A Lesson from ERM: Moving from Budgeting to Scenario Analysis

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The Smith family planned for a Sunday picnic. Early on Sunday, the weather forecast was 70 percent chance of sun and 30 percent chance of rain. The family decided to go ahead with the picnic.

Unfortunately, the 30 percent probability of rain became 100 percent, but the Smith family went ahead with their plan anyway. Everybody had a pretty miserable time, with soggy sandwiches and family football in the rain and mud.

As it happens, the Smiths are intellectual types and called their neighbour, Mr. Jones, a management guru, to assess their decision process. Mr. Jones asked: if you had known with 100 percent certainty that it would rain, what would your plan have been? The Smiths admitted that they would have gone to the movies and for a bit of ice cream. Then Mr. Jones posed the critical question: once it was clear that it would rain, why didn't you abandon the picnic and proceed with your alternative plan? Mr. Jones pointed out that in sticking to their original plan, despite the change in the environment, the Smith's decision process was similar to that of many businesses today – namely an over commitment to a single initially assumed scenario.

In their planning/budgeting process, many companies start with one definitive scenario on the external environment. In the case of insurance, assumptions are made on key factors, such as the level and direction of price changes, loss ratios and interest rates. Once developed and presented to senior management, "the plan" often can take on a life of its own. Managers

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and underwriters are reluctant to deviate from the plan, despite market realities. What was initially intended as a summary of bottom-up, reality-based figures can become a rigid, institutionalised fiction requiring enormous energy to maintain against the tide of an inevitably changing reality. The commitment to one (and only one) plan breeds inflexibility, which is potentially detrimental to the firm.

The initial solution for corporations, and probably for the Smiths, is "scenario analysis."

Limited Scenario Analysis

For each line of business, insurance companies develop plans based on a range of external scenarios. This analysis requires that the firm articulate the potential outcomes, the probability of occurrence and the appropriate responses should each scenario occur. Response plans may be laid out in enough detail to give them sufficient operational weight to drive decision-making behaviour. That is, the firm would produce a "set of optional plans" that are activated based on market conditions. The firm would also need timely market monitors to assess which scenario is playing out.

Several advantages are gained from this change:

- Optimum responses are determined and evaluated to develop a strategic plan prior to its need.
- Organisational inertia is reduced, building in a degree of flexibility and removing the unrealistic urge to "make the numbers" at all costs.
- The resulting portfolio mix is tailored to the market realities, which emerge over time.

Model Expansion to All Lines of Business

Expanding the analysis, the firm would develop an integrated set of scenarios that include all lines of business. A great deal of coordination is required by the corporate planning team to craft the perspectives into credible, internally consistent corporate scenarios. Of particular interest is the inclusion of co-movement potential (e.g., market shocks, multiline price deterioration). This is especially important for insurers, as this response plan may also be more politically charged, as limited underwriting capacity must be allotted across the organisation. While this capacity allotment will be difficult, it is better for insurers to go through this during a scenario-planning process rather than in the heat of a market crisis.

Advanced Scenario Planning and Enterprise Risk Modeling

In the advanced world of enterprise risk management (ERM) planning, simulations generated by an ERM model replace the manually constructed scenarios. Over time, as firms grow more comfortable and skilled in their modeling efforts, they can determine the most effective decision-making approach and test effectiveness across a broad spectrum of simulated scenarios. This represents fully proactive strategic risk mitigation.

We see a broker's role expanding more heavily into this area. Guy Carpenter, for instance, has developed advanced technologies that can model scenarios beyond the traditional cat models. With our global reach and specialisation, we are also well positioned to develop credible scenarios for insurers to use in their own evaluations, and to consult on the optional decisions.

By going beyond a single unique scenario, insurers can greatly enhance their ability to manage in the real world, where change is increasingly the norm. Having "experienced the future" through scenario analysis or model simulation, they are more likely to be masters rather than victims of the forces of destiny.