IUL Pricing and Performance

ACHS Spring 2024 Meeting

May 21, 2024

wtw

Introductions

Francis Hebert-Losier
FSA, MAAA
Director

Francis.Hebert-Losier@wtwco.com
+1 617 910 6874

Nik Godon
FSA, MAAA, FCIA, MBA
Senior Director

Nik.Godon@wtwco.com
+1 319 573 9599

Agenda

1. Introduction
2. 2023 WTW Pricing Methodology and IUL Pricing Surveys
3. IUL Underperformance
4. In Force Management
5. IUL Interesting Statistics
6. Summary
7. Q&A

Introduction

Indexed UL – Robust sales continue!

- Indexed UL continues to be one of the hottest life products
- LIMRA reported IUL sales in 2023 were 24% of the life market as measured by premium
  - Year over year, policy count was up 20%, though new premium fell 5%
- Indexed UL sales have grown significantly since the Great Recession and new premium in 2023 totaled $3.7B
- More companies continue to enter the market and competition is fierce

In light of this continued growth/popularity of IUL,
we want to discuss several important topics related to IUL

2023 WTW Pricing Methodology and IUL Pricing Surveys

Background and Scope – WTW Pricing Methodology Survey

- The survey focused on the profit objectives and assumptions used in pricing 2022 new issues of individual life and annuity products; participants were asked about past practices not future plans

- The survey covered the following products:

Life Products	Annuity Products
• Term Insurance (TERM)	• Fixed Deferred Annuity (FA)
• Whole Life (WL)	• Variable Annuity (VA)
• Universal Life, with extended no-lapse guarantee (UL NLG)	• Registered Index-Linked Annuity (RILA)
• Universal Life, without extended no-lapse guarantee (UL)	• Fixed Indexed Annuity (FIA)
• Variable Universal Life (VUL)	• Single Premium Immediate Annuity (SPIA) and Deferred Income Annuity (DIA)
• Indexed Universal Life, with extended no-lapse guarantee (IUL NLG)	
• Indexed Universal Life, without extended no-lapse guarantee (IUL)	

- Not all participants answered all survey questions; we have included all responses received
- Responses are only summarized where a sufficient number of responses (≥5) were received
- In some instances, companies did not respond for all applicable product lines. In other instances, companies provided multiple responses; therefore, totals may not equal100%

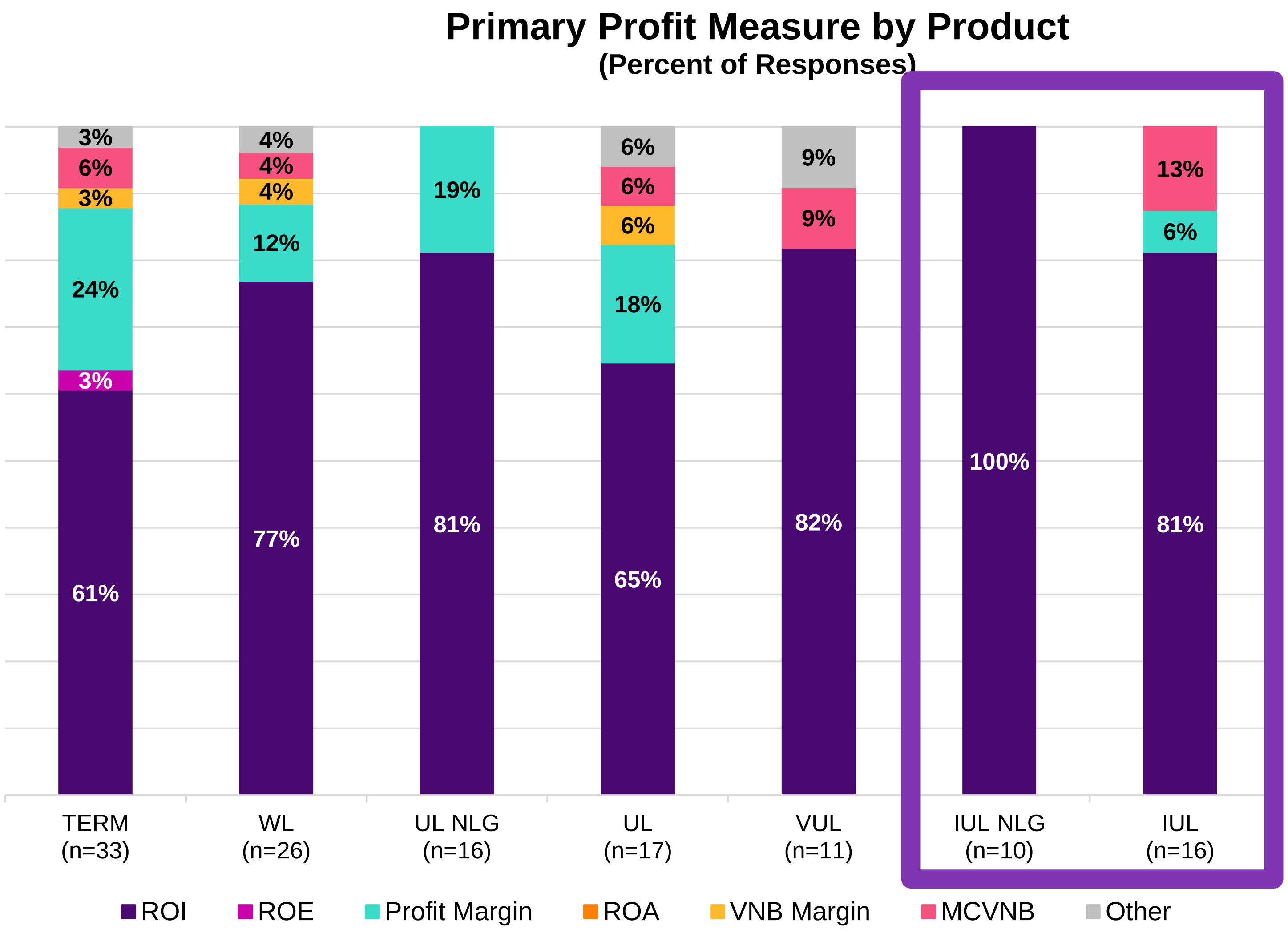
Survey Respondents

44 individual life insurance and annuity writers participated in the survey, 10 of which are mutual or fraternal organizations.

Stock Companies	
• Allianz Life Insurance Company of North America	• Legal & General America
• Allstate	• Lincoln Financial Group
• American Equity Investment Life Insurance Company	• MassMutual Ascend*
• American Family Life Insurance Company	• Nassau Financial Group
• Americo Financial Life and Annuity Insurance Company	• National Life Group*
• Athene	• Nationwide Insurance*
• Brighthouse Financial	• Ohio National*
• The Cincinnati Life Insurance Company	• Pacific Life*
• COUNTRY Financial	• Principal Financial Group
• Equitable	• Protective Life
• EquiTrust Life Insurance Company	• Sammons Financial Group
• Fidelity Investments Life Insurance Company	• Security Benefit Life Insurance Company
• Global Atlantic	• Southern Farm Bureau Life Insurance Company*
• Horace Mann Life Insurance Company	• Standard Insurance Company
• Jackson National Life	• Transamerica Life Insurance Company
• John Hancock	• USAA Life Insurance Company*
• Kansas City Life Insurance Company	• Western & Southern Financial Group*
Mutual / Fraternal Companies	
• The Baltimore Life Insurance Company	• Mutual Trust Life Insurance Company
• Guardian Life Insurance Company of America	• State Farm Life Insurance Company
• Knights of Columbus	• Thrivent
• MassMutual	• TIAA
• Mutual of Omaha Insurance Company	• WoodmenLife

* Mutual holding company

Primary Profit Measure by Product



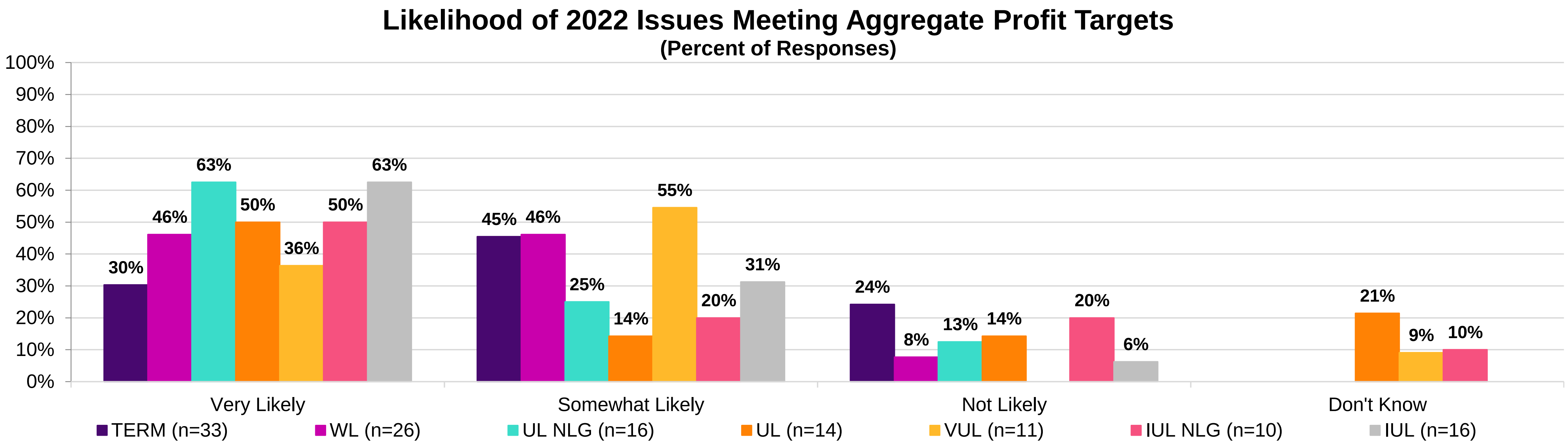
- ROI = Statutory return on investment.
- ROI targets certain internal rate of return \ hurdle rates. Profit Targets are covered in the next slide

ROI Target Values

Product	15th Percentile	Median	85th Percentile
TERM	6.1%	8.8%	11.0%
WL	6.8%	8.5%	10.0%
UL NLG	7.0%	9.0%	13.1%
UL	7.5%	9.3%	12.0%
VUL	7.5%	9.5%	12.3%
IUL NLG	7.8%	10.5%	12.7%
IUL	7.1%	10.0%	12.4%

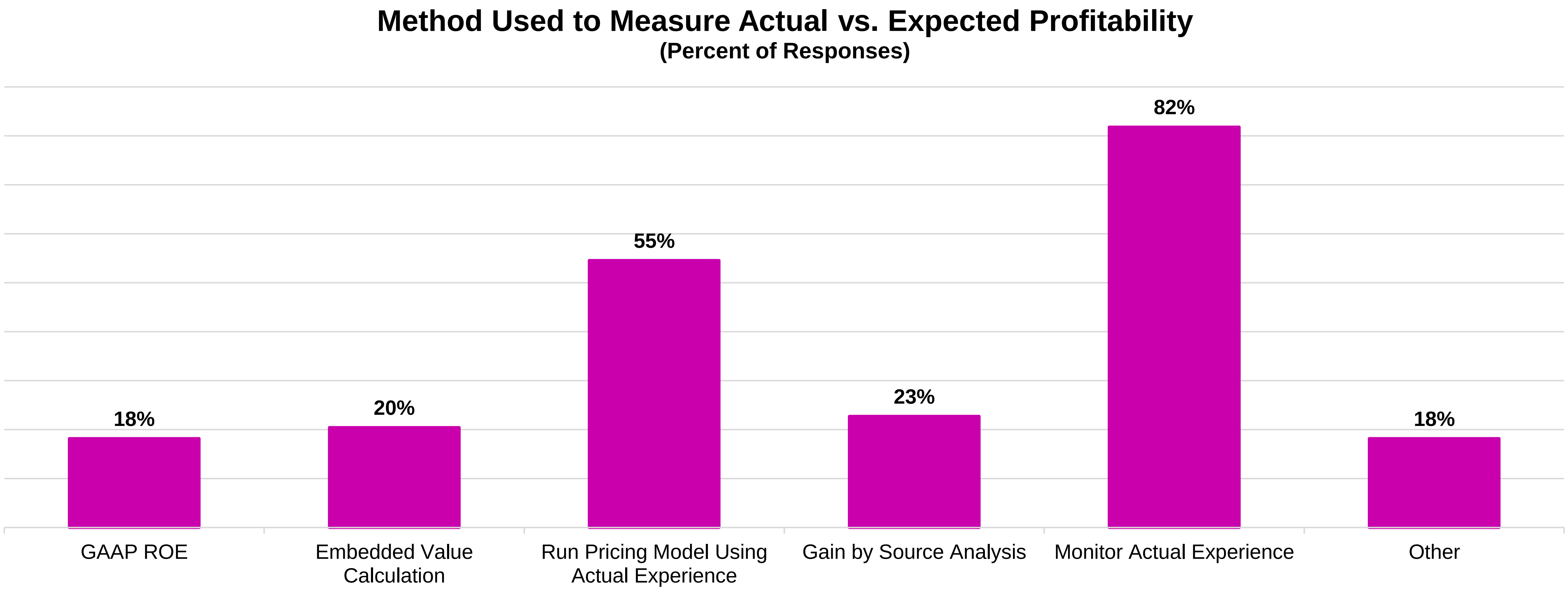
- ROI Target values generally vary between 8.5% and 10.5% where IUL product lines have slightly higher targets.

Likelihood of Achieving Aggregate Profit Targets – Life Products



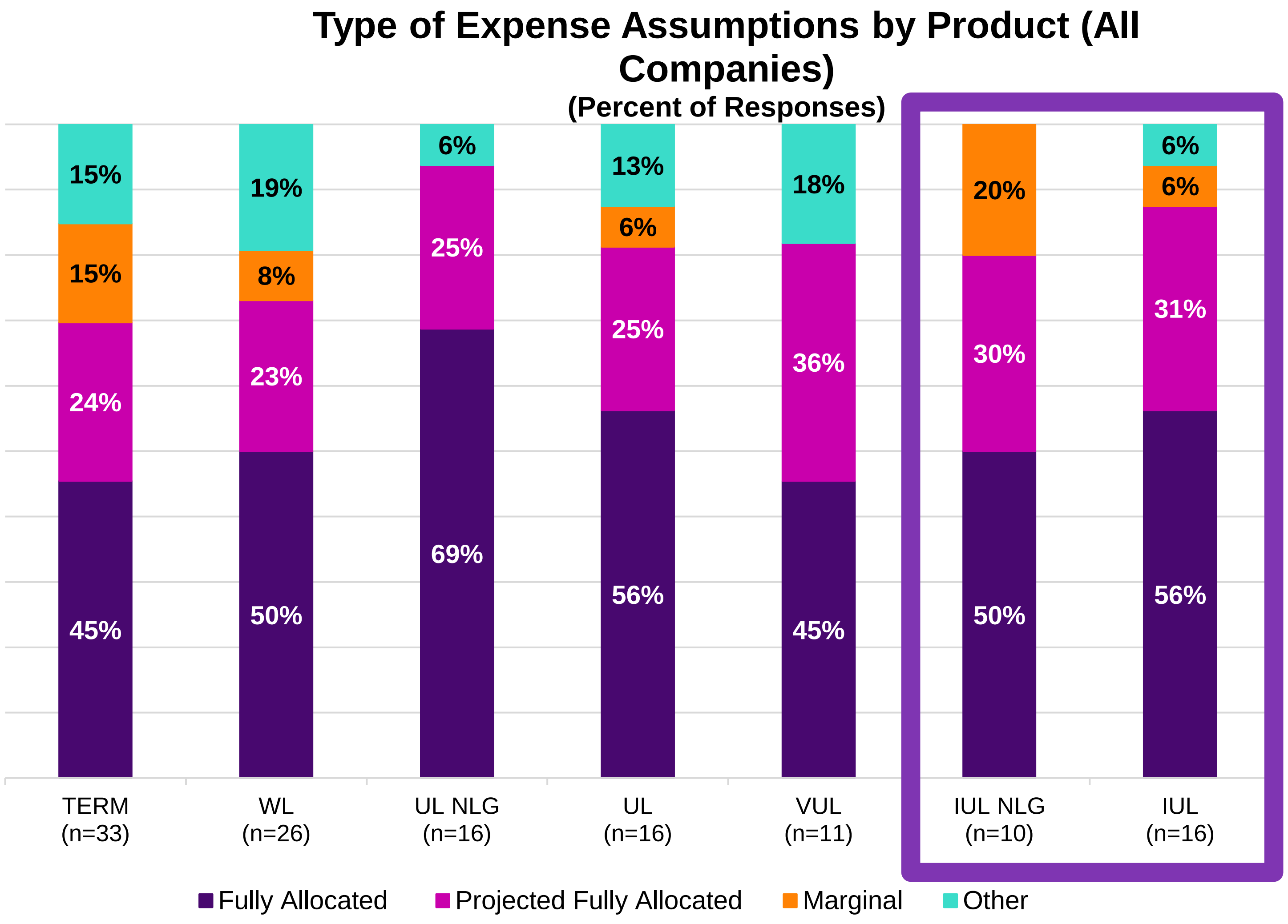
- Companies are optimistic the IUL product lines will meet their profit targets
  - IUL NLG = 70%; **IUL = 94%**
- Some level of profit uncertainty for IUL NLG (20% not likely, 10% do not know)

Measurement of Actual vs. Targeted Profitability



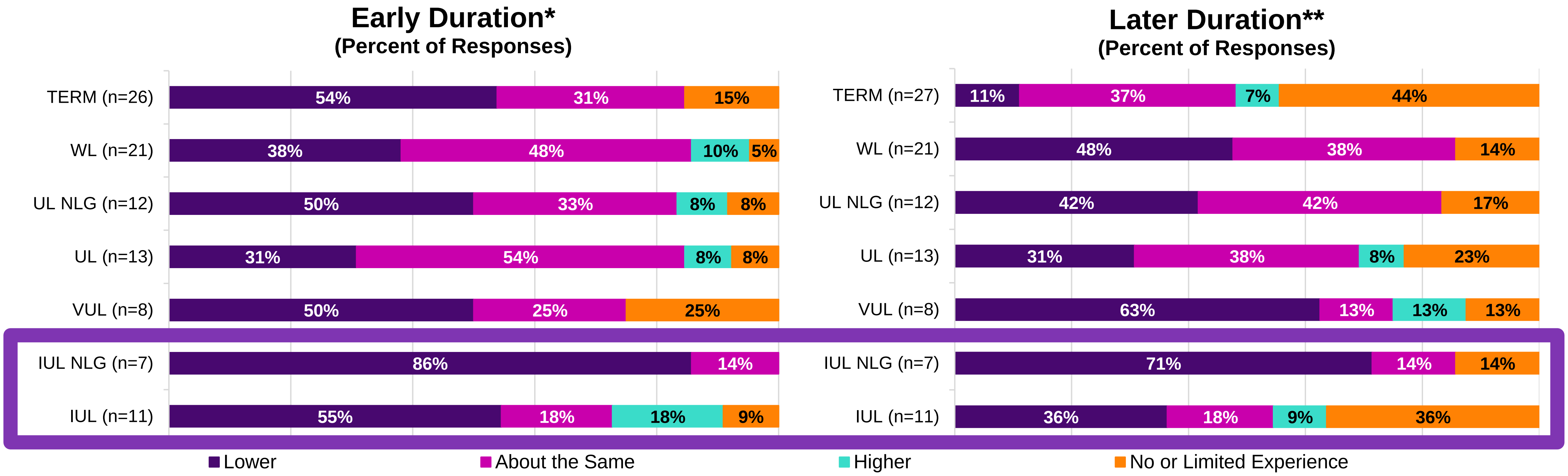
Base: n=44
Totals shown do not total to 100%, since companies selected all metrics used to assess profitability.

Type of Expense Assumptions in Calculating Expected Profit



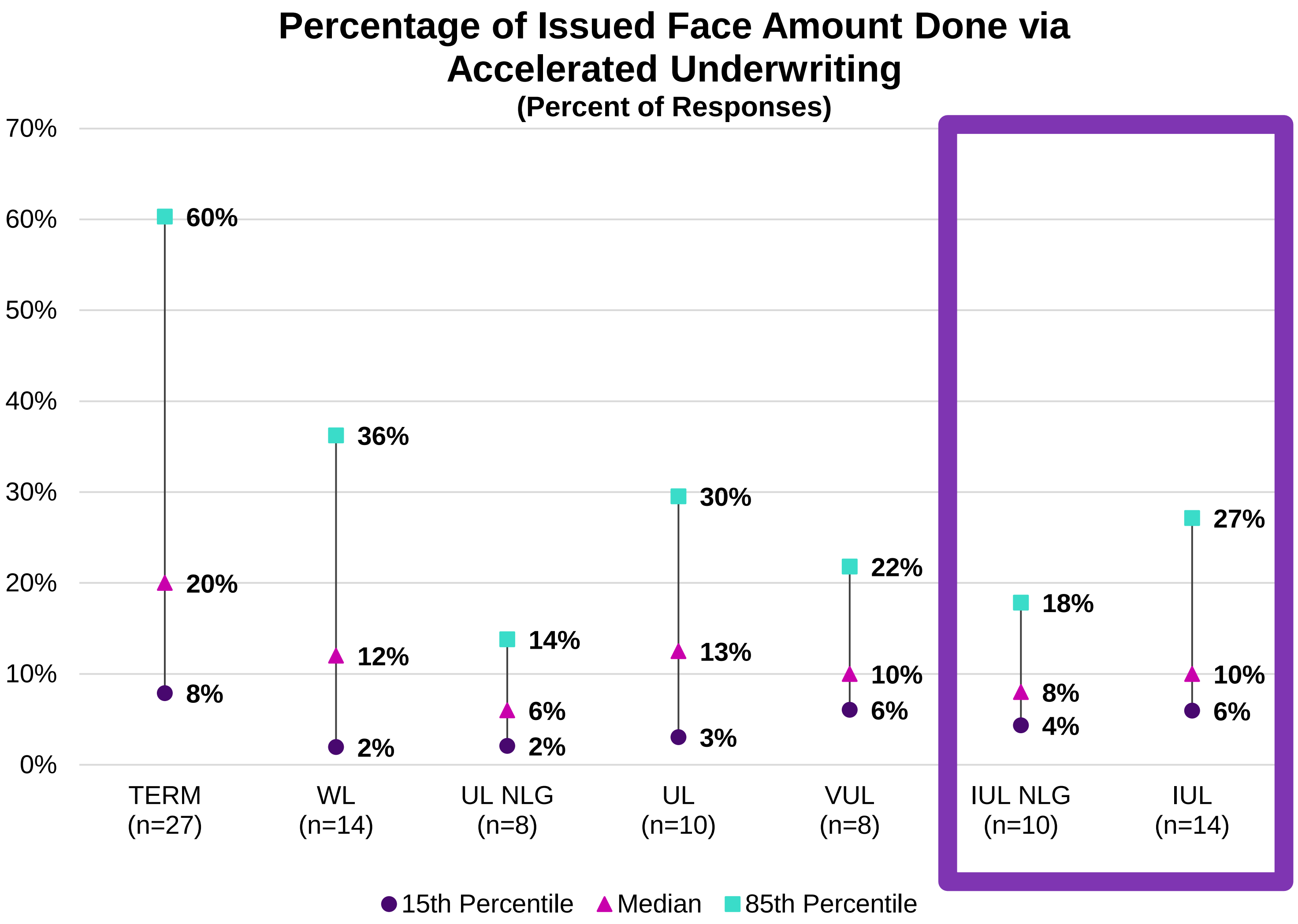
- Assuming fully allocated expenses in pricing is the dominant method across all life products.
- Higher proportion of the IUL NLG writers assume marginal expenses in their pricing.

Inforce Surrender Experience Compared to Expected



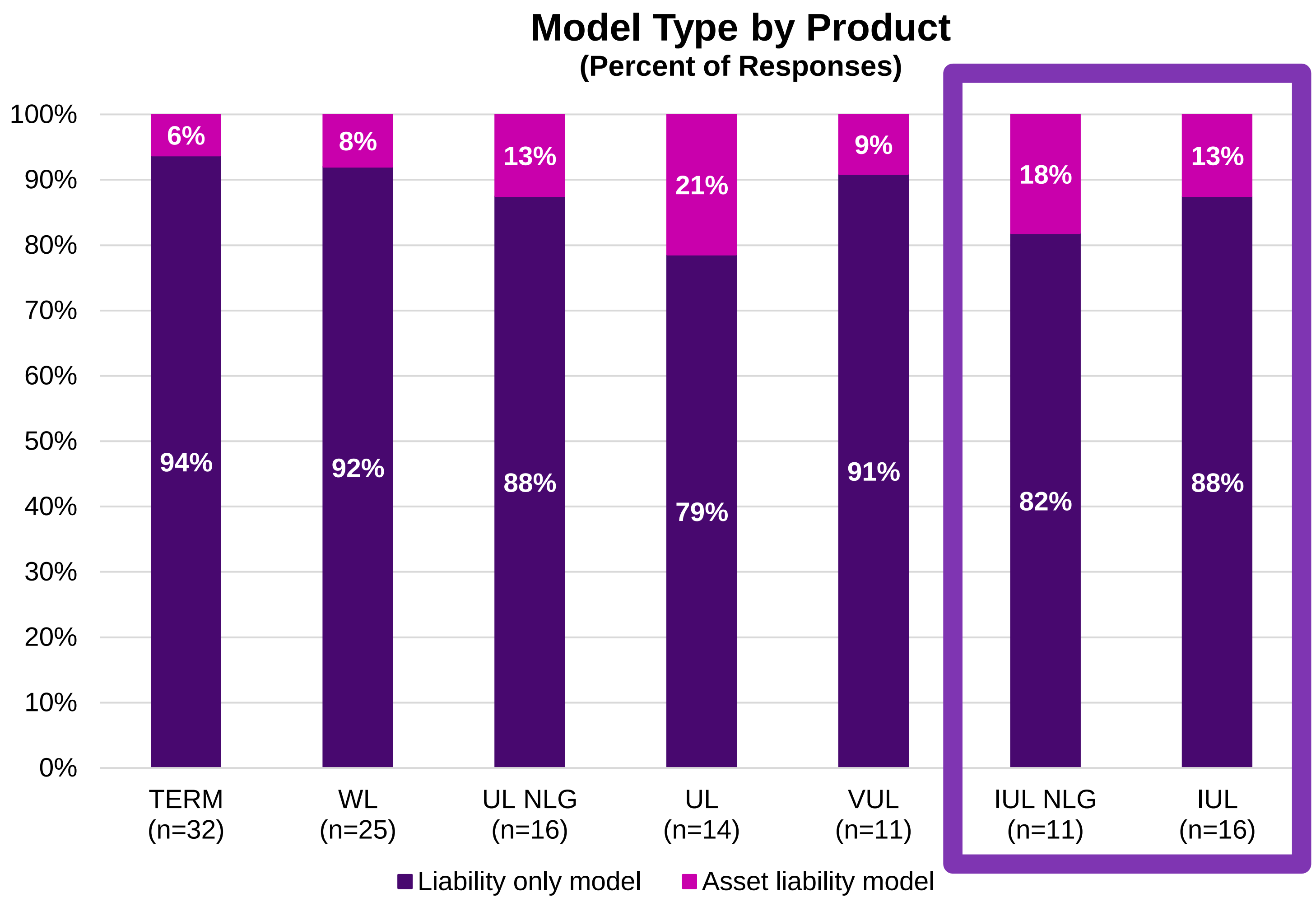
- Early Duration (Term: During the level term period; Other: During the Surrender Charge Period)
- Where experience exists, respondents for IUL product lines indicated that 2022 surrender experience was lower than expected.

Percentage of Issued Face Amount via Accelerated Underwriting



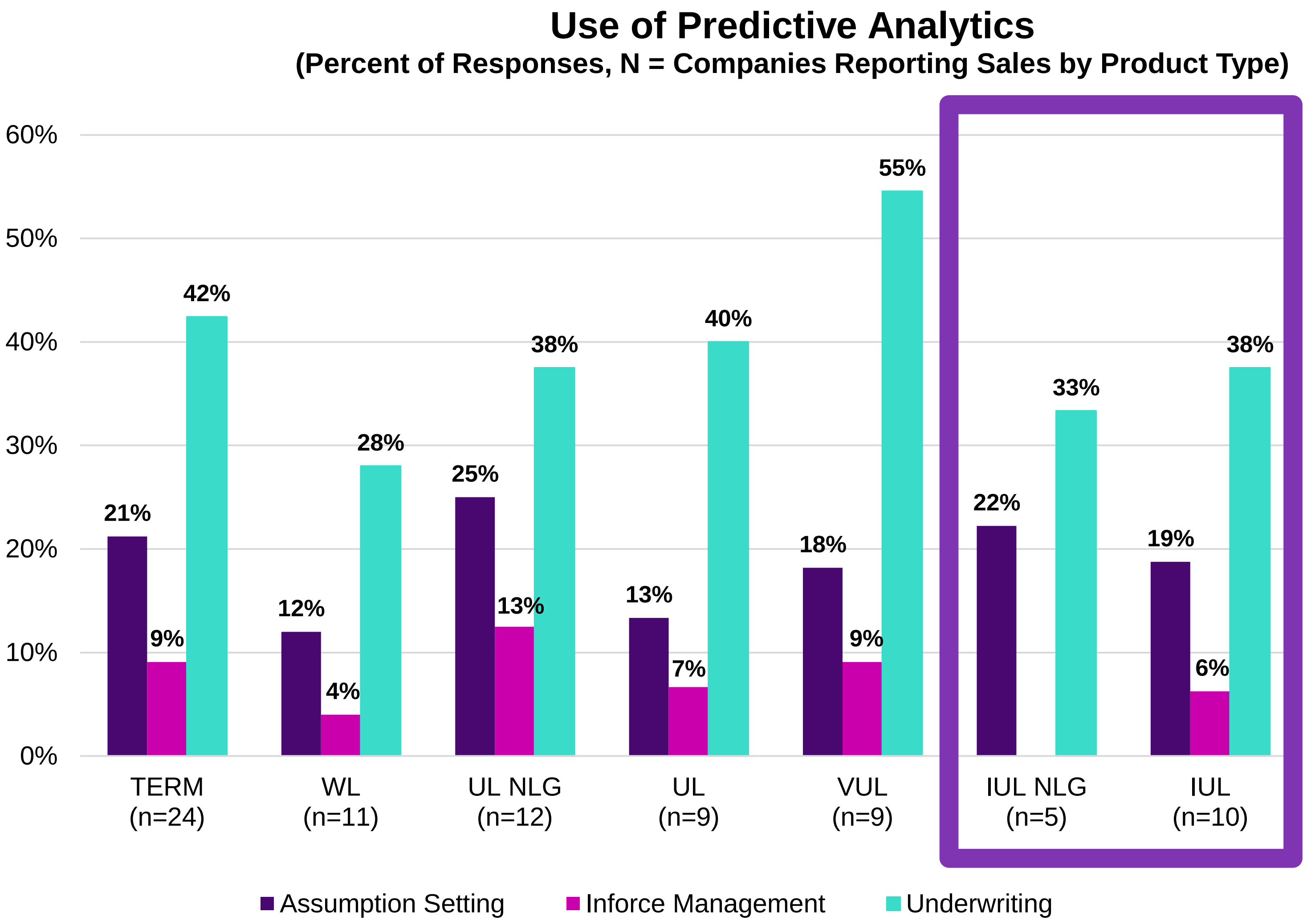
- The percentage of issued policies via accelerated underwriting does not significantly vary between similar product lines.
- Use of accelerated underwriting decrease with overall policy size.

Type of Model Used for Pricing



- Majority of respondent used liability only models for their pricing exercises.
- For IUL product lines, product hedging mechanics, hedging costs, and hedging inefficiencies can be material in the profitability emergence

Use of Predictive Analytics



- About 1/3 to 1/2 of respondents indicated that predictive analytics was used for underwriting
- Relative to the 2020 WTW Pricing methodology survey, the use of predictive analytics for inforce management is increasing

WTW Indexed UL Pricing Survey

Survey Background, Scope and Respondents

- WTW performed an industry survey of Indexed Universal Life (IUL) pricing assumptions and methodology
- Information was requested on pricing practices and methodologies as of 9/30/2022
- 11 IUL writers participated in the survey comprising approximately 60% of IUL writers in the marketplace on a sales premium basis*
- Companies participating in the survey included the following

– Allianz	– John Hancock	– Penn Mutual
– Ameritas	– Lincoln National	– Sammons
– Columbus Life	– Mutual of Omaha	– Transamerica
– Corebridge	– Pacific Life	

* Source: Wink's Sales and Market Report, based on sales as of Q1 2022

Summary of Key Survey Results

Modeling/Pricing Methodology | Assumptions | Investment Information

Pricing sophistication varies across companies, but most still include some forms of simplification:

- Companies use liability-only models
- Typically, only the simplest index and fixed account options are modeled
- Stochastic modeling is not used by all companies
- Use of decrements in hedge target varies by company

In many ways, companies generally model IUL just like it was a regular UL

Does this lack of pricing sophistication mean companies don’t fully capture all of the risks they are taking?

Summary of Key Survey Results

Modeling/Pricing Methodology | **Assumptions** | Investment Information

- Accelerated UW mortality varies materially with some companies assuming a **15%** or more increase, but others assume low single digit increases
- Surrender assumptions vary widely across companies
- Expense assumptions vary by a large amount with several companies taking a marginal approach
- Generally, all companies model loans/withdrawals, but methodologies vary widely
- Mortality improvement assumptions likely need updating for many companies. Even prior to COVID-19, U.S. population mortality improvement had slowed considerably, and COVID-19 has caused further deterioration
- **The large variation in assumptions, with some being potentially overly optimistic, means it may be difficult to price competitively. There are also still a lot of uncertainties around long term IUL assumptions.**

Summary of Key Survey Results

Modeling/Pricing Methodology | Assumptions | **Investment Information**

- Average portfolio yields and net spreads vary materially by company
- Higher assumed yields do not always equate to higher illustrated rates. This could be driven by the use of charges to supplement option budgets and/or lower target pricing spreads
- Assumed reinvestment allocations vary widely, including in sophistication of modeling approach
- Portfolio crediting method continues to dominate (versus new money); though post-survey, we have seen the introduction of “new portfolio” crediting methods
- **Illustration performance continues to be a key part of IUL sales and that is heavily dependent on assumed investment performance and charge structure.**

IUL Earnings Underperformance

Realistic Profit Targets?

- **We will focus the discussion on non-SG IUL**, since that is the major part of the IUL market
- **In our pricing survey**, IUL had the highest median ROI target for life products
- **According to our General pricing survey**, 94% of IUL companies expected to hit pricing targets (at least somewhat likely to)
- **However, based on discussions with several firms**, IUL earnings are not achieving expectations
- **What are some of the drivers of underperformance?**
- **Do their profit targets need adjusting?**

Potential Causes of IUL Underperformance

Hedge Ineffectiveness

- Multiple reasons why IUL hedging may be ineffective
- Challenging to deal with multiple deposits/index parameters/indices/index dates
- Practice varies on use of static versus dynamic hedging
- Lapse and termination and what to reflect in hedge targets needs to be dynamic/more granular
- Practice varies on what terminations (if any) companies reflect in their target
- **Do you have the investment income needed to support the hedge budget (AV versus Stat Reserve)?**
- **Granular attribution and determination of the sources of ineffectiveness are key**

Policyholder Behavior

- No long-term behavior experience exists for IUL
- Will it be like UL or VUL or will it be somewhere in between?
- Early lapses are lower than expected as indicated by our general pricing survey
- If you are seeing more lapse than surrender, but use a total termination assumption
- Could these be driving less surrender charge income than expected?
- **Many IUL policies are marketed with loans/withdrawals assumed**
- **Will those assumptions turn out to be accurate?**
- **What will the impact of persistency bonuses due to long term behavior?**

Potential Causes of IUL Underperformance

Cap Management

- 1 year indexes with 100% participation, 0% floors, and a cap are most common design
- IUL sales can often be driven by illustration performance
- So, companies are more hesitant to lower caps and impact their illustrations
- Cap changes also require system and illustration update needs, adding to change hesitancy
- As volatility and rates change, cost of hedges changes, but do caps change?
- **How much does this cap stickiness hurt profitability? Do you track/model this possible slippage?**

Source of Earnings

- To improve caps and illustrations, many IUL products are designed with low target spreads
- Some are designed with negative spreads due to bonuses
- How does your profitability change if fund growth is stronger than expected?
- Could mean a reduction in profit from COIs and negative spreads
- Most companies use liability only models and model IUL like a UL
- Many also don’t model stochastically (even the equity part)
- **Have you sensitivity tested your profitability to different economic scenarios?**

IUL Earnings Under GAAP LDTI

Impact of LDTI

- Many IUL products are front end loaded with earnings driven by per $1,000 charges (PUC) and surrender charges
- Future earnings are limited due to low COI margins and limited to no spread (to improve illustration performance)
  - Positive low COI margins would imply no SOP03-1 liability
- **Under old GAAP, earnings were also front end loaded as the Unearned Revenue Reserve (URR) offset DAC and amortized rapidly in early durations**
- That's assuming you were collecting the surrender charges and loads you were expecting

- **Under LDTI URR and DAC now amortize over the lifetime of the business**
- **So now URR amortization is no longer concentrated in early durations**
- **What happens to your IUL earnings?**

- **Prior to LDTI IUL earnings growth was also heavily driven by continuing to grow new business sales**

Continued UL Block Underperformance

Common Current Company Situation

Many companies/groups continue to have underperforming UL and ULSG blocks

We ranked companies by 2023 yearend net statutory reserves

- Business categorized as UL and UL with Secondary Guarantees
- We did not include Indexed Life, Variable UL or Variable Life
- The figures do not reflect business ceded to captives (that is, figures are net of reinsurance)

We then looked at the following statutory income measure:

- Net Gain from Operations After Dividends and Federal Income Tax, but before Capital Gains
- Also known as Row 33 of the Statutory Summary of Operations

UL and ULSG Block Historical Results

	Statutory Reserves in $ Billions					Net Gain from Operations (Row 33) in $ Billions				
	2023 YE	2022 YE	2021 YE	2020 YE	2019 YE	2023	2022	2021	2020	2019
Top 10	198.4	218.2	203.5	192.7	185.4	(1.2)	(1.2)	(1.7)	(1.1)	(1.4)
Top 20	280.6	301.2	283.8	259.2	250.7	(0.9)	(2.5)	(3.6)	(3.2)	(2.5)
Top 50	353.0	378.9	362.9	337.8	328.0	(2.3)	(3.7)	(4.4)	(3.3)	(2.3)

	Number of Companies with a Loss					Average Loss in $ Millions				
	2023	2022	2021	2020	2019	2023	2022	2021	2020	2019
Top 10	3	5	4	5	6	(595)	(305)	(553)	(338)	(303)
Top 20	8	10	13	13	14	(405)	(313)	(320)	(309)	(214)
Top 50	22	27	31	32	30	(243)	(179)	(170)	(149)	(134)

- Generally, 50% of companies are losing money on these blocks, though UL results improved in 2023
- The average loss is sizeable
- If you look at UL and ULSG individually, you will generally see similar results (many companies losing large amounts)
- Is there any reason to think this won't continue?

I Thought This Was an IUL Presentation?

It is, but there are many lessons to learn from UL/ULSG that could apply to IUL

In hindsight many companies, for UL priced in 1980s to early 2000s, misestimated every assumption

- Mortality (Flat % of SOA7580; Older Age mortality slope)
- Lapse/Surrender (Much stronger long term persistency than expected)
- Interest Rates (Much lower than expected; Guarantees much higher than IUL)
- YRT Reinsurance Rates (Companies didn't expect increases)

Companies continue to learn their lessons on UL/ULSG (large recent behavior unlockings)!

Learn from history and hopefully you can avoid the misestimations of the past!

IUL In Force Management

IUL Cap Management

- Similar to UL crediting rates, all IUL companies actively manage their caps and crediting rates
- Guaranteed minimum caps and rates are low (commonly 1-2%), allowing for a greater ability to manage caps/crediting rates down as yields fall (relative to UL)
- However, we have noticed a propensity for IUL caps to be sticky
  - Admin and illustration friction for changing caps/rates
  - Competitiveness concerns for illustrations
- To the extent you expect cap stickiness, you may want to reflect an ongoing cost in modeling

Other NGE Management

COI Management

- Besides caps/crediting rates, COIs are the other main Non-Guaranteed Element (NGE) on IUL
- Given IUL is relatively new and most of it has been sold in the last 15 years, COI action has not been common
- Given some carriers are underperforming pricing expectations, there is potential for future COI action
- Contract language, ASOP 2 and Company NGE Framework are key in terms of determining appropriate action

- NGE management does not always have to be adverse
- We have seen some carriers lower COIs on UL plans

Litigation Risks

- Increasing COIs generally leads to litigation
- Not decreasing COIs also can lead to litigation
- Historically this has been focused on older, single factor language related to mortality
- However, more recently we have seen litigation for not decreasing COIs when tax rates were decreased in the Tax Cuts and Jobs Act in 2017
- Product complexity can also potentially lead to litigation

NY Regulation 210

Definition of an Adverse Change

Adverse change in the current scale of non-guaranteed elements means any change in the current scale of non-guaranteed elements that increases or may increase a charge or reduces or may reduce a benefit to the policy owner, other than a change in a credited interest rate or an index account parameter based entirely on changes in the insurer's expected investment income or hedging costs.

Implies you can change caps based on expectations for expected investment income or hedging costs without being considered an adverse change

Interesting IUL Performance Statistics

IUL Crediting

- Consider one of the most popular index crediting options:
  - S&P500, 1 year point to point crediting, 100% participation, 0% floor with a Cap
- In any year/crediting bucket, an IUL policy will receive either 0%, the Cap, or somewhere in between
- If you were to look at the last 65 years of history, how often do you think the policy receives:

- What if you only look at the history beginning in 2009? How often do you think the policy receives:

So, better performance starting in 2009, where most IUL has been sold

IUL Crediting versus Illustrated Rate

- The AG49 65 year look back averaging method has been in effect since September 1, 2015
- Consider again one of the most popular index crediting options:
  - S&P500, 1 year point to point crediting, 100% participation, 0% floor with a Cap
- For a cap of 10% and 12% this would generally have meant an illustrated rate of around 6% and 7%
- Across the last 65 years of S&P500 history, about how often would the policy have been credited more than the 6% or 7% illustrated rate?

- If you look at historical performance beginning in 2009, those improve to 67% and 65%

So, assuming the cap hasn't changed (not a good assumption), crediting has been better

Summary

Indexed UL – Key Takeaways

Many companies have pivoted or are pivoting sales to IUL due to the perception that it is less risky than ULSG and higher minimum guarantee UL

- The less risky perception is, in part, based on the assumption of effective hedging
- Effective hedging can be difficult due to monthly premiums, decrements and multiple indices and options

- Improve modeling methodology and assumptions to make sure you fully understand the risks you are taking.
  Perform a lot of sensitivity testing!
  - Multiple items and risks can differ materially from UL to IUL
  - Is your hedging really effective? How do you reflect it in your models?
  - Greater uncertainty of long-term behavior assumptions (no credible long term IUL experience; how will it differ from UL and VUL; will assumed loans/withdrawals happen; how will bonuses impact persistency)
- Implement robust earnings analysis and monitoring to help identify and manage the risk of underperformance
  - Hedge effectiveness; VNB/EV; Source of Earnings; Assumption reviews
- Growing IUL sales is great, as long as that eventually turns into growing earnings!

About WTW

At WTW (NASDAQ: WTW), we provide data-driven, insight-led solutions in the areas of people, risk and capital. Leveraging the global view and local expertise of our colleagues serving 140 countries and markets, we help you sharpen your strategy, enhance organizational resilience, motivate your workforce and maximize performance. Working shoulder to shoulder with you, we uncover opportunities for sustainable success — and provide perspective that moves you. Learn more at wtwco.com.

wtwco.com/social-media

wtwco.com