



Variable Annuity Market Update, Q1 2024

July 2024

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Featured article

AN UPDATE ON NAIC'S ECONOMIC SCENARIO GENERATOR REFORM

The National Association of Insurance Commissioners (NAIC) has actively continued its efforts to evaluate Conning's GEMS model as a new generator of economic scenarios (GOES) for U.S. principal-based reserving (PBR) in recent months. This initiative could have a meaningful impact on several lines of business, most significantly variable annuities (VAs) covered under VM-21/C3 Phase II, but also business covered by VM-20 and C3 Phase I. Looking ahead, this new GOES is expected to be the foundation for the upcoming VM-22 field test, which will look at the proposed PBR framework for non-variable annuities.

Most recently, the industry has been wrapping up a second-round GOES field test that reflects refined calibration from the first-round field test that occurred in 2022. Unlike the initial field test where the NAIC publicly summarized the aggregated company-submitted results, the second field test will have companies present results in regulator-only sessions while the NAIC will use Oliver Wyman for model office support to provide a more generalizable view of the potential impacts of the new GOES scenario sets.

The GEMS calibration featured in the second-round field test shares characteristics of the scenarios from the initial field test. This includes (among other features) the equity-rate linkage, potential for negative interest rates, higher frequency of inverted yield curves, and more positively correlated equity returns.

Oliver Wyman released model office results for the latest field test in mid-June, showing a material increase in VM-21 reserves on an adjusted CTE70 basis and a muted increase on a best efforts CTE70 basis where a simplified future hedging strategy was reflected.

This trend is consistent with the impacts from key scenario sets in the first-round field test, as documented in [Milliman's own published impact analysis](#).

Keep an eye out in the coming weeks for a follow-up Milliman white paper discussing the second-round field test, building upon the first paper and offering a complement to the model office results presented thus far.

GOES reform has been a significant effort for all parties involved, but completion of the latest field test is a sign the NAIC is moving closer to implementation. We hope to see GOES reform on the agenda again at the NAIC's upcoming Summer National Meeting in August, where we can get the latest understanding of how regulators are looking to proceed.

Market updates

U.S. MARKET UPDATE

- 2023 traditional variable annuity sales were down 17% to \$51.4 billion versus 2022.
- 2023 registered index-linked annuity (RILA) sales were up 22% to \$47.4 billion versus 2022.

FIGURE 1: U.S. VARIABLE ANNUITY AND REGISTERED INDEX ANNUITY SALES (\$ BILLIONS)

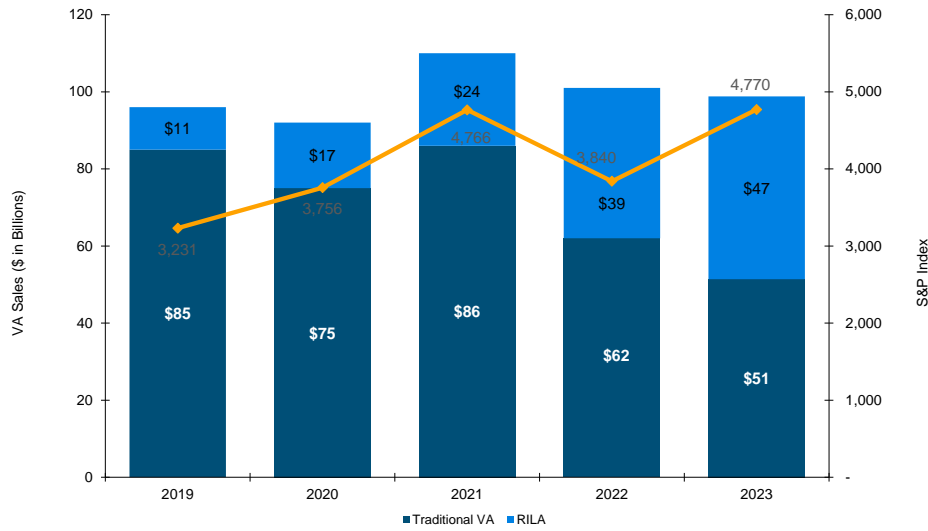


FIGURE 2: U.S. TRADITIONAL VARIABLE ANNUITY AND RILA SALES BY COMPANY (\$ MILLIONS)

Rank	Company	2023	2022	YoY	2021	2020
1	Equitable Financial	\$17,882	\$15,094	18%	\$14,566	\$10,474
2	Jackson National Life	11,926	14,540	-18%	19,026	16,519
3	Lincoln Financial Group	7,910	8,770	-10%	10,971	10,040
4	Brighthouse Financial	7,528	7,062	7%	8,312	6,012
5	TIAA	7,242	7,626	-5%	7,901	8,619
6	Allianz Life of North America	6,795	5,867	16%	7,011	4,839
7	Prudential Annuities	5,033	5,274	-5%	6,344	5,677
8	New York Life	4,951	5,060	-2%	5,264	3,850
9	Nationwide	4,701	5,199	-10%	8,003	4,270
10	RiverSource Life Insurance	3,981	4,046	-2%	5,968	4,357
11	Corebridge Financial	3,865	5,631	-31%	8,009	5,994
12	Pacific Life	2,774	3,376	-18%	5,578	3,656
13	Transamerica	1,461	703	108%	1,259	2,560
14	Thrivent Financial for Lutherans	1,439	2,106	-32%	2,821	2,270
15	Fidelity Investments Life	1,322	1,228	8%	2,424	1,498
16	TruStage	1,031	1,296	-20%	1,565	1,175
17	Massachusetts Mutual Life	968	1,162	-17%	778	363
18	Athene Annuity & Life	851	903	-6%	566	NA
19	Protective Life	782	748	5%	1,027	NA
20	Northwestern Mutual Life	746	888	-16%	1,088	985
	Other	5,612	6,319	-11%	6,820	5,441
	Total	98,800	102,900	-4%	125,300	98,600

Product trends of U.S. VA guarantee benefits

TRADITIONAL VARIABLE ANNUITIES

Jackson

Jackson raised single life GLWB lifetime withdrawal rates on the following riders (example single life age 65 rates):

- Flex Value (4.25%), Flex Core (5.25%), and Flex Plus (5.25%).
- Flex Net Value (4.25%), Flex Net Core (5.25%).
- Flex Strategic Income: Accelerated (6.5%), Standard (4.25%).

Lincoln

Lincoln raised GLWB lifetime withdrawal rates on the single life age band 65-69 of the following:

- ProtectedPay Select Core: 6.00%.
- ProtectedPay Secure Core: 6.10%.

Nationwide

Nationwide increased payout percentages on L.inc+ Advisory riders available on its Nationwide Advisory Retirement Income Annuity (NARIA):

- L.inc+ Core Advisory rates increased by 5 to 40 basis points (bps) at key retirement ages, highlighted by a 40-bp increase for age 65 single and joint investors (6.10% and 5.70%, respectively).
- L.inc+ Accelerated Advisory rates increased by 10 to 45 bps at key retirement ages, highlighted by a 45-bp increase for age 65 joint life investors, to 7.10% or 4.25% if the account value is 0. The single life age 65 rate is 7.50%, or 4.50% if the account value is 0.
- The riders offer investment flexibility and high equity exposures, with L.inc+ Accelerated Advisory allowing clients to invest up to 100% in equities.

Protective

Protective raised the roll-up rate on SecurePay protector to 7.00%.

Principal

Principal raised GLWB lifetime withdrawal rates:

- By 15 bps on its Flexible Income Protector Plus. Single life rates range from 3.60% to 6.35%, with the age 65 rate at 5.75%.
- By 10 bps on its Flexible Income Protector. Single life rates range from 3.70% to 6.45%, with the age 65 rate at 5.95%.
- By 15 bps on its Target Income Protector. Single life rates range from 3.65% to 6.40%, with the age 65 rate at 5.90%.

REGISTERED INDEX-LINKED ANNUITIES

Guardian

Guardian Life introduced Guardian MarketPerform. Features include:

- Three strategy terms: 1, 3, or 6 years.
- Three buffer rates (protection level): 10%, 20%, or 30% (30% is only available with the 6-year term).
- Four indices: S&P 500, MSCI EAFE (available on 1-year term), Nasdaq-100 (available on 1-year term), and SG Smart Climate. A cap may or may not apply, and the participation rate will be equal to or greater than 100%, both depending on the crediting strategy chosen.
- Performance Lock feature, to lock in performance prior to end of the term.

Protective

Protective closed the Protective Market Defender II to new sales effective March 30, 2024.

F&G

F&G introduced its first RILA, F&G Confidence Builder. It offers 27 index-linked interest strategies and a 1-year fixed rate. Other features include:

- Two buffer rates: 10% and 20%.
- Three terms: 1, 3, and 6 years.
- Indices: S&P 500, MSCI EAFE, Russell 2000, Nasdaq-100. The 6-year term offers a “Hindsight 20/20” index with a 10% buffer, uncapped. With the Hindsight 20/20 strategy, applied to BofA MP Indices, the client automatically gets the “best-of” performance out of growth, balanced and defensive indices. Each is designed to perform in different market conditions. At the end of the 6-year point-to-point segment, whichever index has the best performance (grown the most or lost the least) is credited to the account value.
- A cap rate may or may not apply depending on the crediting strategy chosen. All strategies currently have a 100% participation rate.
- A Performance Trigger Rate is available on the 1-year term.
- An annual lock with cap and 10% buffer is available on the 6-year term.
- No surrender charge applies for qualified healthcare expenses.

International VA markets—Taiwan

- First-year premium (FYP) sales of VAs as of Q4 2023 were around TWD 4.1 billion, 19.1% lower than Q4 2022.
- FYP sales of variable life as of Q4 2023 were around TWD 17.5 billion, 22.5% lower than Q4 2022.
- The 2023 sales of variable products have been 20.6% lower versus 2022.
- According to the disclosure from the Life Insurance Association R.O.C., the decrease in sales has been due to:
 - New regulations on variable products (which took effect on January 7, 2023) that put restrictions on the fund choices and cash-back (in form of automated partial withdrawal) and on bonus mechanisms.
 - Some companies have gradually shifted their product strategy away from investment-linked products to other types given the new regulation and future needs for optimization under IFRS17 and ICS.

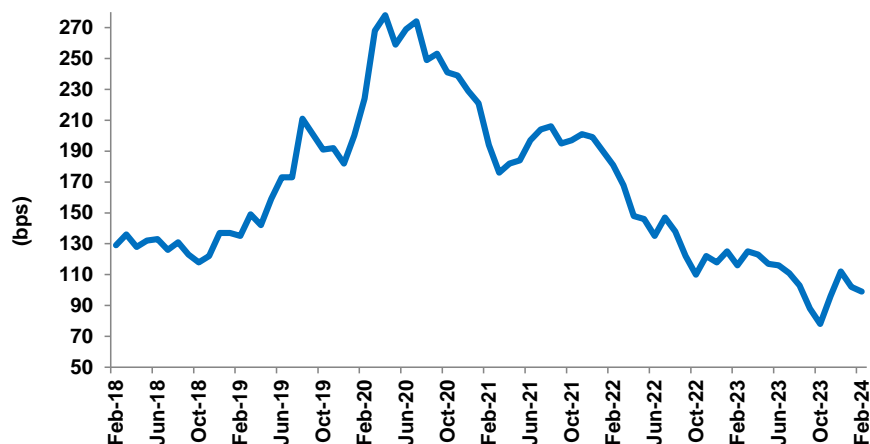
Risk management

MILLIMAN HEDGE COST INDEX™ AND U.S. MARKET COMMENTARY

March 2024 update

- U.S. equity markets maintained strong performance throughout Q1 2024, continuing the momentum from the previous quarter. The S&P 500 rose by 10.16%, Nasdaq by 9.11%, Dow Jones by 5.62%, and Russell 2000 by 4.81%. Markets experienced choppy trading in January but rallied significantly in February and March, buoyed by optimism about the U.S. economy and positive earnings reports.
- Economic indicators pointed to persistent inflationary pressure. The Consumer Price Index (CPI) reported a year-over-year (YoY) of 3.4% in January, 3.1% in February, and 3.2% in March—all above the expected levels—with month-on-month (MoM) figures between 0.3% and 0.4%. The Producer Price Index (PPI) displayed inflation persistence, with YoY figures at 1.0% in January, 0.9% in February, and 1.6% in March. The Federal Reserve's preferred metric, personal consumption expenditures (PCE), was in line with expectations each month and rose by 2.6% YoY in January and 2.4% YoY in February and March. GDP growth for Q4 2023 was annualized at 3.4%, exceeding the expected 3.3%, and personal consumption also came out above expectations at 3.3% in the last month of the quarter.
- The labor market continued to display strength, with nonfarm payrolls adding 216,000 jobs in January, 353,000 jobs in February, and 275,000 in March, significantly exceeding expectations. The unemployment rate averaged 3.7% for the quarter, with a slight increase to 3.9% in March. ADP employment change figures showed mixed results, with 107,000 in January, 150,000 in February, and 140,000 in March.
- In the industrial sector, production varied with 0.1% growth in January and March, and a decline of -0.1% in February. Capacity utilization remained relatively stable, ranging from 78.3% to 78.6%. The housing market showed significant monthly fluctuations. Housing starts were at 14.8% in January and -14.8% in February, before rebounding to 10.7% in March. Existing home sales saw a substantial increase from -1.0% in January to 9.5% in March.
- The Federal Reserve held two Federal Open Market Committee (FOMC) meetings during Q1 2024, maintaining rates at 5.50%. In the January meeting, the Fed emphasized that the hiking phase might be over, increasing the chance of a soft landing under current conditions. However, they remained cautious about inflation metrics and signaled that rate cuts in the realm of 0.50% to 0.75% could be possible next year. In the March meeting, the Fed maintained its forecast for three more rate cuts this year. The mean expected Fed funds rate for the end of 2024 rose by 11 bps to 4.81%, and the median for 2025 shifted from 3.6% to 3.9%. The long-term neutral rate increased to 2.6%.
- The U.S. Treasury curve remained inverted, experiencing bear flattening over the quarter. The 2-year yield went up 37 bps, closing at 4.62%, while the 10-year yield was up 32 bps, closing at 4.20%. The 2s10s spread ended at -42 bps. In commodities and currencies, gold showed significant gains of 8.09%, ending the quarter at \$2,229.87 per ounce, and the U.S. Dollar Index increased by 3.11%, closing at 104.
- The VIX was relatively stable over the quarter, ending at 13.01 with a 0.56-point increase. The term structure got slightly steeper, with the 1-month decreasing and the mid-month increasing. S&P 10-day realized volatility fluctuated, ending the quarter at 7.58%.

FIGURE 3: EXPECTED HEDGE COST* (99 BPS)



* Milliman recently completed a review of the design of its Hedge Cost Index and implemented some changes to align product features and assumptions with those prevalent in the VA marketplace. Details regarding this update can be found in the Index Methodology document at milliman.com/mhci-methodology.

RISK-MANAGED FUNDS ON VA PLATFORMS
Risk-managed funds on VA platforms, Q1 2024

The U.S. variable annuity (VA) market continued to see limited new fund launches in Q1 2024, as it did in Q4 2023. Only two new funds were launched in Q1: a bond fund and an international equities fund each from two separate investment companies.

The graph below illustrates the average 20-day realized volatility for S&P 500 and MSCI EAFE as two representative indices. During the first quarter of 2024, the average 20-day realized volatility for the S&P 500 and MSCI EAFE was 11.32% and 9.80%.

FIGURE 4: INDEX VOLATILITY

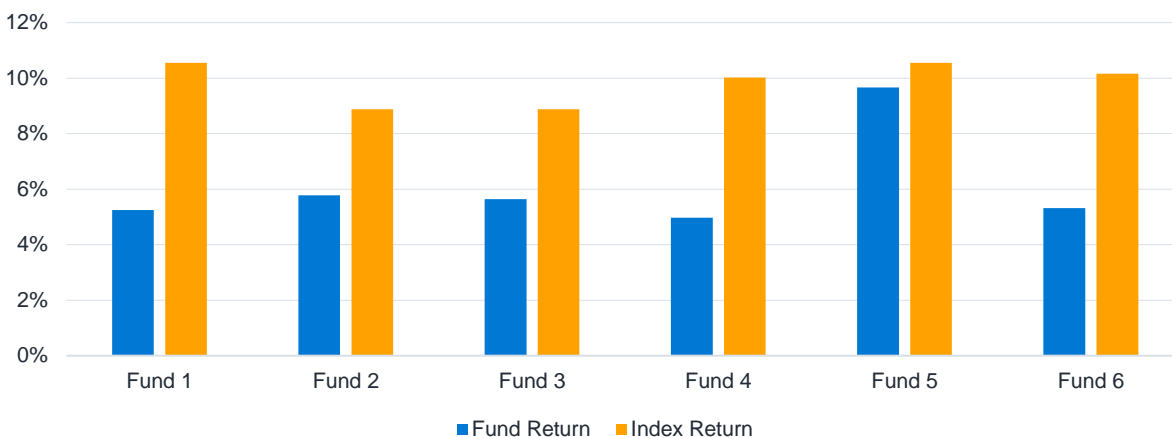


Source: Bloomberg.

We selected six different indicative managed risk fund strategies available within VA products. Each fund's quarterly return and realized volatility profiles are shown below. The following notes were observed in Q1.

1. Fund 5, a managed volatility fund, was the best-performing fund over the first quarter on an absolute basis. The outperformance relative to the peer group can be attributed to the fund's higher volatility target relative to the other funds and its underlying equity allocation to U.S. large cap equities.
2. Fund 6, a defined outcome, had the highest risk-adjusted return over the quarter. The fund recently reset its option package, resulting in a lower sensitivity to the fund's underlying exposure to the S&P 500. As of the end of Q1, the fund had appreciated 5.3% year-to-date and had an estimated 7.9% of remaining cap, net of fees.
3. Fund 4, a managed volatility fund, experienced the lowest absolute return in peer group over the quarter. The underperformance was driven by the fund's larger exposure to fixed income securities and international equities relative to the peer group over the quarter.

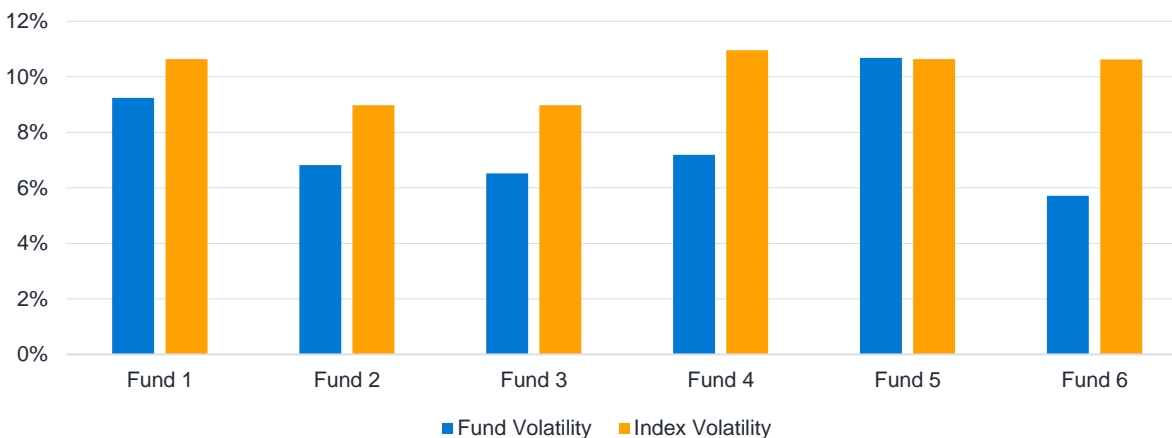
FIGURE 5: FUND RETURNS, Q1 2024



Source: Bloomberg.

Benchmarks: Fund 1: S&P 500 TR; Fund 2: MSCI World NR; Fund 3: MSCI World NR; Fund 4: Russell 3000 TR; Fund 5: S&P 500 TR; and Fund 6: S&P500 PR.

FIGURE 6: FUND VOLATILITY, Q1 2024



Source: Bloomberg.

Benchmarks: Fund 1: S&P 500 TR; Fund 2: MSCI World NR; Fund 3: MSCI World NR; Fund 4: Russell 3000 TR; Fund 5: S&P 500 TR; and Fund 6: S&P500 PR.



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Data has been obtained from the following reports by LIMRA Secure Retirement Institute: U.S. Individual Annuity Sales (2018 Annual, 2019 Annual, 2020 Annual, 2021, 2022 Annual, and 2023 Annual) and Variable Annuity Guaranteed Living Benefit (GLB) Election Tracking Survey (2023, 4thQuarter).

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CONTRIBUTORS

SEATTLE

David Wang
david.wang@milliman.com

Aatman Dattani
aatman.dattani@milliman.com

CHICAGO

Ram Kelkar
ram.kelkar@milliman.com

Tim Hill
tim.hill@milliman.com

Teresa McNeela
teresa.mcneela@milliman.com

Blake Graves
blake.graves@milliman.com

LONDON AND DUBLIN

Neil Dissanayake
neil.dissanayake@milliman.com

Mike Claffey
mike.claffey@milliman.com

TOKYO

Rikiya Ino
rikiya.ino@milliman.com

TAIWAN

Scott Chow
scott.chow@milliman.com

SEOUL

Chihong An
chihong.an@milliman.com

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Collin Davidson
collin.davidson@milliman.com