Canadian Institute of Actuaries

BULLETIN

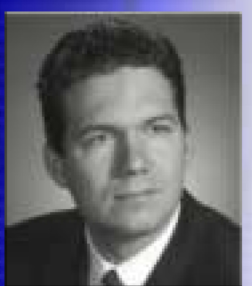
International News ⦿ Actuary Involved in Canada's Security ⦿ 2002 Solvency Valuation Assumptions ⦿ Classifieds ⦿

Vol. 13, No. 7

March 2003

The State of Asset Liability Management Practice in Canada

By Charles L. Gilbert



Over the last few years, Enterprise Risk Management, or ERM, has been at the centre of attention in the risk management world. ERM comprises the management of all the risks facing an enterprise – both financial and non-financial. OSFI's Supervisory Framework contemplates ERM and there is the sense that just doing Asset Liability Management (ALM) isn't good enough anymore.

Notwithstanding the much-deserved fanfare that ERM has received of late, there has been a lot going on in the area of ALM, which remains a vital part of an overall ERM framework and scope. This article offers a glimpse of the state of ALM practice in Canada, highlighting some of the current issues facing life insurance ALM practitioners. It also outlines the pertinent initiatives related to ALM that actuaries should be aware of.

ALM — A Changing Paradigm

Not so long ago, ALM was synonymous with interest rate risk management. And while interest rate risk remains a focal part of ALM, the scope today has broadened considerably. Liquidity risk, foreign exchange risk, and credit risk have formally become part of the scope of ALM for many life insurance companies. That is not to say that these risks were heretofore ignored, but they were previously not necessarily part of a formal ALM framework. Equity risk, until a few years ago given only honorary mention in all but a few life company ALM reports, is now fully part of ALM for most medium- to large-sized companies. This is not surprising considering companies now have: 1) equities backing policyholder liabilities; 2) equity risk exposure associated with investment guarantees offered on segregated funds and other insurance products; and 3) fee income that varies with the equity markets underlying the assets under management. Some companies have gone even further to include counterparty credit risk, sovereign risk, as well as product design and pricing risk as part of their overall ALM.

Beyond Risk Mitigation

Companies recite different reasons for doing ALM. While some companies view ALM as a compliance and risk mitigation exercise, others have started using ALM as strategic framework to achieve the company's financial objectives. Some of the business reasons companies now state for implementing an effective ALM framework include gaining competitive advantage and increasing the value of the organization. The way in which ALM is practised has also changed. Many will recall that ALM used to stand for "Asset Liability Matching" before becoming known as "Asset Liability Management." The Society of Actuaries Task Force on ALM Principles offers the following definition for ALM:

"Asset Liability Management is the on-going process of formulating, implementing, monitoring, and revising strategies related to assets and liabilities in an attempt to achieve financial objectives for a given set of risk tolerances and constraints."

This definition suggests that ALM goes beyond measurement and mitigation of the risk exposure and contemplates an optimization framework for management of the financial risks.

Secretariat
800-150 Metcalfe Street
Ottawa, ON K2P 1P1
Tel.: (613) 236-8196
Fax: (613) 233-4552
E-mail: <secretariat@actuaries.ca>
Website: <www.actuaries.ca>

The *Bulletin*, is an official publication of the Canadian Institute of Actuaries and is published monthly except for July and August. Subscription price is included in the annual CIA membership fee. Your comments and letters are welcomed. Opinions expressed are those of the author and not necessarily those of the Institute. All contributions are subject to editing.

ISSN 1180-3681

Document 203022

From Theory to Practice

One of the first things ALM practitioners learn is that a lot of what they need to know to do their jobs is not found in any textbook. While the current literature offers a sound grounding in ALM theory, there is a paucity of industry specific and nation specific guidance for the practitioner. ALM, as practised, differs between banks and insurance, and further differences exist for life insurance, P&C, and pension plans. Nation specific issues relating to accounting methods, regulatory requirements and/or products offered, shape the way ALM is practised in Canada, the US, and abroad. Unlike the guidance or standards of practice that exist for valuation, crucial details regarding how the asset and liabilities should be projected or how the risk exposure should be measured are not expounded. It should come as no surprise then that there exists a wide range of practice in certain areas within the life insurance industry with respect to ALM. Based on the results of the Survey on Asset Liability Management Practices of Canadian Life Insurance Companies, just over half of the companies modeled asset cash flows including margins for adverse deviations (MfADs), while just under half did not. Similar differences in practice were observed for the treatment of taxes. And while most companies do not assume renewals when projecting asset and liability cash flows, some do.

On October 21, 2002, 21 ALM practitioners, representing most of the major Canadian life insurance companies, participated in a full-day focus group discussion in Toronto; brought together with the following objectives:

- to share knowledge of ALM practice among practitioners;
- to identify areas where a wide range of practice exists;
- to identify practices that may be theoretically unsound; and
- to promote ALM best practices.

Notwithstanding some of the contentious issues that were discussed, no blows were exchanged. Lively debate and considerable contestation persisted over whether MfADs should be included or excluded in projecting the asset and liability cash flows. This led to subsequent musing over the subtle implications of including MfADs and the excess assets that arise as a result of the provision for interest rate risk under the Canadian Asset Liability Method (CALM) and the company's philosophy with respect to the management of earnings and economic surplus.

The appropriateness of allowing a situation where the present value of the projected asset cash flows was greater than the market value of the asset was investigated. Although there are arguments suggesting that this is potentially valid in certain circumstances (e.g., recognizing the liquidity premium as earned up front when the asset is matched against long-term liability cash flows), a reality check protocol should be utilized to ensure value is not artificially created as a result of how an asset is modeled or the assumptions used in projecting the cash flows.

More and more companies are using non-fixed income assets such as equities and real estate to back policyholder liabilities, and there were a number of questions relating to how these assets should be modeled and whether the use of duration to measure interest rate risk exposure could be arbitrary and misleading. A stochastic approach was preferred for backing liability cash flows with these asset types but questions remained with respect to the treatment for valuation purposes under CALM.

The organizational structure for the ALM function varies between companies. While more insurance companies have their ALM function report to Corporate Actuarial than any other area, companies presented arguments for having this report through Investments, an ALCO committee made up of senior management, and the Chief Risk Officer.

Several other issues were discussed relating to the measurement of risk exposure, stochastic modeling approaches, modeling dynamic cash flows, the limitations of performance benchmarks, the impact of valuation assumption changes, ALM and pricing, and whether new business should be taken into consideration for ALM purposes.

For the most part the meeting accomplished its stated objectives although no immediate conclusions were reached with respect to best practices. There was a call from the practitioners who attended for a forum and/or future meetings to further discuss the issues where more guidance is needed.

Current ALM Initiatives in the US and Canada

There are a number of initiatives underway within the actuarial profession in the area of ALM that actuaries should be aware of.

SOA Task Forces and Initiatives

There has been a lot of work conducted by the Society of Actuaries (SOA) and its members in recent years in the area of ALM. In 1999, the SOA commissioned the survey on Risk Position Reporting <www.soa.org/research/risk_position.pdf> which looks at how the insurance industry measures and monitors risk through risk position reporting. The SOA has also formed a number of task forces that deal either directly or indirectly with ALM:

- The *Risk Management Task Force* <www.soa.org/sections/rmtf/rmtf.html> has a number of sub-groups dealing with various ALM topics.
- The *Task Force on Asset Liability Management Principles* anticipates finalizing a statement of ALM principles this year.
- The recently commissioned *Asset Liability Management Specialty Guide Task Force* is in the process of updating the Professional Actuarial Specialty Guide (PASG) for ALM – at last count this had grown to over 80 pages.

Your CIA Working Group on ALM Hard at Work

Not to be outdone, in March 2000, the CIA Working Group on Asset Liability Management was formed to further the education and research in the area of ALM and to promote best practices. The focus of the working group is life insurance. The CIA Committee on Investment Practice will also look at pension ALM and plans to conduct a survey of practice for pension plans later this year. Here is a look at what has been happening:

- After an initial meeting with OSFI and later with banking representatives, the working group conducted a survey of industry practice. Seventy-one life insurance companies with Canadian operations including 100% of all companies with more than $1 billion in assets participated in the survey. The survey results were published in June 2002, and are available on the CIA website at <www.actuaries.ca/publications/2002/202029e.pdf>.
- In October 2000, the working group organized and facilitated the Focus Group meeting on Asset Liability Management Practices of Canadian Life Insurance Companies and recorded 18 pages of discussion points.
- The working group has representation on all of the related SOA task forces, participates actively, and looks for opportunities to coordinate efforts.
- A listserver has been set up for actuaries and ALM practitioners to facilitate discussion of ALM-related topics.
- At the request of several members, the working group is in the process of forming an ALM Practitioners Association for life insurance. It is envisioned that this association of practitioners would meet up to four times each year to discuss practice-related and emerging issues as part of an ongoing process to exchange knowledge and further develop ALM best practices. It is anticipated that all major Canadian life insurance companies will be represented.
- Part of the aim of the working group is to exchange ideas and examine practices across both the banking and insurance industries. ALM practitioners from the banking industry attend semi-annual meetings hosted by the Canadian Asset Liability Management Association (CALMA). The CIA Working Group on ALM and the CALMA have agreed to exchange presentations to our respective audiences early this year and have discussed the possibility of organizing separate focus group discussions between banking and insurance practitioners.
- Initially the working group was to provide a list of ALM references to CIA members. We are now working with the SOA ALM Specialty Guide Task Force to ensure that the PASG for ALM will meet the needs of Canadian practitioners.
- Last, but absolutely not least, one of the major objectives for the working group for 2003 is to publish a draft educational or guidance note on ALM, which we hope to have out towards the end of the year.

The CIA Working Group on ALM has been hard at work and is committed to furthering the education and research in the area of ALM and promoting best practices. We welcome your comments and look forward to the continued involvement of members practising in this area.

Charles L. Gilbert, FCIA, CFA, is the Chairperson of the Working Group on Asset Liability Management. He is also a Director on the CIA Board and a member of the Practice Standards Council.