Health system insurance company

Russell Investments

Improved alignment of investment strategy with the insurance market

Client case study



The organization

A specialty insurance company (the "insurer") providing medical professional and general liability insurance coverage to medical centers and their affiliated entities (the "subscribers"). The investment committee consists of representatives from both the insurer and subscribers. The insurer was in a strong financial position with a low capital ratio¹ and minimal new outflows over the next 10 years.

The challenge

The investment committee's (the "committee") chief concern was the possibility of entering a hard insurance market characterized by rising claims and loss reserves, which, without capital protection from the investment assets, could result in retroactive assessments that its subscribers would have to fund. The insurer wanted to avoid requiring retroactive assessments from its subscribers, as these would create additional financial stress on top of annual premiums. The committee was also concerned about the potential for growth assets to experience a pullback given their relative strength over recent years.

The insurer had a moderate growth tilt in the portfolio with an allocation of 45% to liquid growth assets, 25% to hedge funds and 30% to core fixed income. The investment assets were well diversified and, although slight modifications to the composition of the liquid growth assets were made, the portfolio construction was not a major concern. The committee was focused on ensuring that the risk level of the strategy was still aligned with the potential growth in the loss reserves.

To that end, the committee partnered with Russell Investments to analyze the potential impact of a hard insurance market on its investment portfolio. We tested out various scenarios, taking in consideration its strong capital position.

Strategy alignment

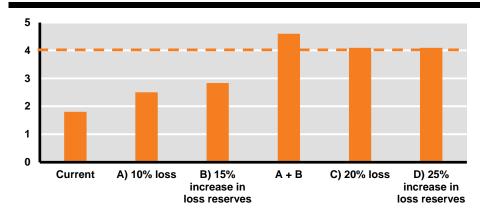
The committee was focused on ensuring that the risk level of the strategy was still aligned with the potential growth in the loss reserves.

¹ The capital ratio for the insurer is defined as the value of the loss reserves divided by the capital, and therefore a low capital ratio represents financial strength.

The analysis - Capital position

The insurer had a capital ratio of 1.8, meaning that for every \$100 million in loss reserves they had \$156 million in assets, or \$56 million in capital. If the capital ratio rises above 4.0, retroactive assessments to the subscribers are required in order to fund the unexpected growth in the claims and losses reserves or asset underperformance that led to the increase in the capital ratio. Therefore, although the insurer targets a capital ratio below 4.0, it monitors the likelihood of the capital ratio rising above 4.0 as that is a threshold it does not want to exceed. Additionally, the size of the retroactive assessments paid by subscribers would depend on the magnitude of the reduction in capital and the corresponding increase in the capital ratio. However, if there are negative claims or investment experience but the capital ratio remains below 4.0, the retroactive assessments can be paid by the capital—essentially allowing the capital buffer to fund the negative experience. The impact of potential negative events on the capital ratio is shown in Exhibit 1.

Exhibit 1: Impact of negative events on the capital ratio



Subscribers would be required to fund the assessments for asset underperformance and the increase in the value of the loss reserves as the capital ratio is above 4.0.

Asset underperformance of discount rates or unexpected increase in the loss reserves in A and B wouldn't result in assessments paid by subscribers, as the assessments can be paid by the capital, as the capital ratio remains below 4.0.

The solution: Understanding the interaction between the investment portfolio and the loss reserves

Scenario #1: Interaction in a normal insurance market

The starting capital ratio of 1.8 meant that without unexpected growth in the loss reserves, the portfolio would need to experience a loss of over 20% to result in asset losses driving retroactive assessments. Given the modest allocation to growth assets, such a loss was considered unlikely. We modeled the expected evolution of the capital ratio based on actuarial best estimates on claims, premiums and loss reserves. We also included Russell Investment's long-term capital market assumptions—along with the impact of immediate stressed investment markets.

Exhibit 2 demonstrates that with all strategies considered, the capital ratio is expected to improve through time as the assets grow at a faster rate than the liabilities. It also shows that for all strategies **and** stressed events (other than the most aggressive strategy coinciding with the global financial crisis), the capital ratio is expected to remain below 4.0.

Exhibit 2: Impact of asset allocation and market events on the capital ratio

	55% GROWTH, 25% HF, 20% CORE FI	45% GROWTH, 25% HF, 30% CORE FI	40% GROWTH, 25% HF, 35% CORE FI	35% GROWTH, 25% HF, 40% CORE FI	25% GROWTH, 25% HF, 50% CORE FI
Expectation in 5 years	1.3	1.4	1.4	1.5	1.5
1 in 20 event in 5 years	2.9	2.8	2.7	2.6	2.5
S&P down 10%	2.0	2.0	2.0	1.9	1.9
Black Monday	2.6	2.4	2.3	2.3	2.1
Global Financial Crisis	4.4	3.7	3.4	3.2	2.8

Source: Russell Investments, RiskMetrics data as of 03/29/2019.

This analysis indicated that for the current insurance market environment, the current allocation was in line with the insurer's ability to undertake risk. The expected improvement in the capital ratio for all investment strategies demonstrated that the insurer could reduce risk, if desired, and still outperform the growth in the loss reserves, but that de-risking wasn't necessary.

Scenario #2: Impact of a hard insurance market

The insurer was concerned that the projections, assuming a normal insurance market, did not accurately represent the potential risk on the claims side. The insurer requested that their actuary run additional projections that assume a hard insurance market will begin in three years, but that premiums charged to subscribers would not increase in advance. This allowed Russell Investments to create a second version of all the analyses to demonstrate the impact of a hard insurance market.

The updated analysis showing medium-term expectations with a hard insurance market, and the convergence of a stressed investment market with a hard insurance market, is shown in Exhibit 3.

Exhibit 3: Updated capital ratio analysis assuming the onset of a hard insurance market

	55% GROWTH, 25% HF, 20% CORE FI	45% GROWTH, 25% HF, 30% CORE FI	40% GROWTH, 25% HF, 35% CORE FI	35% GROWTH, 25% HF, 40% CORE FI	25% GROWTH, 25% HF, 50% CORE FI
Expectation in 5 years	1.9	2.1	2.1	2.2	2.3
1in20 event in 5 years	5.1	4.7	4.7	4.5	4.2
S&P down 10%	3.6	3.5	3.5	3.4	3.3
Black Monday	5.6	4.9	4.6	4.3	3.9
Global Financial Crisis	20.9	11.8	9.6	8.2	6.3

Source: Russell Investments, RiskMetrics data as of 03/29/2019.

In a hard insurance market, less significant investment stresses could cause the capital ratio to rise above 4.0, as a portion of the capital would already be eroded by a growth in loss reserves, leaving less margin for negative investment returns. Since the size of the retroactive assessments depends on the extent to which the capital

erodes, the committee was not only focused on the possibility of the capital ratio rising above 4.0, but also on how much it could rise above 4.0.

The capital ratio is also expected to deteriorate over time, which could be dampened if the investment assets can generate higher returns. As such, the committee valued the higher returns of the more growth-oriented strategies, which could help offset rising claims and loss reserves in a hard insurance market.

The results

By partnering with Russell Investments to visualize the impact of a hard insurance market on the committee's current asset allocation, the committee was armed with insights to make better-informed investment decisions.

The committee articulated that it did not wish to choose a strategy based on what could occur in the extreme downside events, as then risk would never be taken (and risk is necessary for generating long-term returns). The desire for long-term return generation, coupled with concerns over a potential hard insurance market and a pullback in growth assets, led the committee to choose to de-risk modestly to a strategy with 40% growth, 25% hedge funds and 35% core fixed income as it reduced risk without sacrificing too much return. The ability to integrate the metrics that matter most to the committee and insurer (i.e., capital ratio and assessments) with the asset allocation analysis, allowed the committee to make a better-informed decision on the level of risk that could be taken with the investment assets. The committee now also has a strong framework to make informed investment decisions as the financial position of the insurance assets changes through time.

For more information

Call Russell Investments at 800-426-8506 or visit russellinvestments.com/healthcare

Important information

This case study represents a unique situation faced by a specialty insurance company seeking to ensure that the risk level of their investment strategy was aligned with the potential growth in the loss reserves. Case studies are problem-solving stories. We select a situation that is indicative of problems clients in this category are facing. The recommendations described do not represent a standard strategy or set of recommendations made for all advisory clients with similar issues. Each client has unique requirements, challenges, and constraints, and our advisory solutions are tailored to each client's specific needs. Every client's situation, experience and needs are different, and Russell Investments does not imply that the solution herein is appropriate for any other client.

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