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Enterprise Risk Management (ERM) for Small Insurers—An Evolving Concept

By Norman E. Hill

Over the last few years, considerable interest has been expressed in ERM. The Society of Actuaries (SOA) is concerned that ERM should rightly be the province for actuarial dominance. The SOA defines ERM as "the discipline by which an organization in any industry assesses, controls, exploits, finances and monitors risk from all sources for the purposes of increasing the organization's short- and long-term value to its stakeholders."

Other professions have also prepared their own definitions of ERM similar to the SOA's definition. The professional organizations include the Risk Management Association (aimed at bankers), the Committee of Sponsoring Organizations of the Treadway Commission (COSO, emphasizing internal accounting controls) and other groups.

Insurance companies are in the business of assuming risks. These risks affect assets, as to whether they provide interest and appreciation as projected, and liabilities, as to whether they require more cash flow than projected. Possibly, if different names had been used originally, insurers today would be called "risk assuming organizations." In any event, proper management of these risks is the key to companies' survival and prosperity. If the challenge is thrown, "How do you manage your business?" the correct answer would involve proper application of ERM.

One principle, though not the only one, is a key part of ERM. Arguably, it is even more important for small insurers, namely, that each company's approach to ERM should be consistent with the risk profiles of its assets and products.

Other elements of a sound approach to ERM include the following suggestions for actuaries:

1. Use the phrase "enterprise risk management" very frequently in communication with and presentations to senior management and boards of directors. At least once, the above definition from the SOA is worth stipulating. From time to time, it may call for repeating, or shorter versions could be used.

2. Use that same phrase very frequently in communications to all levels of employees.

3. Emphasize the vital importance of proper ERM management to the above groups.

4. Projections of total company performance should be used as a tool of ERM management

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Several new directions came about because of this evaluation and brainstorming.

Due to the sizable contributions from Alice Fontaine and Norm Hill (friends of the council), and Robert Hrischenko (*Small Talk* editor) we have supplemented the biannual newsletter with a more timely blast e-mail containing valuable information about regulatory happenings.

The SIC Council has also focused on Principle-Based Reserves (PBR) and the impact on small companies. Thanks to Bill Sayre (friend of the council), and Joeff Williams and Karen Rudolph (council members), we are assisting and promoting studies on the Stochastic Exclusion Test and the expenses of compliance with PBR for smaller companies.

Consistent with SOA direction and the emphasis on risk management, we are sponsoring annual meeting sessions on Enterprise Risk Management (ERM) for the smaller company. After all, the "big boys" are not the only ones with complex and interacting risks.

So in some ways, it seems like a year is a long time, but it can easily slip by. I have enjoyed my stint as chairman and I look forward to staying on as a friend of the council in the future.

What I want to ask of you is to support the efforts of your section council in at least one of the elements of successful strategies:

1) Provide vision. Let us know what challenges you see and how we can help address them.
2) Help with the hard work that it takes to put on meetings and symposia. Volunteer your services.
3) Be brutally honest. If your section falls short of your expectations, do let the leadership know.

I invite you all to come to the Smaller Insurance Company Section breakfast on Monday at the SOA 09 Annual Meeting and see what your council is planning in the coming year, and I invite you all to contribute to our future success. ●

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and communication. This is especially important for senior management and boards.

5. Projections included in actuarial opinions and asset adequacy studies should serve as the bases for ERM projections.

6. These projections may be expanded for ERM, to show more alternatives and ranges.

7. Implications of these projections must be thoroughly conveyed to senior management and boards. The worst end of ranges of results should often be considered as the point of maximum risk the company is willing to bear. From inspection and analysis, some range among various alternatives may represent the company's "maximum appetite for risk."

   In some cases, the worst end of projections has been called an identification of tail risk or material tail risk. This label seems to have arisen with variable products providing minimum guaranteed benefits. At the unfavorable or tail end of projections, at some point, massive amounts of liabilities for the general account will suddenly be generated.

   For other products, given a reasonable amount of projections, worsening results should appear gradually.

8. Often, the worst and best results of ranges of projections can be described with terms such as "stretch" and "remote." If worst-case projections are sufficiently severe, they may deserve a label similar to "nuclear holocaust." For many companies, this degree of severity would not be useful.

9. In some companies, recipients may ask for assigned probabilities of occurrence of these results. If actual policy reserves have a 70 percent Conditional Tail Expectation (CTE) and risk-based capital plus reserves have a 90 percent CTE, these may be used for assigned probabilities. Confidence levels are similar to CTE and may be preferred by some actuaries. The exact meaning of CTE would usually have to be explained.

   Some years ago, an actuary for a very large company told me that one board member demanded that policy reserves have a 99.999 percent confidence level. While this hardly seems realistic, actuaries should be able to express various degrees of confidence in their projections. These statements may be qualitative, quantitative or a combination of both.

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To nonprofessionals, qualitative answers may often work better than quantitative. If the latter approach is used, it should be supplemented by a considerable amount of qualitative descriptions. The latter emphasis could serve to identify the actuary as one businessperson conversing with another, instead of a back office computer specialist attempting to communicate technical or remote ideas.

10. Small companies are less likely to need a separate officer designated as chief Risk officer (CRO). If this title seems important, the chief actuary of a company seems the logical one to assume the responsibility.

11. Models of actual in force, instead of the complete master record, are almost always used for projections. If printouts of model results are included in reports, their output should be comprehensible to nonprofessionals.

> "… a range of projections should convey a range of likely outcomes, so that the company can be comfortable (or not) with the possible impacts of these outcomes. ."

12. If model results are shown to insurance departments and outside auditors, the workings and detailed model calculations should be auditable.

13. At least one individual, preferably more, in an organization should understand completely and in minute detail how the company's model(s) operate. In other words, models should never serve as "black boxes" that cannot be comprehended by even the most intelligent nonprofessionals. Recent horrendous experience of banks, rating agencies and AIG, with assets, derivatives and swaps that were not understood, should serve as a valuable lesson for proper ERM.

Rating agencies have expressed interest in ERM. Insurers who deal with them may need to formulate written plans of their ERM approach to present to them. The above principles and resulting projections may serve as a basis for the insurer's ERM.

As stated above, a range of projections should convey a range of likely outcomes, so that the company can be comfortable (or not) with the possible impacts of these outcomes. In those situations where they are not comfortable with some outcomes, they need to formulate plans to mitigate unfavorable aspects.

ERM Aspects of Liabilities and Cash Flows

A robust set of projections should provide ranges of cash flows from product liabilities. Within the range, some sets may call for reduced new business production, which usually means less statutory surplus strain. Other sets may call for increased use of reinsurance, either due to riskiness of certain products or the same surplus strain.

Insurers should formulate detailed plans for reinsurance risk transfer. These plans should include what types of reinsurance to explore, and which reinsurers to contact. If unauthorized or offshore reinsurers are considered, the types of assets to be ceded, or bank lines of credit, should be listed. Usually, assets ceded to unauthorized reinsurers should be retained in a domestic trust. If bank lines of credit or similar devices are used in lieu of assets ceded, their costs should be considered. They often require renegotiation, more frequently than the life of liabilities ceded.

For various types of risk transfer, alternative projections, involving variables such as cost and recapture periods, should be included as part of ERM.

ERM Aspects of Invested Assets

Portfolios of many insurers have become increasingly complex. Some companies have purchased assets with considerable risk, not always known at time of purchase. As a result, risk mitigation techniques, such as from derivatives, swaps and hedging, have become popular.

Often, smaller companies have avoided these devices. They require degrees of knowledge and sophistication that may not be available to the staff of smaller insurance companies. Also, they carry a cost, and require constant monitoring.

Outside investment managers may be able to provide these devices. However, as part of ERM, projections should be made of how these devices would perform under various economic scenarios.

Other following terms have recently become popular and seem closely tied to ERM.

Systemic Risk

This type of risk has not yet been properly defined. One definition is the risk that, if actualized within one insurer, would almost certainly spread to other insurers or the entire industry. An investment professional defined it as a risk that cannot be mitigated by being spread out. By this,

he meant that a volatile mortgage pool, if converted to several smaller volatile mortgage pools, would retain the same risk and thus constitute systemic risk. A third individual said he could not articulate systemic risk, but would always recognize it if he saw it.

Recently, the American Academy of Actuaries, in Congressional testimony, endorsed the concept of a federal regulator for systemic risk. One recently proposed federal bill would provide federal regulation of systemic risk in large insurers. The exact threshold for "large" in this instance is not specific. In any event, oversight would be from the Federal Reserve.

Small insurers need to watch for any federal or state regulations of systemic risk, and any projections to identify such risks that may be imposed on them.

Economic Capital

For some years, Risk-Based Capital (RBC) has been specified as a device to identify weakly capitalized companies. A new term has evolved recently, "economic capital." It appears to mean the "proper" amount of capital for an insurer. Such capital should be consistent with the risk profile of a company's assets and products. Some rating agencies may compute desired capital for a particular company, such as the "B CAR" calculations.

If an insurer attempts to compute economic capital, or project ranges of economic capital, it should formulate in advance a very clear idea of how it defines this capital. Perhaps, for starters, multiples of RBC might be used. Alternatively, it might be tied in some way to present values of profits in both in force and projected new business.

Just as with systemic risk, small insurers should watch closely any legal developments that may try to incorporate economic capital. These could include required projections for computing such capital that may be imposed on them.

Solvency Modernization Initiative (SMI)

The Solvency Modernization Initiative (EX) Task Force is to coordinate all National Association of Insurance Commissioners (NAIC) efforts to successfully accomplish the Solvency Modernization Initiative which has five focus areas:

1) Capital requirements
2) International accounting
3) Group supervision (of insurance groups and conglomerates)
4) Valuation issues in insurance
5) Reinsurance

It has stated that the ideas that merit study and consideration include ERM, economic capital and internal models of companies, full or partial. The PBR EX Working Group is one committee that reports to the new SMI Task Force.

By themselves, the items above do not appear objectionable. But since they are newly stated and not precisely defined, this task force deserves close attention from small insurers.

Summary

ERM and related terms are becoming quite popular in the insurance industry. Small companies need to stay informed of these terms, as they become more precisely defined, as well as how they may be useful in fulfilling their own management responsibilities.

Insurers may be presented with new programs and methodologies that claim to be the cutting edge for ERM. These may come from vendors or from regulators. With PBR, I believe that—partly due to the long delay without resolution—companies are inclined today to demand demonstrations of value from implementation. Similarly, with ERM, regardless of the source, companies should always demand detailed demonstrations of value from such new implementations. These demonstrations should show, among other things, how the new implementations would interact with existing risk profiles of assets, liabilities and products, and of IT systems. They should always be comprehensible by the company, whether by actuarial staffs or by senior management and boards of directors. This way, small insurers especially can keep on top of the evolving field of ERM. ●

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