

MILLIMAN RESEARCH REPORT

# Fixed indexed annuities

2018 survey

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## Background

Milliman conducted a new broad-based survey on fixed indexed annuities (FIAs), capturing historical data for key industry competitors, as well as company perspectives on a range of issues pertaining to these products into the future. Survey topics were determined based on input from a group of cosponsors of the survey as well as Milliman consultants. This survey summary provides carriers with competitive benchmarking to evaluate where they stand relative to their peers.

The survey was sent via email to FIA companies on June 18, 2018; 22 companies submitted responses. According to Wink, Inc., these companies represent around 78% of the FIA industry, based on sales year-to-date (YTD) June 30, 2018.

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## Executive Summary

Survey responses included information about the following five key drivers of FIA pricing:

1. Investment yields
2. Policyholder behavior
3. Profit targets
4. Target surplus
5. Expenses

### INVESTMENT YIELDS

Survey participants were asked to report the net earned rate (net of investment expenses and default risk charges) achieved in the first quarter of 2018 in their FIA asset portfolio for a short surrender charge period (SCP) FIA, a long SCP FIA, and an FIA with a Guaranteed Lifetime Withdrawal Benefit (GLWB). A short SCP was defined as less than eight years. A long SCP was defined as eight years or longer. Figure 1 shows a summary of the net earned rates achieved in the first quarter of 2018.

**FIGURE 1: NET EARNED RATES ACHIEVED**

FIA PRODUCT	NET EARNED RATES ACHIEVED				
	Number of Responses	Average	Median	Minimum	Maximum
Short SCP FIA	15	3.93%	3.89%	3.25%	4.79%
Long SCP FIA	13	4.12%	4.14%	3.30%	4.79%
FIA With a GLWB	13	4.03%	4.00%	3.30%	4.55%

The investment strategy (benchmark) for FIA new business as of March 31, 2018, is very similar for a short SCP FIA, a long SCP FIA, and an FIA with a GLWB. The biggest differences in the targeted allocation percentages are seen in the allocations to alternative assets and high-yield bank loans. A higher allocation of alternative assets was reported for long SCP FIAs than other designs, and a higher allocation of high-yield bank loans was seen for short SCP FIAs than other designs. The overall duration of the investment strategy for a short SCP FIA, long SCP FIA, and an FIA with a GLWB equals 6.5, 7.9, and 9.2, respectively.

### POLICYHOLDER BEHAVIOR

#### Lapse rates

Separate base and shock lapse rates were reported for short and long SCP FIAs (without a guaranteed living benefit), and for short and long SCP FIAs with a GLWB. For comparison purposes, for each lapse assumption we determined the average lapse rate during the SCP, the shock lapse rate, and the average lapse rate after the shock lapse year. The average after the shock lapse year was determined through the 15th duration for the short SCP FIA. The average after the shock lapse year was determined through the 20th duration for the long SCP FIA because one participant reported a 14-year SCP. Figure 2 shows the median and the range of base lapse rates and shock lapse rates assumed in pricing FIAs for FIAs without a guaranteed living benefit (GLB).

**FIGURE 2: BASE LAPSE RATES WITHOUT A GLB**

TIME PERIOD	BASE LAPSE RATES					
	Short SCP (w/o GLB)			Long SCP (w/o GLB)		
	Median	Low	High	Median	Low	High
Average During the SCP	3.38%	1.25%	5.60%	3.77%	1.80%	5.25%
Shock Lapse Rate	38.70%	15.00%	100.00%	37.00%	12.60%	100.00%
Average After the Shock Lapse	12.40%	7.33%	33.00%	12.60%	7.50%	33.00%

When a GLWB is added to the short or long SCP FIA, the base lapse rates were significantly reduced. For a short SCP FIA, the reduction to the median base lapse rates, when a GLWB is added, ranges from 30% to 44% (average during the SCP), 46% to 48% (shock lapse rate), and 31% to 54% (average after the shock lapse year). The low end of the range relates to GLWBs prior to taking withdrawals, and the high end of the range relates to GLWBs after taking withdrawals. Similarly, for a long SCP FIA, the reduction to the median base lapse rates, when a GLWB is added, ranges from 24% to 25% (average during the SCP), 39% to 46% (shock lapse rate), and 40% to 47% (average after the shock lapse year).

### Dynamic lapse rates

Dynamic lapse multiples for representative differences between current and market crediting rates were reported separately for a short SCP FIA and a long SCP FIA by survey participants. The patterns of dynamic lapse multiples are fairly consistent between those reported for short and long SCP FIAs and across differences between the current and market crediting rates. Multiples are highest at three years prior to the end of the SCP, followed by those at three years after the end of the SCP, and then those in the year following the end of the SCP.

Dynamic lapse multiples were also reported for representative GLWB in-the-money (ITM) percentages at three years prior to the end of the SCP, at the year after the end of the SCP, and at three years after the end of the SCP. For the purpose of the survey, the ITM percentage equals the (value of the GLWB / account value) - 1. Multiples were reported separately for a short SCP FIA and a long SCP FIA, and separately for GLWBs prior to taking withdrawals and GLWBs after taking withdrawals. Most participants reported the same dynamic lapse multiples for GLWBs prior to taking withdrawals and after taking withdrawals for both the short and long SCP FIAs. Figure 3 shows the median dynamic lapse multiples separately for a short SCP FIA with a GLWB and a long SCP FIA with a GLWB.

**FIGURE 3: DYNAMIC LAPSE RATES**

TIME PERIOD	MEDIAN DYNAMIC LAPSE RATES – GLWB 100% ITM			
	Short SCP w/ GLWB	Long SCP w/ GLWB		
		Prior to Taking GLWB Withdrawals	After Taking GLWB Withdrawals	
3 Years Prior to End of SCP	40.3%	46.0%		
Year After End of SCP	40.3%	28.3%		
3 Years After End of SCP	37.3%	34.3%	28.9%	

### Partial withdrawal rates

Partial withdrawals assumed in pricing FIAs without a GLWB averaged 2.09% for non-qualified (NQ) plans, and 2.23% for qualified plans. For FIAs with a GLWB (prior to GLWB utilization), the partial withdrawal assumption in pricing averaged 1.97% for non-qualified plans, and 2.02% for qualified plans.

### GLWB utilization rates

The majority of survey participants base their FIA GLWB utilization rates on a cohort approach, where each cohort has a specific partial withdrawal pattern relative to the timing of withdrawals. The utilization rates vary widely among survey participants. The GLWB utilization rates for NQ and qualified plans are similar, with slightly higher averages reported for qualified FIAs.

### PROFIT TARGETS

The approach for pricing FIA products was nearly evenly split among survey participants between pricing on a standalone basis and pricing on an integrated basis. Of the 22 survey participants, 11 use a standalone approach, nine use an integrated approach, and two use both a standalone and integrated approach.

The most common profit target used by participants for FIA pricing is statutory internal rate of return (IRR). The average statutory IRR targets reported by survey participants are shown in Figure 4, based on the pricing approach.

**FIGURE 4: AVERAGE STATUTORY IRR**

FIA PRICING APPROACH	AVERAGE STATUTORY IRR
Standalone Basis	
Base FIA	11.13%
GLWB Rider	12.03%
Integrated Basis	11.99%

Very few FIA survey participants have different profitability targets for fixed accounts than for indexed accounts, for different indices or different option structures, for fee-based FIAs, or for any other type of FIA.

### TARGET SURPLUS

The average level of National Association of Insurance Commissioners (NAIC) risk-based capital (RBC) relevant to pricing new FIA sales equals 355%. A summary of participant responses is shown in Figure 5. Figure 5 also includes a summary of the earned rate assumed on capital in FIA pricing by survey participants as of June 1, 2018. The majority of participants reported that the earned rate assumed on capital in pricing FIA products does not differ from the earned rate assumed on assets backing FIA reserves. The third item included in Figure 5 is a summary of the average C-1 charges for assets backing capital.

**FIGURE 5: FIA TARGET SURPLUS/CAPITAL**

METRIC	AVERAGE	MEDIAN	MINIMUM	MAXIMUM
NAIC RBC	355%	350%	250%	425%
Earned Rate on Capital	4.76%	4.54%	3.49%	7.00%
C-1 Charge for Assets Backing Capital	2.07%	1.79%	0.58%	4.40%

### EXPENSES

The majority of survey participants responding reported issue/acquisition expenses assumed in FIA pricing for all distribution channels combined, indicating that these assumptions do not vary by channel. The average issue/acquisition expense assumed in pricing for all channels combined is \$195 per policy, and 1.13% of premium. The average maintenance expenses assumed in pricing for all distribution channels combined equals \$90 per policy, and 8 basis points (bps) of account value, with an average inflation rate assumption of 2.81%.

## REGULATORY ISSUES

The majority of participants (19) have implemented the changes to the tax law under the Tax Cuts and Jobs Act (TCJA) of 2017. Sixteen participants indicated they plan to pass back (or already have passed back) the impact of tax reform on new business to policyholders.

Eleven participants are reflecting or planning to reflect Valuation Manual (VM)-22 in reserves when pricing FIA GLWBs. Ten participants are not reflecting or planning to reflect VM-22 in reserves when pricing FIA GLWBs. The final participant did not respond to the question.



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