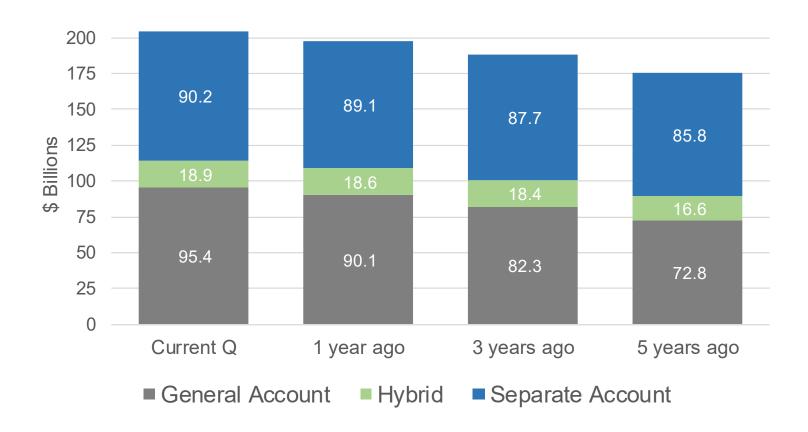


BOLI INDUSTRY ANALYTICS & ALLOCATIONS

BANK CALL REPORT BOLI BREAKDOWN

Banks reported \$204.5 billion of BOLI in 2020-Q3, of which \$90.2 billion was SA.



STUDY PURPOSE AND BACKGROUND

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

- Gathered SA BOLI AUM data is categorized into portfolio types
 - Capital Efficient / Multi-Sector / Target RW
 - High Yield
 - Credit
 - Core Fixed Income

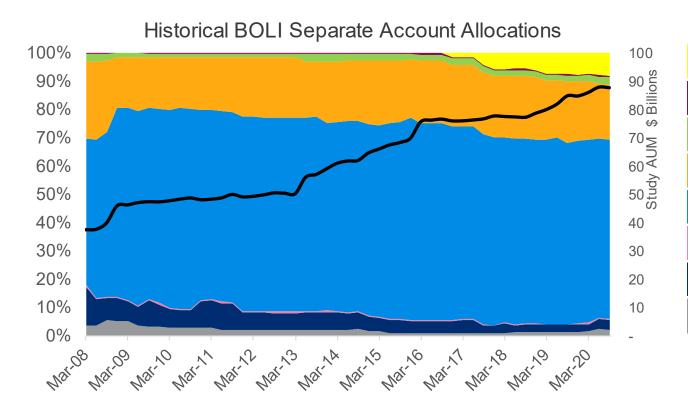
- MBS / Securitized (ABS / CMBS)
- CLO / Bank Loan
- Short Duration
- Government
- Portfolio types represent full portfolio MVs and do not look through to the holdings sector weights

Currently comprises \$88 billion – a massive share of the industry.¹

HISTORICAL BOLI/COLI SEPARATE ACCOUNT ALLOCATIONS

For the last decade, allocations have been dominated by MBS / Securitized portfolios. More recently, capital efficient / multi-sector type portfolios are gaining traction.

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

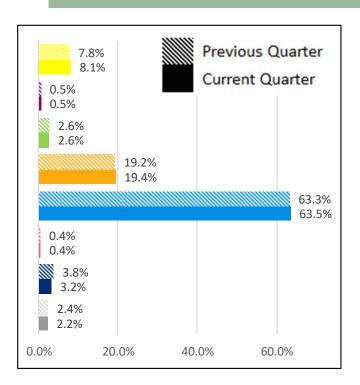


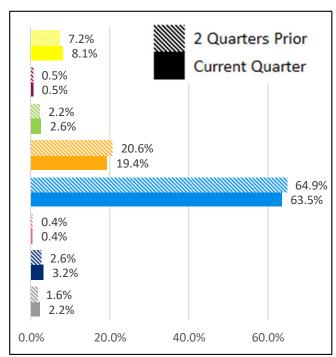
2020-Q3 Weights	
Cap Efficient / Multi Sector	8.1%
High Yield	0.5%
Credit	2.6%
Core Fixed Income	19.4%
MBS / Securitized	63.5%
CLO / Bank Loan	0.4%
Short Duration	3.2%
Government	2.2%

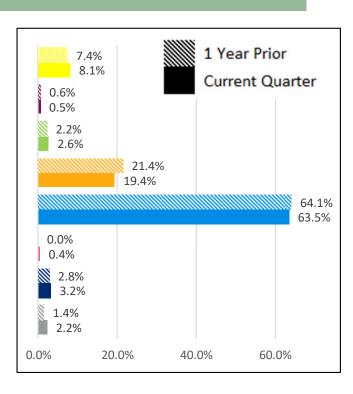
2020-03 Waights

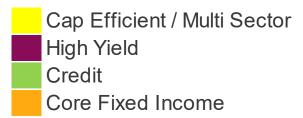
SEPARATE ACCOUNT ALLOCATION CHANGES

While some changes can be attributed to asset growth, periodic comparisons can indicate potential reallocations.²





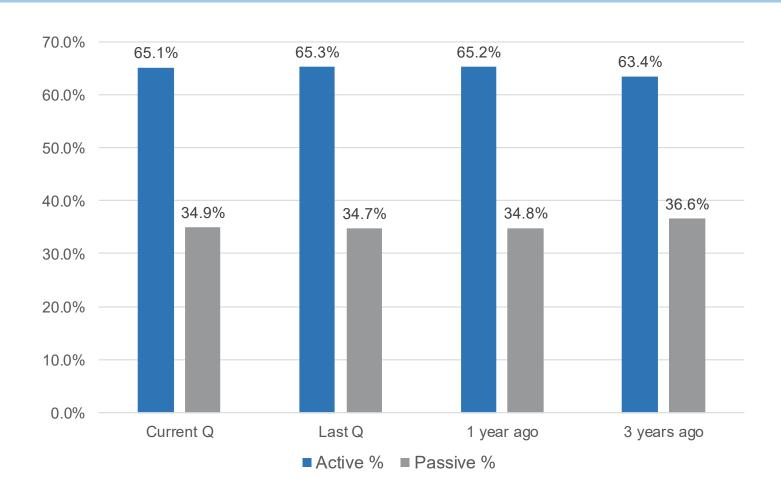






BREAKDOWN OF PORTFOLIOS (ACTIVE VS PASSIVE)

Of the \$88 billion in the study, 65% of the allocations are actively managed.



ALLOCATION COMMON BENCHMARK PERFORMANCE

Using common benchmarks for the categories, a proxy for the industry's SA Q3 MV performance is estimated at 0.41%.

	Benchmark	Quarter	1-Year	3-Year	Weights
Cap Efficient / Multi Sector	[Proxied By Blend of Below]	0.82%	4.83%	4.09%	8.07%
High Yield	Barclays High Yield	3.98%	4.44%	4.86%	0.54%
Credit	Barclays US Credit	1.50%	7.51%	6.20%	2.63%
Core Fixed Income	Barclays US Agg	0.62%	6.98%	5.24%	19.37%
MBS / Securitized	Barclays US Securitized	0.24%	4.52%	3.80%	63.54%
CLO / Bank Loan	Palmer CLOSE Index	2.00%	2.45%	2.96%	0.42%
Short Duration	ML 90-Day LIBOR	0.08%	1.56%	1.99%	3.19%
Government	BofA / ML 1-3Y Treasury	0.10%	3.57%	2.63%	2.24%
Industry Proxy Performance using above weights:		0.41%	4.98%	4.08%	

CALL REPORT BOLI ANALYTICS

The overall effective RW for SA BOLI was ~38%; however, many banks default to 100%.

Using the Q3 category weights and proxy portfolios, MBSA estimates a ~29% effective risk-weight for SA BOLI in our 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	3,279	95.4	18.9	90.2	98.5	37.3	37.9%	85.0%
Last Q	3,295	93.9	18.8	90.4	101.7	40.3	39.6%	90.1%
1 year ago	3,386	90.1	18.6	89.1	99.4	37.5	37.7%	86.2%
3 years ago	3,647	80.3	18.3	87.9	100.2	40.3	40.3%	90.4%

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	87	58.6	12.6	86.1	93.3	33.4	35.8%	55.5%
Last Q	85	57.3	12.6	86.3	93.5	33.9	36.2%	57.0%
1 year ago	78	53.4	11.9	84.6	91.4	31.5	34.5%	53.7%
3 years ago	69	46.4	11.2	81.5	87.7	31.6	36.1%	77.0%

For larger banks, the mode Bank RW% is still 100%, but median drops to ~38%

FOOTNOTES / DISCLAIMERS

- Regarding industry coverage;
 - 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.

*Call Report Data may include BHC data from Y-9C Reports

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