

## **Back to the Future of Insurance**

By

**Bruce B. Thomas and L. Ware Preston, III**

There is a growing sense of foreboding in the insurance industry. During much of the last decade, executives bemoaned the industry's slow growth and watched in disbelief as commercial market premiums continued to soften year after year. Now that there is finally a hard market, many knowledgeable people are already worried about the soft market that will most certainly follow. Does this represent a pessimism that is characteristic of the industry or is something fundamentally wrong?

Many large commercial line customers have seen their premiums increase dramatically in the last year and are now seriously questioning the value of insurance. Already shaken by the lack of rate stability, these companies are also starting to wonder if their coverage is really "insurance" or just a form of short-term financing that has attractive tax and income smoothing benefits. With capacity shrinking and an expanding list of exclusions, many customers are also disturbed that insurance is covering less and less, just when they need it the most.

One sign of a dynamic and healthy industry is a catalogue full of new products offering ever more specialized features to better suit the user and new possibilities for growth and profitability for the industry. Unfortunately, a full range of new products is not a primary characteristic of today's insurance industry. Moreover, there is a growing list of critically important risks that do not appear to be insurable, and industry executives have solid grounds to fear the growing list of liability theories that may render even the best underwriting useless.

Much discussion has taken place during the last decade about whether the industry is over-capitalized or undercapitalized, how well it uses its capital, if it can provide solid returns to its shareholders and policyholders, and whether innovative capital market products might overtake insurance. Underpinning each of these issues are fundamental questions about the role and efficiency of insurance as a means of diversifying and managing risk. Is this the beginning of the end or just an inflection point? Does this represent a fundamental breakdown or a brief rest stop that is necessary to chart a new course?

### **The Distant Past**

In the old days, it was clear that insurance had value. Insurance removed uncertainties of specific types having a downside only so that a greater proportion of scarce resources could be devoted to managing uncertainties with upside potential. Insurance permitted larger ships to take longer voyages and carry more valuable cargo.

Also, it was widely known that a sustainable insurance market depended on commonality of interest among all involved. Ships were inspected regularly, captains coveted their

reputations, underwriters were sea wise, and the insurance market served as a clearinghouse of information that would help owners and other parties make better decisions. Insurance had a favorable influence on outcomes and was seen to be a positive sum game. All players came out ahead, including owners who never lost a ship and underwriters who paid out on many lost ships.

These days, with both uncertainty and information at near overwhelming levels, the time is ripe for the insurance industry to reassert itself as a major driver of economic growth. Fortunately, all the industry needs is to relearn how to exploit its unique advantage, the ability to transform uncertainty into risk by leveraging information. Marine insurance exemplifies this advantage.

### **Prime Example**

An individual ship owner may have some idea as to the range of possible outcomes of a particular voyage. Furthermore, the owner may be aware of seamanship practices that might favorably influence the outcome of the voyage. Nevertheless, it is impossible for him to know the probability of each of the outcomes. The ship owner faces uncertainty. For him, the notion of loss expectation and variability has little meaning other than on a purely subjective basis. But all is not lost.

The ship owner can pool his uncertainty with the uncertainty of other ship owners via the mechanism of insurance. In this way, uncertainty at the individual level is transformed into more quantifiable uncertainty, or “risk”, at the group level, where the notion of loss expectation and variability has meaning in an objective sense.

The ship owner can participate in this mechanism by paying a premium equal to a share of the group’s loss expectation plus the underwriter’s operating expenses and cost of holding capital for adverse loss variability. In exchange for this premium, the insurer will assume the uncertainty of the loss associated with the ship. Regardless of the voyage’s outcome, the insurance transaction serves to further the interests of both the ship owner and the insurer.

### **Informational Advantage**

Fundamentally, it is information that makes the insurance transaction possible. The insurer must be able to charge a premium that will cover its loss experience as well as its cost of capital. Therefore, it needs to know the historical frequency of ships lost at sea and what factors – both exogenous (e.g., weather, currents, waves, hazards to mariners, war, etc.) and endogenous (e.g., construction, age of vessel, maintenance, experience of the captain/crew, cargo, owner’s reputation, etc.) - influence this frequency. Furthermore, the insurer must determine if the frequency of loss or the size of loss is changing and must monitor how many ships are subject to the same peril at any one time. The collection of this information and the price that is charged send critically important signals to both present and potential ship owners.

An individual ship owner has access to very limited information. Certainly, he has his own experience to rely upon and may also have some anecdotal information about the experience of others. But it is his job to manage ships, not gather information and perform research. In contrast, insurers and insurance intermediaries have access to a vast trove of information about losses and the factors that influence losses as well as about insurance coverage and pricing.

This information is useful to ship owners in several ways. First, it serves a valuable economic function. The size of the premium charged helps allocate scarce resources by helping current and potential ship owners determine if this is an activity that they should pursue. Second, the information that is used to set premium rates helps determine what constitutes best practices. Third, by charging different premium rates based on practices that the insurer can monitor, ship owners are provided with an additional incentive to adopt best practices.

Although capital is also required, information is the energy that makes the insurance engine run. For this economic engine to perform well, insurers must actively seek data that will allow them to understand and price the full range of loss experience and to help define best practice. Furthermore, this data must be accessible to ship owners so that they can understand what actions they can be taken to influence the outcome of the voyage and to assess the risk and the value of insurance for any voyage.

While it is true that bonds, equities and derivatives also play important roles in diversifying risk, insurance actively attempts to determine the root causes of bad experience and identify the elements that are under management control. Based on this knowledge, insurance can point out the way to better practices and better experience. By reducing the range of loss experience, insurance can make other forms of financing much more efficient and effective.

Analysis of exposure and loss information is useful to other parties as well. For example, government bodies need information on exposures and loss experience to weigh the costs and benefits of regulation. Also, an authoritative source is needed to determine and define what constitutes normal practice or court systems cannot rationally determine to what degree a loss was the result of misconduct.

### **Fast Forward**

By leveraging both information and capital, marine insurers played a vital role in expanding worldwide trade and made shipping safer for all by identifying and encouraging “best practices.” Unfortunately, over the last decade or two, the insurance industry has focused more on leveraging capital than on leveraging information. This has weakened the importance of insurance as the primary tool of risk financing.

Consequently, while the industry has ostensibly prospered, it has suffered a decline in relevance. Both previously insurable and emerging risks have increasingly become impounded in debt and equity capital, or financed explicitly by other means. Worse still, new ventures may not be undertaken and any potential for gain may be lost.

Turning around this disturbing trend calls for applying the fundamental principles of insurance, as exemplified by marine insurance of yore, to some of today's seemingly intractable risk issues. The industry needs to refocus on leveraging information as a means to transform more uncertainties into more insurable risk.

Cyber theft, terrorism, professional liability, environmental hazards, the adverse impact of new drugs and new technologies can all be shunned as sources of unimaginable liability or embraced as new opportunities to test the power of the insurance mechanism. While not easy, this is immanently doable and greatly valuable. Here are some of the means by which insurance can be employed to help transform these uncertainties into risks.

***Incentives*** - Insurers must be willing to provide incentives to customers who are willing to share their operating data and who are willing to develop and adopt best risk management practices. This helps insurers by enabling customers to pre-select themselves based on their willingness to do the right things. It also helps resolve issues of privacy and confidentiality.

***Loss Management*** - The business world has changed substantially in the last twenty years and insurers will need to take a much more active role in understanding their customers' businesses and setting standards. The good news is that most commercial lines' customers have digitized much of their most important operating data.

***Transparent Underwriting*** - By improving the transparency of underwriting criteria and its impact on loss experience, insureds can easily determine the cost of their risk management decisions. This will require a more granular approach to underwriting, necessitating a larger number of more homogeneous groups in which to place insureds.

***Commonality of Interest*** - Insurers must reestablish the importance of their role in setting standards that benefit the entire community. Although insurers have not forgotten this role, the public, the courts, and our political leaders seem more inclined to view the industry as a treasure chest that can be raided without effect.

***Leveraging Distribution*** - The insurance industry is ripe for new product offerings that effectively harness the power of its strong distribution system, reducing the cost of introducing new products to the marketplace. Managed well, this system functions as an important feedback mechanism that can help identify customers' needs and find particular products and services that may be of value to them.

## **Conclusion**

The good news is that the insurance industry is very strong and is quite capable of acting on these and other ideas. Nevertheless, it is important that insurers act before they perceive themselves to be in a state of extremis.

Instead of trying to compete with the success of the capital markets or trying to emulate those markets, the insurance industry must recognize its unique advantages. Insurance is much more than a means of spreading the risk of bad occurrences. It is also about understanding and devising means of reducing the risk of loss and about setting and improving standards of practice overtime as new knowledge is developed.

While the fundamental concept of insurance is as strong as ever, insurers must apply these principles to new issues. Relying too heavily on old products and services is never a good idea. The industry must open its arms to entrepreneurs who have embraced the ideas that have made it successful in the past and who have the knowledge and experience to synthesize these elements and to address new concerns. The insurance industry must go back to the future.

### *Authors' Note:*

*This article was published in the October 2002 edition of Financing Risk & Reinsurance.*