

Commentary

BUFFIN PARTNERS INC.

ECONOMIC INVESTMENT AND ACTUARIAL RESEARCH

The Promise of Enterprise Risk Management

The recent history of financial problems includes the mismanagement of Long Term Capital Management, the US Savings and Loan crisis, Executive Life, Mutual Benefit Life, Orange County, Barings and the Equitable Life Assurance Society. For the future, the newly emerging practice of Enterprise Risk Management (ERM) offers the prospect of avoiding situations similar to these financial disasters by proactively and systematically managing financial and other risks of enterprises. ERM addresses the challenges of risk in four main categories: operational risk, strategic risk, financial risk and hazard risk. What distinguishes ERM from traditional approaches to managing risks is that it is systematic, comprehensive and integrated.

Operational risks include management ineffectiveness, system failures, accounting irregularities, product design and manufacturing defects, cost overruns and supply chain problems. Strategic risks include merger and acquisition integration problems, competitive pressure, research and development delays, customer demand shortfall, customer pricing pressure, loss of major customers and regulatory problems. Financial risks include economic risk, market risk, credit risk, asset-liability risks, interest rate changes, liquidity risk, inflation risk, pension plan funding risks, and global macroeconomic issues. Hazard risks include catastrophes and natural disasters, environmental pollution, property risk, product liability and other risks involving lawsuits.

The objectives of ERM are: to identify and classify risks; to quantify risks using a number of risk metrics; to monitor risks; and to implement strategies for risk reduction, integration, diversification and transfer. Risk mapping is used in the risk identification and classification process. A risk map provides a representation of the

relative severity and frequency of various risks; it is useful for ranking risks in terms of identifying their importance to an enterprise, ascertaining qualitative risk characteristics, and setting risk-based priorities.

The role of ERM has been brought into focus for the banking industry through the Basel Capital Accord (1988) and a modified version known as Basel II (2001). The Basel Capital Accord introduced a risk-based approach to regulation using the Value at Risk method of assessing risk. It established capital requirements equal to a specified percentage of the value of the bank's assets, classified into four groups according to type and degree of risk. Basel II accepts the use of a number of different risk metrics including internally produced risk measures and assessments by rating agencies.

The current agenda in the European Union includes the European Commission's Financial Services Action Plan and, in 2005, the adoption of International Financial Reporting Standards. New approaches to the supervision of insurance groups and financial conglomerates will change the way in which insurance business is managed in Europe. The most significant part of the action plan will come from the revision of the solvency regime for insurance companies, referred to as "Solvency II" that would be the counterpart of Basel II. Solvency II will be based on a three-pillar approach involving a basic minimum capital requirement, proactive solvency management and emphasis on disclosure.

The International Association of Insurance Supervisors (IAIS) published a statement of "Principles of Capital Adequacy and Solvency" in 2002. This statement included requirements that capital adequacy and solvency regimes be supplemented by risk management systems, and the matching of assets and lia-

bilities. The IAIS statement of Insurance Core Principles requires insurers to recognize the range of risks and to assess and manage them effectively. It also requires insurers to undertake regular stress testing for a range of adverse scenarios to assess the adequacy of reserves.

A feature of ERM is the quantification of risk. Its objective is the optimization of risks and business opportunities. It leads to economic decisions regarding capital allocation, risk mitigation strategies and performance evaluation. ERM affects enterprise-wide cash flow for strategic investments. To manage the ERM functions, many enterprises, both within and outside the financial services industry, have appointed Chief Risk Officers (CRO). The CRO will typically be responsible for developing and executing corporate-level strategies to mitigate risks. Risk tolerances are set in aggregate and flow through the organization by means of a top-down process.

Finally, the actuarial profession will need to be transformed to meet the needs of ERM. A recent paper by Luc Henrad and Ruben Olieslagers of Fortis Group stated the challenge succinctly: "Traditionally actuaries have focused on technical insurance risks such as mortality, disability, property and casualty claims risks. Actuaries who focus on adequacy of reserves should also be involved in the whole risk taxonomy and portfolio management of assets and liabilities. This implies an integration of asset-liability management and actuarial management."

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