



# Maximizing the Value of your In-force Portfolio

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May 16, 2023

Actuaries' Club of Hartford & Springfield

# Taking a Systematic Approach

# The landscape requires new ways of managing your business

## Surveying the Landscape: Understanding what is impacting your business



Economic Challenges / Interest Rate Environment



Pressure on NB Volumes / Margins



Shareholders Demand Cash Generation



Regulatory Pressure



Increased Competition



Pressure on Expense Base

### Implications

#### What does a successful in-force enhancement program require?

- Clearly defined responsibility & accountability for the in-force book, including enhancement program
- Buy-in from senior business leaders
- Cultural change within a business
- Robust actuarial and financial reporting resources to facilitate the analysis needed for optimal decisions

# In-force management activity among insurers continues to accelerate



## Why are insurers focused on in-force management?

- “Distressed” or non-core blocks of business that are a drag on earnings, return on capital, and/or internal resources
- Advancements in data & analytics capabilities create new possibilities



## Who is leading the way?

- Insurers operating in mature markets with legacy books have advanced furthest
- Leading companies have undertaken systematic, top-down efforts
- Best approach is multi-disciplinary



## What are the risks of not acting?

- Missed opportunities
- Falling behind most mid/large-size peers with activities in flight
- Strong programs can deliver significant financial benefit

# Levers for enhancement of in-force Life business

Performance Improvement

## Balance sheet efficiency

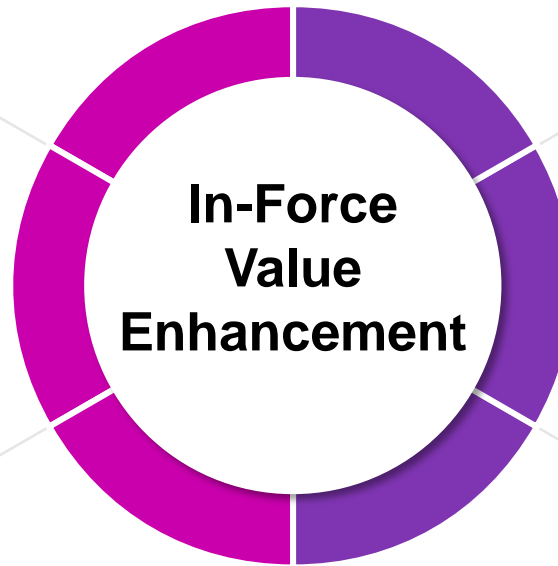
- Identify & free trapped capital
- Remove undue actuarial prudence
- Optimize capital structure

## Risk retention, mitigation & transfer

- Internal risk profile optimization
- Optimize risk retention & diversification
- Reinsurance/divestment options

## Liability management

- Customer conversion program
- Product simplification
- Management of non-guaranteed elements



## Investments

- Enhance yield through greater use of illiquid & alternative asset classes
- Improved ALM & cash flow matching to reduce required risk capital
- Renegotiation of third-party management fees

## Customer / distribution management

- Proactive customer retention informed by analytics
- Targeted cross-selling & up-selling initiatives to existing customers
- Targeted offering for maturing policies

## Operational & cost management

- Maximize operational efficiency
- Reduce maintenance expense
- Co-sourcing or outsourcing opportunities

Operational

# A clear approach to meet your in-force optimization objectives

## 1. Secure alignment

- Clarify the mission for evaluating the value of in-force optimization
- Explore cultural factors
- Discuss and agree on key metrics
- Outline/confirm approach
- Discuss views on local regulator attitudes towards various actions

## 2. Deep dives & business cases

- Perform 'deep dive' analysis of the key value enhancement opportunities
- Conduct sensitivity testing & scenario analysis
- Develop draft business cases & implementation plans
- Collaborate with your core project team to present draft business cases & implementation plans to key stakeholders

## 3. Planning & implementation

- Finalize framework documentation
- Agree on prioritized business cases & gain approval from key stakeholders
- Carry out detailed implementation planning for each business case
- Move to implementation phase
- Finalize framework for implementation, including feedback cycles & performance monitoring

## Outcomes

- Mission statement for optimization
- Documented terms for reference and guidelines
- Key measurement metrics for scoring opportunities

- Documentation of detailed analyses
- Draft business cases for each option
- Draft implementation plans for each business case

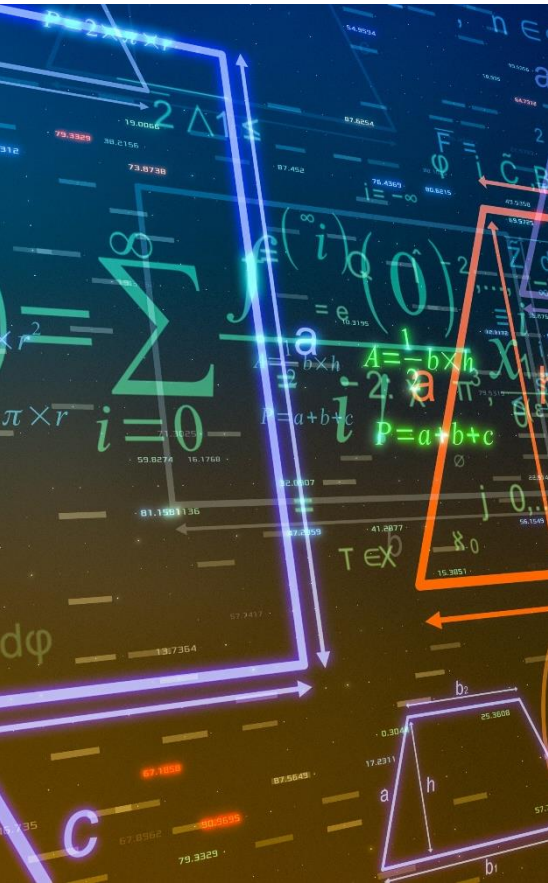
- Documented detailed project plans
- Identification of control groups and pilot testing where appropriate
- Monitoring of impact of actions implemented on key metrics
- Changes to management information to allow appropriate monitoring

# 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



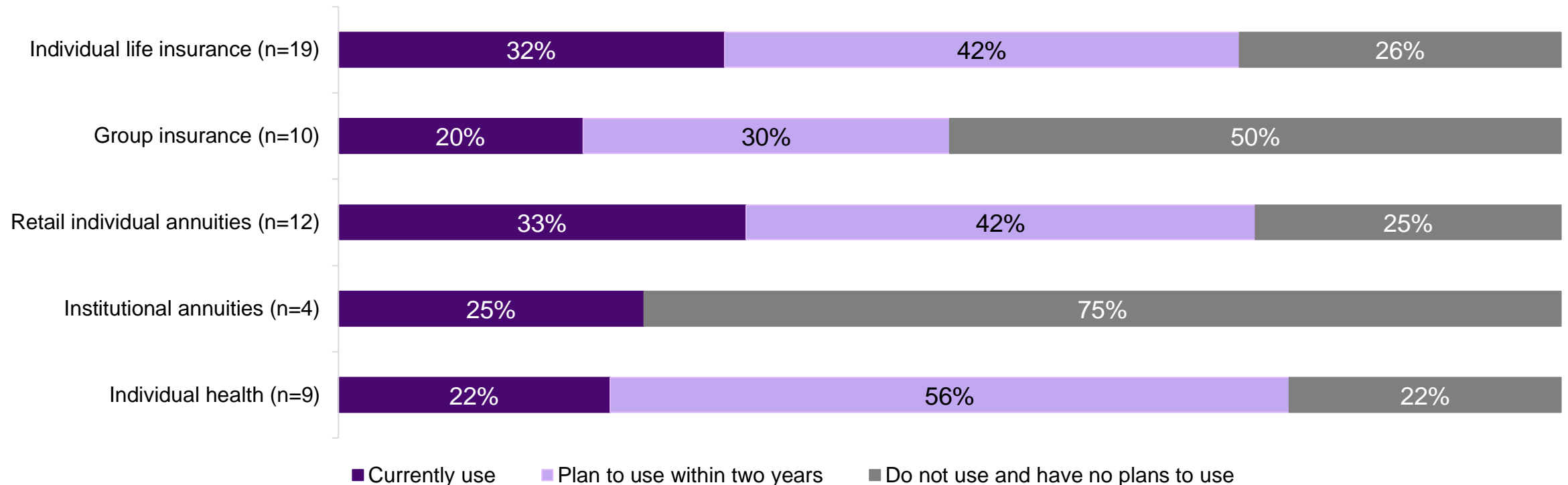
- **Not enough to look at just one overall aggregate result**
- **Need to consider key splits of business, e.g.:**
  - Age bucket
  - Duration bucket
  - Product type (group by richness of features)
  - Policy size
  - Components of policyholder behavior
  - Distribution channel
  - Service characteristics
- **Increasingly companies are also considering additional data sources, e.g., geographical, external source**



# Analytics are being heavily leveraged in all lines of business for inforce management such as cross selling

For which applications does your company currently use, or plan to use, predictive models in production?

## Inforce management (e.g., cross selling)



Base: Those currently using or planning to use predictive analytics in at least one line of business (n varies).

Source: 2020 Willis Towers Watson Life Predictive Analytics Survey

# 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

# Case Studies

# Variable Annuity 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 most experienced and qualified 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 pursuing blocks of business
- **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

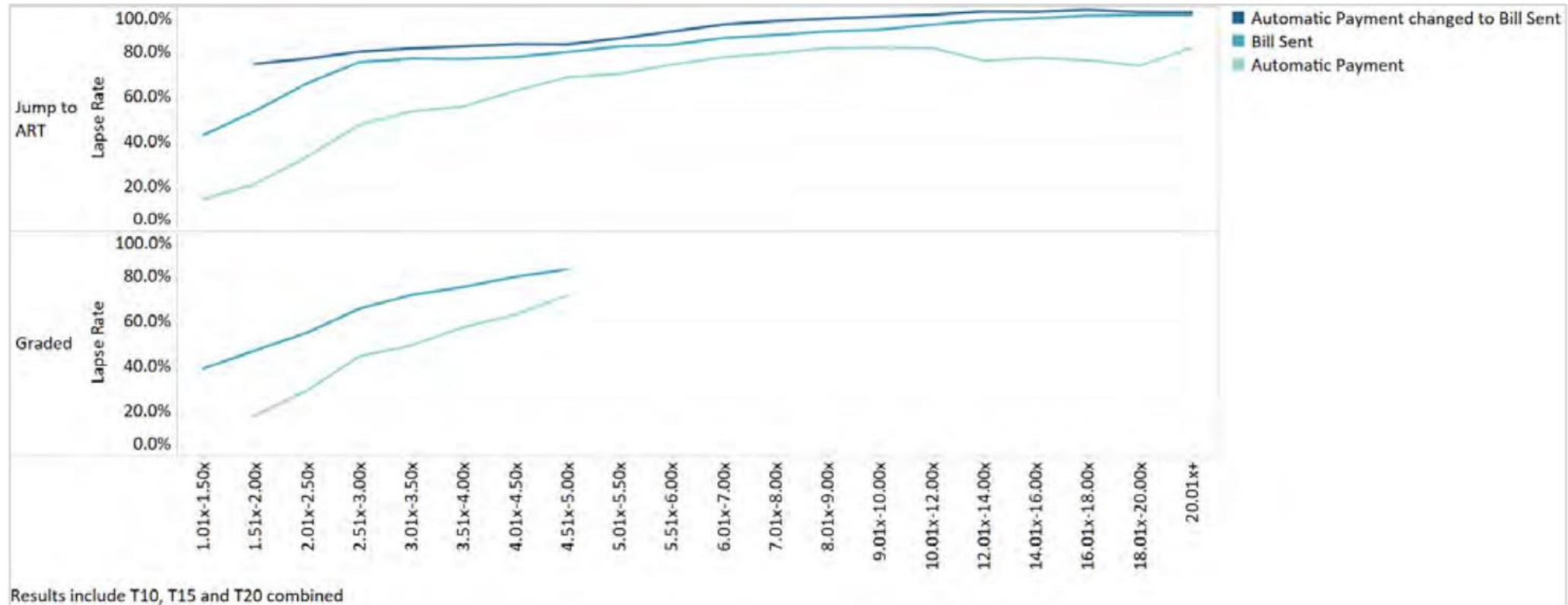
	Segment	Current Value <sup>1</sup>	Suggested Conservation Effort
1	IA 60-69, duration 11-20, early withdrawals, richest XB, aggressive funds	(2.0)%	Minimal
2	Same as 1, but have other products sold by company	.5	Significant
3	IA 80-84, duration 6-10, less rich XB, moderate funds	3.0	Extensive

<sup>1</sup> PV of future distributable earnings/current account value

# Post Level Term: Using Lessons from Behavioral Economics

Companies can improve value by anticipating and influencing customer behavior

SHOCK LAPSE BY INITIAL PREMIUM JUMP, BILLING TYPE AND PLT STRUCTURE



Source: SOA [U.S. Post-Level Term Lapse and Mortality Experience Report](#)

# Universal Life





# Value of Inforce: An ecosystem to identify & manage inforce actions

Jeff Dube

# Modernizing the way we select inforce projects

## Bottoms-up Planning ideas are generated from institutional knowledge

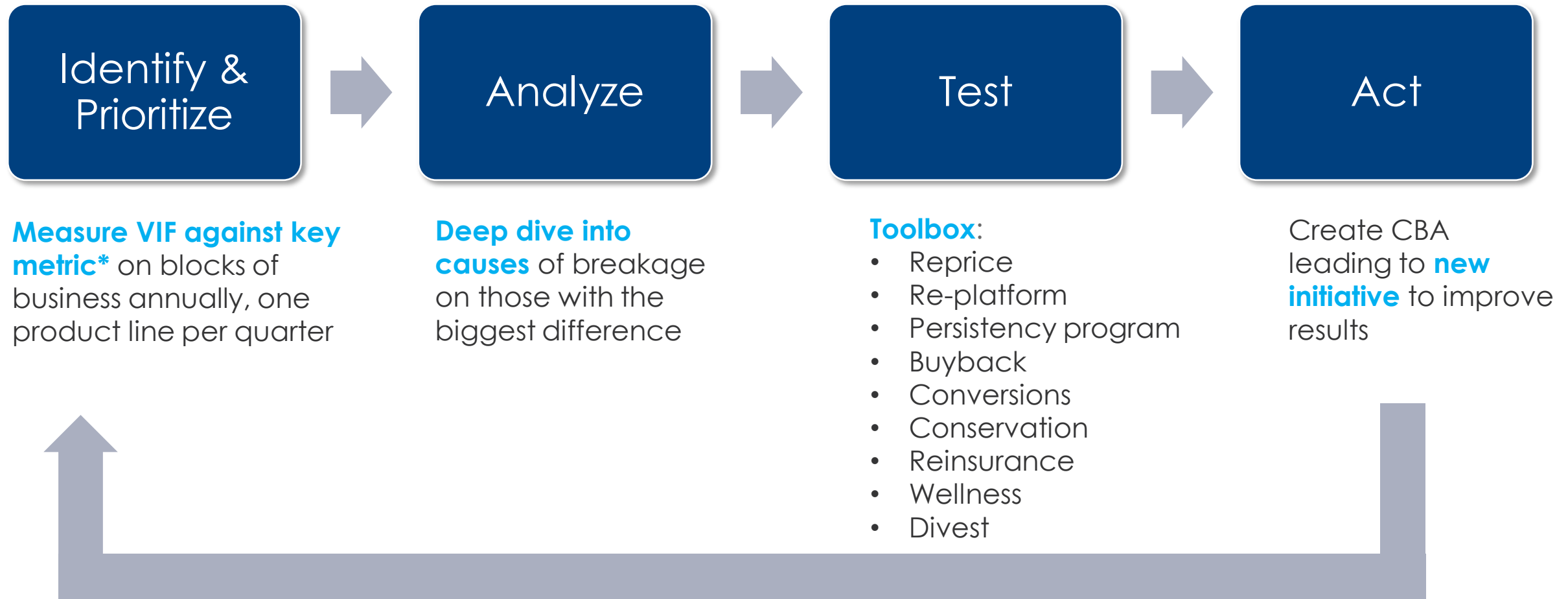
- Majority of value generated **from just two initiatives** in Inforce Management workstream
- These ideas were generally generated from the **knowledge among a few** individuals
- Process allowed for **limited influence for stakeholders**, who may be affected by the initiative

## Universally applied Value of Inforce Business is a repeatable to prioritize opportunities, and test solutions

- Sustainability will require a metric & a **repeatable process to identify new opportunities** moving forward
- Process will create the ability to identify and **size opportunities for prioritization, and measure improvement**
- Process can be **applied to all product types** universally
- Regular reporting creates **insight to leaders from across the company** on various lines, before moving forward

# VIF is the first step in a larger process

Universally applied VIF allows us to compare opportunities before deciding where to deploy effort



\*MassMutual's Key Metric has changed over time as we iterated

# Guiding Principles: Focus is what we can manage in the future

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- Move fast and **iterate** to reflect the most meaningful effects on the business
- **Reuse** existing models to adhere to a single source of truth
- We will **not relitigate** past pricing decisions
- We will **report on new products** even if they are being given time to grow into experience
- We will **remove past attrition** (A/E) effect from the analysis
- We will **not attempt to create a “lifetime value”** of product measure in VIF
- **ALM** related-items (actual vs. assumed earned rate) are **not addressed** in the VIF framework

# “Key Metric” has evolved over time

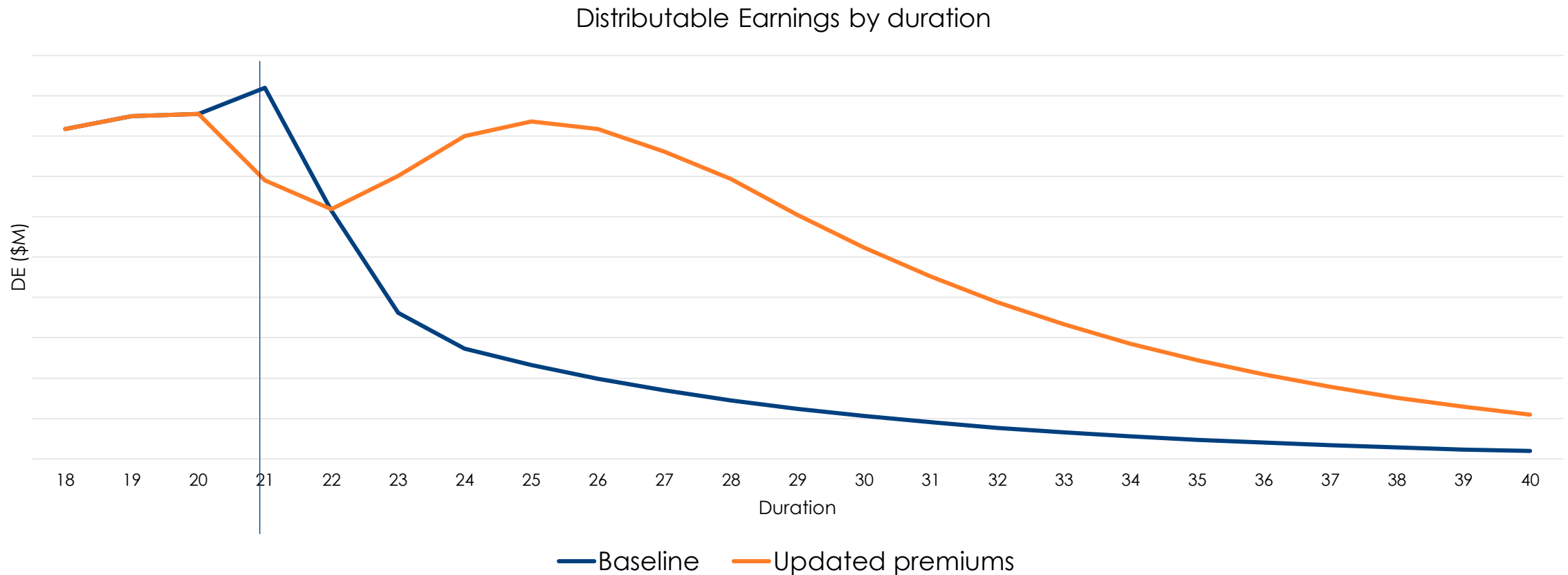
Metric	Issues
<b>Breakage</b> compare VIF versus original VNB flows from current year forward	Not enough VNB models Non-Stat items in VNB model Timing of issues hard to identify Grossing up/down for actual attrition tricky
<b>Smoothness</b> – identify cash flows that have large decreases as an opportunity to improve	Calendar year view obscures some smoothness (eg post level premium period on term)
<b>Smoothness 2</b> – align cash flows by policy year and look for sudden year over year drops	<none>
<b>VIF</b> look at PV of profits only	Unclear if low profits are by design or indicate a problem
<b>“ROE”</b> – VIF over the next dollar invested (change in reserve)	Reserve releases (negative investment) hard to interpret
<b>Return on Reserve</b> – gives a sense of capital need versus anticipated future profit	Over time reserves increase, and future profits decrease

# ROR example



# Smoothness Example

**Decreasing** post level term premiums reduces the drop in distributable earnings in the durations after the level period and increases the earnings long term



Lower premiums lead to lower shock lapses and less mortality deterioration.

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