A Leading Global Investment Management Firm

# Strategic Asset Allocation Approach

June 2024

Conning's Strategic Asset Allocation for Life/Annuity Insurers: Empowering Financial Decision-Making for Executives

Investment performance is key to a life insurer's success. But investment strategies designed solely around maximizing returns or managing duration risk can result in suboptimal enterprise outcomes.

A successful strategy requires a holistic approach that complements the company's overall business: the liabilities written, policyholder characteristics and behavior, balance sheet leverage, capital adequacy, and more. A successful strategy must meet the varied needs of regulators, rating agencies, policyholders and other stakeholders. Strategies also need to incorporate an appropriate time horizon, which for life insurers needs to be long enough to incorporate all future expected liabilities. For all these reasons, a life insurer's investment strategy cannot be optimized in isolation.

Conning's Insurance Solutions group takes a holistic approach to Strategic Asset Allocation (SAA) (Figure 1). Insurance Solutions aims to understand the role of the portfolio within the entire operation of an insurance company, taking great care to understand clients' objectives and risk tolerances as well as their constraints and time horizons.

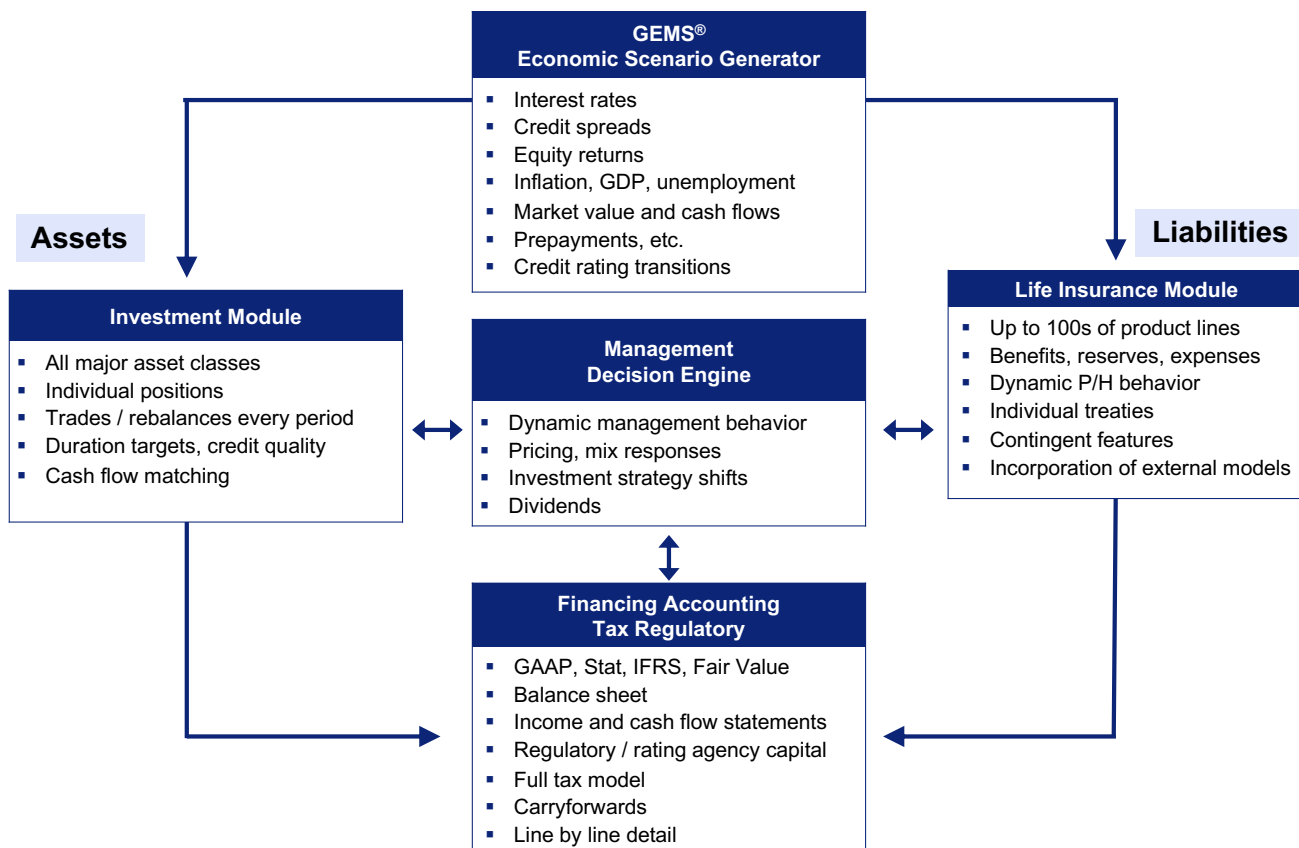**Figure 1** Model of Conning's Holistic SAA Approach
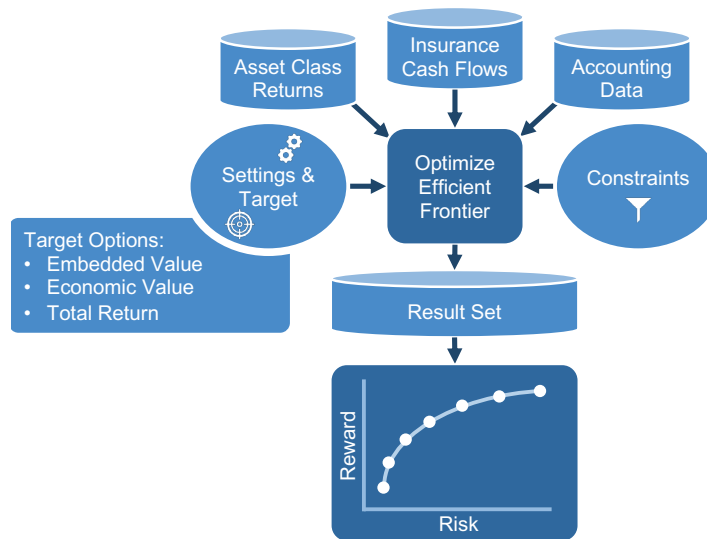
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Conning's efficient frontier optimization framework is uniquely designed to maximize Embedded Value, the present value of distributable earnings beyond what is required to meet target capital. This allows us to incorporate a life insurer's assets and liabilities into a single optimization, simultaneously capturing impacts on the business, impacts on the investment portfolio and the interdependencies between the two. Examining both sides of the balance sheet offers a comprehensive view of both risks and opportunities. This provides a framework for assessing the company's value across a range of accounting, tax, and regulatory regimes, to ensure key stakeholder considerations are all considered.

Insurance Solutions utilizes Conning's award-winning[1] GEMS® Economic Scenario Generator (Figure 2). GEMS® produces thousands of real-world economic and capital market scenarios across a multi-year time frame. Consequently, the investment strategy supports the nuance of changes in crediting rates, policyholder behavior, etc. that liabilities might experience.

Figure 2 Conning's GEMS® Optimization Process

GEMS®
Economic Scenario Generator
- Interest rates
- Credit spreads
- Equity returns
- Inflation, GDP, unemployment
- Market value and cash flows
- Prepayments, etc.
- Credit rating transitions

Assets

Liabilities

Investment Module
- All major asset classes
- Individual positions
- Trades / rebalances every period
- Duration targets, credit quality
- Cash flow matching

Management
Decision Engine
- Dynamic management behavior
- Pricing, mix responses
- Investment strategy shifts
- Dividends

Life Insurance Module
- Up to 100s of product lines
- Benefits, reserves, expenses
- Dynamic P/H behavior
- Individual treaties
- Contingent features
- Incorporation of external models

Financing Accounting
Tax Regulatory
- GAAP, Stat, IFRS, Fair Value
- Balance sheet
- Income and cash flow statements
- Regulatory / rating agency capital
- Full tax model
- Carryforwards
- Line by line detail
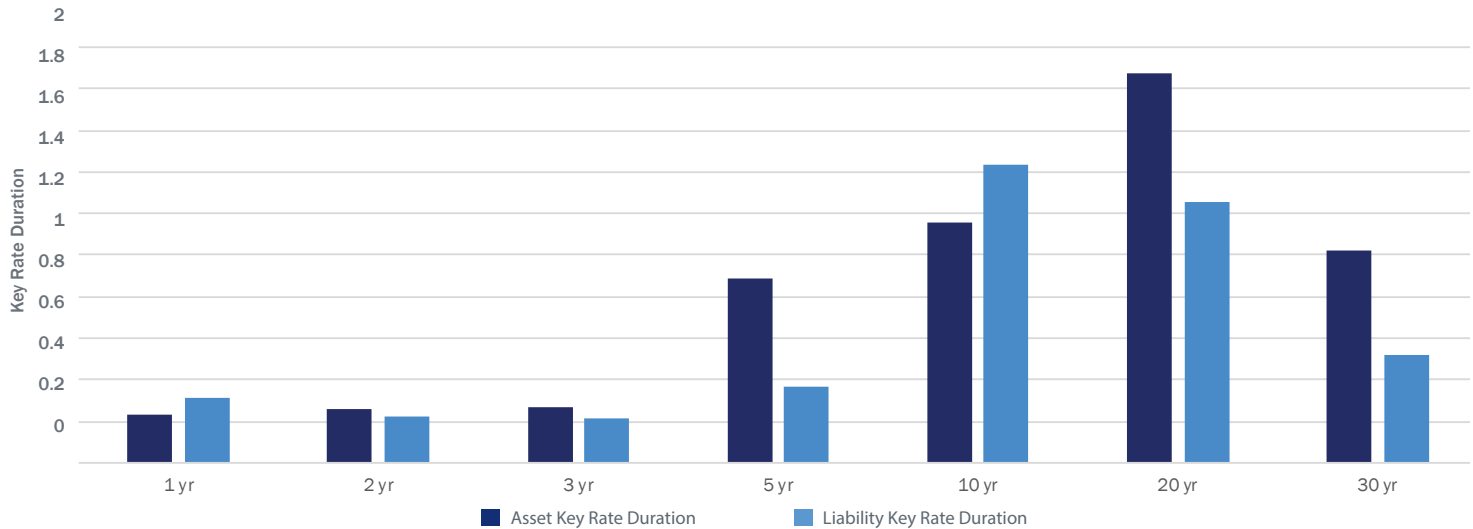
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Among Conning's unique strengths is our ability to model exotic and illiquid asset classes, such as private credit. Our robust and flexible approach to asset modeling allows for all investment types to be integrated into the stochastic enterprise model, with careful consideration of structural dynamics including tail behavior and correlation with other investments. These capabilities further enhance the quality of the analysis and the range of strategic opportunities.

Finally, Insurance Solutions is adaptive, flexible, and responsive to individual client needs, customizing the analysis as needed to enable clients to think through, focus on, and communicate how the strategic decisions support profitability and financial strength. The Insurance Solution team delivers resources to clients so they can provide stakeholders a more in-depth understanding of the impact on the entire organization.

Examples of Analysis Employed During Conning's SAA Process:

Duration Analysis. Figure 3 illustrates the differences in sensitivity between assets and liabilities to changes in interest rates at different points on the yield curve (i.e. key rate duration assessment).

Figure 3 Duration Analysis

Year	1 yr	2 yr	3 yr	5 yr	10 yr	20 yr	30 yr	Overall
Asset Key Rate Duration	0.234	0.26	0.268	0.887	1.155	1.878	1.026	5.71
Liability Key Rate Duration	0.315	0.223	0.209	0.367	1.435	1.259	0.519	4.33

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Investment Strategies Optimizing. The efficient frontier (Figure 4) shows how a company's risk and reward can change from portfolio A (lower risk and return) to portfolio K (higher risk and return) by shifting the allocations to a wide selection of investment vehicles with different risk factors such as credit quality, liquidity, and duration.

We can also demonstrate the value of increased limits to certain types of investments such as increasing alternative allocations or adding new asset classes, to help generate additional value by means of improving returns for each level of risk or increasing diversifications.

Figure 4 Investment Optimization: Efficient Frontier

Average Rating	A-
Duration	9.5
Cash & Treasuries	4%
Taxable Municipals	5%
Corporates A & above	30%
Corporates BBB	20%
Structured	15%
CLOs	3%
CMLs	5%
Private Placements	8%
High Yield	3%
Convertibles	3%
EMD	3%
Bank Loans	0%
Equities	3%
Hedge Funds	0%
Private Equity	1%
Real Estate	0%

Change in Risk (standard deviation of Economic Value ($million))

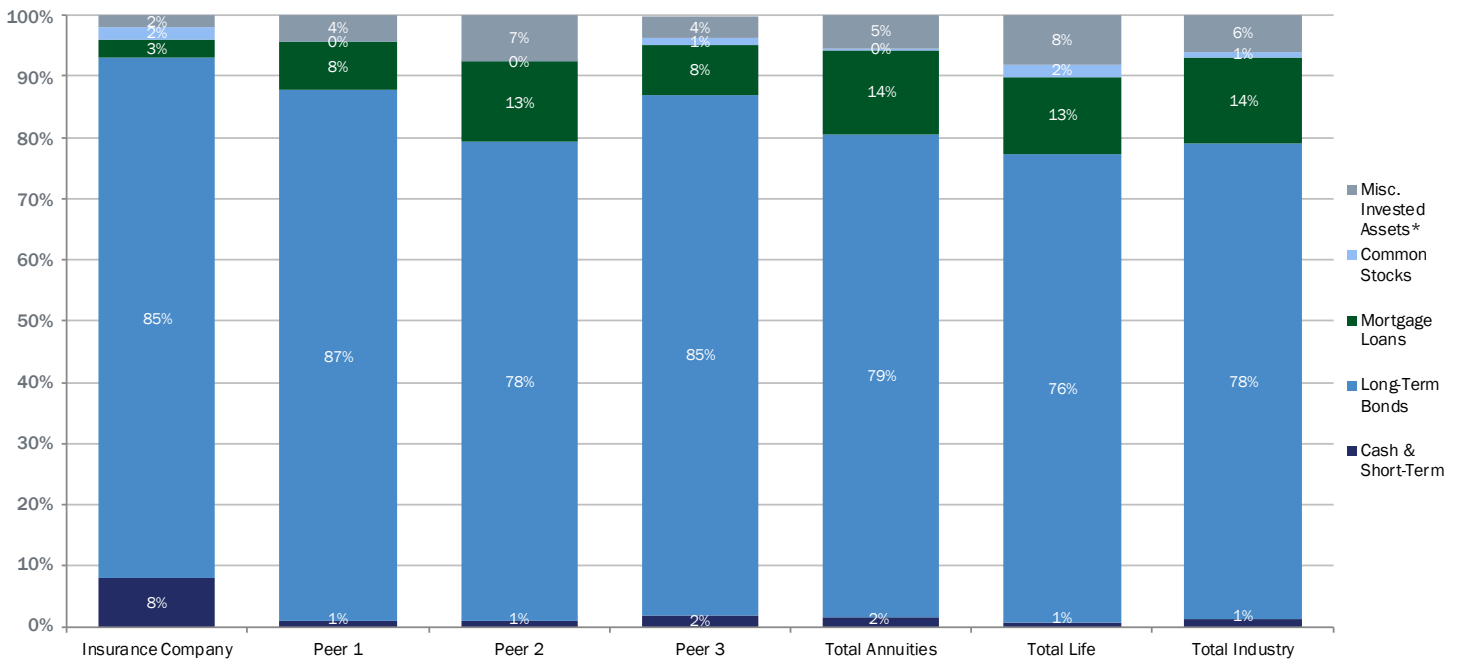Change in Risk (standard deviation of Economic Value ($million))
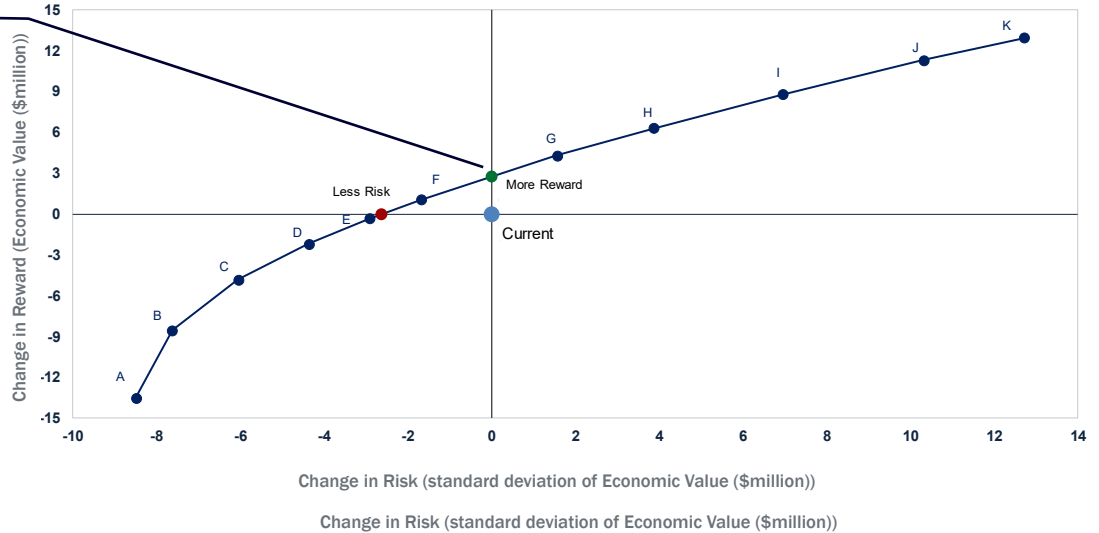
Prepared by Conning, Inc. ©2024 Conning, Inc. Source: Conning Allocation Optimizer® using investment returns and liability cash flows from GEMS® Economic Scenario Generator. Sample provided for illustrative purposes only. See disclosures at end of paper.

*Economic value is equivalent to a company's surplus or equity but calculated on an economic basis rather than an accounting basis. This means all assets are market to market value, liabilities are stated on a present value basis, and it includes the net cash flows generated by future operations.

Cash Flow Analysis – Level & Stochastic Scenarios. Conning tests the sensitivity of asset and liability cash flows to changes in interest rates under thousands of stochastically generated interest rate scenarios. Figure 5 shows how projected net cash flow on a worst-case scenario suggests zero downside risk.

Figure 5 Cash Flow Analysis
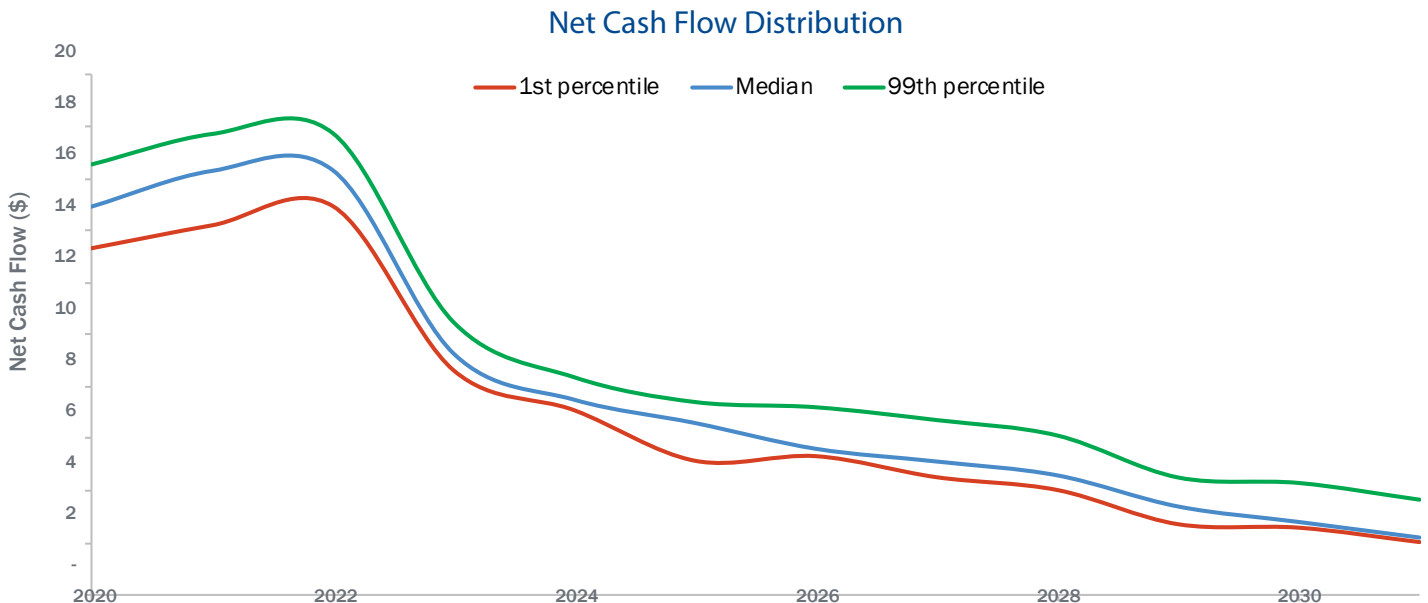
Net Cash Flow Distribution

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Peer Analysis: Conning assembles peer analysis reports for its clients which include investment portfolio, and operational aspects of their business. With this tool, clients can see how their competitors' portfolios are structured to help them evaluate their current positioning relative to industry and peer norms, including areas where a company might be an outlier. This can prepare management for possible questions from regulators and rating agencies who are often viewing similar tools.

Figure 6 demonstrates how an insurance company profile might be more conservative relative to its peers, which translates to a less optimal portfolio and more forgone opportunities.
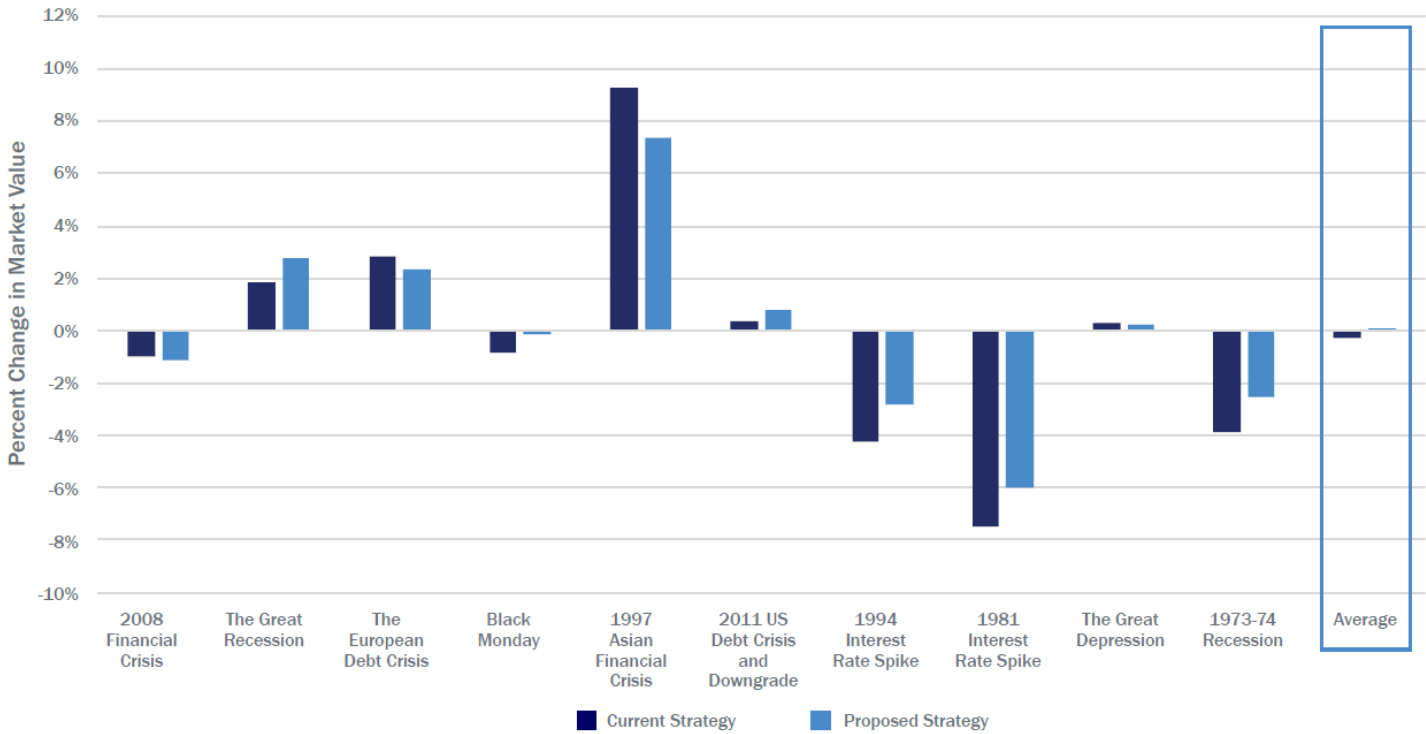
Figure 6 Peer Analysis: Asset Allocation

Asset Allocations

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Risk Management. A valuable step in validating an investment decision is back- testing analysis or performing "what if" scenarios to see how a proposed investment is expected to affect company's financials in extreme circumstances. Figure 7 illustrates how a proposed strategy could have performed historically during major financial or economic events compared to the existing portfolio.

Figure 7 Historical Stress Test

Prepared by Conning, Inc. ©2024 Conning, Inc. Source: Conning's Allocation Optimizer® using investment returns and liability cash flows from GEMS® Economic Scenario Generator. Sample provided for illustrative purposes only. See disclosures at end of paper. A description of each event and the impact on key economic factors is included in the Appendix table "Historical Stress Descriptions and Data."

Strategic Targets

The result of Conning's SAA process is an investment strategy that aims to improve return as well as reduce risk -- both economically and in statutory terms. It sets a long-term framework to help the enterprise to meet its stated goals and risk preferences. Conning empowers insurers to not only optimize their investment strategy according to their unique needs and risk tolerance, but also to communicate to stakeholders why a particular strategy is most suitable.

With an optimal investment strategy in hand, Conning's Insurance Solutions team and portfolio managers work with clients to implement the SAA. The next step in the process is a revision to the investment policy, guidelines, and performance benchmark(s) to reflect the new strategy. The portfolio manager works on a day in and day out basis to execute through sector calls and security selections to deliver the insurance company's alpha or excess returns targets.

Strategic asset allocation is a vital piece of an insurer's risk & capital management. Conning's approach to SAA is customized for each client to support its unique insurance operations and risk profile – extending the insurer's capabilities across finance, risk, and capital management. Let us help you find new opportunities to enhance your company's value while mitigating unnecessary risks.

About Conning

Conning (www.conning.com) is a leading investment management firm with a long history of serving the insurance industry. Conning supports institutional investors, including insurers and pension plans, with investment solutions, risk modeling software, and industry research. Founded in 1912, Conning & Affiliates have investment centers in Asia, Europe and North America.

Disclosures:

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Model output, including the efficient frontier, and recommended investment strategies and portfolios are used to illustrate Conning's approach to insurance asset management. These were developed using publicly available data. It is not intended that any recommendations be implemented without preparing an updated strategic asset allocation analysis, incorporating private company information.

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Footnote:

[1] Awards, rankings, and other forms of recognition are not a guarantee of Conning's future performance. Awards may not be representative of any one client's experience. For more information and disclosures regarding our industry recognition, please visit https://www.conning.com/about-us/industry-recognition

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Appendix

Historical Stress Descriptions and Data

Historical Stress	Description	Impact on Key Economic Factors
The Great Depression	The longest, deepest, and most widespread economic downturn of the 20th century and since, causing a drastic decline in output, severe unemployment, and acute deflation around the world. Global GDP fell by an estimated 15% and personal income, prices, tax revenues, international trade, and profits fell alongside it.	i. S&P price dropped by 86% ii. 1-Yr U.S. Treasury dropped from 4.79% to 0.90%
1973-74 Recession	Putting an end to the post-WWII expansion, this recession in the 1970s was defined by economic stagflation in the United States and other areas of the Western world.	i. S&P price dropped from 118.05 to 63.54, a 46.1% decline ii. 10-Yr U.S. Treasury rose 1.39 % iii. Equities dropped internationally: SPX -45%, DAX -30%, JP -23%, HK -75%
1981 Interest Rate Spike	An enormous depreciation for a large amount of fixed income investments caused by a rapid series of rate hikes initiated by Fed Chairman Paul Volcker in an effort to contain U.S. inflation.	i. 10-Yr U.S. Treasury yields jumped from 10.25% to 14.28% ii. 10-Yr Treasury rates in Canada spiked almost 6% iii. S&P was up over 7.5%
Black Monday	Monday October 19, 1987 or "Black Monday" was sudden market crash that rippled worldwide with all 23 major world markets experiencing a sharp decline that month. Originally starting in China, the crisis then spread through Asia and western Europe, eventually hitting the U.S. market.	i. Dow Jones Industrial Average fell by 22.61% ii. S&P dropped nearly 22% iii. 10-Yr U.S. Treasuries dropped from 9.57% to 8.88% iv. U.S. dollar depreciated over 5% against the UK pound
1994 Interest Rate Spike	An event where the Fed is largely believed to have raised interest rates too soon, resulting in yields on 30-year Treasuries jumping some 200 basis points in the first nine months of the year, hammering investors and financial firms, thrusting Mexico into crisis and bankrupting Orange County.	i. 10-Yr U.S. Treasury yields jumped from 5.77% to 7.81% ii. 10-Yr Treasury rates moved up around the world; UK's rose over 2.25% iii. S&P dropped 1.5%; Hong Kong equity market dropped over 30%
1997 Asian Financial Crisis	Thailand acquired a large amount of foreign debt, sending the country into bankruptcy before their currency collapsed; most affected were Japan, South Korea, and Thailand.	i. Nikkei dropped by nearly 35% ii. 10-Yr Japan Treasury dropped from 2.76% to 0.98% iii. 10-Yr U.S. Treasury dropped from 6.44% to 4.64% iv. The S&P was up almost 25% v. the Japanese yen dropped over 26% against the U.S. dollar
The Great Recession	A period of global economic decline that occurred between 2007 and 2008. It has been pointed to as the most severe economic and financial event since the Great Depression, characterized by economic fallout and a breakdown in international relations.	i. Real GDP dropped by 4.2% (0.6 trillion dollars) ii. 10-Yr Treasuries dropped from 4.1% to 3.6% iii. Equities dropped by avg. 40% iv. U.S. A Corporate 10-Yr spreads increase from 1.5% to 1.7%
2008 Financial Crisis	Years of predatory lending, excessive risk taking, and the collapse of the U.S. housing market caused a global recession and a massive depreciation of assets; in particular American Mortgage-backed securities.	i. 10-Yr Treasury dropped from 4.5% to 3.1% ii. Equities saw 50% drop iii. U.S. A Corporate 10-Yr spreads increased from 1.21% to 2.8%
The European Debt Crisis	Also known as the eurozone crisis, this event started in 2008 with the collapse of Iceland's banking system before reaching Portugal, Italy, Ireland, Greece and Spain with the collapse of financial institutions, high government debt and government bond yields increasing at an unsustainable rate.	i. The USD/Euro FX rate dropped from 1.47 to 1.268 (a 14% decrease) ii. 10-Yr Euro Treasuries dropped from 3.38% to 2.2% iii. 10-Yr U.S. Treasuries dropped from 3.5% to 2.5% iv. Euro equities dropped around 5% v. S&P rose a little over 1% vi. UK pound dropped 7% versus USD
2011 US Debt Crisis and Downgrade	A conflict between then President Obama and the Republican-controlled House of Representatives over raising the debt ceiling resulted in Standard & Poor's downgrading the credit rating of the U.S. government and a corresponding crisis of confidence in financial markets worldwide; Moody's and Fitch maintained the U.S.'s credit rating at AAA.	i. NASDAQ, ASX, and S&P 100 lost up to 4% ii. S&P's credit rating agency downgraded the long-term credit rating of U.S. gov't for the first time in its history, from AAA to AA+