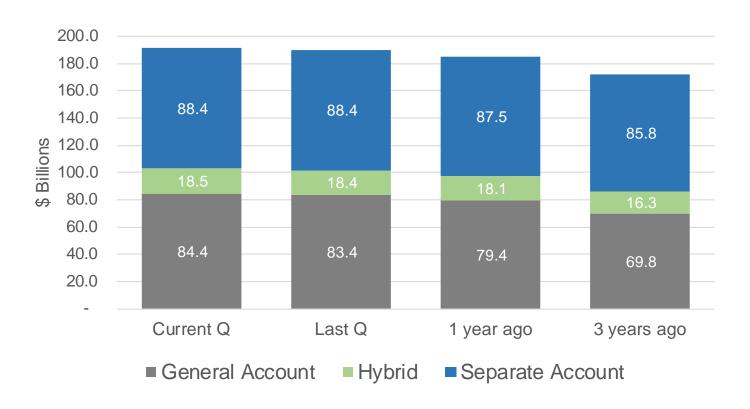


# BOLI INDUSTRY ANALYTICS & ALLOCATIONS

# BANK CALL REPORT BOLI BREAKDOWN

Banks reported \$191.4 billion of BOLI in 2018-Q1, of which \$88.4 billion was SA.



### STUDY PURPOSE AND BACKGROUND

Our study attempts to track how SA BOLI is allocated over time.

- SA BOLI AUM data from 11 providers is categorized into portfolio types
  - Capital Efficient / Target RW
  - High Yield
  - Credit
  - Core Fixed Income

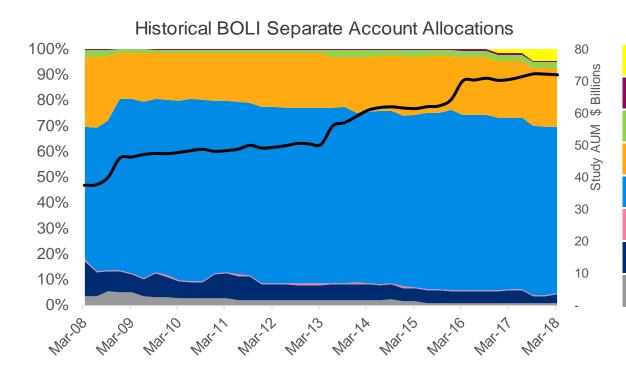
- MBS / Securitized (ABS / CMBS)
- CLO / Bank Loan
- Short Duration
- Government
- Portfolio types represent full portfolio MVs and do not look through to the holdings sector weights

Currently comprises \$71.9 billion – approximately 81% of the industry.<sup>1</sup>

# HISTORICAL BOLI/COLI SEPARATE ACCOUNT ALLOCATIONS

### For the last decade, allocations have been dominated by MBS / Securitized portfolios.

The chart below shows the study's total AUM (black line), and portfolio type breakdown (colored areas) over time.

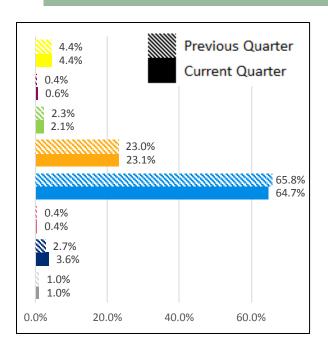


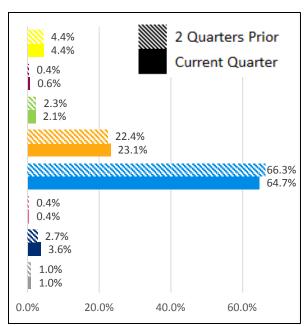
2016-Q1 Weig	J⊓lS⊔
Capital Efficient	4.4%
High Yield	0.6%
Credit	2.1%
Core Fixed Income	23.1%
MBS / Securitized	64.7%
CLO/Bank Loan	0.4%
Short Duration	3.6%
Government	1.0%

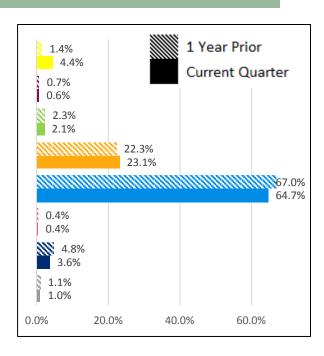
2018-01 Weights □

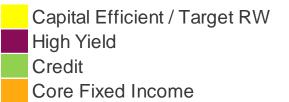
# SEPARATE ACCOUNT ALLOCATION CHANGES

While some changes can be attributed to asset growth, recent comparisons show potential reallocations.<sup>2</sup>





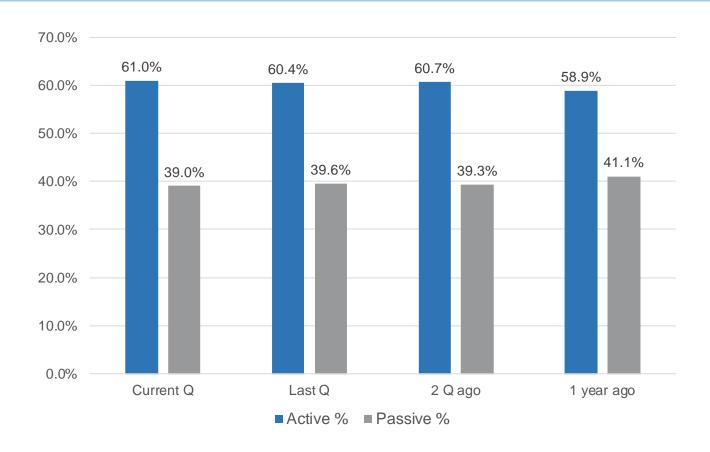






# BREAKDOWN OF PORTFOLIOS (ACTIVE VS PASSIVE)

Of the \$71.9 billion in the study, 61% of the allocations are actively managed.



# ALLOCATION COMMON BENCHMARK PERFORMANCE

Using common benchmarks for the categories, a proxy for the industry's SA Q1 MV performance is estimated at -1.16%.

	Benchmark	Quarter	1-Year	3-Year	Weights	Quarter	1-Year	3-Year
Capital Efficient	[Proxied By Blend of Below]	-0.24%	2.28%	2.28%	4.41%	-1.16%	1.02%	1.23%
High Yield	Barclays High Yield	-1.06%	3.24%	4.37%	0.63%			
Credit	Barclays US Credit	-2.12%	2.61%	2.16%	2.13%			
Core Fixed Income	Barclays US Agg	-1.46%	1.20%	1.20%	23.10%			
MBS / Securitized	Barclays US MBS	-1.19%	0.78%	1.12%	64.73%			
CLO/Bank Loan	CSFB Leverage Loan Index	1.58%	4.64%	4.33%	0.38%			
Short Duration	ML 90-Day LIBOR	0.32%	1.20%	0.75%	3.62%			
Government	BofA / ML 1-3Y Treasury	-0.14%	0.02%	0.39%	1.00%			

# CALL REPORT BOLI ANALYTICS

The overall effective RW for SA BOLI was ~40%; however, many banks default to 100%.

Using the Q1 category weights and proxy portfolios, MBSA estimates a ~26.2% effective risk-weight for SA BOLI in our AUM Study using the Basel III Standardized Approach

#### All Banks

	# of Banks	GA BOLI (\$B)	Hybrid BOLI (\$B)	SA BOLI (\$B)	SA Exposure (\$B)	SA RWA (\$B)	Total RWA / Total Exposure	Average Bank RW%
Current Q	3,575	84.4	18.5	88.4	100.3	40.4	40.3%	91.6%
Last Q	3,610	83.4	18.4	88.4	100.6	40.1	39.8%	90.3%
2 Q ago	3,641	82.3	18.4	87.7	99.8	39.9	40.0%	90.0%
1 year ago	3,676	79.4	18.1	87.5	99.3	39.4	39.6%	90.1%

Bank RW% median and mode were 100% for all periods

#### \$25B+ Banks

	# of Banks	GA BOLI (\$B)	Hybrid BOLI (\$B)	SA BOLI (\$B)	SA Exposure (\$B)	SA RWA (\$B)	Total RWA / Total Exposure	Average Bank RW%
Current Q	73	48.9	11.5	83.1	89.0	31.9	35.8%	73.7%
Last Q	73	48.5	11.4	82.7	88.9	31.6	35.5%	72.6%
2 Q ago	69	47.5	11.2	81.4	87.5	31.2	35.7%	76.5%
1 year ago	68	45.7	11.0	81.2	87.0	30.7	35.3%	76.4%

For larger banks, the mode Bank RW% is still 100%, but median drops to 34%

# FOOTNOTES / DISCLAIMERS

- 1. The % of industry covered in the study may represent more or less due to various factors;
  - Some of the data included in the study may include portfolios that are comingled with corporations or non-banking entities
  - Some of the missing assets may include equity portfolios, which are excluded from this study
- 2. "Reallocations" assumed by significant changes in categorical weights without a parallel change in total assets. May or may not reflect any actual reallocation activity.

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