

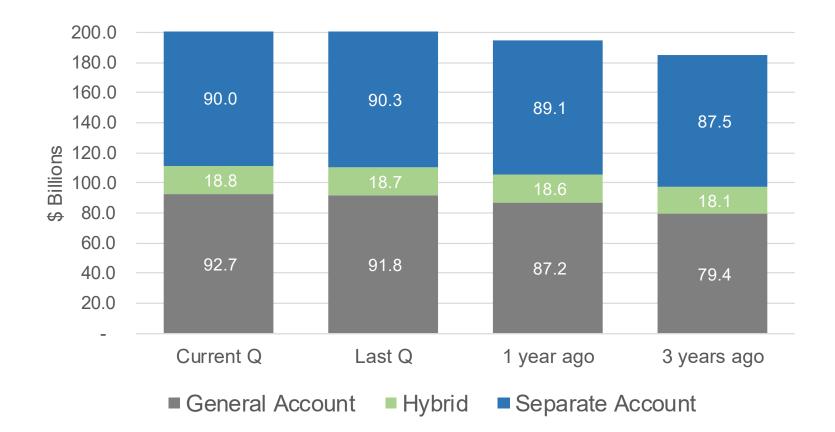
BOLI INDUSTRY ANALYTICS & ALLOCATIONS

Proprietary and Confidential – For Discussion Purposes Only

2020-Q1

BANK CALL REPORT BOLI BREAKDOWN

Banks reported \$201.5 billion of BOLI in 2020-Q1, of which \$90.0 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

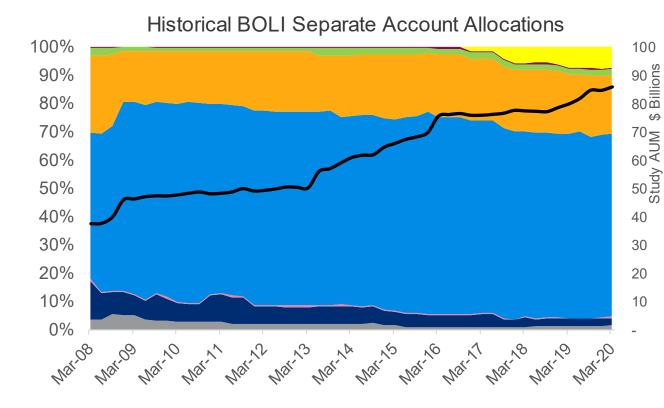
Currently comprises \$86 billion – approximately 96% of the industry.¹

MB Schoen & Associates, Inc. – Confidential and Proprietary

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.

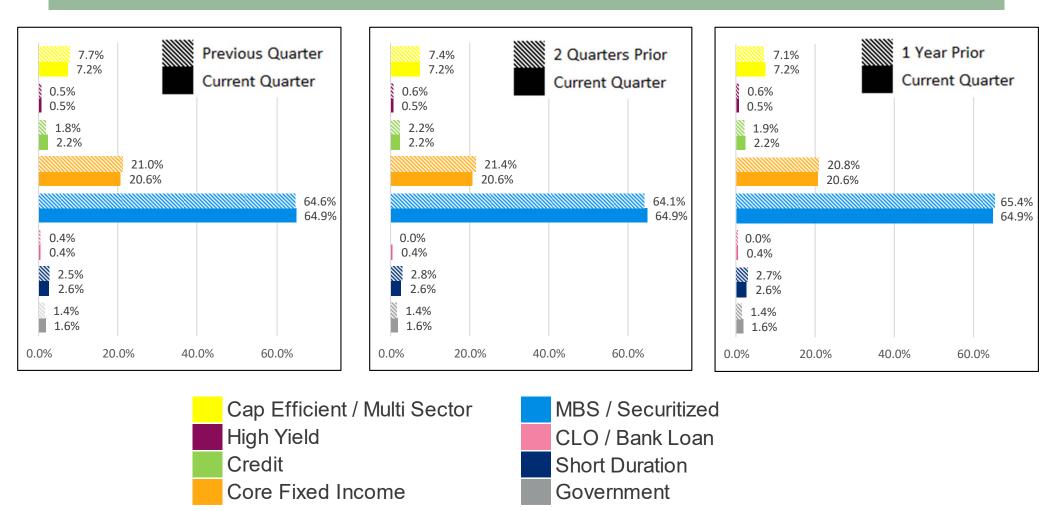


2020-Q1 Weights Cap Efficient / Multi Sector 7.2% **High Yield** 0.5% 2.2% Credit Core Fixed Income 20.6% MBS / Securitized 64.9% CLO / Bank Loan 0.4% Short Duration 2.6% Government 1.6%

MB Schoen & Associates, Inc. - Confidential and Proprietary

SEPARATE ACCOUNT ALLOCATION CHANGES

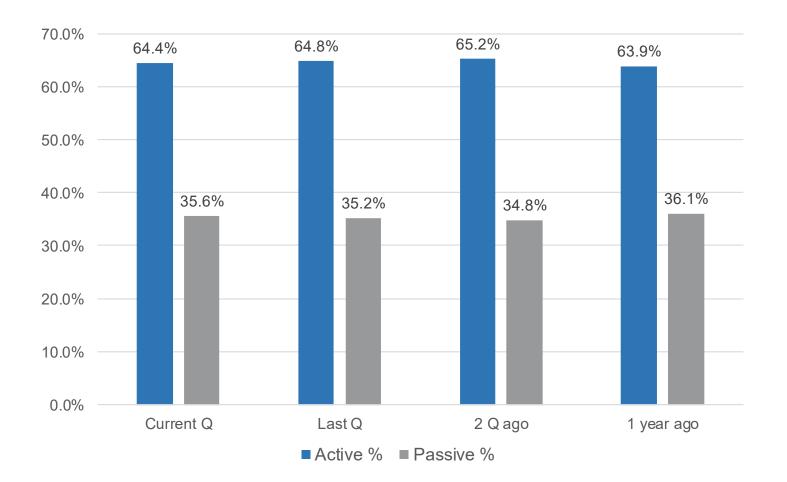
While some changes can be attributed to asset growth, periodic comparisons can indicate potential reallocations.²



MB Schoen & Associates, Inc. – Confidential and Proprietary

BREAKDOWN OF PORTFOLIOS (ACTIVE VS PASSIVE)

Of the \$86 billion in the study, 64% 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 2.42%.

	Benchmark	Quarter	1-Year	3-Year	Weights
Cap Efficient / Multi Sector	[Proxied By Blend of Below]	0.52%	5.15%	3.53%	7.22%
High Yield	Barclays High Yield	-10.71%	-4.28%	1.63%	0.48%
Credit	Barclays US Credit	-3.15%	5.11%	4.20%	2.17%
Core Fixed Income	Barclays US Agg	3.15%	8.93%	4.82%	20.57%
MBS / Securitized	Barclays US Securitized	2.65%	6.89%	4.02%	64.92%
CLO / Bank Loan	Palmer CLOSE Index	-4.13%	-1.23%	1.51%	0.42%
Short Duration	ML 90-Day LIBOR	0.50%	2.36%	2.01%	2.62%
Government	BofA / ML 1-3Y Treasury	2.81%	5.40%	2.69%	1.60%
Industry Proxy Performance	2.33%	6.91%	4.06%		

MB Schoen & Associates, Inc. – Confidential and Proprietary

CALL REPORT BOLI ANALYTICS

The overall effective RW for SA BOLI was ~37%; however, many banks default to 100%.

 Using the Q1 category weights and proxy portfolios, MBSA estimates a ~25% effective riskweight for SA BOLI in our Study using the Basel III Standardized Approach

	# of Banks	GA BOLI (\$B)	Hybrid BOLI (\$B)	SA BOLI (\$B)	SA Exposure (\$B)	SA RWA (\$B)	Total RWA / Total Exposure	Average Bank RW%	Bank RW% median and mode were 100%
Current Q	3,321	92.7	18.8	90.0	97.9	36.2	36.9%	84.3%	for all periods
Last Q	3,358	91.8	18.7	90.3	103.0	40.6	39.4%	91.7%	· · · · · · · · · · · · · · · · · · ·
2 Q ago	3,386	90.1	18.6	89.1	99.4	37.5	37.7%	86.2%	
1 year ago	3,447	87.2	18.6	89.1	101.4	40.2	39.7%	91.2%	

All Banks

\$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%	For larger banks, the mode Bank RW% is
Current Q	83	55.6	12.3	85.7	92.2	32.2	34.9%	54.4%	still 100%, but median
Last Q	79	54.8	12.1	85.9	92.8	32.6	35.1%	55.3%	drops to ~35%
2 Q ago	78	53.4	11.9	84.6	91.4	31.5	34.5%	53.7%	
1 year ago	77	51.3	11.7	84.3	90.6	31.9	35.2%	55.8%	

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.

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

The foregoing presentation is furnished only for informational and discussion purposes and is subject to completion or amendment. The presentation is not advice or a recommendation to take any particular action.

Parts of the presentation are based on information obtained from voluntary responses. MB Schoen & Associates, Inc. makes no representation as to, and accepts no responsibility or liability for, the accuracy or completeness of the information.

MB Schoen & Associates, Inc. is not and does not purport to be an advisor as to legal, taxation, accounting, financial, investment or regulatory matters in any jurisdiction. The recipient should independently evaluate and judge the matters referred to herein.

This document and its contents are proprietary information of MB Schoen & Associates, Inc. and may not be reproduced or otherwise disseminated in whole or in part without its written consent.

MB Schoen & Associates, Inc. – Confidential and Proprietary