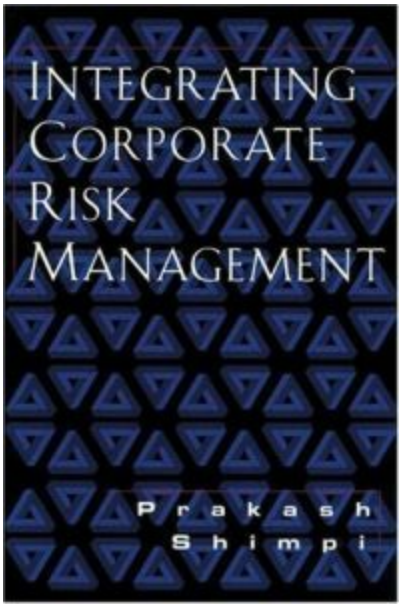

Book Integrating Corporate Risk Management

Prakash Shimpi
Thomson Texere, 1999

Recommendation

Many corporate officers deal with risk, from treasurers and risk managers to CFOs. But since each department faces risks of a different type, risk management in many cases is an ad hoc affair. Prakash Shimpi's vision of integrated risk management not only consolidates the risk-management practices of an entire firm, but also blends capital management and risk management into a single, cohesive framework. This framework is the centerpiece of Shimpi's book, which also provides readers with a comprehensive look at current risk-management practices, old and new tools for managing risk, and likely future developments in the field. While the topic at hand is complex and built of often-unfamiliar jargon, Shimpi manages to present the material in an accessible and engaging manner that will satisfy financial experts but won't intimidate novices. *BooksInShort* recommends this book not only to the obvious audience of risk managers, treasurers and c-level executives, but also to mid-level managers and students, who will need an increasingly sophisticated understanding of the topic as risk management becomes an ever-larger component of basic corporate strategy.

Take-Aways

- The goal of integrated risk management (IRM) is to achieve maximum risk reduction at a minimum cost.
- The Insurative Model captures the relationship between capital and risk by equating all of a firm's capital to the amount necessary to cover its risks.
- Risk mapping - cataloging and quantifying risks - is more art than science.
- As distinctions blur between capital markets, risk management and insurance, companies can capitalize on new approaches that bridge these disciplines.
- Advanced integrated risk management efforts require cooperation between a corporate treasurer, risk manager and chief financial officer.
- Insurance-linked securities (ILSs) provide a new source of affordable insurance coverage and a new opportunity for investors.
- Advances in analytical models and the standardization of risk management practices are accelerating the development of IRM.
- Enterprise earnings protection, which indemnifies a company for deviations in earnings from projected levels, is the ultimate integrated product.
- The creation of the chief risk officer (CRO) role is a major step in the growth of integrated risk management.

Summary

IRM Foundations

Because risk and opportunity go hand in hand, companies face a staggering array of risks. Managing these risks is sensible because it reduces a firm's chances of experiencing financial distress and shields it from unanticipated events that disrupt its plans. While many executives contend with specific types of risk, risk management should be integrated and consolidated (ideally under a chief risk officer) to achieve maximum risk reduction at a minimum cost.

> "Risk is the lifeblood of a corporation. It provides the opportunity to turn a profit, but raises the specter of ruin."

Risk is not avoidable, but it is manageable. Companies seek to manage risks in several basic ways: risk avoidance (deciding not to undertake risky endeavors), risk reduction (preventing and controlling risks by using safety devices, protective techniques and diversification), risk transfer (insuring or hedging), and risk retention (absorbing certain risks in a cost-effective fashion.)

> "A constant and close cooperation must develop between those responsible for directing activities, those responsible for raising capital to fund those activities, and those responsible for covering the risks that the activities entail."

It is critical for firms to coordinate their efforts in all of these areas in order to make coherent risk-management decisions. For example, a firm might spend hundreds of thousands of dollars insuring its plants and equipment against accidental losses that would be far less devastating than a shift in interest rates, against which it might have no protection. Integrated risk management (IRM) provides the framework to articulate these critical relationships.

The Insurative Model

Intuition tells us that capital and risk are related, but conventional financial theory treats them separately. By considering capital structure and insurance in isolation, we fail to account for the important connections between them. The Insurative Model is a framework that captures this interrelationship by incorporating both. It equates all firm capital to the amount necessary to cover all firm risks.

> "The diverse activities of line managers, the treasurer, the risk manager and others should be coordinated so that, through their joint efforts, the company achieves a maximal reduction of risk at minimum cost."

The Insurative Model shows us that a firm's decisions on insurance and risk retention can be just as important as its debt-equity mix. Whereas risk managers have traditionally turned to the insurance market to transfer risk to third parties and treasurers have turned to the capital markets to do the same, the convergence of the capital and insurance markets is producing risk-management tools that incorporate features of both. It's therefore become necessary to integrate risk management at all levels. When this is accomplished, CFOs have at least three tools for optimizing their capital structure: debt, equity and insurance.

Risk Mapping

Risk mapping, or cataloging and quantifying the risks faced by a company, is more art than science. Risk mapping is not a one-time effort. It should be a dynamic, ongoing process. The steps in risk mapping are:

1. Measurement: Establish parameters to quantify the impact of any risk.
2. Classification: Organize a top-down framework for cataloging risk.
3. Identification: Develop a bottom-up list of specific risks facing the firm.
4. Assessment: Evaluate the significance of each identified risk.
5. Analysis: Model the collective impact of risks on the firm.

Risk-Management Tools

With the convergence of the businesses of banks, insurers and reinsurers, companies in all of these fields now can be thought of as risk consolidators. Banks help companies raise debt and equity capital and also help corporations trade interest rate risk, commodity risk and foreign exchange risk in the capital markets. The insurance industry helps companies transfer risks from the firm to a (re)insurer. But banks and the insurance industry have learned from each other and borrowed techniques to develop more efficient solutions. These new solutions integrate risk management to several different degrees:

1. Integration within markets, with a given capital structure: These techniques combine risks within either the insurance or the capital markets and can be executed by the risk manager alone. They include basket options, double-trigger options, and aggregate insurance policies.
2. Integration across markets, with a given capital structure: These techniques integrate the insurance and capital markets and require cooperation between the risk manager and the treasurer. They include multi-line, multi-year products (MMPs) and multi-trigger products (MTPs).
3. Integration across markets, with changing capital structures: These techniques apply to insurance and capital markets risks, separately or integrated, and generally involve the CFO and other managers. They include finite risk reinsurance, run-off solutions and contingent capital.
4. Integration across markets, with changing market structures: These techniques require changes in the structure of the insurance and capital markets to make them viable. They include insurance-linked securities (ILS), insurance derivatives, credit derivatives and weather derivatives.

MMPs and MTPs

Multi-line, multi-year products bundle several (generally two) risks together. In the financial markets, such bundles are called baskets. The hedger is covered if combined losses from both risks are greater than a specified amount. The dealer prices the product based on the correlation of the two risks and hedges its exposure to both risks in the capital markets. In the insurance area, MMPs combine various risks - like property and casualty - and fix the loss retained by the policyholder, irrespective of which risk was the source of the losses, with the remainder up to an aggregate limit passed on to the insurer.

> "Capital management and risk management are two sides of the same coin. Conventional finance theory treats them separately."

MMPs can cover traditional insurance risks like fire, financial risks like interest rate fluctuation, and the previously uninsurable, like political and business risks. They finance risk more effectively because they diversify a portfolio of risks spread over time. Policyholders benefit from efficiency gains, stabilization of risk costs, administrative efficiency and flexibility.

> "As the distinction blurs between corporate finance, risk management and insurance, corporations have the opportunity to achieve a higher level of capital efficiency by drawing on new ideas that bridge these disciplines."

In multi-trigger products, payments are made on one risk only if triggered by an event on another risk. For example, an oil company might consider an MTP in which catastrophe coverage is provided only if oil prices fall below a certain trigger level. MTPs provide protection from disaster scenarios and present substantial price advantages. But companies of questionable financial strength run a high risk if they use MTPs to save premiums.

> "The chief executive officer (CEO) is responsible for a firm's success in the marketplace and may therefore be deemed its ultimate risk officer."

The ultimate integrated product is right at the bottom line: enterprise earnings protection. A number of products are already in the works to indemnify a company for deviations in earnings from projected levels. Such a product would hedge all known and unknown risks in a single basket, with the probable exception of losses due to a market downturn.

Finite Re

Finite risk reinsurance combines risk transfer and risk financing. The reinsurer assumes a limited risk for a multi-year term. Profits that accrue over that period are shared with the company as compensation for the limitation on the risk coverage. For clients, finite re can smooth financial results and help optimize balance-sheet structure. There are many types of finite re contracts available, including loss

portfolio transfer (LPT), adverse development cover (ADC), and spread loss treaty (SLT).

> "The time has come to begin thinking about capital structure more broadly, not as debt and equity, but as debt, equity and insurance."

Changes in tax legislation and accounting principles have increased the demand for blended covers, which combine finite and traditional reinsurance elements. Blended covers allow disparate risk types to be included in a single multi-year package, while frequently occurring, easily predicable minor losses remain in the retention. These predictable risks can be covered with a multi-year finite solution.

CC and ILSs

Contingent capital (CC) first gained popularity in the insurance industry. A CC instrument is an option to raise a limited amount of equity or debt upon the occurrence of an agreed-upon event. The sources of this capital are mostly banks, reinsurers and the capital markets. CC enables a company to retain the risk of low-probability, high severity events without dragging down return on investment by raising the capital to cover such risks in advance.

> "Earnings protection takes the integrated concept to the furthest extent possible - where all risks, both known and unknown, traditionally insurable and not, are hedged in a basket program."

Insurance-linked securities (ILSs) include over-the-counter swaps, exchange traded and over-the-counter options, and private placement bonds. These securities provide a new source of competitively priced insurance coverage and create a new investment opportunity for institutions outside of the insurance industry. The annual U.S. ILS market could reach $10 billion within the next 10 years.

> "Adopt integrated risk management and your company or job (if not necessarily your soul) will be saved (or at least vastly improved)."

Most ILSs to date have been catastrophe, or cat bonds whose coupon and interest payments depend on the performance of a pool or index of natural catastrophe risk, rather than actual losses. For issuers, ILSs offer attractive pricing, additional reinsurance capacity, credit enhancement and greater leverage. For investors, the securities offer attractive returns and an opportunity to add diversification to their overall portfolios.

The Future

There are many trends in the financial world acting as catalysts for the growth of integrated risk management. Shareholders are concerned about the efficient use of their funds, public officials are looking after the interests of consumers, shareholders and policyholders, and ratings agencies and other financial intermediaries are taking a much closer look at the risk-management abilities of managers. Advances in analytical models that measure risk and the standardization of risk management practices are also accelerating the development of IRM.

> "Sitting on the sidelines as new markets evolve means missing opportunities. History teaches us that significant economic profits go to market innovators."

But there are still barriers that must be overcome, especially the bureaucratic inertia that makes it difficult to cross traditional functional lines. In addition, the high transaction costs, complexity of the products and uncertainty about regulatory and accounting treatment are all negative factors.

The U.S. has taken the lead in alternative risk transfer (ART) solutions and the prospects there are bright due to the increasing importance of the capital markets and the integration of risk management tasks within corporations. In Europe, development in the U.K. is relatively advanced, while the market remains in its infancy on the continent. But the European regulatory, tax and accounting environments are favorable to innovation, and the region should see strong growth for ART solutions in the medium term. The development of ART solutions is just beginning in Asia and Latin America.

The CRO

An important step in the growth of integrated risk management is the creation of the chief risk officer role within a number of firms, mostly in the finance industry. The CRO manages the identification and measurement of all risks faced by his or her company, as well as the efficient use of risk capital. Ideally, the CRO should be senior management, reporting directly to the CEO. He or she should have no direct business or revenue responsibility, acting instead like an auditor or an accountant.

The CRO will become the champion for IRM as a framework from which to rationally assess and measure the relationship between the risks that a company faces and the capital resources it has at its disposal.

About the Author

Prakash A. Shimpi is Managing Principal (U.S.) for Swiss Re New Markets. Swiss Re is a leading reinsurance firm with a global reputation for innovative financial techniques and management. Prior to joining Swiss Re in 1995, Shimpi was managing director of the Global Insurance Corporate Finance Division of Chase Manhattan Bank.