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What does ERM mean for Health Practitioners?

by Max Rudolph

Why Care About Enterprise Risk Management?

In late 2008, the health insurance industry faced a number of major challenges. Stock prices of publicly traded companies dropped precipitously. As layoffs occurred, the number of lives covered under employer plans decreased, which placed intense pressure on insurance company overhead expenses. Assets lost significant value, putting surplus at risk. However, companies that proactively had considered the possibility of these risks and studied their potential impacts and interactions maintained a competitive advantage—and in the current environment, even the slightest edge can make or break a company. Considering such risks is the essence of enterprise risk management (ERM).

During the recent financial crisis, there were numerous cases in which ERM either helped or could have helped. Exactly how it was applied (or would have been applied) remains an open question in some of these cases, but an examination of several prominent companies that ran into difficulties is extremely enlightening. There are companies that manipulated financial statements, assumed complex models were perfect, and generally adopted a culture where anything goes, so long as senior managers could continue to pay themselves well. By contrast, thinking about the big picture over a long-term horizon, encouraging skepticism, and simply using common sense would have served these companies well.

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Actuaries
Risk is Opportunity.®

For instance, American International Group (AIG) required a federal bailout because one small division—tasked with modeling complex credit default swaps—came to be seen as a "profit machine" for the company and was allowed to grow unchecked. Even though the models contained several major flaws, skepticism was frowned upon. A large number of profitable, well run operations within AIG now bear the scars from these misjudgments.

Other examples include Health South, which manipulated its financial statements, and Long-Term Capital Management, which seemed to believe that its models and assumptions were infallible. And then there's Enron, whose financial and cultural collapse was so strong that it destroyed its auditor along with itself. The list goes on.

So why should health practitioners care about enterprise risk management? The answer lies in the following question: who is better-suited to consider these issues—as they apply to health insurance companies—than actuaries? With their advanced mathematical training, broad background in insurance topics, detailed knowledge of the various functional areas of a health insurer, and finely honed skills in contemplating all aspects of risk, actuaries have a unique set of skills that provides a strong basis for managing risks rigorously and holistically. Indeed, when health insurers do develop strong risk management programs, these programs often are managed by actuaries, with many actuaries serving as Chief Risk Officers. Even when the Chief Risk Officer is not an actuary, actuaries often play an important role on risk management committees. We expect to see more actuaries in these positions as the Society of Actuaries' Chartered Enterprise Risk Analyst (CERA) designation becomes more prevalent. So far, over 30 health practitioners have earned the CERA designation. Clearly, ERM is a significant growth opportunity for the actuarial profession, and health actuaries are no exception.

What is Risk?

When formulating a definition of ERM, it is important to start with the "R"—risk. This means different things to different people, based on their perspective and experience. The economist Peter Bernstein, author of *Against the Gods: The Remarkable Story of Risk*, was quoted in CFA Magazine (March/April 2004) as saying "Risk is … about the unknown, the inescapable darkness of the future." In terms of a technical definition, one requirement for the presence of risk is uncertainty: if an outcome is known in advance, regardless of whether it is desirable or undesirable, there is no risk. (Flying into space without oxygen is not a risk under this definition—you will surely die; there is no uncertainty involved.) The other requirement for risk to be present is exposure: you must actually be exposed to an uncertain event for it to be considered a risk. While these requirements can be applied as a general guide, it is important to emphasize that the assessment of risk is a subjective matter, with no absolute right or wrong.

Risk Management

Risks are often viewed in terms of either volatility or downside exposure. Some tools for risk management—the "M" in ERM—such as the Capital Asset Pricing Model are driven by the measured volatility of a particular metric (in this case, the movement of equity prices). Working along these lines, a publicly traded health insurance company might focus its risk management efforts on potential variations in its GAAP income. As for downside risk exposure, an entity faces it each time it sets goals that might not be achieved. Further illustrations of such exposure range from the personal level (such as the risk that an individual will be unable to retire when desired with a sufficient level of income) to the company wide level (such as the risk that an insurer will become insolvent).

When specific risks are identified and managed individually, the result is what we might call "silo" risk management—that is, it resembles a group of grain silos standing next to each other but operating independently, with no interaction between them. The disadvantage of silo risk management is that it can lead to duplication and a lack of overall coordination. More to the point, decisions that make sense for an individual risk will not always be in the organization's overriding best interests.

Putting the "E" in ERM: Breaking Down the Silos

ERM extends beyond silo risk management by taking a holistic approach, considering all risks in the aggregate rather than individually. The ERM process considers the impact of combinations of risk, both measuring and managing the correlations between all risks. The interaction between individual risks will vary depending on the nature of the risks, and certain risk combinations will not have steady correlations. For example, when times are very good (as well as when times are very bad), many financial risks trend similarly, and their correlations increase. There are a number of mathematical techniques now available to measure these changing risk correlations. ERM combines these quantitative methods with qualitative tools (as discussed below, in the section on Key Risk Indicators) to assess risk. Both types of tools are needed to create an ERM framework.

Developing an ERM Framework

When considering ERM broadly, a practitioner starts by developing a framework for a consistent process. This is also an opportunity to advance other projects that leverage such processes. Whether it is principle-based approaches to reserves and capital requirements, scenario planning or predictive modeling, many of the techniques involved build off each other. Initial design specifications and later improvements can be incorporated into a base model that is then used for many tasks. Using one base model saves time, and it provides a common thread connecting a range of different projects. Once the model is explained to clients, it becomes easier to explain the various projects for which the model is used.

Risk Identification

The first step in developing an ERM framework is to identify the risks taken by the insurer, which will vary based on lines of business and investment philosophy. Major categories might include strategic, operational, credit, and interest rate risks. There are several tools used in the industry that can provide a starting sample of risks to consider. Each risk should be assigned to whoever is accountable for managing it. In some instances this will be a committee rather than an individual, but that should be the exception rather than the rule.

Don't make this a bigger project than it really is. Develop a relationship with the internal and external audit teams to capture all risks and avoid duplication of effort. The firm's business team probably already knows its risks and just needs to write them down. Sit down with the risk owners to determine the likelihood and severity of each risk, both before and after any mitigation efforts. Each risk should be clearly defined, with current status and any plans to manage it differently documented and updated at least annually. This process will help to prioritize the risks and determine which ones will be discussed at the board level.

Key Risk Indicators

A leading indicator provides information that allows you to act in advance. For example, when you're on the road, the turn signal of the car ahead of you is a leading indicator. The importance of this indicator is underscored—by the sound of your own screeching tires—every time the other driver fails to use it before making a turn.

Key risk indicators (KRIs) should be developed for each risk. There will be general industry KRIs as well as indicators unique to a particular company. Many will be variants of an existing set of metrics: the lagging indicators collected as part of the reporting process. For example, morbidity is measured by claims paid. Firms need to search for leading indicators that help drive business decisions prior to claims turning out higher than expected. In this case, perhaps leading economic indicators for trend, such as projected CPI and unemployment rates, will help the risk owner improve the decision making process. Carrier-specific data, such as provider contract expiration dates, are also candidates to add value. These metrics will evolve over time, enhancing the firm's ability to make the right decisions.

While KRIs for financial risks often use quantitative measures, other risks are better suited to qualitative assessments. For example, issues that fall

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ERM extends beyond silo risk management by taking a holistic approach, considering all risks in the aggregate rather than individually.

into the category of reputational risk might best be measured by asking the senior management team to rank each of these related risks—in terms of urgency or severity—as high, medium or low. Resulting rankings can be trended over time; a sharp increase in the ranking of a particular risk would be cause for concern. Another example that is present in today's environment is the external risk due to health reform legislation. There is definite value to holding interactive sessions with your clients to flesh out risks that are not conducive to quantitative measurement: it helps the practitioner avoid the "what you can't measure you can't manage" trap.

Aggregation

Aggregation of risks is an important part of the ERM process, but it has no standardized approach. A risk manager can use the NAIC RBC formula to anticipate marginal impacts of future decisions. If desired, a more conservative assessment can be produced by ignoring diversification benefits.

Looking at risks holistically requires you to think about how the risks fit together. For example, including capital considerations as part of an insurer's pricing discipline, and making this part of a broad ERM strategy, allows more consistent decision making and can add value.

Communication

Communication efforts will determine the success or failure of an ERM framework. And a key part of ensuring the long-term success of the program is the *internal* message. Don't develop ERM just to meet a rating agency requirement. External stakeholders such as rating agencies and equity analysts can provide some consistent standards to help the risk manager get started, but the primary customers of ERM efforts are internal senior management and the board of directors.

To develop your ERM message, think about your current efforts and how you can grow them iteratively over several years. That way you have a story to tell when you meet with the various internal stakeholders, and your game plan can evolve and improve over time. Looking at what other companies are writing in their public documents will provide additional guidance in crafting both your internal and external messages. Most importantly, remember that enterprise risk management is a process, not a project. It enters the culture of the firm. Without a strong risk culture in place, the ERM effort is just busy work. For a firm without such a culture, management is kidding itself (and everyone else) if it claims to have a useful ERM framework in place.

What It Means to Have a Risk Culture

Once the basics of an ERM framework are in place, you will find that risk owners will have their own ideas about how to improve the process. That is when you know the risk culture is taking hold. In ERM nirvana, everyone would wear a button saying "I am a risk manager." This implies that the culture must be both top-down, with strong leadership from the board and senior management, and bottom-up, with entry level employees comfortable with being a part of the risk management process.

Advanced ERM techniques involve both sophisticated modeling efforts and a deepened risk culture. Techniques to improve forecasting results can include scenario planning, stress testing, stochastic modeling, and assessing emerging risks. Thinking carefully about potential events (without dwelling on them obsessively) can give an insurer a leg up on its competition. Improved risk culture requires an analytical approach and a skeptical attitude, with business plans questioned and hearty debates encouraged. Such a challenging environment can be uncomfortable at first. But how many insurance executives wish they had fostered these types of discussions prior to entering the long- term care market, or before offering secondary guarantees on variable annuities?

Skepticism and Common Sense

As noted above in the discussion of KRIs, qualitative efforts are just as important as those with specific metrics. Risk managers should utilize their experience to "sniff out" risks. Even if a risk can't be measured, it should be evaluated based on volatility considerations and downside risk appraisals. Ask questions such as: "What is the worst thing that could

happen if I accept this risk? Can I live with that?" Think of how your peers would react to a front page article in the local newspaper naming you as the person responsible for accepting a particular risk. Would you be comfortable with that? These are the kinds of common sense, "gut reaction" approaches that you need to incorporate into your ERM efforts.

Using ERM to Make Better Decisions

Actuaries practice in a variety of industries, from insurance to asset management to sports statistics services. Some say that ERM differs within various practice areas. This is mostly a definitional misunderstanding. The basics of an ERM process or framework do not vary by entity. It is true that the primary risks of a health insurer differ from that of other firms, but the process of identifying risks, developing a risk culture, and making better decisions is common to all firms. This is true for financial services firms as well as non-financial services firms, and for corporations as well as individuals.

The similarities between ERM in the health business and ERM in other insurance lines go beyond just the framework. The basics of insurance risk management—maintaining sound contracting processes, managing adverse selection, and paying claims correctly—apply to all practice areas. Health actuaries just have to be extra vigilant when managing certain risks, such as volatility due to large claims or unanticipated changes in utilization and cost trends.

Summary

Enterprise risk management is an evolving field. It has been implemented to various degrees at financial services firms such as banks and insurers as well as at companies that focus on manufacturing and services. ERM covers a broad range of qualitative and quantitative techniques, but the first line of defense is common sense: if it doesn't feel right, then it probably is worth a longer look. Firms that encourage skepticism and contrarian thinking rather than penalizing them have a healthy risk culture and likely will have a competitive advantage. Companies that develop key risk indicators and study the way they drive decision making have a better understanding of the risks inherent in their business. These organizations are well on their way to making decisions that optimize value added. ■

Think of how your peers would react to a front page article in the local newspaper naming you as the person responsible for accepting a particular risk.

Health Insurance ERM: One Approach

by Jeff Garnett

One core discipline underlying all financial firms is asset liability management (ALM). For banks, that discipline resides centrally and coordinates the potentially unrelated activities around deposit capture and lending. For many insurers, ALM is more decentralized reflecting a close relationship between asset and liability that is embedded within pricing, underwriting, and reserving activities. Centralized versus decentralized ALM is a major contributing factor to the early recognition in banking of enterprise risk management (ERM) as a value added activity. Many insurers have taken longer to adopt ERM, particularly where there is a short pricing cycle such as for health insurance.

Aetna was an early adopter of ERM within health care, but a relative newcomer to the discipline when compared to banks and life insurers. We believe the timing of our adoption allowed us to learn from

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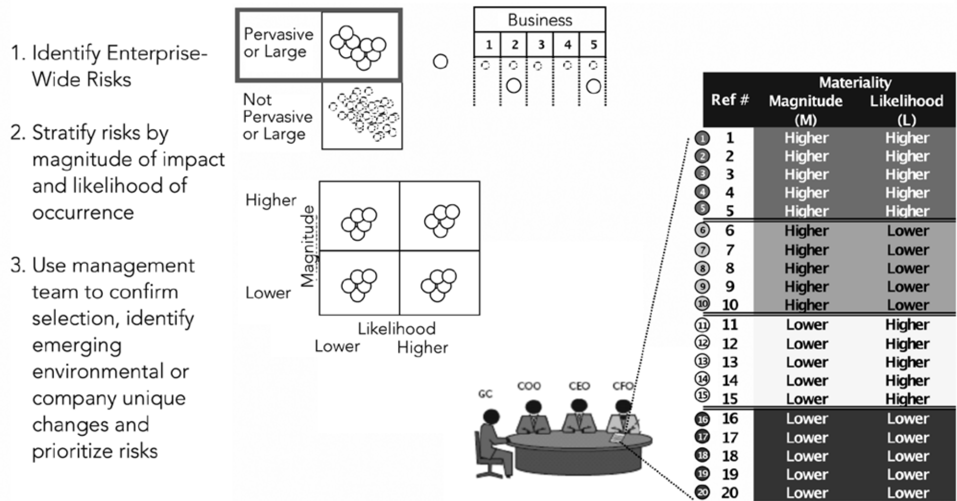
the mistakes of others, such as constructing an ERM program that meets the prescriptive tenets of regulators, rating agencies, consultants, and software vendors, but not the needs of the business.

In the earliest stages of ERM, Aetna followed the common path of identifying enterprise wide risks, adopting an agreed upon description of these risks, and prioritizing them based upon a relative system of valuation. At this early stage Aetna also built ERM to meet the emerging requirements of external constituencies.

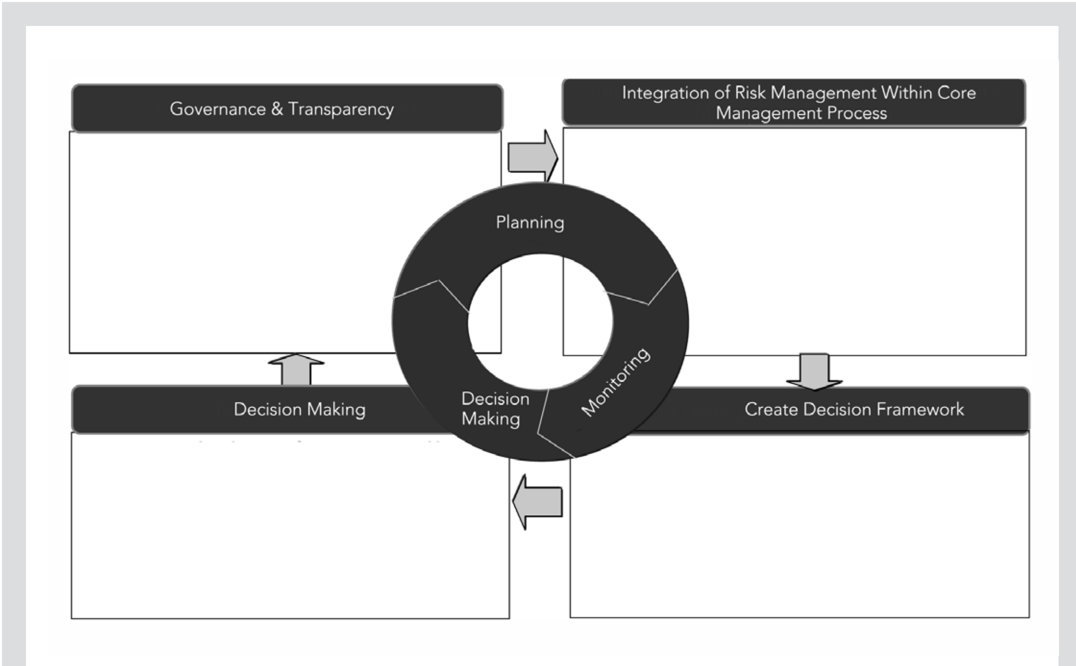


Ref #	Magnitude (M)	Likelihood (L)
1	Higher	Higher
2	Higher	Higher
3	Higher	Higher
4	Higher	Higher
5	Higher	Higher
6	Higher	Lower
7	Higher	Lower
8	Higher	Lower
9	Higher	Lower
10	Higher	Lower
11	Lower	Higher
12	Lower	Higher
13	Lower	Higher
14	Lower	Higher
15	Lower	Higher
16	Lower	Lower
17	Lower	Lower
18	Lower	Lower
19	Lower	Lower
20	Lower	Lower

Aetna's approach, though refined over the years, remains largely intact as a foundational ERM process. By itself, this prioritization allows us to allocate scarce resources including discussion time at the Board of Directors and Committees, audit activities, and spending on management controls. As importantly, it serves as a comparative description of our business model and environment over time.

The risks that are core to our operations have, over the years, risen to the top of the list. Others that are not core to operations still qualify as enterprise wide risks but reside lower in the prioritization. Over time, this natural stratification led us to recognize that ERM would be more effective if it resided within the management process rather than continue as an independent and separate function.

A new phase of ERM at Aetna commenced with its integration into the management process—specifically the planning and performance management group. From this vantage point, ERM now has a view into the day to day issues within the core management process, as opposed to having to seek them out. It has allowed ERM to recast existing processes to be leading indicators of risk, to leverage management information systems to deliver risk based metrics, and to provide relevant risk related input to management discussions and decision making.



One key change to ERM in this new phase was to adopt the language of Aetna's management process, and to reflect that language in its own unique processes such as risk dashboards. Another change was to leverage ERM resources and tie them to subject matter expertise through the use of risk champions across the management team. The ERM process now adds focus to decisions around management controls that are under consideration, and have the most potential impact on risk.

This new phase configuration and approach is tailored to Aetna's management process and culture. There is more than one approach to ERM, and Aetna's experience suggests that ERM can reside and flourish within an existing management process.

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