

Economic Capital: A Strategic Tool for Health Insurers

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Economic realities in the health insurance business, which are tough even in the best of times, have become more severe amidst the current financial crisis. Health insurers were already struggling with low margins and cost pressures from customers, and now face even greater pressure on earnings.

Our recent conversations with rating agencies suggest that both the level of financial scrutiny and the level of sophistication expected around understanding the key drivers of risk will be increasing significantly. This will make it even more difficult for senior executives of health plans to manage their bottom line, capital position, and investment decisions. While no two health plans are the same—and with some marked differences between for-profit insurers (concerned more with earning credit in the capital markets) and their not-for-profit counterparts (concerned more with regulatory pressures)—we have identified consistent themes emerging across the industry:

- A need to incorporate better metrics into the decision-making process so that multiple investment options are consistently evaluated
- A need to understand the risk-adjusted return of any single investment
- Pressure from stakeholders to understand the optimal combination of investment options to achieve mid- and long-term strategic objectives including:
 - Margin and membership growth
 - Cash flow requirements of different businesses
 - Individual growth profiles of different sectors



- Frustration with rating agency methodology for measuring the overall stability and diversity of the health business, and a desire to receive credit for the embedded value of insurance contracts (similar to that achieved by life insurers) and the “short tail” nature of contract risk exposure
- A need for better decision-making tools that can improve understanding of the performance of new types of subsidiaries across states, products, and types of risks

A Tool for Strategic Portfolio Management

Despite these differences, executives at for-profit and not-for-profit enterprises can both benefit by giving a greater role to sophisticated Economic Capital or risk-adjusted return on capital (RAROC) techniques, which combine art and science. These techniques help to quantify the variability of risk that a company faces by looking at the impact of a variety of risk factors including financial, operational, underwriting, business, and legislative risks. While the science accurately predicted that an event such as the current financial crisis could occur (the 100-year event), it is the art of knowing how to use these techniques that helps companies to be better managed, have a stronger financial position, and take advantage of investment opportunities.

Economic Capital techniques can be used for many purposes, but one purpose that’s not yet widely appreciated in the health insurance sector is improving performance while also reducing the overall volatility of earnings. We call this field “strategic portfolio management”. At its core is an Economic Capital approach to looking at a company’s RAROC, in order to provide executives with more transparent information for strategic decision-making. Strategic portfolio management goes beyond the math of Economic Capital to provide business intelligence and solutions.

We have used Economic Capital techniques with large, complex financial institutions, including many that are weathering the current storm most effectively. The health insurance sector traditionally has lagged the rest of the financial services industry in its adoption of the Economic Capital approach—reasonably questioning whether the methodology is more appropriate for more balance-sheet intensive businesses such as life insurers and banks.

Oliver Wyman has developed a methodology that is sound for health insurers, incorporating the specific nuances that are unique to the market. The primary difference is that implementation needs to be focused more on understanding earnings volatility and less on balance-sheet-based capital adequacy.

The benefits of the improved approach include:

- Increasing the predictability of earnings while reducing the overall volatility
- Having a dynamic tool for capital- and resource-allocation decisions

- Using a common language and metrics with which senior management and boards of directors can discuss risk and make better decisions
- Understanding in more depth the diversification of a company's portfolio
- Addressing new requirements of rating agencies including Standard & Poor's, Moody's, Fitch, and A.M. Best.

Economic Capital thus is a critical component for any health insurance executive to show both the board of directors and the agencies that the firm has a good handle on the relevant risks and volatility and can incorporate risk management into the company's strategy.

Key Applications for Health Insurers

There are four applications of relevance to health insurance players—growth strategy, capital and agency management, price optimization, and enterprise risk, as shown in Exhibit 1 on the next page.

As companies become comfortable using this approach, they are able to better manage their portfolio of businesses and understand how capital can be invested to improve returns. At one insurer, for example, senior management wanted to better understand how the growth of different business segments was impacting their ability to maintain key capital metrics for maintaining their status with regulators, within the requirements of the Blue Cross Blue Shield Association. Oliver Wyman's Economic Capital analysis created a road map for future investment decisions—that is, which areas merited greater investment in order to enhance RAROC (See Exhibit 2 on the next page), and which areas should be avoided.

How the economic crisis will likely impact health insurance

- Job losses combined with bankruptcy of large and small customers, leading to lower membership numbers
- Intense pricing pressure as companies economize on benefit costs
- Trickle-down issues in the provider networks, as costs for the uninsured are exacerbated by increases in bad-debt expense
- Cutbacks of government programs
- Increased pressure from regulators to improve the balance sheet, while regulators also push for release of reserves in the public interest
- Additional scrutiny from rating agencies looking for quantitative methods of risk measurement and defined processes for corporate governance of risk
- Unpredictability in the evolution of health care coverage under the new president and his administration
- For plans considering a major transformation (move toward retail, integrated health management, platform development), less capital available for investment

Exhibit 1 Applying strategic portfolio management to health care

Application	Key questions addressed
Growth strategy and diversification	<ul style="list-style-type: none"> • What is the risk-adjusted return of each of our businesses and what is our overall risk tolerance? • Where can we deploy capital to increase the size of our returns while reducing the overall volatility? • What are the economics of key strategic investments we might make (e.g., potential acquisitions, large capital investments, etc.) on a risk-adjusted basis? • What is the proper business mix across the life cycle (emerge, growth, mature, harvest)?
Capital/rating agency management	<ul style="list-style-type: none"> • What is our required Economic Capital given our solvency target? How does this compare with our available capital? • Does our viewpoint reconcile with regulatory and ratings agencies? What is driving any differences? • Are there any regulatory arbitrage or other capital optimization opportunities?
Pricing optimization	<ul style="list-style-type: none"> • How can we price more competitively by taking a long-term view? • How should our risk tolerance levels impact our pricing decisions? • How can we optimize both earnings and enrollment by taking a portfolio view of our accounts when making pricing decisions?
Enterprise risk management	<ul style="list-style-type: none"> • How do we define risk? (e.g. at what confidence level, over what period?) • How much risk are we taking, relative to our threshold? Where is it coming from? • Are we properly focusing risk management initiatives to maximize overall ROI?

Source: Oliver Wyman analysis.

Exhibit 2 Targeting investment to maximize RAROC

Business unit	Allocated capital (% of total)	RAROC	
Region 1-ASO	0%	> 50%	RAROC maximizers (20% of total capital, above-average RAROC): Enterprise-wide RAROC can be improved, pending organization's willingness to deploy more of its capital into these businesses.
Dental	2%	> 50%	
Joint ventures	2%	28%	
Other services	1%	23%	
Life	15%	15%	
Treasury/Benefits	40%	12%	Core business (69% of total capital, average RAROC)
Risk business A	7%	6%	
Risk business B	9%	5%	
Risk business C	4%	4%	
Senior risk business	8%	-1%	
Risk business D	1%	-1%	RAROC reducers (11% of total capital, below-average RAROC): Should not be growth targets from a risk-adjusted return point of view.
Other health	11%	-9%	
National-ASO	0%	-50%	
Region 2-ASO	0%	-50%	
Enterprise	100%	10%	

Source: Oliver Wyman disguised client example.

Growth Strategy and Diversification

Strategic portfolio management also helps to improve growth strategy. It helps executives weigh the underlying performance of a business unit against the diversification benefits it brings to the overall organization. For instance, dental insurance could be a small- to moderate-margin business, but because it is not correlated to a standard health insurance business, it could improve a firm’s overall risk profile.

In many cases, the size of the fully insured portfolio of most health insurers is so large that investments in ancillary businesses with different risk characteristics, such as stop loss, pharmacy benefits management, or dental, help to offset the overall predicted volatility of the earnings, allowing for better management of earnings (Exhibit 3). An additional layer of diversification can be provided through diversification across multiple geographies. Geographic diversification can be significant, and has traditionally not been well developed in existing regulatory capital frameworks. A view across the entire portfolio, including the impact of diversification, can help insurers understand the key impacts of the numerous price/membership tradeoffs that are made each year.

Capital/Rating Agency Management

Each of the rating agencies wants much more detailed information from health insurers and expects the insurers to present a more quantitative view of the risks in their businesses. Moody’s recent statement is typical: “Moody’s expects best-practice insurers to develop Economic Capital models based on sound principles and conservative assumptions to reflect the risk profile of their businesses.”

Exhibit 3 **Determining the optimal diversification**

	High volatility and correlation to portfolio	Low volatility or correlation to portfolio
High profit margin	<p>Business increases volatility of earnings, though margins justify inclusion in portfolio</p> <p><i>Obtain diversification from other business</i></p>	<p>Business is highly profitable and acts to diversify the portfolio</p> <p><i>Grow within capacity constraints</i></p>
Low profit margin	<p>Business increases volatility without beneficial impact on average margin</p> <p><i>Improve margin or close down</i></p>	<p>Business diversifies portfolio though margins are slim</p> <p><i>Improve margin</i></p>

Source: Oliver Wyman analysis.

Although health insurers may, at times, be frustrated by the rating agency models, they cannot afford to ignore this trend. Those companies that take the initiative to create their own models will gain an advantage in explaining to agencies their risk profile and risk management strategies, and thus have a greater chance to positively impact their rating.

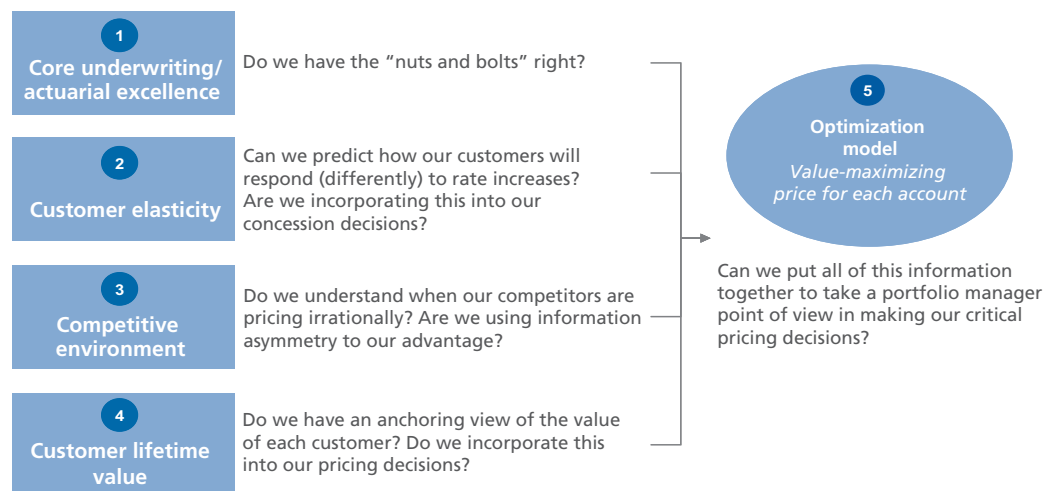
The applications of superior capital management also extend beyond rating agency discussions. The ultimate goal should be to create a new paradigm for the organization and guide critical capital decisions more effectively. Health insurers face a constant tension between how best to deploy available capital and cash flows among risk buffering, new capital investments, and (for for-profit insurers) dividend and share repurchase. Economic Capital can provide a more consistent framework to guide these decisions at the enterprise level and to communicate policies to individual business units, ensuring strong alignment with the overall enterprise strategy.

Pricing Optimization

For a health insurer, perhaps no decision is more difficult, and made more frequently, than pricing. Insurers face a constant tradeoff between profitability and enrollment, in a dynamic landscape of aggressive market-entry pricing by competitors and a complex customer elasticity function, which includes not only this year's rate increase, but also the collective memory of last year's rate increase. All too often, pricing decisions are made on an account-by-account basis, rather than according to a well-constructed strategy.

Pricing optimization requires a deep understanding of customer lifetime value, combined with the critical nuances of diversification and capital management provided by Economic Capital. On an individual account basis, this model (as depicted in Exhibit 4) provides a solid framework for assessing when concessions are appropriate, and when they are not. On an aggregate basis, this approach allows the organization to consistently employ a pricing strategy which is transparent to

Exhibit 4 **An integrated approach to pricing optimization**



Source: Oliver Wyman analysis.

Situations that benefit from strategic portfolio management

- Boards of directors are concerned about the risk profile of the company and are looking for quantitative measures to better understand their position.
- Senior management needs a better basis for apples-to-apples decision-making on investments in businesses with very different risk profiles.
- Rating agencies and regulators demand that the company demonstrate the strength of its underlying capital position.
- Senior management needs a tool to help reduce the overall volatility of earnings.
- Financial management wants to better understand the impact of global and local economic trends on the company's earnings.

Source: Oliver Wyman analysis.

key stakeholders, aligned to enterprise-wide revenue and enrollment targets, and focused on maximizing long-term value across the entire portfolio of accounts.

Enterprise Risk Management

Many ERM efforts focus on the governance of risk through qualitative processes employed by chief risk officers that identify and catalogue the risks a corporation faces. This list is updated annually, and senior management and boards of directors discuss the risks as well as the controls put in place to monitor them.

However, management typically imposes just cursory measurement of risks and runs few scenarios that show how these risks would impact capital structures or earnings volatility. Strategic portfolio management can act as an important quantifier of these risks to allow for much more detailed conversations on impacts and mitigation strategies.

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In a time of tight budgets, increased scrutiny of the quality of earnings, and a sputtering economy, implementation of Economic Capital methodologies can yield significant benefits for the health insurance industry. Whether the issue is better meeting the measurement needs of rating agencies and boards of directors, increasing transparency, or finding ways to improve decision-making, the underlying analytics and methodologies provides a strong foundation for improving the economic drivers of the health insurance business.❖

About Oliver Wyman

With more than 2,900 professionals in over 40 cities around the globe, Oliver Wyman is an international management consulting firm that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, organizational transformation, and leadership development. The firm helps clients optimize their businesses, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities. Oliver Wyman is part of Marsh & McLennan Companies [NYSE: MMC].

Oliver Wyman's Health & Life Science's practice serves clients in the pharmaceutical, biotechnology, medical devices, and payer sectors with strategic, operational, and organizational advice. Deep health care knowledge and capabilities allow the practice to deliver fact-based solutions.

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