SOCIETY OF ACTUARIES®

2019 ANNUAL MEETING & EXHIBIT

October 27-30
Toronto, Canada

Session 119: Life Product Update

2019 ANNUAL MEETING & EXHIBIT

Session 119 | Life Product Update

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SOCIETY OF ACTUARIES®

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Life Product Update

2019 SOA ANNUAL MEETING
TORONTO, OCTOBER 29, 2019

Katie van Ryn, FSA, MAAA

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Agenda

This portion of the presentation will focus on regulatory changes and the impact they have had on life product development

1 **Overview of regulatory changes**

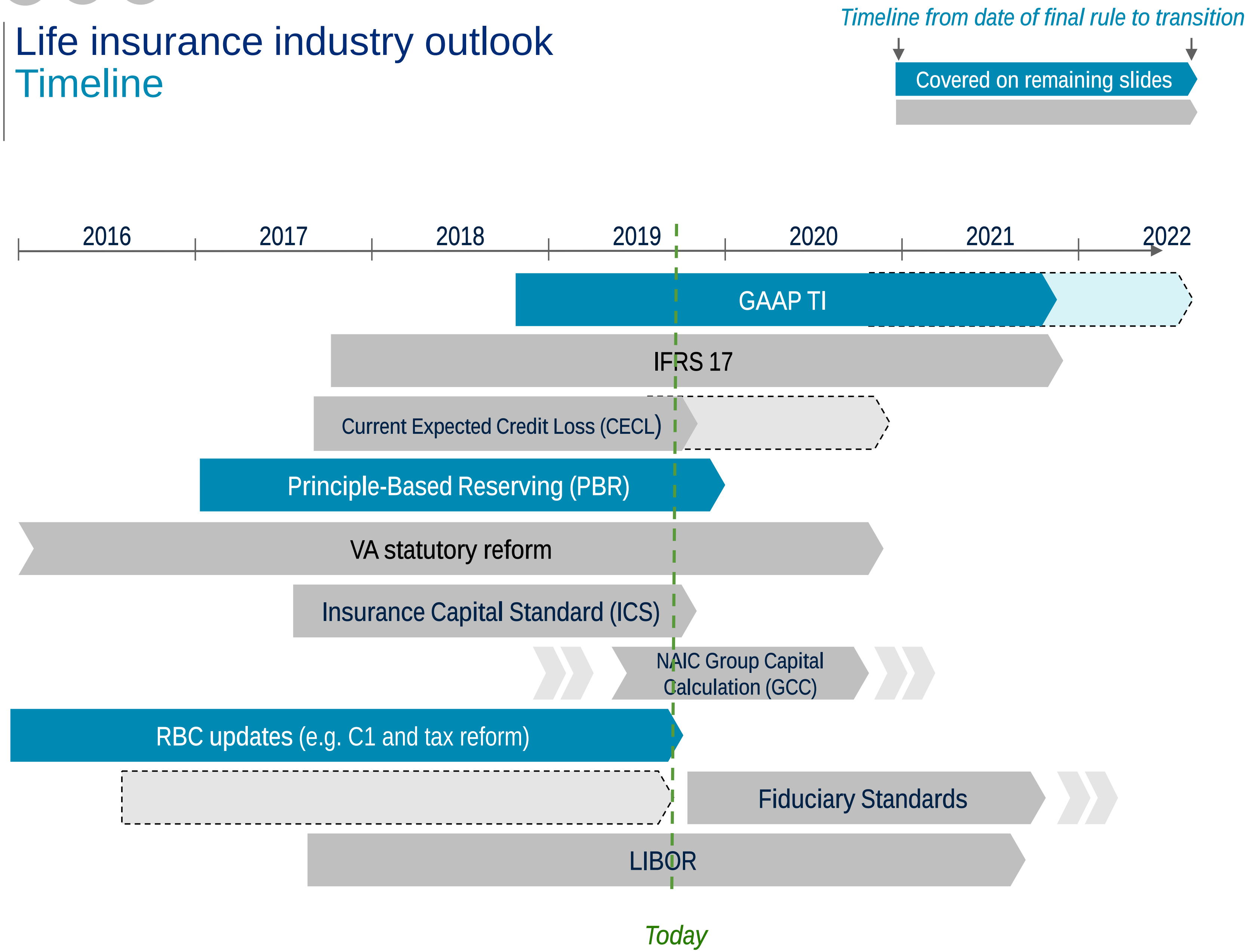
2 **Life PBR deep dive**

3 **Actuarial Guideline XLIX ("AG 49") deep dive**

4 **Key take-aways**

Overview of regulatory changes

1 Life insurance industry outlook
Timeline



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GAAP Long Duration Targeted Improvements (LDTI)

LDTI are profound changes to GAAP accounting for long duration contracts

Governing body & goals

- **Governing body:** Financial Accounting Standards Board (FASB)
- **Goals:** Improve, simplify and enhance the financial reporting of long-duration contracts

Scope & timeline

- **Scope:** Impacts both existing and new business for all long duration contracts for insurers that prepare US GAAP financial statements
- **Timeline:** Effective date of January 1, 2022 with eight quarters of comparable financials starting January 1, 2020

Key changes

- Simplify amortization of deferred acquisition costs
- Reflect experience and updates in best estimate assumptions for traditional and limited pay liabilities
- Consistent fair value accounting for market-based guarantees
- Enhance effectiveness of required disclosures

1

Risk-Based Capital

Refinements to the factor-based NAIC RBC framework are underway; this is in addition to changes in RBC factors at YE2018 for tax reform

Governing body & goals

- **Governing body:** NAIC and associated committees and task forces
- **Goals:** Improve the measurement of the minimum amount of capital to support ongoing business operations for a reporting entity and across reporting entities

Scope & timeline

- Operational risk went live at year-end 2018
- Timing for C-1 and longevity is year-end 2020 at the earliest
- Other changes are actively being considered
- NAIC continuing to do field tests for Group Capital Calculation

Key changes

- Operational risk component = 3% of total RBC
- C-1 factors more granular
- Addition of longevity risk and possible covariance with mortality
- Capital calculated at the group level in addition to legal entity level

1 Principles-based reserving

Life PBR will apply to life new business issued after 1/1/2020; industry implementations were generally backloaded

Governing body & goals

- **Governing body:** National Association of Insurance Commissioners (NAIC) and associated committees and task forces
- **Goals:** Move to a principles-based framework for the calculation of life insurance reserves; right-size reserves to reduce the use of captives and reserve financing

Scope & timeline

- Applies to all individual life policies (including reinsurance assumed) issued on or after 1/1/2020 as well as any business moved to PBR during the optional 3-year implementation period
- Requirements are prescribed in the NAIC Valuation Manual under VM-20

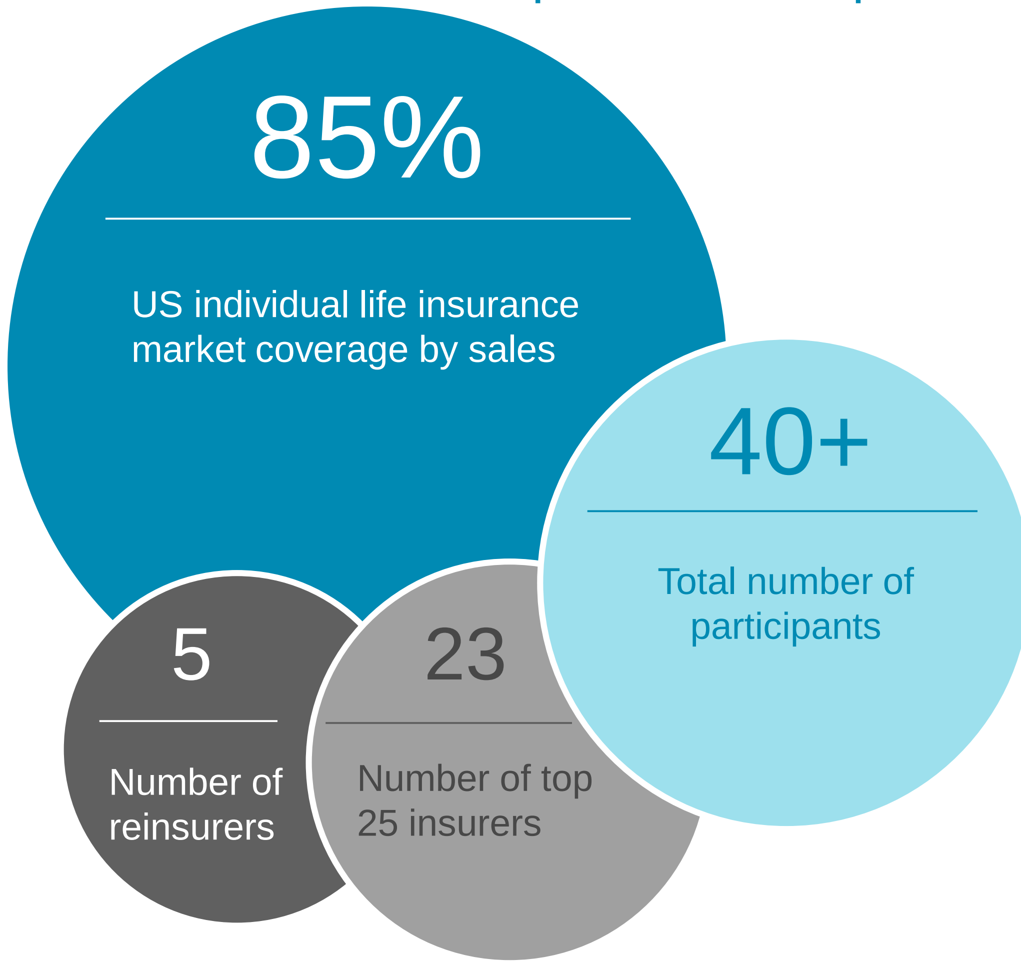
Key changes

- PBR is the maximum of three reserve components; a formulaic floor and two modeled reserve components
- The NAIC Valuation Manual is a living document, with an updated version released each year; changes will be retroactive

Life PBR deep dive

2 Background

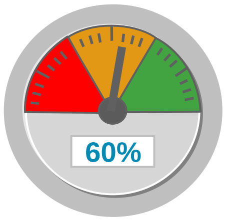
This section contains select results from a survey that Oliver Wyman conducted in 2019 related to PBR implementation plans



Respondents were asked to describe their practices as of December 31, 2018

2 All products

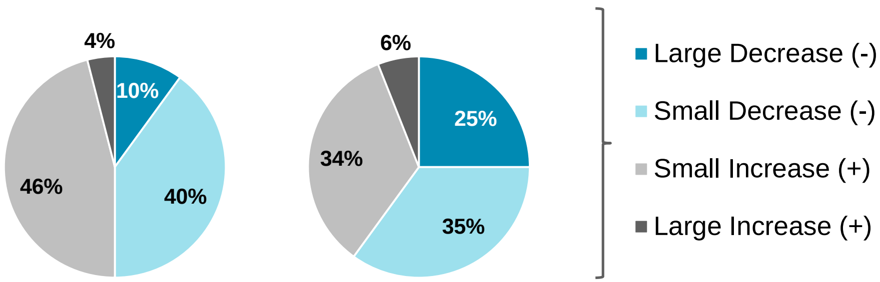
PBR has been analyzed on more than half of survey participants' products and implementations are heavily back-loaded



60% Life writers have analyzed the impact of PBR on more than half their products

Impact on profitability
% of Life products

Impact on reserves
% of Life products

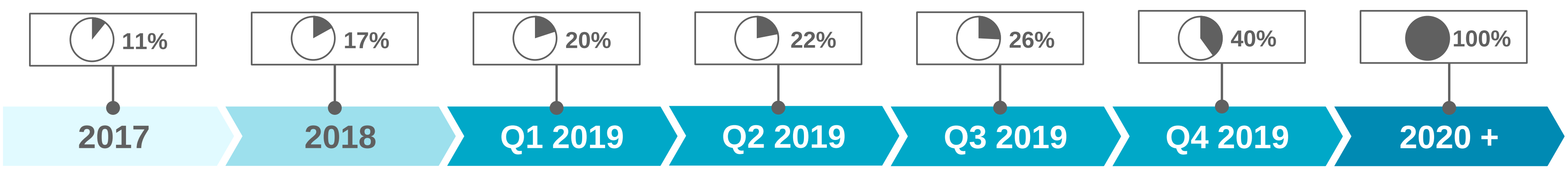


Exclusion testing
% of Life products

50% of products for which writers anticipate passing stochastic exclusion tests

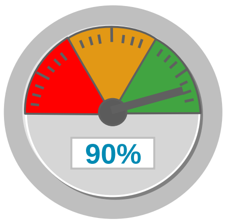
23% of products for which writers anticipate passing deterministic exclusion tests

% of Life products on PBR
Across all participants



2 Term

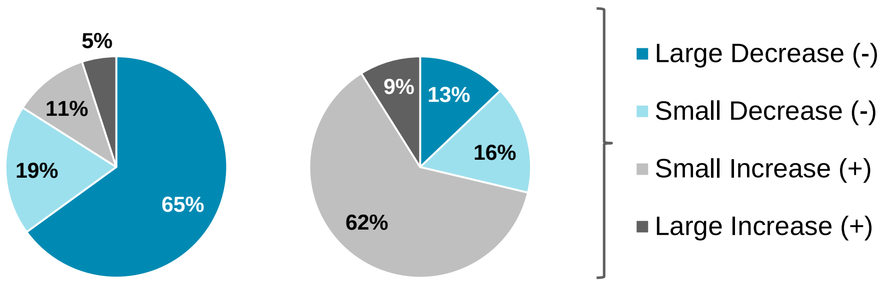
A large majority of writers have analyzed PBR on their Term products and tend to see large reserve decreases



90% of Term writers have analyzed the impact of PBR on their offerings

Impact on reserves
% of Term writers

Impact on profitability
% of Term writers

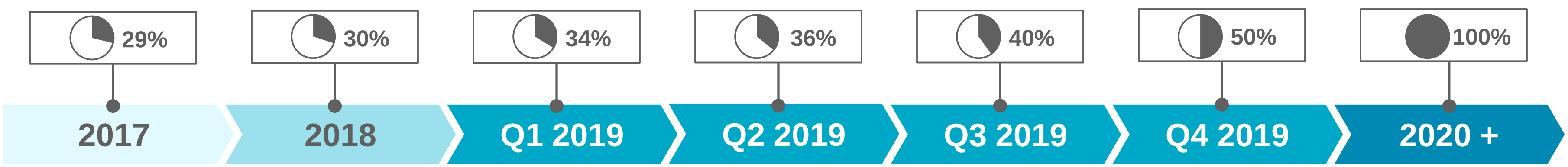


Exclusion testing
% of Term writers

85% of writers anticipate passing stochastic exclusion tests

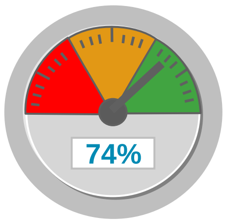
0% of writers anticipate passing deterministic exclusion tests

% of Term products on PBR
Across all participants%



2 Universal life with secondary guarantee (ULSG)

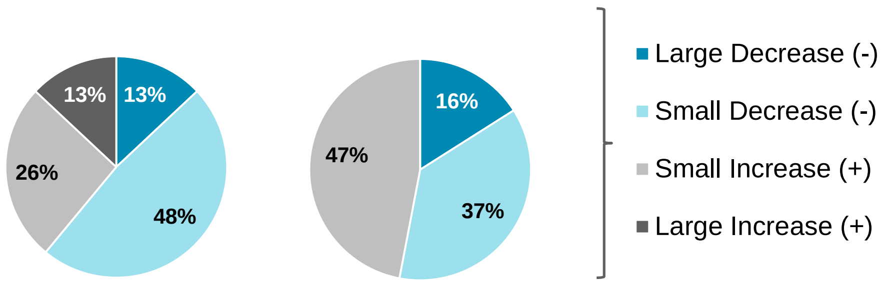
PBR readiness for ULSG is the second highest and most participants are seeing small changes in profitability under PBR



74% **of ULSG writers have analyzed the impact of PBR on their offerings**

Impact on reserves
% of ULSG writers

Impact on profitability
% of ULSG writers

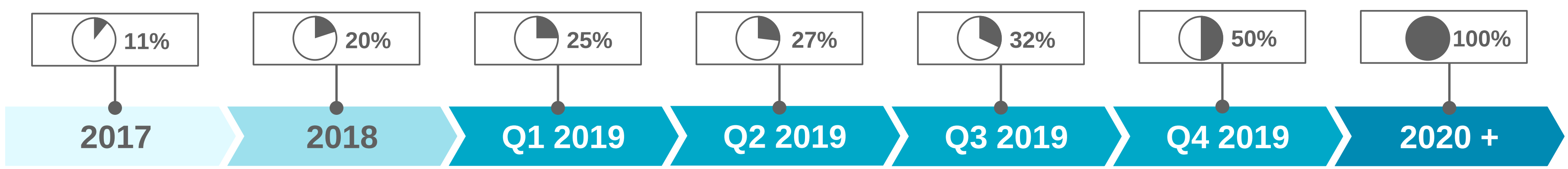


Exclusion testing
% of ULSG writers

21% **of writers anticipate passing stochastic exclusion tests**

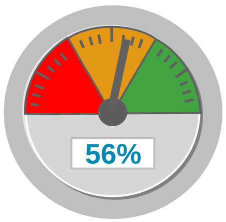
0% **of writers anticipate passing deterministic exclusion tests**

% of ULSG products on PBR
Across all participants



2 Whole Life (WL)

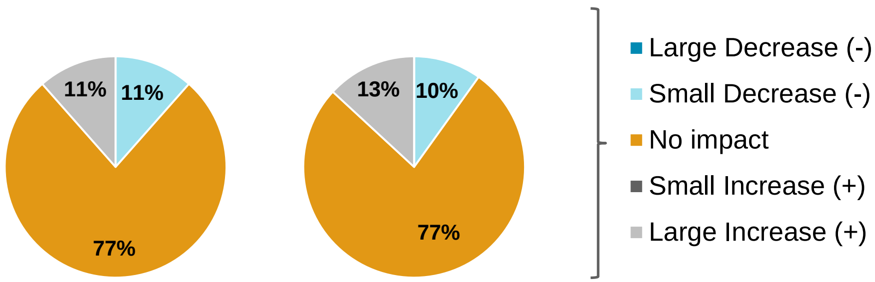
Adoption is delayed to Q4 2019 and beyond for a majority of WL writers and most expect to be exempt from modeled reserve requirements



56% of WL writers have analyzed the impact of PBR on their offerings

Impact on reserves
% of WL writers

Impact on profitability
% of WL writers

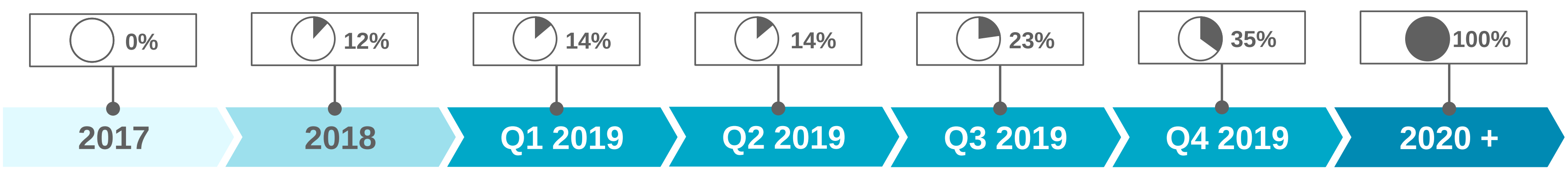


Exclusion testing
% of WL writers

87% of writers anticipate passing stochastic exclusion tests

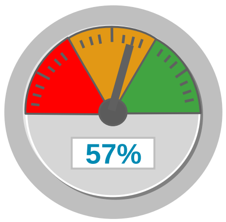
77% of writers anticipate passing deterministic exclusion tests

% of WL products on PBR
Across all participants



2 Indexed universal life with secondary guarantee (IUL SG)

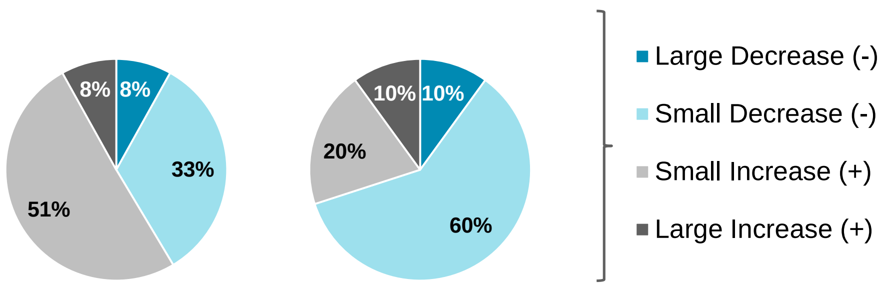
A majority of writers have analyzed PBR on their IUL SG products and tend to see small impacts on reserves and profitability



57% of IUL SG writers have analyzed the impact of PBR on their offerings

Impact on reserves
% of IUL SG writers

Impact on profitability
% of IUL SG writers

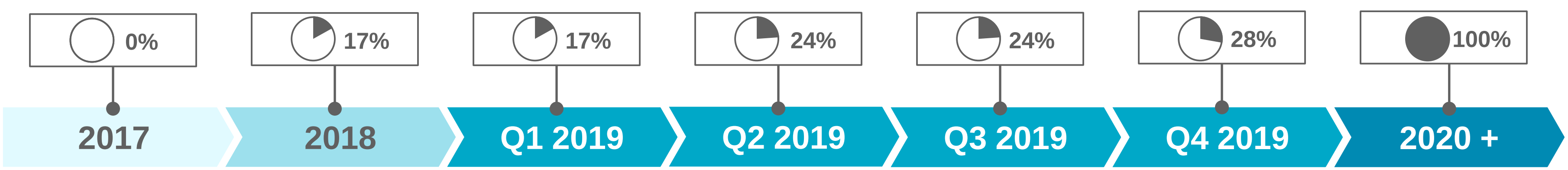


Exclusion testing
% of IUL SG writers

12% of writers anticipate passing stochastic exclusion tests

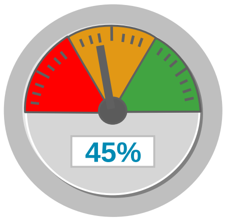
0% of writers anticipate passing deterministic exclusion tests

Number of IUL SG products on PBR
Across all participants



2 Variable universal life with secondary guarantee (VUL SG)

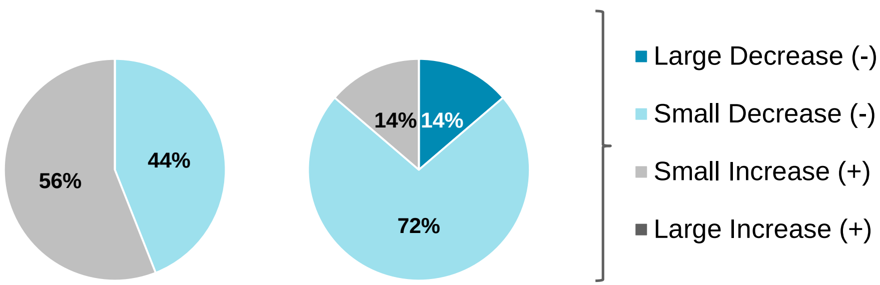
Less than half of writers have analyzed PBR on their VUL SG products and tend to see small decreases in profitability



45% of VUL SG writers have analyzed the impact of PBR on their offerings

Impact on reserves
% of VUL SG writers

Impact on profitability
% of VUL SG writers

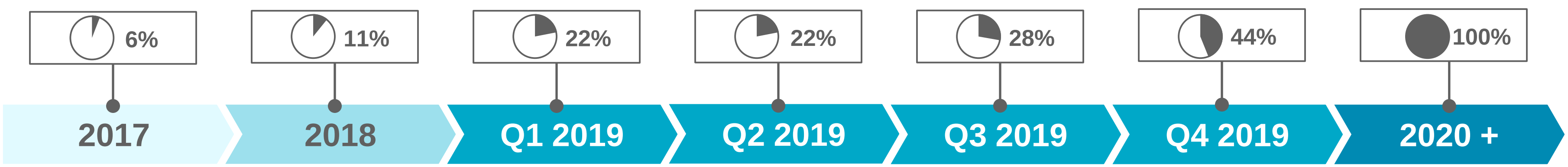


Exclusion testing
% of VUL SG writers

36% of writers anticipate passing stochastic exclusion tests

9% of writers anticipate passing deterministic exclusion tests

Number of VUL SG products on PBR
Across all participants



Actuarial Guideline XLIX ("AG 49") deep dive

3

Key provisions

AG 49 aims to provide guidance in determining a maximum illustrated rate and to limit policy loan leverage for EIUL illustrations

1	**Benchmark Index Account**	1-year point-to-point S&P 500 index account. Annual cap, 100% participation rate, 0% annual floor.
2	**Back casting**	Average of 25-year geometric average rates of return beginning 66 years before the current calendar year
3	**Disciplined current scale**	Earned interest rate is capped by 145% of the general account net investment earnings rate (excluding hedges)
4	**Policy Loans**	Difference between assumed illustrated credited rate on borrowed amounts and illustrated loan charged rate is limited to 100bps
5	**Disclosures**	“Alternative Scale” which assumes 100% allocation to fixed account Max/min values from the back casting calculation

3 Regulatory Timeline

AG 49 has been in place since 9/1/2015 for early adopters and has been mandatory since 3/1/2017

January 1997
IUL first offered

June 2015
Adoption of AG49

September 2015
Phase one of AG49 took effect.
- Sections 4 and 5 effective for new business illustrations
- Addressed maximum illustrated rates

March 2016
Phase two of AG49 took effect.
- Sections 6 and 7 effective for all illustrations sold after this date.
- Addressed loan rates

March 2017
Phase three of AG49 took effect.
- Sections 4 and 5 effective for all illustrations
- **Application of AG49 is mandatory**

November 2018
NAIC Fall Meeting
- Mandate to provide recommendations in 2019 to modify AG 49

August 2019
NAIC Summer Meeting
- Address the use of bonuses and multipliers
- Limit the use of index loans

1997	…	2015	2016	2017	2018	2019
IUL sales:		$1.859 billion	$1.860 billion	$1.975 billion	$2.185 billion	

As sales of IUL products continue to increase, renewed focus is required on AG49

3 Product design

New product designs that have emerged since AG 49 have sparked concerns over the effectiveness of the regulation

> *There is an IUL illustration activity that is raising red flags... In particular, IUL policies that use indexed return multipliers did not exist when AG 49 was developed.*

Fred Andersen, Chair of the NAIC's IUL Illustration (A) Subgroup

The IUL illustrations subgroup was reformed and is holding meetings to discuss future changes to AG 49

3 Current discussions

A "Menu of Options" was developed from the IUL illustration subgroup discussions

MENU OF OPTIONS - IUL ILLUSTRATIONS - MAY 24, 2019

ID	(D)isclosure* or (B)eyond Disclosure	Category	Possible Details	Requiring change beyond AG 49?	Undo past AG 49 decision?
1	D	Summary Page of key metrics	Compare accumulated value by duration & lapse duration under standardized scenarios		
2	D	Signatures required on key pages	On pages disclosing charges, loan impact, potential downside		
3	D	Disclose charges & credits	Including transparency regarding growth from the multipliers, bonuses, high par rate		
4	D	Demonstrate volatility	Add lower illustration, add multiple scenarios, disclose sequence of returns		
5	D	Project up and down index performance	Add two one-year projections: one increasing 20% for the year, the other decreasing 20%		
6	D	Clarify alternate scale	Same allocation as illustrated scale or 100% allocation to fixed option?		
7	D	Follow spirit of AG 49	Reasonable net returns and limitations on loan leverage		
8	D	Illustrate reasonable growth and minimal (guaranteed) growth	Zero growth should be one illustratration if zero is the guarantee		
9	D	Update illustrations every x years	Possibly every 5 years		
10	D	Provide narrative statement on downside	Possibility of worse performance than illustrated, volatility, insufficient premium		
11	D	Disclose premium required to achieve goals	Under different credited interest assumptions	?	
12	D	Show cost and value of insurance instead of the risk-return tradeoff in investments	Compare the IUL and S&P 500 accumulations to the IUL guaranteed benefits		
13	B	Clarify whether charges can impact assumed earned interest underlying the DCS	Instead of hedge budget accumulated at 145%, budget + charges accumulated in some cases		
14	B	Limit the use of variable / index loans	Include all policy credits in the 1% arbitrage limit, plus other constraints		
15	B	Have consistent treatment of various IUL product types	Consistent illustrations & DCS testing for traditional, multipliers, bonuses, & high par rates		
16	B	Application of AG 49 constraints to cash value internal rate of return	Eliminate disconnect between credited rates and accumulated value		
17	B	Illustrate volatile returns, not constant growth	Replace illustrated scale with multiple illustrations showing upside and downside	x	
18	B	Use Monte Carlo simulations instead of single credited rate	Produce likelihood of policy surviving to certain age	x	
19	B	Converge indexed annuity and indexed life insurance illustration requirements	Have scales representing the worst, best, and average historical periods	x	
20	B	Make structural changes to life illustrations	Would be an A Committee decision & issue	x	
21	B	Review Life Illustrations Model Regulation #582	Would be an A Committee decision & issue	x	
22	B	Cap illustrated rates at 110% of fixed account rate	Eliminate the Benchmark Index Account and options return assumption within AG 49		x
23	B	Place hard ceiling on the credited rate & accumulated values	e.g., no credited rates of over 6.75% or accumulated value increases above x%		x

* Disclosure means will not impact numbers in the illustrated scale or the disciplined current scale provided at sale

Source: https://content.naic.org/sites/default/files/inline-files/IUL%20Illustration%20Menu%20of%20Options%20-%20052419.pdf

The "Menu of Options" was simplified to two questions for immediate attention

1 **"Should a product with the multiplier feature illustrate a higher scale than a product without multiplier features?"**

2 **"To what extent should the 145% disciplined current scale factor apply to charges supporting bonuses and multipliers?"**

The December NAIC meeting is the earliest that changes to AG 49 could go into effect

Key takeaways

4 Takeaways

1 **The impact of potential regulatory changes should be considered throughout the product development process**

2 **2017 CSO and PBR implementations will create significant changes to individual life product offerings over the next few months**

3 **There is a continued precedent of regulatory intervention in areas for which significant discretion exists**

OLIVER WYMAN

Swiss Re

Life Product Update

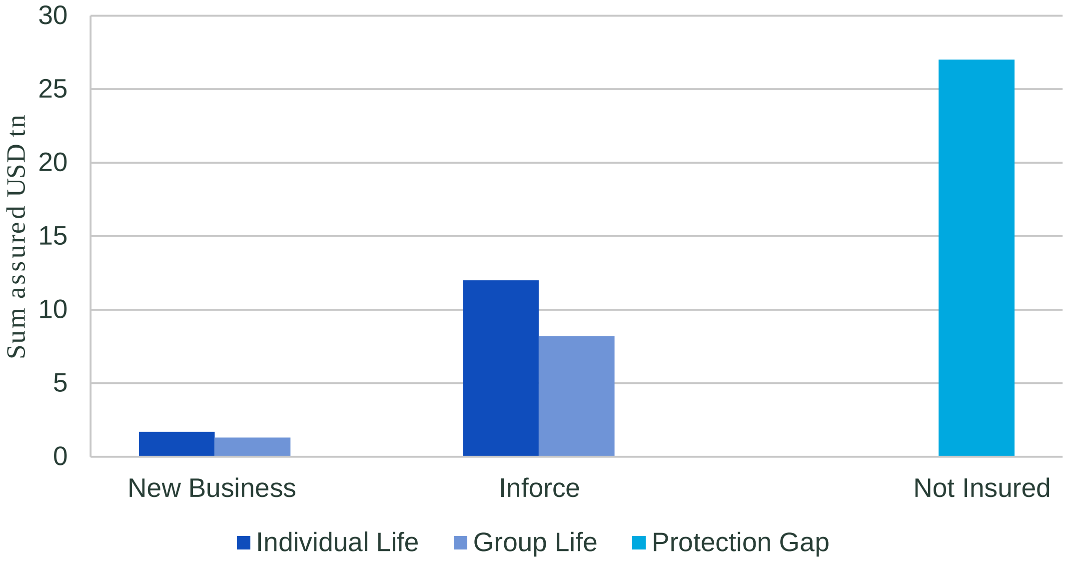
2019 SOA Annual Meeting

Current market snapshot

Perspective

The size of our life market (US)

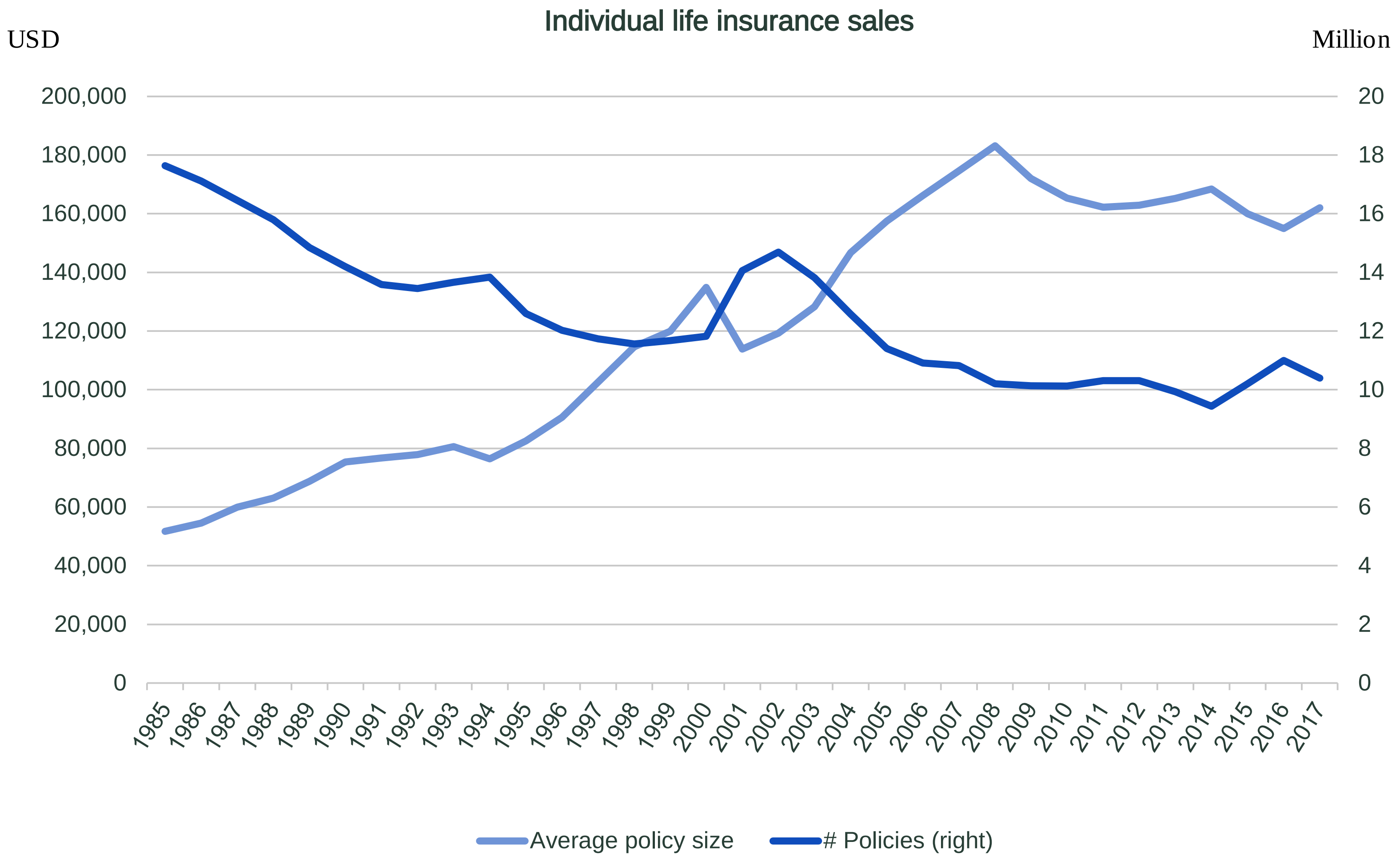
Consumer spend: 1% of GDP
Risk covered: $20 trillion
Lives: 57% of pop.
Protection Gap: **$27 trillion**



Source: *Insurance Market Information: Life & Benefits* by Axco 2019

Declining Policy Sales

After stabilizing for a few years after the financial crisis, the number of newly issued individual life policies fell below 10 million in 2013, the lowest level since the industry began tracking this statistic in 1940

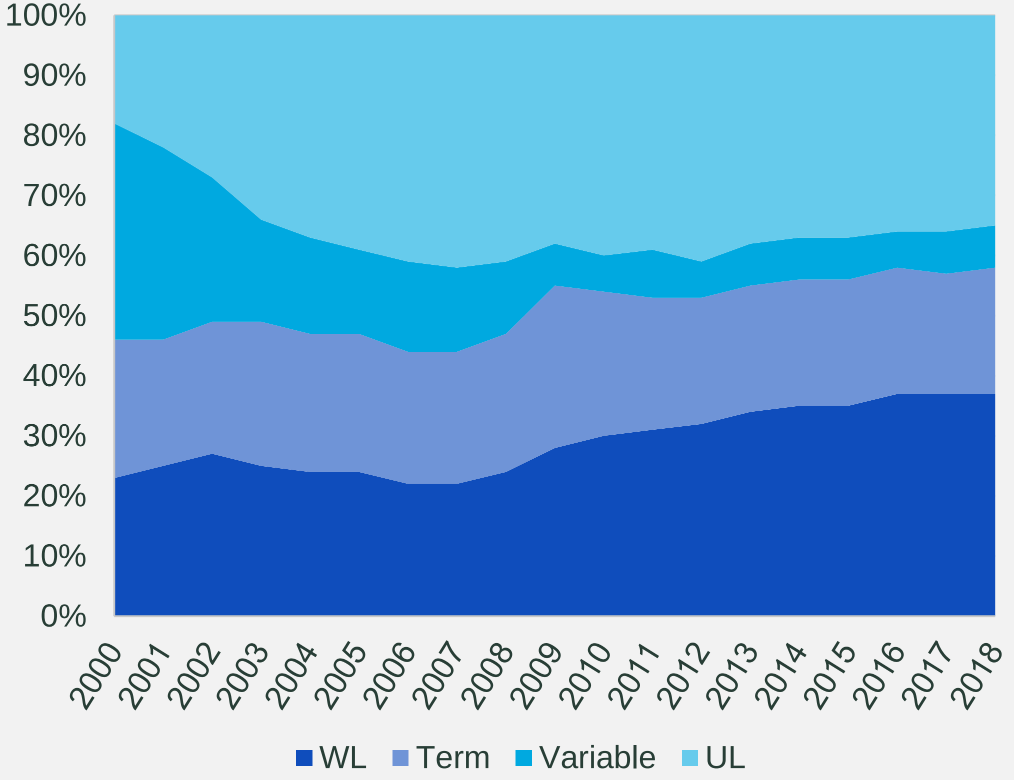


Sources: ACLI, LIMRA, Swiss Re ER&C

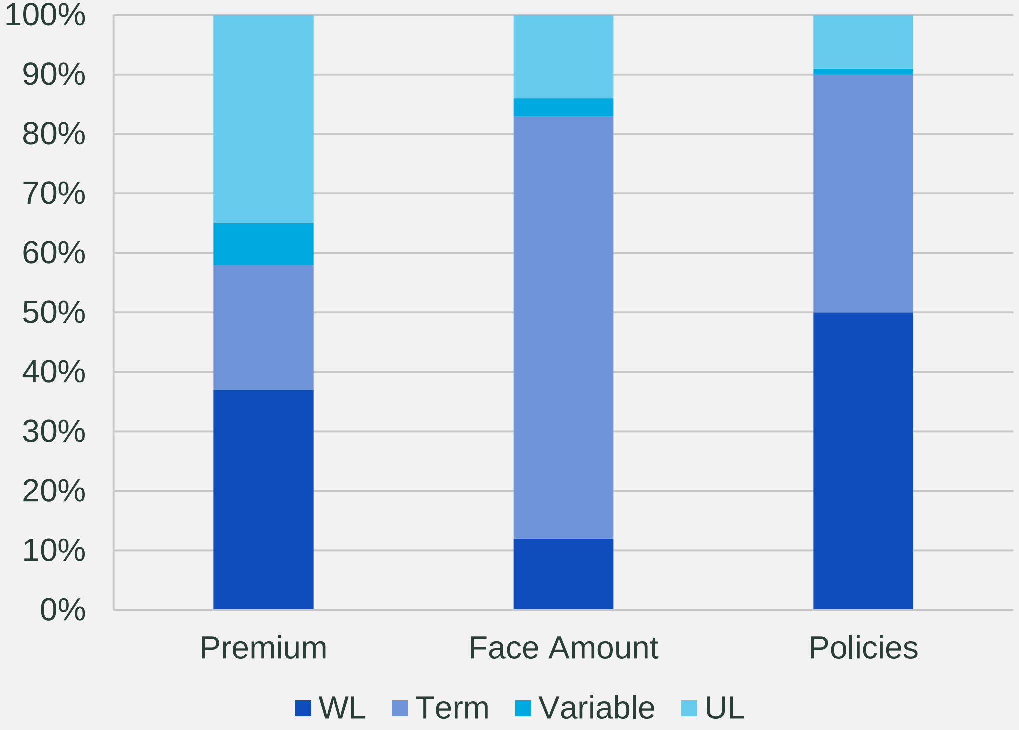
What's Being Sold

Product type breakdowns

Product trend by premium volume



2018 by premium volume, sum assured, and policies

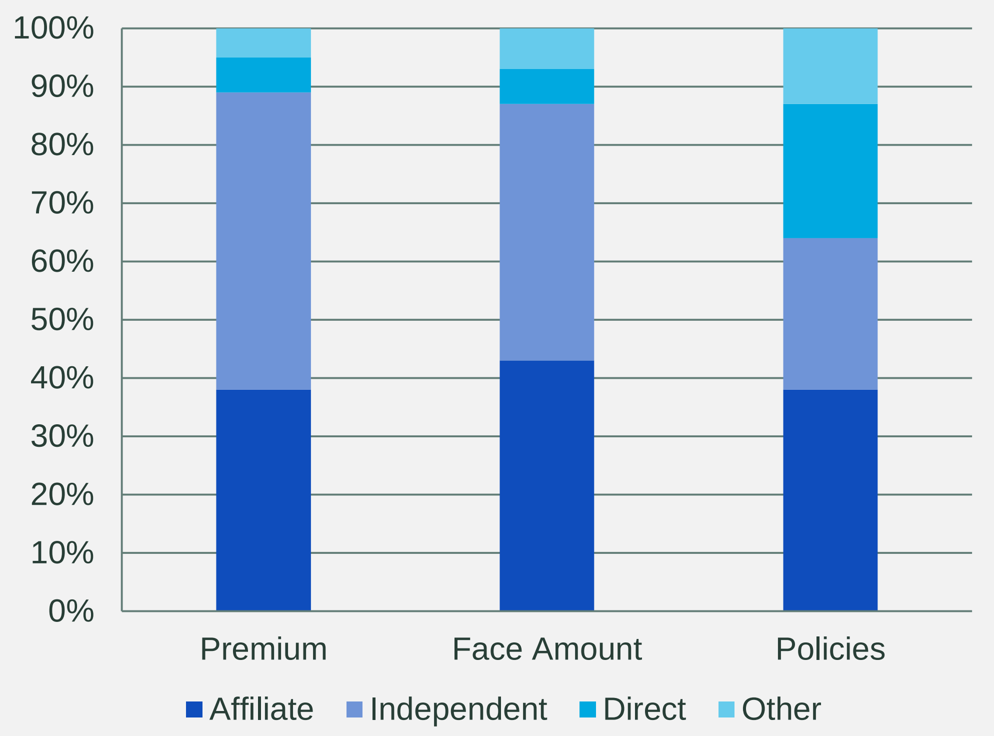


Source: *US Individual Life Insurance Yearbook* by LL Global/LIMRA 2018

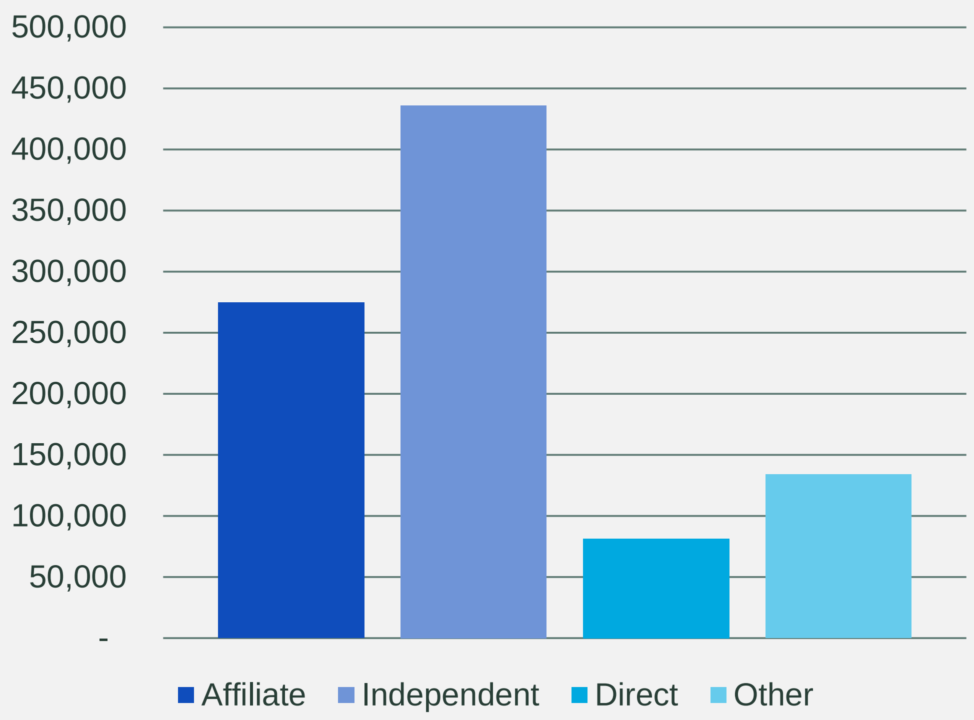
How it's Sold

Distribution channel breakdown

2018 by premium volume, sum assured, and policies



2018 average policy sizes



Source: *US Individual Life Insurance Yearbook* by LL Global/LIMRA 2018

Life + …

Riders and combination products

- Waiver of premium
- Term conversion
- Acceleration for terminal and chronic illness
- Long-term care

Accelerated underwriting

Current state

Common cutoffs
max age: 60
max face: $1m

Adoption by product
~80% term
~40% UL
~30% WL

Avg. straight through
~40% eligible
~15% AUW

What’s ahead

Expansion

By increasing age and/or face amount limits, STP can be increased but tradeoff between UW savings and mortality cost becomes more tenuous.

EHRs

Potential to source APS-type information more effectively. However, current hit rates are relatively low and its application is uncertain.

Monitoring

As mortality experience will take time to emerge, random holdouts and post-issue audits are key to study UW decisions.

PBR

Setting an appropriate mortality assumption. Considerations of using prior company experience and setting an appropriate load.

NY Circular

AUWG developing best practice proposal. Vendors and carriers needing to prove lack of discrimination.

Potential market disruptors

New Entrants Overview

Many relatively small new entrants with several incumbents launching own DTCs

Target audience: millennials, young parents

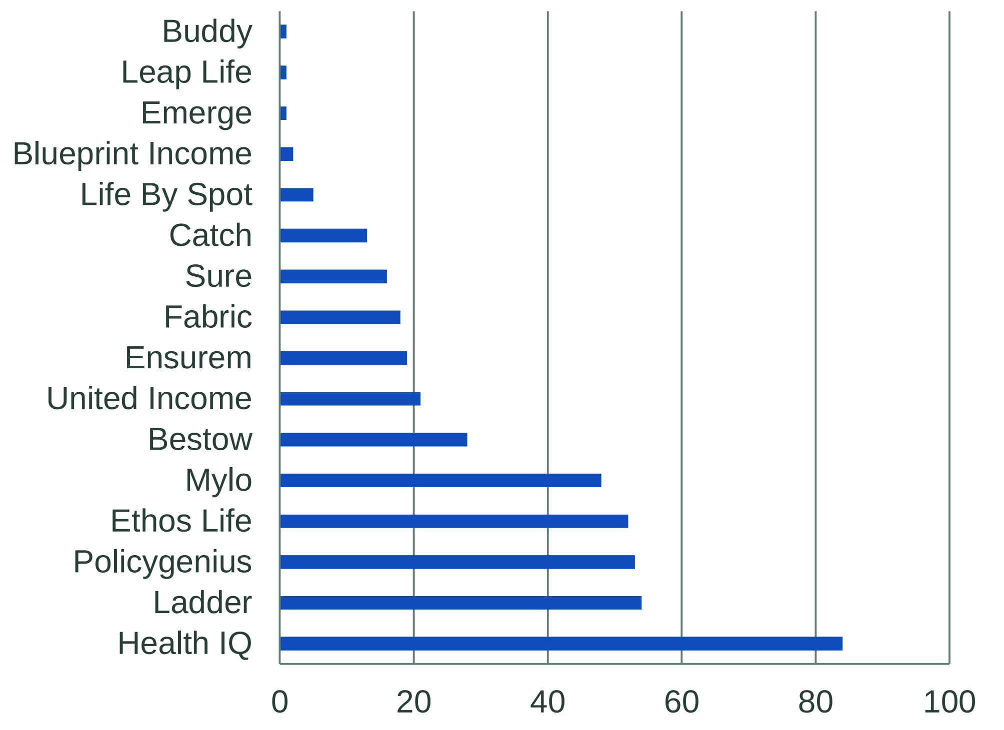
Products: 10, 15, 20, 30 year term

Offering more than convenience

Challenges

- direct channel declining 1% last 5 years
- our industry vs the disrupted
- social responsibility vs alternatives

Life start-ups (since 2014) total funded USD mn



Source: *Millennials & Modern Insurance* by Coverager, 2018

Any questions?

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