



RECOMMENDATIONS FOR IMPROVING PERFORMANCE IN ROMANIAN INSURANCE COMPANIES REGARDING THE RISK MANAGEMENT

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Abstract *In response to fundamental changes in regulation and technology, the financial industry around the world is undergoing an unprecedented wave of consolidation. From a risk and return standpoint, a strategy that is benchmark-unaware may be more successful than one that is designed to control portfolio risk versus a cap-weighted benchmark. The paper investigates the ALM model as well as its benefits and suggestions for the insurers. Employing a quantitative, low turnover approach to a portfolio of stocks selected for their low beta can lead to a more predictable return stream over time with lower overall volatility and less sensitivity to market movements.*

Key words:

Management,
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1. Introduction

The insurance industry is operating from a position of strength around the globe commensurate with its substantial size and maturity. However, the industry also faces considerable challenges, including a fiercely competitive landscape marked by continuing mergers and acquisitions activity and heightened regulatory focus on all aspects of the business. Among property and casualty insurers, long-term liabilities and natural disasters are also impacting profits.

Despite these challenges, opportunities abound to increase profits and alter business models to capitalize on current trends. For example, life insurers are uniquely positioned to play a leadership role in a dramatically changing financial landscape driven by the aging of the world's population. This important trend is fueling demand for investment products that mitigate risk and provide a guaranteed income stream.

To profit from such developments while navigating multiple business challenges may require a change in strategy across all segments of the insurance company value chain – asset gathering, production, asset management and distribution. For each of these segments, outsourcing can be an efficient and viable solution for remaining competitive and increasing profitability.

In the past, the management of insurance general account assets was the subordinated result of necessary attention to other business drivers. Decisions that drove portfolio returns were often

assessed and addressed in isolation. Thus, insurance company investment outcomes lacked the benefit of a comprehensive, holistic analysis that balanced these needs cohesively.

Due in part to today's low-yield environment and other business pressures, many insurers are looking outside of traditional fixed income investments for additional sources of income and total return. As a result, there has been a slight increase in investment allocations to equities among life and health insurers while larger firms explore the high-yield and emerging markets debt sectors.

In general, insurance companies are adopting a broader approach encompassing new investment vehicles to better target enterprise risk and return in addition to income generation. For insurers looking to expand equity allocations, the relatively new concept of “managed volatility” equity strategies may be of interest. “The risk is a threat, a probability of occurrence of an event causing any damage, characterized by the severity of its consequences and the probability of occurrence”.

From a risk and return standpoint, a strategy that is benchmark-unaware may be more successful than one that is designed to control portfolio risk versus a cap-weighted benchmark. Employing a quantitative, low turnover approach to a portfolio of stocks selected for their low beta can lead to a more predictable return stream over time with lower overall volatility and less sensitivity to market movements.

2. Risk and insurance

One of the widely shared assumptions about insurance is that it revolves around an instrumental notion of risk (Ewald, 1991). Risk is considered a neologism of insurance. Probability and the size of impact constitute a technical notion of risk and the risk management is mainly concerned with assessing these probabilities and impacts. Risk management is concerned with the control of unintended or negative effects of decisions. Management does not try to suppress risk, but rather tries to contain the accountability for unwanted effects now and in all possible futures. Risk management may still comprise the accurate, complex analysis of quantifiable risks, as well as the selection of risks, their categorization and contractual adaptations. But the fundamental risk-strategy changes. Containing risks does not mean that successful risk management would reduce them, just that the unwanted effects are handled according to organizational or political factors, including future claims of accountability also. The main problem is less the accuracy of risk assessments, but more the identification of numerous, unexpected effects of risks.

The main strategy is no longer to avoid risks. Contrary to the widespread understanding of risk as cost or hazard, not taking risks implies accepting uncontrollable dangers over which no influence can be executed. Hence, risk is the safer choice.

Insurance is one economic and organizational context specializing in assessing, selecting and optimizing risks and, in turn, avoiding dangers. The management and selection of risks is shaped and guided by the economic survival of insurance (Rejda, 2004).

In the traditional view, insurance focuses on external risks (risk that are insured). The economic survival of insurance firm depends critically on its ability to accurately assess the relevant features of external risk, such as car accidents, floods or health problems. Focusing on external risks, however, is not satisfactory. When actors act in a lax manner (moral hazard), the economic success of insurance depends on the profitable management of internal risks – that emerge alongside the insurance activity. Internal risks start to dominate the picture of insurance. The economic survival of insurance restricts the generation of risk mainly to profitable ones. Insurance attempts to capture all risks within certain efficiency and solvency limits. These internal risks depend on external ones, therefore, risk management of insurance can neither exclusively be concerned with external risks (like car accidents, earthquakes), nor with the internal risks of solvency. Rather, it is concerned with the relationship

of these two types of risk under conditions of economic profitability.

The main features of risk management concern the completeness of all calculated risk aspects and, of course, the accuracy of all calculations. It may be assumed that any risk management that fulfils these two criteria must be successful. The success of insurance is described only incompletely by the conditions of this exchange process. The process is characterized by a “time gap” between premiums and compensation that can be utilized to increase the efficiency of insurance coverage. Improving the range of risk spreading improves the efficiency of insurance; hence it would have positive effects on the insurance coverage, and also on the solvency of both the firm and the customer.

To qualify the main strategies we can distinguish between normal investments and reinsurance. The accumulation of new capital by investments in banks or stock markets is one important strategy used by insurance companies to spread risks and improve their solvency. Moreover, it leaves the firms with the risk of investments. Another equally important strategy is to use the premiums to insure the risk portfolio with other insurance/reinsurance companies to whom the risk claims are sold in order to improve insurance coverage.

Large parts of the premiums are pooled and invested to insure the company against the risk of insolvency. For this activity, the management of internal risks is crucial. The control given to other insurance firms in evaluating risks may be seen as a central mechanism of mutual control of risk management.

Internal risks tend to dominate the advanced view of insurance. Investment risks, risks of buying bad risks from other companies, or risks of extraordinary events, all alter the structure of the entire insurance sector, influencing insurance decisions, both in how to invest the temporarily free resources and also in which risks to insure.

The management of external and internal risks is interdependent. In order for insurance companies to synchronize external and internal risks, they need to be matched in their effects, reflecting upon market conditions such as public and political expectations. The main part of this synchronization is to select feasible risks and attribute economically monetary expressions to them. Risks are transformed into monetary expressions to be managed by the procedures of the financial sector. In that way, risk is coupled to the solvency cycle, which is complemented by a risk cycle that marks the manipulations and transformations of risk in the insurance risk management.

The risk cycle describes the movements and transformations of risks as they are defined and traded in the insurance system (Punter, 2000). Even if risks are seen as events that can be attributed probabilities, impacts, market interest and public attention, in the insurance system they exist only as a monetary expression, marking business opportunities and related risks. Once the risk is represented internally, the insurance system can trade and manage risks as complementary to the solvency cycle, thus a market for internal risks is established. Having accumulated a stock of risks, insurance companies set up the basis for their economic activities. With respect to the solvency, good and bad risks can be distinguished and the quality of these risks becomes visible when insurance firms sell them to other (re)insurance companies. In this way, they are able to increase their solvency, improve their efficiency and perfect their external risk management. Risk trading also has a signaling effect for the insurance market (Caims, 2008).

3. Asset-liability management

The purposes of asset-liability management (ALM) are to measure and manage the investment and liability risks of the life insurer in order to increase the probability of meeting its marketing, solvency, and profitability objectives. The development of appropriate and integrated underwriting, pricing, investment, contractual design, and customer management strategies is necessary in order for ALM to be effective.

The purpose of ALM is not to avoid risk but to manage it within the risk-bearing tolerances established by management. In this regard, ALM links all of the financial factors affecting the business in a rational, cohesive way, allowing a more thorough analysis of risk exposures and methods of dealing with these exposures than would be possible in the absence of ALM. This is accomplished using financial models that vary by product line.

In order to achieve its objectives, ALM involves management judgment with mathematical models used as supplements. ALM is not driven by the models themselves. It is the thought process required by ALM, rather than reliance on a particular financial model or result, that is its primary benefit as a management tool.

ALM requires constant management monitoring and adjustments of policy. This is because the economic environment involving ALM is constantly changing in regard to such factors as interest rate structures, bond prices, and equity markets. There may also be significant changes in underwriting factors affecting the mortality and morbidity assumptions in ALM models.

New reinsurance arrangements, corporate restructuring, mergers, acquisitions, and divestitures, and acquiring or disposing of blocks of business also require ALM adjustments.

Despite management's best good faith efforts, ALM may not achieve its desired objectives even using the best available methodologies. This is because of the complexity of the economic and investment environment in which ALM operates, as well as the limitations inherent in the ALM models.

In today's complex management environment, ALM strategies and practices involving the design of products, pricing strategies, and investment strategies, are the core financial management processes for life insurers that affect both their short-term and long-term financial results.

ALM models, when properly designed and used, allow management to understand what is driving current financial results and provide estimates of the impact of future economic scenarios on financial results if current product, pricing, and investment strategies remain unchanged. This enables rational adjustments of product design, pricing, and investment practices in order to increase the probability of achieving a desired financial outcome for the product line being analyzed. Primary risk exposures of concern here are:

- Investment risks,
- Funds withdrawal risks,
- Mortality and morbidity risks, and
- Expense risks.

ALM models also provide a highly useful method for explaining the projected sources of cash flows and earnings to shareholders, the board of directors, regulators, rating agencies, securities analysts, creditors, policy owners, and the general public.

The increased emphasis on risk management by life insurers and other financial institutions is also making ALM more important. Here, an ALM model may be used to estimate the impact of different risk factors such as changing interest rates and equity prices upon the financial results for a product line or the insurer as a whole. The sensitivity of a particular financial outcome to changes in a particular assumption in the ALM model, such as a future pattern of interest rates, is also useful in assessing the vulnerability of financial results to particular events.

In general, effective ALM practices smooth potential fluctuations in cash flows and lower the probability of bankruptcy. In this regard, research indicates that a life insurer's ALM policies have a direct impact on shareholder value.

The Benefits of Asset-Liability Management:

- Well-designed and implemented ALM increases the probability of achieving desired financial results for individual product lines and the life insurer as a whole.
- ALM helps management understand what is driving current financial results.
- ALM provides estimates of the impact of different economic scenarios on future financial results.
- ALM provides for a rational, continual adjustment of product design, underwriting, pricing, and investment practices that recognize changing economic and underwriting conditions.
- ALM models can be used to explain current and projected sources of earnings and cash flows to shareholders, the board of directors, regulators, rating agencies, securities analysts, creditors, policy owners, and the general public in an understandable way that goes beyond conventional financial statements that are often difficult to interpret and understand.
- ALM is a risk management tool that can be used to estimate the impact of different risk factors such as changing interest rates and equity prices upon the financial results for the affected product line and the life insurer as a whole. It serves as a valuable “early warning” financial tool in this regard.

ALM models capture underwriting, investment, and expense management risks but do not account for many other important risks that fall outside of consideration in the typical model. These risks include:

- A flawed market strategy (e.g., marketing products that the market does not want),
- Unexpected changes in tax or regulatory policy,
- Foreign exchange risks (these risks typically are not analyzed in an ALM model),
- Exposures to legal liability,
- Poor human resources practices (e.g., customers and distributors being alienated by poor customer service practices),
- Destruction of physical assets, leading to a breakdown of business operations,
- Disappearance of assets through such actions as paying fraudulent claims,
- Breakdowns in technologies as a result of poorly designed hardware or software, or the actions of insiders or outsiders (e.g., invasions of computer systems by hackers, regional power blackouts),
- Internal restructuring of business operations (e.g. combining divisions, staff reductions),

- Mergers, acquisitions (e.g., unfriendly takeovers), strategic alliances, and outsourcing of IT and other business functions that result in a restructuring of basic business processes, and
- Catastrophic situations such as a nuclear event caused by a terrorist or an economic breakdown caused by hyperinflation.

To the extent that a product line has significantly different investment and contractual ALM risks than other product lines, it should be segmented for ALM purposes. As examples, the investment policy for group health insurance may involve assets with very short durations; nevertheless the volatility in the underwriting results for this line of business would indicate segmentation is appropriate. Term insurance products call for different investment strategies than whole life products, and so forth.

Separate account products are segmented in ALM from general account products because the investment risk pass-throughs in the former products present different ALM management issues than products in the general account where the investment risk is primarily borne by the life insurer.

Different product lines may also have different investment strategies that make ALM segmentation an operational necessity. As an example, different mutual funds have different investment objectives as do the life insurance and annuity products tied to these funds.

In general, product lines with different cash flow risk profiles should be segmented because they should have different discount rates (required returns to the investor) resulting from their different cash flow risks (Cairns, 2008).

In summary, life insurance executives should:

- Not collude with securities analysts’ expectations that don’t fit with their strategies and the underlying characteristics of their markets,
- Be forthright and promise only those results they have a legitimate prospect of delivering, and they must be clear about the risks and uncertainties involved,
- Recognize that an overvalued stock can be damaging to the long-run health of the company, particularly when it serves as a pretext for overpriced acquisitions, and
- Must work to make their organizations far more transparent to investors and to the markets.
- It has been observed that life insurers make money four ways:
 - Investing in projects or financial securities with positive net present values (i.e., funding undervalued assets),
 - Altering the firm’s financial structure,

- Altering the firm's duration and convexity mismatches between assets and liabilities,
- Outperforming the firm's liabilities.

There are many types of options available in the marketplace that enables life insurers to tailor the risks of their investment portfolios. Examples are options tied to a market index or levels of interest rates.

Derivatives are used by life insurers in ALM to:

- Facilitate the tailoring of the asset strategy to the liability strategy by, for example, altering the duration and convexity of an asset portfolio to better match the characteristics of the liability portfolio.
- Limit the downside risk in an investment portfolio involving such factors as large changes in interest rates or stock or bond prices.
- Avoid certain risks such as those involved in foreign currency fluctuations.
- Increase the probability of achieving targeted returns for product lines by increasing the probability that interest rate spread objectives will be met.
- Manage exposures to credit risks by using derivatives that provide payoffs related to credit-related events such as default, change in rating status, or change in credit spreads.
- Improve the life insurer's risk-based capital position through the use of derivative investments such as collateralized mortgage obligations.
- Improve cash flow testing results by reducing the volatility in cash flow streams for a product under different interest rate scenarios.

There are many variations of derivatives in the marketplace tailored to meet the ALM risk management requirements of life insurers and other financial institutions.

4. Conclusions

Any business has important financial concerns, and its success or failure depends in a large part on the quality of its financial decisions. Financial analysis is part of the financial decision making process in that it is needed in order to determine a company's financial condition.

The financial services industry is experiencing tremendous growth, diversification and innovation. Derivatives, globalization, product innovation, dynamic markets, and new methods of taking on and managing financial risk are key catalysts to profit growth and evolution.

Today's challenging capital markets, together with enhanced risk measurement and management

capabilities are driving insurers to change long-standing investment practices. To capitalize successfully on current and future trends, insurers will also need to maximize efficiencies around the marketing and distribution of insurance products.

Many insurers will focus on core skills to remain competitive. Some may find that combining internal expertise, such as risk management capabilities, with external asset management expertise, can turn challenges into opportunities. Distribution models for insurance and other financial products are also changing rapidly, leading to an increase in alliances with banks and other financial intermediaries.

As the economy recovers, we expect both higher life premiums and better investment results as asset prices are expected to improve. This will not only have a positive impact on profitability, but also on shareholder capital and the ability to raise capital. In the medium and long-term, the outlook for life insurance remains positive.

The distinction between external and internal risk is central to any attempt to decipher the conditions of risk management by insurance. Insurance is no longer the institutional form of accurate risk assessment, but sets the goals and evaluates the commercial side of the "objective" calculation. Even if the economic survival of insurance companies is based on these calculations, we see them not as a natural consequence of external risks, but as a result of the process of internalization. Insurance perceives and manages the external risks only insofar as it can perceive them as financial opportunities, and after that, it internalizes them. It is the risk related to this internalization process which then goes on to determine the risk management of insurance firms and the insurance sector, as a whole.

This paper reviews the components of ALM that need to be managed and the relevant issues for life insurers. Special attention is paid to the proper management of pricing, investment, and contractual design issues in ALM. The current turbulent economic environment characterized by volatile interest rates and stock prices and increased default rates on debt instruments makes appropriate investment management especially critical in generating shareholder wealth and maintaining the solvency positions of life insurers.

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