Ø

ALM for insurers in the 'new world'

Asset Liability Management (ALM) was and is a very important part of the investment cycle of insurance companies. However, the goals and complexity of performing ALM and defining the right investment policy changed significantly over time. In the past, the focus was on optimizing between risk and return. However, since the introduction of Solvency II and pressure on the business models and sustainability, the optimization question now contains more variables and has become much more complex.

In this article we describe the key trends and developments in ALM and investment policy of insurance companies. We also explain how insurance companies respond with new tooling and less complex approaches to perform thought-through investment decisions.

J. Hennen RMFI (left) is a senior manager within the Actuarial Services department of PwC.

M. Smith Ph.D. FRM is owner of Mavenblue and is an expert in financial risk management, asset liability management, investment management, product development, operations research, quantitative modelling and parallel computing.



INTRODUCTION

Pre-Solvency II, investment policies of insurance companies were tailored to an optimal relationship between risk and return and took (IFRS) profit and loss implications into account. Both sides of the balance sheet were valued at book value, so market risks were not directly visible on the balance sheet and P&L statements. From that perspective, interest rate hedging was not evident. However, in the 00s things changed significantly. Market valuation of the balance sheet was introduced, either through regulatory initiatives (e.g. Solvency II impact studies, Wft 'Toereikendheidstoets') or through the market view on valuation of insurers (e.g. Embedded Value, International Capital Assessments). Moreover, larger insurers were introducing their own Economic Capital framework to steer their business. Generally, these frameworks entailed the market valuation concept and risk-based capital.¹

The concept of ALM and defining the investment policy changed accordingly. Risk and return impacts of investment decisions were measured through stochastic analyses. The market value of the balance sheet was projected in many economic scenarios based on real world economic assumptions. Nowadays, it is not only about the relationship between risk and return, but other factors such as capital, tax and sustainability are included in the analyses (see graph below). Consequently, the optimization question and therefore ALM modelling is getting more complex. Due to this increased complex playing field, it may be questioned whether stochastic analysis based on a wide range of assumptions still adds value.





SOLVENCY II IMPACT ON ALM

In the article of Bouwknegt (2011)², it was already introduced that balance sheet management for insurance companies would change significantly due to introduction of Solvency II. In hindsight, the key effects of Solvency II on ALM and investment decisions are summarized below:

- 1) Introduction of risk-based capital, and potential differences that occur between the risk capital requirements versus 'real' risk;
- Tax optimization, as the Loss-Absorbing Capacity of Deferred Taxes (LACDT) plays an important role in the SCR and therefore in potential capital generation;
- 3) Difference between 'economic' and 'exit value' concept of Solvency II, mainly applicable in valuation of illiquid assets, real estate, and in insurance liabilities (e.g. UFR, VA), and in the definition of the Risk Margin;
- 4) Increasing importance of Net Capital Generation as steering measure, and dividend policies being related to Solvency II together with (IFRS) P&L results;
- Increasing attention of investors on Solvency II due to the transparency of the Solvency II disclosures, used for a better comparability between insurers.

In summary, Solvency II not only introduced the 'capital' and 'tax' element in the optimization question; it also led to new 'definitions' of return, shifting from (IFRS) P&L results to Net Capital Generation (NCG) of insurers.

ECONOMIC CHALLENGES

Besides the effects of Solvency II, both the economic environment and the business models of insurers changed significantly. Due to low interest rates, insurance companies are seeking delete yield investments with an attractive return at an acceptable required capital. Equity and real estate investments offer the first, but not the latter. Insurance companies invest more in illiquid (fixed income) instruments such as mortgages, infrastructure debt, private loans. This introduced a relatively new risk to insurers: liquidity risk, which now also has the attention from the regulators.

The business models of insurers are under pressure, especially for life insurers which are facing shrinking new business volumes, and therefore have much more focus on investment returns.

Paying attention to sustainable investments is key for the growth potential of insurers since the introduction of ESG standards and increasing pressure from society. Sustainability is an important theme in the investment policy. Also refer to 'Verbond van Verzekeraars' paper on sustainable investments and the role of insurers.³

Given the complex and changing environment, the investment policy is constantly evolving, and the concept of dynamic asset allocation is becoming more popular. With dynamic asset allocation, the target asset allocation moves along pre-defined rules based on current economics and financials of the insurer to cover all relevant topics now and in the future. This demands more from ALM and tooling to provide all the

necessary information to define and evaluate the investment policy. As a result, the trend is to develop new tooling that allows insurers to more quickly generate future balance sheets and to develop dashboards to analyze outcomes in a simplified and intuitive way.

EXPERIENCE WITH BUSINESS REQUIREMENTS

Generation of future Solvency II balance sheets for various scenarios and a wide range of capital, dividend, hedging and investment policies in a consistent way is key to new ALM tooling. This requires cooperation between different departments and areas of expertise. Access to the ALM results, transparently across the entire organization, supports this cooperation and enables evaluation of the investment policies from all required angles. The resulting holistic balance sheet overview enables transparent, consolidated and in-depth analysis of the insurer's opportunities and challenges by both specialists and management.

Furthermore, insight in the development of the balance sheet under various scenarios helps identifying key risk and return drivers. All balance sheet items and risks are decomposed into underlying drivers, making it easier to understand their development and interdependencies. This supports investigating current and new capital and investment policy options. Therefore, the projection of the company's capital generating capacity should be allocated on a monthly basis to:

- (a) various balance sheet elements such as the spread revenues, impact of the VA, UFR drag, risk margin development, LACDT, etc.
- (b) effects of the various policies such as interest rate hedging, (dynamic) asset allocation, new business pricing, reinsurance, etc.
- (c) effects of scenario drivers, such as changes in market risks or insurance risks.

In the same consistent way, policy evaluation processes like the ORSA should be implemented. As such, the ORSA also serves to challenge and support the choices made (deterministic or stochastic), which is linked to LAC DT figures and can be used as basis for ALM studies to review the investment policy.

CONCLUSION

ALM has shifted from an instrument to determine the Strategic Asset Allocation to a range of techniques to evaluate capital management, hedging and investment policies. Key is still the balance between risk and return, but many additional factors should now be captured due to the introduction of Solvency II and the economic challenges insurance companies face. New ALM tooling can support in this challenging question, to empower faster and more informed strategic decisionmaking. This will be key for insurance companies moving forward in meeting the dynamic challenges they face.

1 – The paper of the Society of Actuaries provides relevant information on the development of Economic Capital for life insurers: https://www.soa.org/globalassets/assets/Files/Research/Projects/research-2016-economiccapital-life-insurance-report.pdf

R. Zeeman AAG (middle) is a senior manager at PwC advising insurance companies on balance sheet management and ALM related topics.