

Strategic Asset Allocation Approach

June 2021

FOR LIFE INSURERS

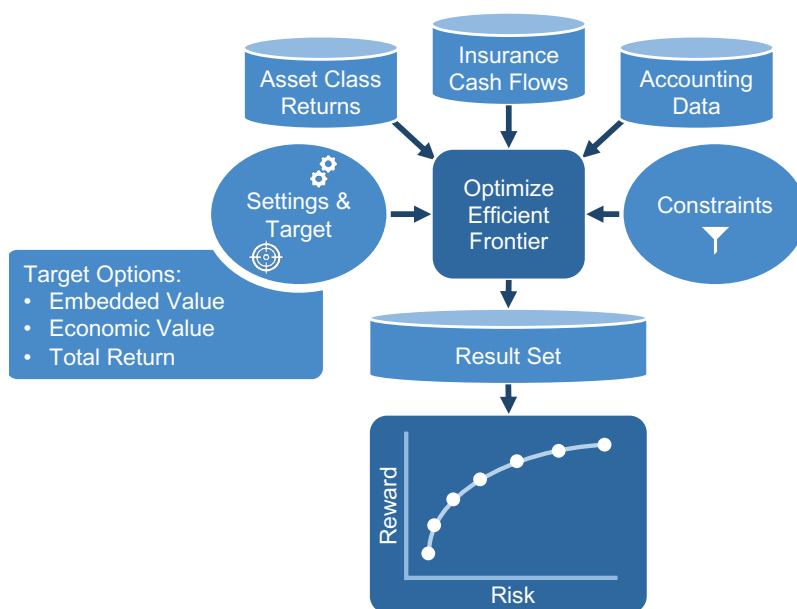
Conning's Strategic Asset Allocation Approach for Life Insurers: Empowering Financial Decision-Making

Life insurers are capital constrained entities that must constantly measure, assess, and plan allocations to the various risks they take. These risks include balance sheet leverage, capital adequacy, product pricing in correlation with mortality and morbidity rates, and setting investment strategy. All of this is further complicated by meeting the varied needs of regulators, rating agencies, policyholders or other stakeholders and the expected return of the organization. For all these reasons a life insurer's investment strategy cannot be optimized in isolation.

Each life insurer pursues different strategies based on the liabilities written, policyholders' characteristics and expected behavior, company's unique profit goals and most importantly the firm's risk tolerance. A successful strategy requires a holistic approach in analyzing and setting an appropriate investment strategy that compliments the company's overall business. Failing to analyze the investment choices along with all these considerations can result in suboptimal enterprise outcomes.

Conning's philosophy to managing the investment portfolio of life insurers relies on a Strategic Asset Allocation (SAA) approach (Figure 1). While some might approach this exercise through the lens of optimizing the investment returns only, Conning views the role of the portfolio within the entire operation of an insurance company, i.e., a holistic company framework. Once we capture the totality of the operations, Conning then begins to think about portfolio optimization.

Figure 1 Model of Conning's Holistic SAA Approach



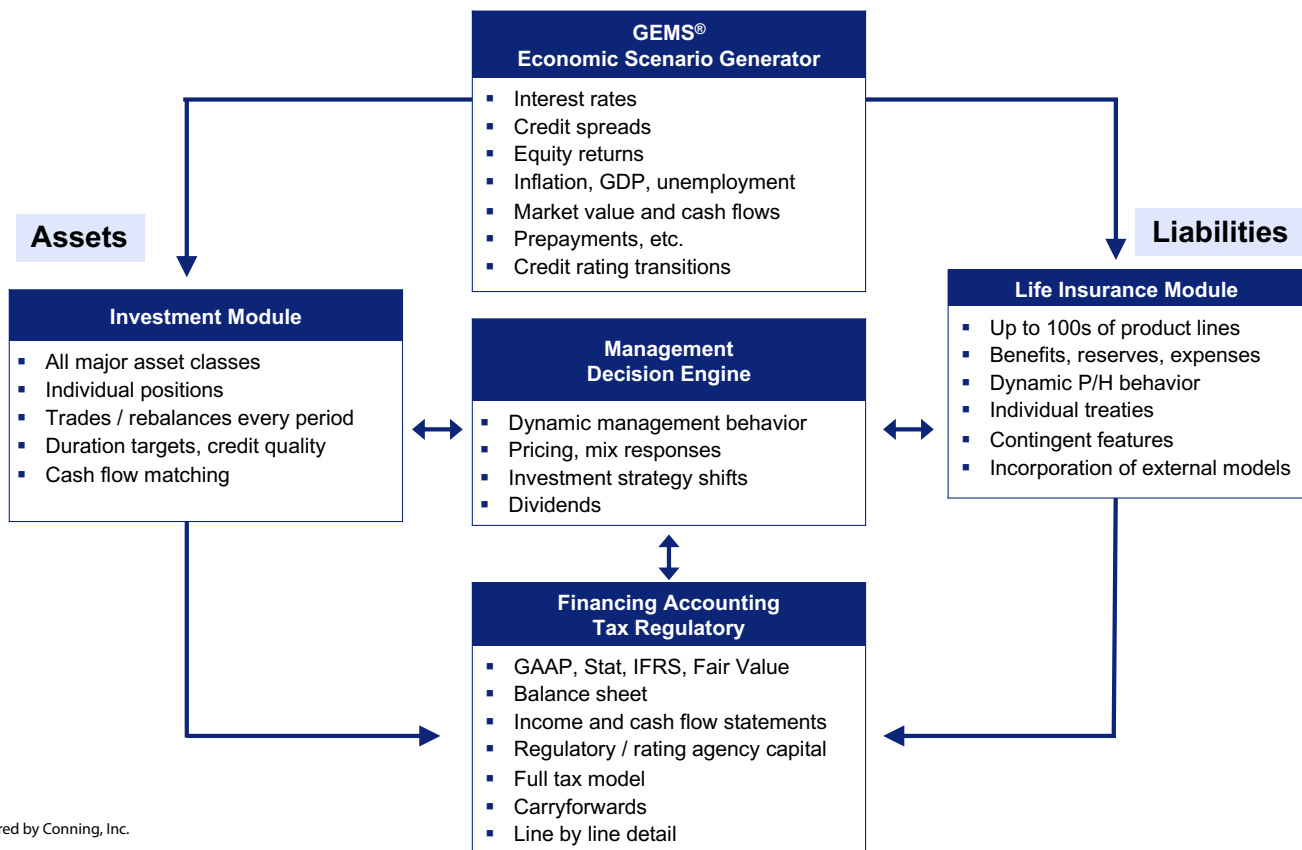
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Many asset managers design investment strategies for life insurance companies around optimizing returns or managing duration risk. However, this fails to incorporate capital structure, opportunity costs, and appropriate measures of risks. Another important consideration is the incorporation of an appropriate time horizon, which for life insurers needs to be long enough to incorporate all future expected liabilities.

Conning also differentiates itself by optimizing the value of the company through an efficient frontier framework with Embedded Value as our driving metric. Embedded value is the present value of distributable earnings beyond what is required to meet target capital. These earnings represent “the free cash flow” available to shareholders/policyholders.

At the commencement of the process, Conning utilizes its award-winning¹ GEMS® Economic Scenario Generator (Figure 2). The software produces real-world economic and capital market scenarios involving inflation, interest rates and equity returns all to be used in the calculations of company’s financial model. This provides stochastic scenarios across a range of paths across a multi-year time frame to optimize company value, not just investment returns.

Figure 2 Conning’s GEMS® Optimization Process



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This holistic view allows us to incorporate a life insurer’s assets and liabilities into a single optimization. As such, we can capture impacts on the business, impacts on the investment portfolio and the interdependencies and interplay between the two. Conning often accomplishes this by running our client’s liability models through the economic scenarios developed by GEMS® software. This ensures that the investment strategy supports the nuance of changes in crediting rates, policyholder behavior, etc. that liabilities might experience. By examining both sides of the balance sheet, no risk is overlooked, and no opportunity is missed. This provides a framework for assessing the company’s value across a range of accounting, tax, and regulatory regimes, to ensure stakeholder’s key considerations are not missed.

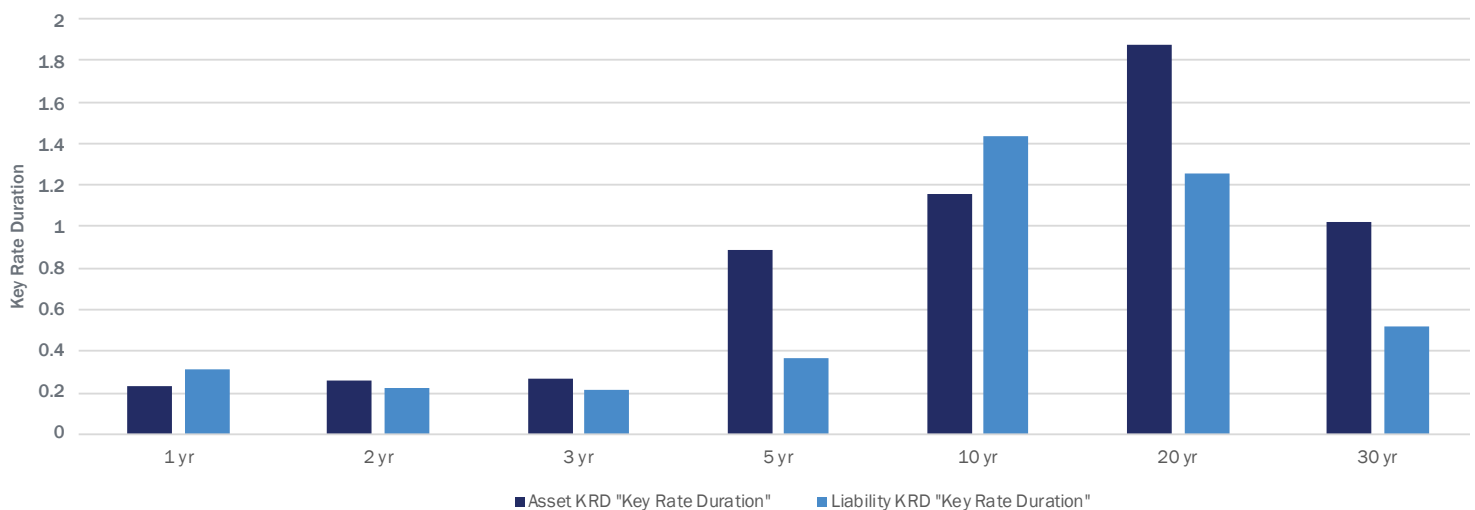
When helping clients evaluate investment strategies, Conning takes great care in understanding their objectives and risk tolerances as well as their constraints and time horizons, which enables them to think through, focus on, and communicate how the strategic decisions support profitability and financial strength. For instance, ensuring that liability payments and interest rate risks affecting the business are incorporated, provides stakeholders a more in-depth understanding of the impact on the entire organization and not just projected investment returns. Having communicated extensively with management and having completed thousands of different economic simulations using our GEMS® software, we can dive deeper into different forms of analysis.

Examples of Analysis Employed During Conning’s SAA Process:

Duration Analysis. Conning performs extensive duration analysis for its life insurance clients. When there is a duration mismatch between assets and liabilities, shifts in interest rates cause economic surplus to change unfavorably against an insurer’s balance sheet. Regulators and rating agencies are often interested in the duration of assets relative to liabilities, and under certain regulatory regimes, insurers can avoid an explicit charge caused by the duration gap, by immunizing surplus against interest rate changes.

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 KRD "Key Rate Duration"	0.234	0.26	0.268	0.887	1.155	1.878	1.026	5.71
Liability KRD "Key Rate Duration"	0.315	0.223	0.209	0.367	1.435	1.259	0.519	4.33

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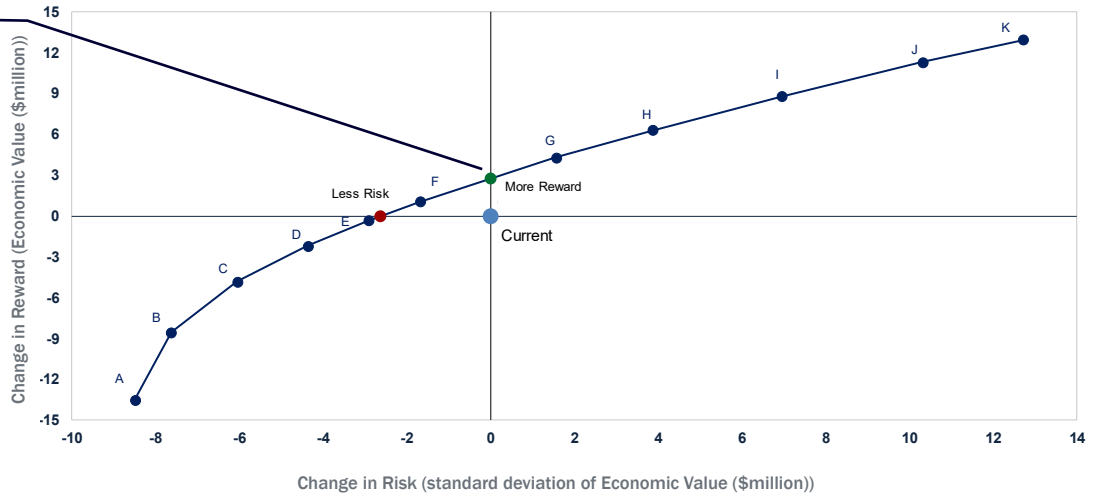
Investment Strategies Optimizing. The efficient frontier (Figure 4) shows how a company’s risk and reward can change from portfolio A (lower risk and return) to portfolio K (higher risk and return) by shifting the allocations to a wide selection of investment vehicles with different risk factors such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

The company’s current investment strategy is plotted with the efficient frontier to show opportunities for more optimal enterprise outcomes that may result from varying alternative portfolio strategies.

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%

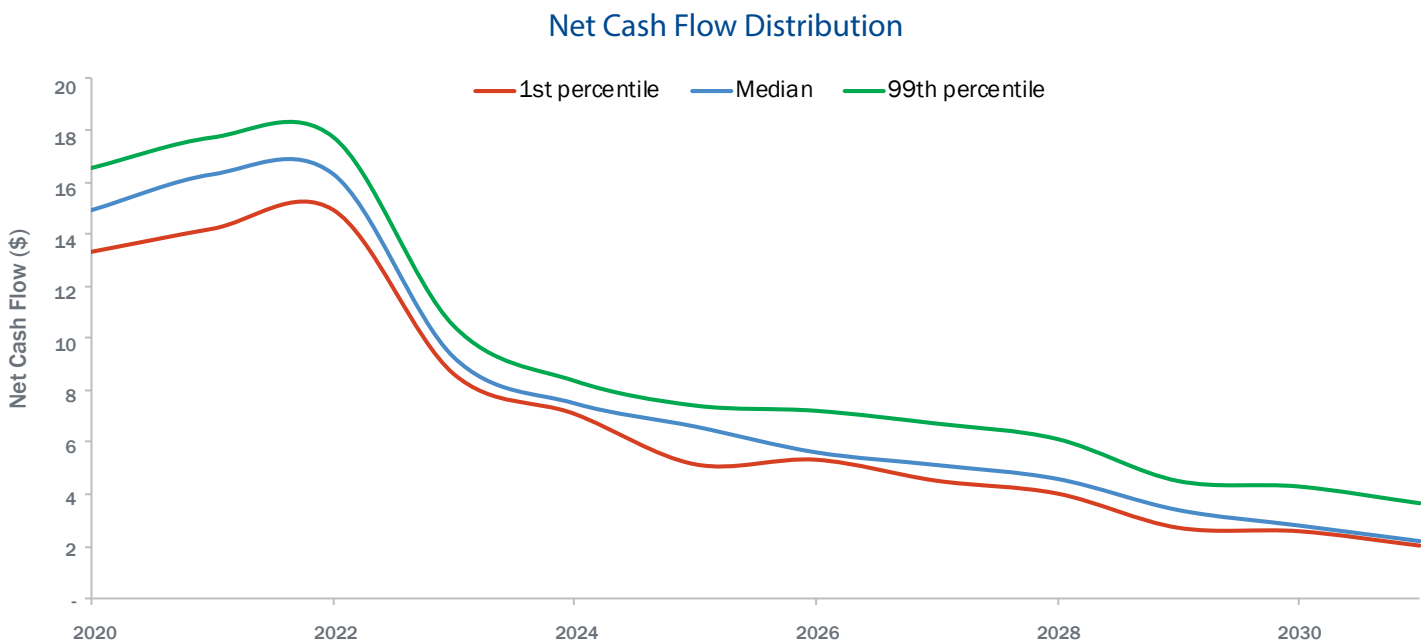


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 *Economic value is equivalent to a company's surplus or equity but calculated on an economic basis rather than an accounting basis. This means all assets are market to market value, liabilities are stated on a present value basis, and it includes 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. We do this to quantify the risk that assets might need to be sold to cover liability cash needs.

Figure 5 shows how projected net cash flow on a worst-case scenario suggests zero downside risk.

Figure 5 Cash Flow Analysis



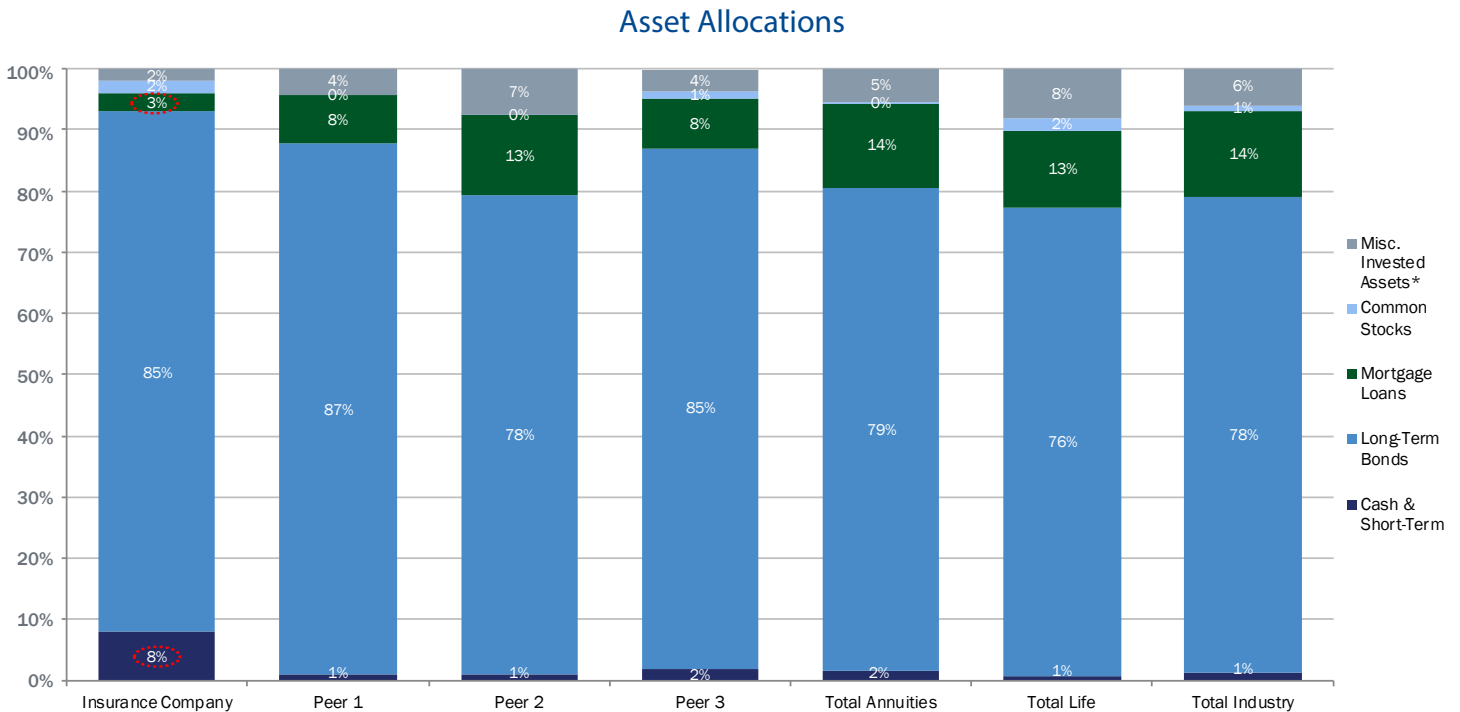
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Peer Analysis: Conning assembles peer analysis reports for its clients which include investment portfolio, and operational aspects of their business. With this tool a client can see how their competitors' portfolios are structured to help them evaluate their current positioning relative to industry or peer norms.

The peer analysis provides a company's management useful insight of trends and opportunities to assist in determining how much risk they are comfortable taking on the investment side of the balance sheet. Peer analysis can also inform where a company might be an outlier relative to its peers and industry. 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

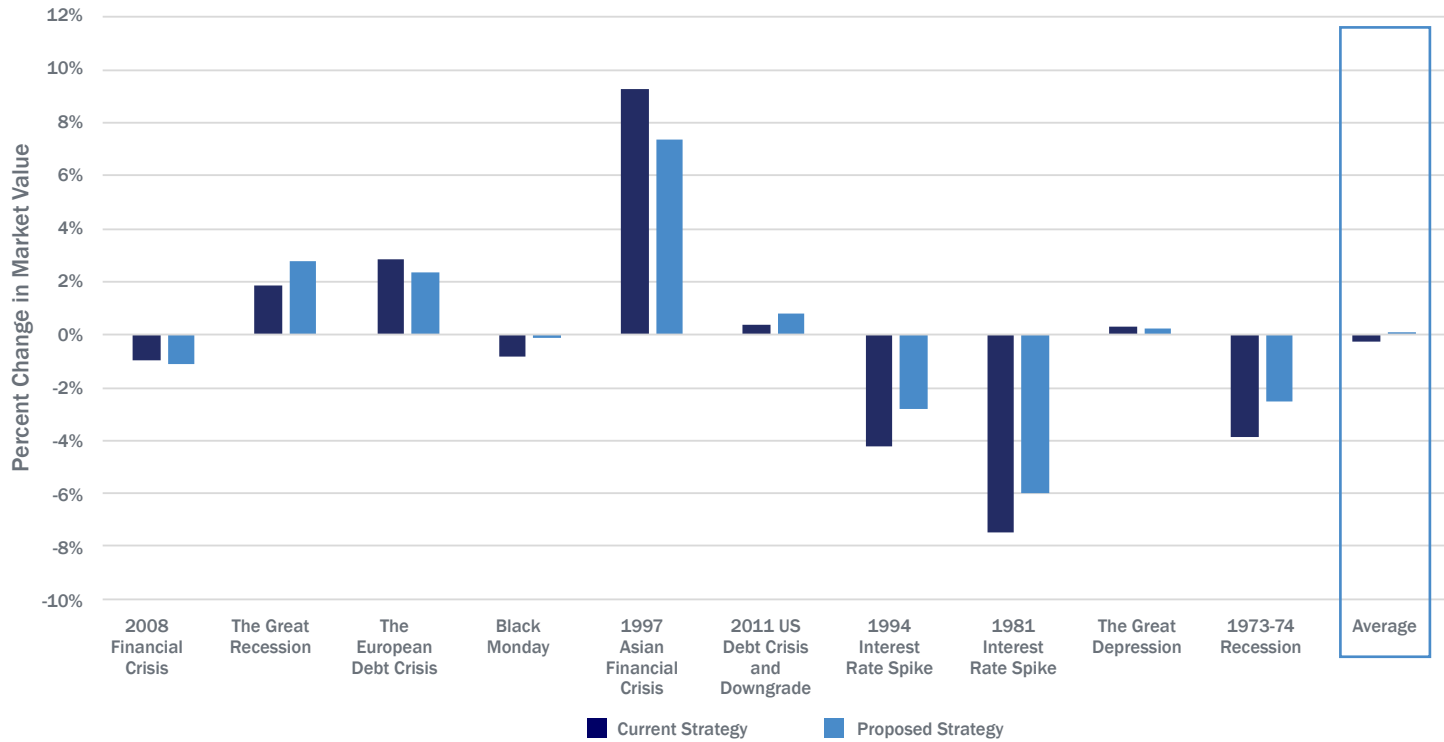


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Risk Management. A valuable step in validating an investment decision is understanding downside risk. This entails a back-testing analysis or performing “what if” scenarios to see how a proposed investment is expected to affect company's financials in extreme circumstances.

For example, Figure 7 demonstrates how a proposed strategy could have performed historically during major financial or economic events compared to the existing portfolio.

Figure 7 Historical Stress Test

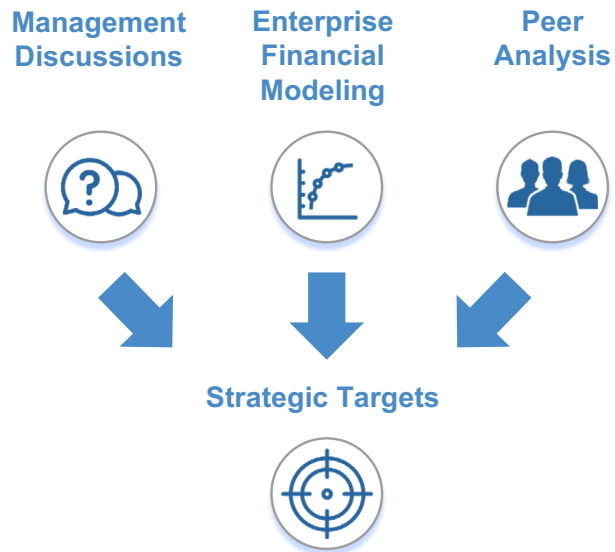


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Strategic Targets

Through the various types of analysis involved in the SAA process, Conning works to empower insurers to not only find an optimal investment strategy that fits their unique needs and risk tolerance, but also to communicate why a particular strategy is the most optimal for their company (Figure 8).

Figure 8 Strategic Target

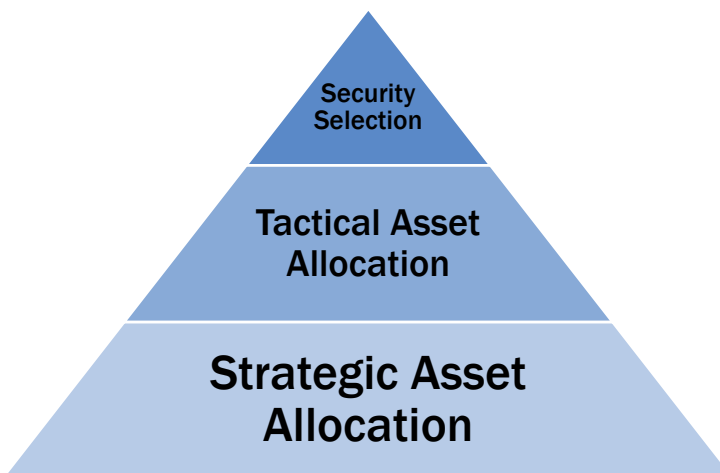


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The result is an investment strategy customized to fit a life insurer's risk profile that improves return and reduces risk both economically and in statutory terms. With an optimal investment strategy in hand, the next step in the process is a revision to the investment policy, guidelines, and performance benchmark(s) to reflect the new strategy.

Conning's institutional solutions team and portfolio managers work with clients to implement the SAA output, which sets a long-term framework for the enterprise to meet its stated goals and risk preferences. The SAA process essentially structures the portfolio factors or beta to achieve long term success. 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.

Figure 9 Customized Portfolio Approach



SAA is an important extension of an insurer's risk & capital management. Conning's approach to SAA is customized for each client and supports the company's unique insurance operations and risk profile. When partnering with life insurers, Conning strives to become an important extension of a client's finance, risk, and capital management process. We collaborate to find new opportunities to ensure the company's unique needs are satisfied while enhancing company value and mitigating unnecessary risks.

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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 has investment centers in Asia, Europe and North America.

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