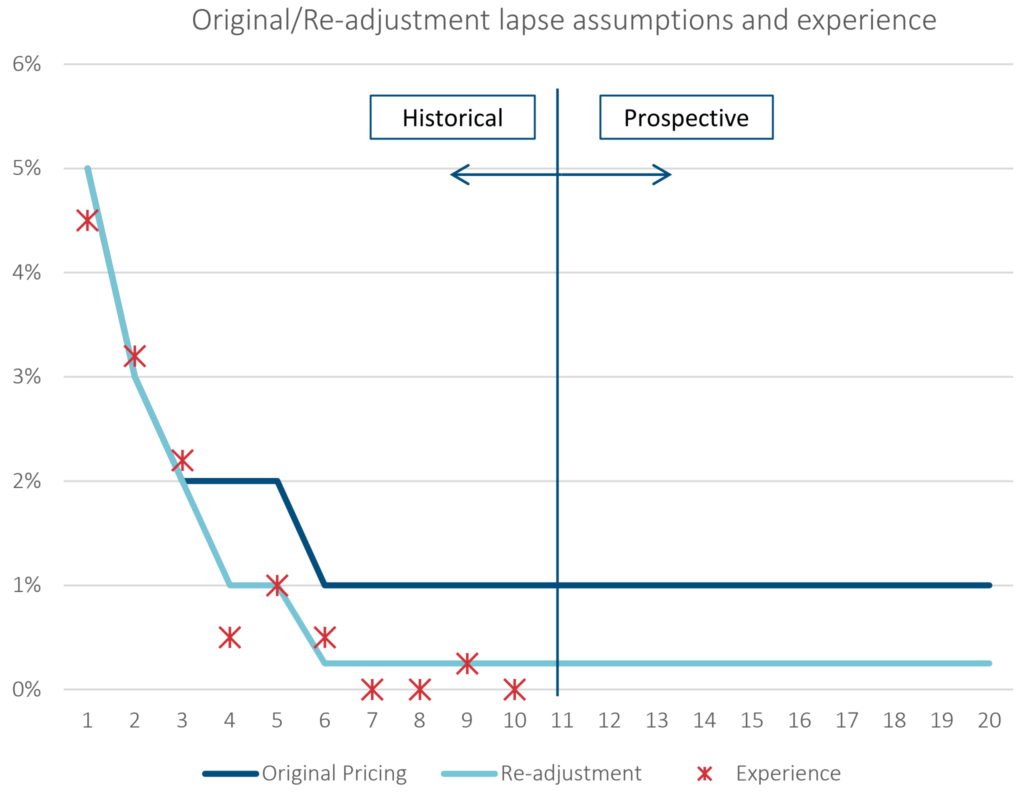
- More experience data developed since original pricing
- New data experience shows steeper slope for older ages, and lower mortality at younger ages versus original pricing
- Re-adjustment assumption created taking into account the higher older ages mortality and steeper slope observed





Review change in anticipated experience factors

Persistency



Investment Returns

Lower than expected, but being passed through crediting rates

Expenses

No changes to assumptions

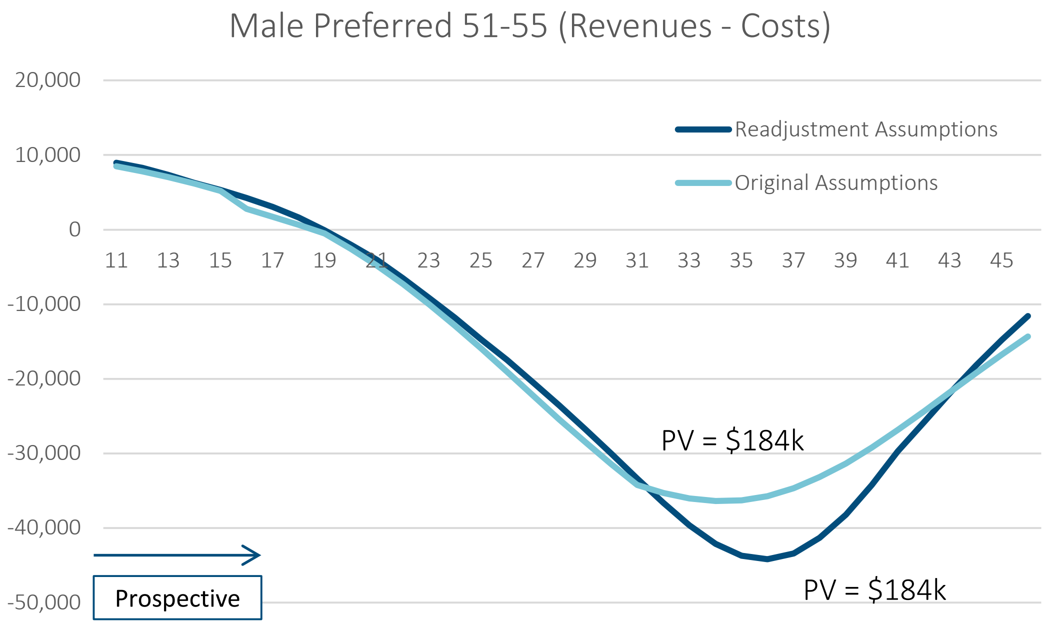
Determine the change to the Non-Guaranteed Elements

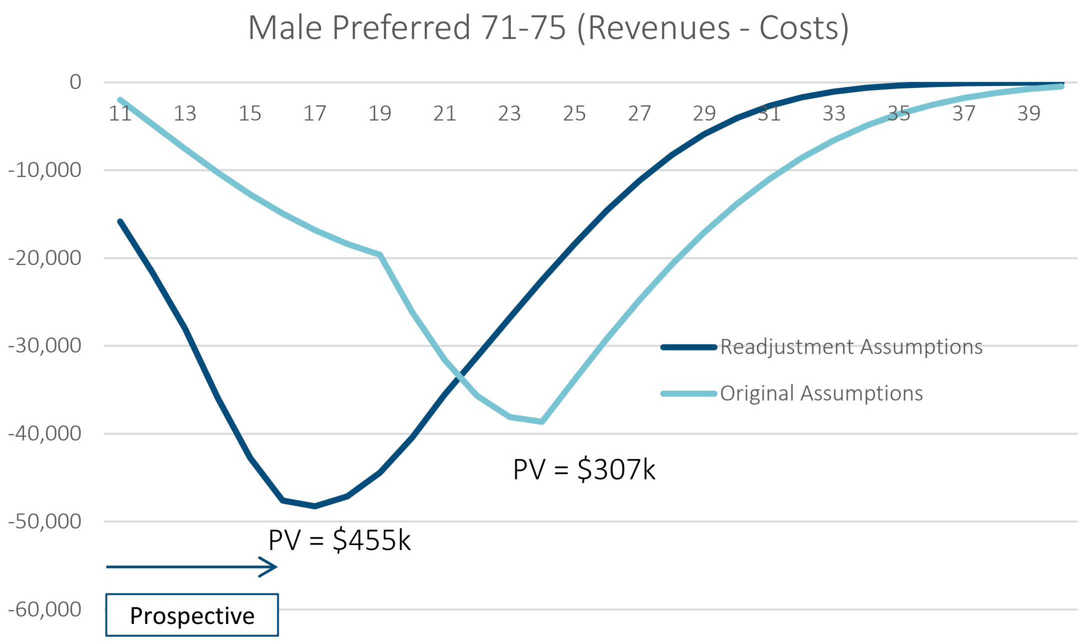
- Key considerations for redetermination under 210:
  - The revised scale should be based on the difference between the anticipated experience factors underlying the scales between the point of last revision and the current revision
  - Readjustment shall be based on expectations as to future experience and not recoup past losses
  - Profit margins cannot be increased
  - Profit margins mean expected revenues less costs

- How do we define profit margin?
  - Revenues
    - Premiums
  - Costs
    - Claims
    - Surrenders
    - Expenses
    - Commissions
  - Should we consider reserves or capital?

Determine the change to the Non-Guaranteed Elements

- Look at the prospective view of profit margins for these policy classes:





	Pricing	Readjustment Assumptions
PV Costs	362	362
PV Revenues	178	178
PV Total Net Outflow	184	184

	Pricing	Readjustment Assumptions	Readjusted NGEs
PV Costs	615	697	697
PV Revenues	308	242	60% increase 390
PV Total Net Outflow	307	455	307

Reinsurance

- *"(d) An insurer shall not consider cost of reinsurance agreements or other third party agreements, when changing non-guaranteed elements, if it would cause an adverse impact on non-guaranteed elements of any existing policy, unless the costs are consistent with the insurer's own anticipated experience assumptions and the insurer would have made the changes to the non-guaranteed elements in the absence of the costs."*
  - Example 1 – Reinsurance Rate increase is consistent with the insurers own anticipated experience assumptions
  - Example 2 – Reinsurer does not raise rates
  - Example 3 – Reinsurer raises rates by more than what's implied by the insurers own anticipated experience assumptions

Male Preferred 75

	Pricing	Readjustment Assumptions		Example 1	Example 2	Example 3
PV Gross Costs	615	697		697	697	697
PV Gross Revenues	308	242		390 (60% increase)	336 (39% increase)	390 (60% increase)
PV Total Gross Outflow	307	455		307	361	307
PV Ceded Premiums	150	113		167 (47% increase)	113 (No change)	200 (76% increase)
PV Ceded Recoveries	130	147		147	147	147
PV Total Ceded	20	-34		20	-34	53
PV Total Net Outflow	327	421		327	327	360

Roll-out

120 days prior	60 days prior	Implementation
File Adverse Change under 210	Notify Policyholders	Higher scale can start to be charged

120 days prior — File Adverse Change under 210

- Actuarial Memorandum
  - NGE Scale
  - Anticipated Experience Factors
  - Determination Process
- Tabulation of scale changes
- Tabulation of anticipated experience factor changes

60 days prior — Notify Policyholders

- Firms/Servicing Agents
- Call Center Preparations
- Letter to policyholder
  - Old Scale
  - New Scale
  - Guaranteed Scale
  - Description of adverse change
- Illustration System updates

Implementation — Higher scale can start to be charged

- Administration system updated

In-force management:
Legal Issues

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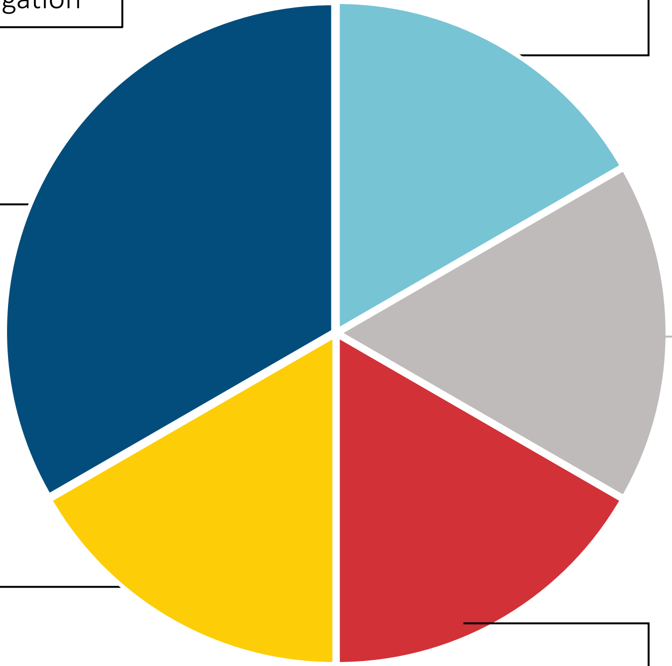
Legal Issues for In-Force Management

- Size of non-guaranteed elements change
- Reasons provided to explain the increase included impermissible factors
  - Norem v. Lincoln Ben. Life Co. (7th Circuit) – unenumerated factors allowed
  - But see Fleisher v. Phoenix Life Ins. Co. (SDNY) – unenumerated factors not allowed
    - ‘recipes are exhaustive lists of all ingredients needed to bake a cake, or fricassee a chicken, or roast a saddle of mutton. Highly experienced chefs might be able to play with recipes, but the average home cook follows the slavishly, without adding other, undisclosed ingredients.’
- Rate increases appear inconsistent with identified underlying drivers
- Non-uniformity of rate increases
  - Considerable discussion around definition of class
  - High level of uncertainty around what is permissible

KEY TAKEAWAY: Many cases are still pending, and few have been litigated to a jury verdict ➔ Unclear guidance over what’s legally permissible

Why Actuaries Should Care



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COI Litigation Timeline

012-2016 | 2017 | 2018 | 2019 | 2020+

2013

Norem vs Lincoln Ben. Life Ins.

2013

Fleisher v. Phoenix Life Ins. Co.

2016

In re Lincoln COI Litigation

Transamerica litigation

July

John Hancock settlement

October

Vogt v. State Farm Life Ins. Co.

January

Hancock v. Americo Financial Life and Annuity Ins. Co.

February

Transamerica settlement Agreement Approved

Vogt v. State Farm Life Ins. Co. (W.D. Missouri 2018)

- Jury verdict in favor of Plaintiffs for breach of contract and conversion.
- Plaintiffs awarded >$34M in damages.
- State Farm motion for verdict as a matter of law was denied.
- Even if the plaintiff's model for damages had flaws, the issue is whether 'no rational juror could reasonably have relied' upon it.
- The jury was in effect making determinations of which actuarial model was most credible and how State Farm actually priced its policies.

"Although [State Farm employee] testified that the subscript 'x' next to 'COI' meant pooling, the jury reasonably could have concluded that even if the subscript 'x' meant pooling, its position next to COI meant that State Farm pooled its COI rates, and not that it pooled its underlying mortality rates."

John Hancock Settlement - $91.25M

The lawsuit alleges that John Hancock policyholders paid excessive COI charges not allowed by the terms of the policies, because John Hancock was allegedly required to review its rates every five years and COI rates were allegedly based on factors other than its expectations of future mortality experience. The lawsuit also alleges that John Hancock charged unauthorized Age 100 Waiver of Charges Rider (“Age 100 Rider”) charges on certain John Hancock life insurance policies.

Transamerica Settlement - $195M

Plaintiffs allege that the MDR Increases breached standardized contractual
terms governing adjustments to MDRs.
Plaintiffs further allege that TLIC's actions directed at Policyholders residing in California amounted to breach of the implied covenant of good faith and fair dealing, tortious bad faith, statutory unfair competition, and statutory elder abuse.

Key takeaways

1	Courts have scrutinized contract language closely. Ambiguity, while often impossible to eliminate, is usually interpreted broadly or narrowly in favor of policyholder
2	Consistent with NY law, long periods of time between rate increases is often looked at unfavorably
3	Insurers should implement a formal, documented assumption review process. Discretion on raising or lowering NGE charges may have negative implications
4	Regulatory change can substantially impact liability valuation and emergence of profitability, incentivizing more nuanced in-force management.
5	Large changes to NGE absent clear market changes is often highly scrutinized, with potentially implications to accounting/reserve-driven NGE changes.
6	Migration to more market-driven valuations present an opportunity to institute more dynamic ALM/In-Force Management Integration

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