vol. 37, no. 5

Society of Actuaries

may 2003

the actuary

the newsletter of the Society of Actuaries

# Insurance mergers and acquisitions—change driven *and* change driving

*by Robert D. Shapiro*

The 1990s were characterized by an active, often frenetic, insurance mergers and acquisitions (M&A) market. Many transactions closed at prices that were high relative to historical standards. This aggressive transaction activity and pricing was driven by a number of factors, including the limited organic growth capacity of many insurers, high valuations placed on companies by European and other strategic buyers and aggressive accounting tactics that, in part, reflected the increasing prevalence of stock option incentives.

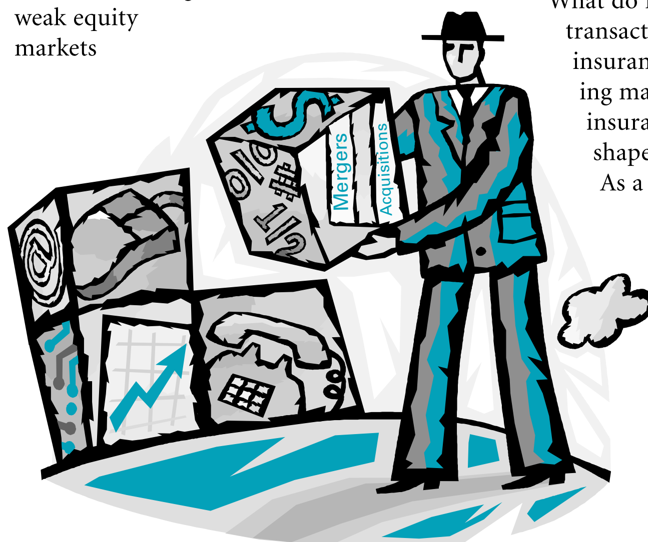
Accounting approaches in the 1990s often enabled aggressively priced transactions to be immediately accretive to the buyer's earnings, but subsequently requiring a continuing stream of future transactions to keep earnings increasing. The high prices paid in these transactions eventually came home to roost in a number of companies, as the underlying economic value realities of the acquired business emerged.

Many experienced insurance company buyers have become more conservative in pricing potential insurance company targets. In a number of recent cases, seller objectives have not reduced commensurately, which in turn resulted in an unusual number of aborted sale attempts.

The pace of insurance M&A transactions has slowed considerably over the past couple of years. This decline can be attributed to a number of factors, including emerging new risks and uncertainties (e.g., terrorism), weak equity markets and a general decision malaise. Most experts predict that, once the economy and related consumer confidence pick up, the pace of deals will surge again. Although I agree that the activity level will likely pick up in the future, the character of future insurance M&A deals will change in several fundamental ways.

## M&A as a function and driver of change

M&A both drives and is driven by marketplace change. There is a continually evolving relationship between the changing needs and wants of insurer stakeholders (e.g., customers, employees and agents) and insurer M&A activity. For example, as distributors have become increasingly scarce and highly valued, there has been an escalation in insurance distribution deals—for example, insurer and bank acquisitions of marketing companies (e.g., Essex and Planco) and the proliferation of distribution rollups (e.g., USI and NFS). What do recent insurance M&A transactions portend for the insurance industry? What emerging marketplace, economic and insurance industry trends will shape future insurance M&A? As a starting point in addressing these questions, consider the simple picture in Figure 1 on page 4 of how M&A both reflects and creates change.




*continued on page 4*

## inside

Editorial: Oh, what a hangover! *by Morris Fishman*....................2

Letters to the editor....................3

Who owns your intellectual property? *by Tom Bakos*....................5

Regulators and insureds also have a stake in mergers and acquisitions *by Robert Wilcox and Carl Harris*....................7

SOA Board of Governors endorses E&E redesign direction....................11

CE corner....................14

Executive director news....................18

Presidential musings....................19

Puzzle....................20

theactuary
the newsletter of the
Society of Actuaries
Vol. 37, No. 5 • May 2003

**Morris Fishman**
***Editor responsible for this issue***

**Editor**
Jay A. Novik, FSA
*jay_novik@msn.com*

**Associate Editors**
Morris Fishman, FSA
*morris.fishman@prodigy.net*
Craig S. Kalman, FSA
*craig@kalman.net*
Alan N. Parikh, FSA
*alan.parikh@mercer.com*
Godfrey Perrott, FSA
*godfrey.perrott@milliman.com*
W. Steven Prince, FSA
*StevenP@dion-durrell.com*

**Assistant Editor**
Loretta J. Jacobs, FSA
*loretta.jacobs@cna.com*

**Contributing Editors**
Anna M. Rappaport, FSA
*anna.rappaport@mercer.com*
Robert D. Shapiro, FSA
*shapironetwork@ameritech.net*

**Puzzle Editors**
Louise Thiessen, FSA
*lthiessen@shaw.ca*
Stephen Kinsky, FSA
*stephen.kinsky@equitable.com*
Gregory Dreher, ASA, MAAA
*gregory_dreher@conseco.com*

**Society Staff Contacts:** 847.706.3500
Clay Baznik, Publishing Director
*cbaznik@soa.org*
Lynn G. Coleman, Associate Editor
*lcoleman@soa.org*

***The Actuary* welcomes articles and letters. Send correspondence to:**
*The Actuary*

Society of Actuaries

475 North Martingale Road, Suite 800
Schaumburg, IL 60173-2226
Web site: *www.soa.org*

*The Actuary* is published monthly
(except July and August).
Harry H. Panjer, FSA, President
**Board Advisory Group on Publications**
Shirley Hwei-Chung Shao, FSA
Tom Bakos, FSA
R. Thomas Herget, FSA

Nonmember subscriptions: students, $15; others, $30. Send subscriptions to: Society of Actuaries, P.O. Box 95668, Chicago, IL 60694.

**Copyright © 2003, Society of Actuaries.**
The Society of Actuaries is not responsible for statements made or opinions expressed herein. All contributions are subject to editing. Submissions must be signed.

Printed on recycled paper in the U.S.A.

editorial

# Oh, what a hangover!

*by Morris Fishman*

Did you ever wake up in the morning and say to yourself: "I made a big mistake"? Did you ever pat yourself on the back for coming up with a creative idea to make a product more salable, only to realize later that your idea was stupid? Have you ever had an assumption come back to haunt you, like assuming that interest rate or stock market guarantees carry no cost? And, if you have, did things work out much differently than you projected?

Honestly, most of us would answer yes to one or more of these questions—or, at the very least, we've observed it in the marketplace. As the saying goes: "To err is human, to forgive divine." As we have seen, the stock market is not divine; neither are stock analysts.

The real question is: What are we going to do about it? If experience is the best teacher, what will the student in all of us do differently?

This month, our theme is mergers, acquisitions and creativity. Some would argue that financial (and actuarial) creativity helped fuel the insurance merger and acquisition boom of the 1990s. In some situations, criminal activity was involved (see the article on page 7 by Bob Wilcox and Carl Harris). In others, "irrational exuberance" was the culprit. It is sometimes difficult to know where to draw the line.

The two words, "mergers" and "acquisitions" (M&As), evoke extreme emotions in the hearts and minds of actuaries involved in these efforts (assuming actuaries have extreme emotions.) Actuaries of the acquiring company see mounds of work ahead. Actuaries of the target company polish their resumes and prepare for major life changes. Consulting actuaries for both sides salivate at the fees they can generate; with so much at stake, competition for these projects can get very intense. It's not just the stockholders whose fortunes can be made or lost in the process, and there is often tremendous pressure on the actuary. Let's make sure that our actuarial opinions do not get clouded by the numbers.

The 1990s saw quite a binge. But for many insurance consolidators, the morning after has arrived—and, with it, the hangover of collapsed stock prices. For those companies, let's hope that the answers flow as freely as the questions.

While actuaries in their role as actuaries are not the ultimate decision makers, they have a responsibility to educate the decision makers on the consequences of their actions. When an actuary provides a range of potential values, he or she must assure that the reader of the report understands the pluses and minuses, the facts versus assumptions—and the limits of management to change the likelihood of each. If creative actuarial science places today's earnings in a good light, it is not creating earnings but merely borrowing from tomorrow.

In product development, the focus on new business growth appears to have overtaken the more appropriate focus on sustainability. We must recognize that the products we develop create a lifelong commitment to our policyholders.

I tried, but just cannot close without bringing up something "About Schmidt." Leaving his personality out of the discussion (every actuary is cool—just ask one), how would someone like Schmidt fare in the M&A world? How creative was he? Conscientious to a fault, Schmidt would probably fit the role of the acquired actuary, and his beautiful work would end up where it did (I won't mention where for those who haven't yet seen the movie.) His replacement might fit one of the other roles. If you were a stockholder, which actuary would you want to have protecting your interests? If you were management with stock options, would your decision differ?

As actuaries, let's do our part to make sure that the insurance marketplace returns to a more fundamentally sound foundation. Let's make sure that our creativity is in the best interests of our customers. As actuaries, let's be agents of this change, whether as decision makers or their vocal advisors. Maybe then we will all respect ourselves in the morning.

## U.K. par business under pressure

I was interested to see the article on par business (we call it "with profits" in the United Kingdom) in the February 2003 issue ("Participating life insurance—R.I.P.?" by Kevin Wark). In the United Kingdom, par business is under pressure; in particular, solvency margins of insurers have declined (guaranteed benefits are more expensive in an era of low interest rates and many insurers have mismatched with equities; fine when there was a large surplus, but equity values have fallen sharply).

We have a concept of smoothing—bonuses (dividends) are declared at intervals so the payout does not go up and down daily with asset values, but the decline in equities has been such that bonuses have dropped markedly (to zero in some cases).

The regulator is very concerned about the discretion in with-profit funds, and the rules are getting more onerous. Perhaps you have lower guarantees (or none) or better asset-liability matching? And perhaps insurers' practices in declaring dividends are more transparent, hence, meaning that regulators and consumers are not so worried? Any comments on the above would be of interest.

*Christopher O'Brien*
*Centre for Risk and Insurance Studies*
*Nottingham University Business School*
*Nottingham, England*
christopher.obrien@nottingham.ac.uk

## Fuzzy illustrations boosting par sales

"Participating life insurance—R.I.P.?" (February 2003) [was] a nice summary. I agree that there are advantages and disadvantages to both UL and par. Unfortunately, I feel the recent big increase in sales of par plans has a lot more to do with improper illustration wars; i.e., agents run a par illustration based on current dividends and see the values are better than a UL done at 4-6 percent. They, thus, automatically promote the par without truly understanding it, especially the fact that dividend yields are based on a rolling average of mainly book rates.

This means the declared dividend yield (currently 7-9 percent) lags behind actual yields available in the market. The dividend yields will eventually drop by 1-2 percent, unless long-term bond yields quickly increase by 2 percent and stay there.

Most agents and marketing staff do not realize this. In my experience, expectations are not being properly set for clients. In fact, I encountered a large sale recently where brokers and agents from a large national distributor were very vocal in stating that dividends were going to increase in the next year! This type of sale need not happen. When I market whole life, I use at least 1 percent lower dividends, and often lower, in order to better set client expectations. This still shows higher values than a comparable UL.

*Ashley Crozier*
*Crozier Consultants*
*Toronto, Canada*
acrozier@yorkfunds.com

### Author's reply

I agree that the current 7-8 percent returns are driving much of the sales increase for the par product. Conversely, the negative returns on many UL contracts are causing brokers to look for more "stable" options. I also share your concerns if brokers are representing potential increases to dividend scales. In fact, Standard Life just withdrew its line of par products because it is anticipating a large decline in its dividend scale and did not want the products being sold based on the current dividend scale. The bottom line is the ongoing need for broker training and consumer disclosure so everyone understands the risks as well as potential rewards. — *Kevin Wark*

## Moral justification of insurance

The November/December 2002 issue of the "Navigator" has an excellent article—"The Inherent Individualism of Insurance," by Stephen Moses—that makes a moral defense of a free market in insurance. I encourage all actuaries to read the article, which is available free on the Objectivist Center's Web site at *www.objectivistcenter.org.*

*Harvey Sobel*
*Principal and Consulting Actuary*
*Buck Consultants*
*Secaucus, N.J.*
hsobel@buckconsultants.com

## Social security solution

Recently, I had the opportunity to work on a consulting project for a government social security program in China. Besides doing actuarial analysis and projections, I was also asked to find solutions to resolve the various challenges facing the system.

My idea is to require every citizen to go through a period of compulsory community service (CCS) before they can receive the retirement pension provided by the government. This service will start with some formal education about the aging process and training on how to take care of our aged.

I believe everyone should learn how to take care of our aged. In the process, we learn more about best practices for taking care of ourselves when we become old. Everyone also should contribute toward society to help resolve the old age challenge.

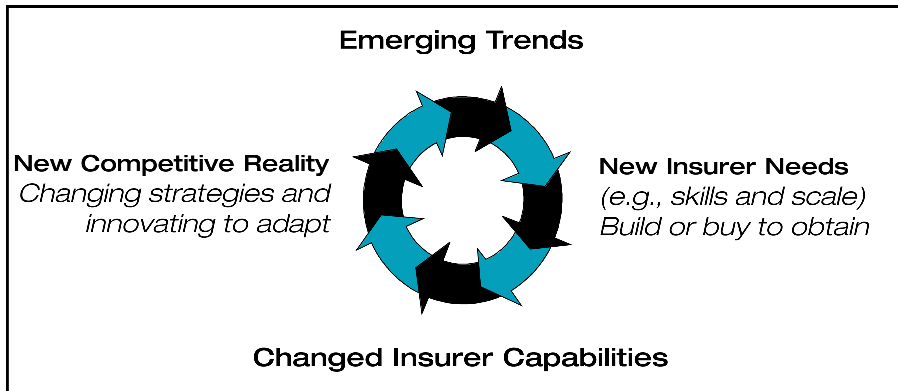
I would compare the training for CCS before retirement to the education system for our children. The purpose of a compulsory education system is to better prepare them to continue the further development of our society. A similar argument applies to retirement. As our life expectancy increases, the retirement period is becoming a bigger and bigger portion of our life, yet many citizens are financially and psychologically unprepared for old age and have

*continued on page 12*

**Insurance mergers and acquisitions—change driven *and* change driving**

*continued from page 1*

Figure 1




Examples of recent transactions that are likely to affect tomorrow's insurance industry dynamics include:

*1. Citicorp acquires and divests Travelers:* CitiBank's acquisition of Travelers in 1998 helped push Congress to open up the financial services marketplace. Citicorp's later (2002) divestiture of Travelers suggests that integration of life and property & casualty (P&C) business is difficult, and that ownership of traditional P&C and life manufacturers may not be necessary for a financial services organization to serve financial services customers successfully.

*2. NML acquires Frank Russell:* Northwestern Mutual bought Frank Russell in 1998. Earlier in the 1990s, there had been rumors of Northwestern Mutual merging with various traditional mutual companies. The Russell transaction is an example of a well-managed, unique organization acquiring to strengthen its basic capabilities and skills, rather than seeking generalized economy of scale transactions. Well-managed specialty companies tend to avoid transactions that could damage their "specialness" by diluting their marketing or service platforms.

*3. MONY demutualizes:* As a relatively early demutualizer, MONY helped to drive a trend that has led to many additional demutualized organizations over the past five years. Although heralded as a means to transform mutuals into more aggressive, shareholder-driven organizations (e.g., giving them the currency to make acquisitions), many of today's demutualized companies are finding it difficult to overcome long-embedded organizational constraints and may have merely created a framework for their ultimate exit.

## Emerging forces

Let's look at the other side of the coin. What emerging forces are likely to drive future insurance industry M&A? Think for a minute about the insurer operating realities that exist today. Having played up to Wall Street and rating agency expectations for years, many insurers are struggling to deal with dramatically increased financial and strategic scrutiny resulting from Enron, WorldCom, Unicover, variable product losses and other operating traumas. Competitive pressures are high and boards are more inquisitive. What's more, the morale of oft-downsized employees is low, making necessary change even more difficult.

> ***...Many insurers are struggling to deal with dramatically increased financial and strategic scrutiny resulting from Enron, WorldCom, Unicover, variable product losses and other operating traumas.***

What will begin to change the insurance industry and, in turn, can be expected to drive future M&A transactions? Specific requirements of successful life insurance companies of the future include the following:

1. Insurance companies of tomorrow will need to have compelling strategies, stronger management teams and more effective boards. They will need to avoid even the appearance of accounting or other improprieties. Future acquirors will seek candidates that consistently strengthen their long-term strategic, operational and financial position, and will be less likely to pursue deals for possible short-term gains. Again, M&A options for both sellers and buyers will, therefore, narrow.

2. Acquirors will pay much more attention to post-purchase management processes. Management, not price, separates successful from unsuccessful deals. Shareholders of the future will not stand for the deal failure rates of more than 50 percent that characterize past M&A experience. Hence, acquisition targets will be more carefully scrutinized by potential buyers, narrowing both the universe of suitors for sellers and the universe of sellers for acquirors.

3. Future insurance company winners will need to have a strong "sustainable, profitable new business machine"

*continued on page 15*

# Who owns your intellectual property?

*by Tom Bakos*

Early in my actuarial career I recall participating in a psychological study that was supposed to measure individual creativity. My recollection is that the results of the study showed that actuaries, as a group, were very creative people. I was pleased to be a member of such a group and, of course, suspected the result all along.

Certainly, in my career since then, I have seen nothing but support for the conclusion that study reached over 30 years ago. Actuaries are highly creative. Critics may complain that this creativity dwells on the dark side to the extent that actuaries aid and support—through their creative product designs and processes—attacks on the supposed integrity of valuation, illustration or taxation systems. All of this, they say, in apparent condemnation of creativity, is done to the ultimate detriment of our company's policyholders or stakeholders and the insurance industry's reputation.

Well, I think we need to take a more balanced look at this. After all, you can't have animals without insects or seasons without winter. So, too, one must be willing to accept all kinds of creativity in order to have creativity at all.

Let's focus on the creative efforts we actuaries exhibit that most of us can be proud of. These creative efforts are reflected in new product designs, systems and processes, many of which support valuation, illustration or taxation systems and provide lasting value to our company's policyowners, customers and stakeholders.

## Measuring creative value

The "value" element raises an interesting question: What is the measure of creativity's value?

Our forefathers recognized that individuals could be creative and provided in the constitution they drafted a way for individual citizens to protect the value of what they create. In particular, Congress (in Article 1, Section 8, Clause 8 of the U.S. Constitution) was given and exercised the power to allow individual inventors the right to exclusive use of their discoveries for a limited period of time.

The granting of exclusive use was intended to encourage creative people to share their ideas with the general public, which, in turn, was expected to encourage additional creativity. "Exclusive use" is recognized by a patent issued by the U.S. Patent and Trademark Office (USPTO). The value in creativity protected by a patent, therefore, is the right to exclusive use for a limited period of time—typically, 20 years.

## Who owns creativity?

The creativity embodied in the patent is generally characterized as intellectual property, and this characterization as "property" begs the next question: Who owns it?

Well, the insurance industry, in which most of us practice, has never placed much value on creativity in general, even though it has been an important and necessary element in the success of many insurance companies.

In large insurance organizations, there has never been much acknowledgment, encouragement or reward for inventiveness. Creative ideas, new products, illustration concepts and marketing techniques have been freely shared in the insurance industry as if they had no value. They are copied and plagiarized by competitors in ways that would confound practitioners in almost every other type of business. One might even suggest that creativity within our insurance organizations is not even expected.

Contrast this with the electronics industry, for example, where innovation is part of the culture. Product designers are expected to produce patentable inventions on a regular basis. That is what they were hired to do. The employment agreement they sign clearly spells this out and clearly states that the inventions they produce are the property of their employers. It is important to note that only individuals can patent an invention. A corporation cannot be an inventor. However, the invention can be owned by the corporate employer through an assignment made by the inventor employee.

So, in industries where intellectual property, as reflected in patents, is considered a thing of value, the ownership issue is fairly well resolved. You are specifically hired to invent things. You are paid to do that. You are given all the tools and training you need to make it easy to invent things and the company pays all expenses associated with your work, including the costs associated with actually getting the patent. In exchange for that, your employer owns the intellectual property you create. In fact, you'd be paid even if you didn't invent anything—although probably not for long.

## Creative free for-all

In the insurance industry, the question of who owns your intellectual

*continued on page 6*

## Who owns your intellectual property?

*continued from page 5*

property is not so clear. I have never signed an employment contract. While there may be some rare exceptions, I imagine most of you haven't either. So, is the ownership of anything you might invent on or off the job some kind of free-for-all?

### ...Is the ownership of anything you might invent on or off the job some kind of free-for-all?

Of course, if you adopted the existing free-for-all view now practiced, you would simply publish your idea either in the form of an insurance product, illustration calculation, marketing material, newsletter article or something like that, and measure your advantage only in terms of the head start you could get over your competition because you thought of it first. Indeed, that is probably what your employers expect of you. They probably consider your invention to be no more than a beneficial by-product of some other process you are involved in.

However, let's assume that you are a rebel (as, perhaps, you would have to be in order to be creative in the first place). You think you have a pretty good idea that could be worth a lot of money, and you're not willing just to give it away.

First, recognize that I am not an attorney and I am not intending to provide legal advice. Now assume that you know a little about patents, and that is the direction you start to go.

An idea might come to you during your long commute to work or in the shower that clearly has nothing at all to do with insurance or your job. It might be some great new idea for novel, cheap Cracker Jack prizes that your employer could not possibly claim they hired or paid you to invent. In this case, the invention is probably all yours, assuming it would qualify for a patent at all, and, unless you could find some other backer, the costs and the risks of proceeding would be all yours.

### Insurance invention scenarios

However, if it's an insurance invention, you could approach your employer and suggest that you would assign your invention to the company for some payment to be negotiated if it absorbed the costs of a patent application. My best guess is that you would be involved in one of the following scenarios:

**1.** The company managers might surprise you. They may recognize that you are a valuable employee whom they want to retain and also recognize that they have never placed any value on or had any concern or expectation that your job involved inventing things. They might note that, although they do not have an employment contract with you:

- They have provided you with a job description.
- Your file contains many job evaluations.
- No where in this material is there any indication that your job requires you to invent things or that it is even expected that you might.

Because of this, they might recognize that their compensation arrangement with you did not contemplate their assumption of ownership of any intellectual property you create, and they would, therefore, have no hesitation about rewarding you for your additional effort in bringing value to the company above and beyond the scope of what you were hired to do.

**2.** More realistically, they would probably react with wonder and amazement at your audacity. They would probably insist that you were specifically hired to solve the types of problems for the company that your "invention" solves, and that you, in fact, were paid to come up with the solution you came up with and owe it to the company.

They might not be so much arguing that you have an obligation to assign any patent issued on your invention to the company as they are arguing for the status quo, the free-for-all environment. They are arguing that, whether or not you have developed a patentable invention, it is nevertheless a work product of your employment with the company and they have a right to use it. They may not see the need for a patent.

**3.** They may recognize the value in a patent but claim, as above, that the idea is a work product of your employment with them and that the intellectual property has already been bought and paid for as a result of your employment. They may insist that you patent the invention, since only the inventor can seek a patent. The company would pay for the patent expenses and you would be required to assign it to the company. The continuation of your employment would probably depend on it.

### Contingency plan

Clearly, if faced with one of the latter two situations, you would need to have a plan B. You could either be a meek capitulator and play the game the old way or be a daring go-getter and step out on your own.

Some people, familiar with invention in the insurance industry, might suggest that it would be rather rare to find inventive minds in a large insurance organization. That environment, they'd observe, is not currently well suited to independent inventors who think beyond the box. So, I suspect, there has been a lot of stepping out.

I believe that most invention in the insurance industry is done in small shops

*continued on page 16*

# Regulators and insureds also have a stake in mergers and acquisitions

*by Robert Wilcox and Carl Harris*

When one hears the expression "mergers and acquisitions," the usual conclusion is that there are two parties: the "willing" buyer and the "willing" seller. In truth, when insurance companies are involved, there are two additional parties: the policyholders and the regulators.

The latter two parties are sometimes forgotten because they usually are not directly involved in the transaction, even though they are directly affected by it.

**Over the past 10 years, we have seen a consolidation of the insurance industry, brought about not by financial insolvency, but through merger activity.**

Over the past 10 years, we have seen a consolidation of the insurance industry, brought about not by financial insolvency, but through merger activity. The reasons for this include:

- Large international companies seek entrance to the U.S. market by buying existing insurance companies, viewing this as a cheaper way to penetrate the market than starting from scratch.
- Existing companies are looking for increased market share.
- Companies want to take advantage of synergies within certain marketplaces.
- Insurance companies desire expense savings through increased volume.

The main result of these activities has been the reduction of the total number of insurance companies. According to A.M. Best, in 1996, there were 1,748 life insurance companies in the United States. In 2002, this number decreased to 1,445. This article will deal with mergers and acquisitions (M&A) from the perspective of the regulator and the insured.

## Some basics

In the insurance world, for the most part, there are two types of insurance companies: stocks and mutuals. A stock insurance company is owned by its shareholders, similar to any other stock company. Anyone wishing to gain control merely has to purchase enough stock. The customers, or policyholders—despite being the sole reason for the company's existence—have no rights other than those contained in the insurance policies they have purchased. If policyholder interests are to receive attention, it will be through the efforts of regulators.

A mutual insurance company is owned by its policyholders. As such, there are no stockholders. These policyholders have both the contract rights and ownership rights. Two mutual insurance companies can merge; however, one will cease to exist after the transaction. The remaining company continues on as the survivor.

For a mutual insurance company to be acquired, it must first go through a process called "demutualization," whereupon its structure changes from that of a mutual company to that of a stock company. The policyholders are compensated for giving up their "ownership" rights. At this point, the stock company can be acquired in the same way as any other stock company.

## The regulator's view

In each of these cases, the regulator is intimately involved in the process This rest of this section provides coauthor and former insurance regulator Robert Wilcox's perspective on some of the problems he has seen and how the Insurance Holding Company Act (IHA) has been and should be used to prevent such problems.

The most serious abuses that I have seen within the insurance business involved change of control or restructuring, sometimes including reinsurance in the mix. My observations span four decades and include a variety of companies. Many of these abusive situations have resulted in rehabilitations or liquidations. All have had a negative effect on policyholders.

*continued on page 8*

## Regulators and insureds also have a stake in mergers and acquisitions

*continued from page 7*

That is not to say that all acquisitions or restructurings are bad; most are positive and benefit both policyholders as well as stockholders. The boards of directors have, for the most part, carried out their responsibilities to review each transaction carefully for compliance with the law and ultimate soundness. Thus, they have made far more good decisions than bad. Regulators have provided oversight that benefited all involved.

However, there are some cases that have not had positive outcomes:

**Many of these abusive situations have resulted in rehabilitations or liquidations. All have had a negative effect on policyholders.**

- Many years ago (before the IHA was adopted), a small life insurance company that was owned by a larger life insurance company was sold to an individual. As soon as the new owner had control, he proceeded to sell most of the listed securities in the company's vault and reportedly replace them with residential mortgages. An alert insurance examiner, after pressing the investigation, discovered the agreement in the drawer that pledged the mortgages as collateral for their purchase. Some of the cash from the sale of the securities went into the pocket of the broker who facilitated the sale; most went into the pocket of the new owner to cover the purchase of the company. The purchaser ultimately went to jail for this. The policyholders had their values frozen while the company went through rehabilitation.

- One day while I was commissioner of insurance, I received a phone call from the U.S. Attorney's office in another state. "Could you come to my office to discuss some matters with regard to one of our companies?" he asked. There I listened to details of an FBI sting operation involving money laundering, a suitcase full of cash and reinsurance. A few years previously, the company had been acquired by new owners and redomesticated from another state. In the acquisition, the controlling person, and his prior record of foul deeds, had been concealed from the regulator. Because of the complex holding company structure that had been created, the obfuscation was not that difficult. By the time of the call from the U.S. Attorney, the company had already been put into receivership for a variety of reasons, most of which did not relate to solvency.

- A property and casualty company was for sale. Several prospective buyers, after proper due diligence, had walked away. Another prospective buyer with no insurance experience, after less than half a day of investigation, made an offer. The prior owners allowed the new owner the opportunity to take control of the company's funds prior to closure so that the bulk of the purchase price could be withdrawn from the company's own surplus. After the company was subsequently put into receivership, it was discovered that there were large numbers of long-tailed liability risks that had never been reserved. Even if the new owner had not absconded with the significant amounts of funds that he did, the company would have eventually failed because of these unreserved obligations, but the damage to policyholders could have been a bit less.

What is the protection against these sorts of corporate misdeeds? The first line of defense is the responsibility of the respective boards of directors. They certainly had some responsibility for the actions that took place, but not always sufficient information or control over management.

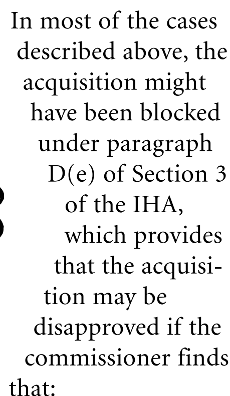
Regulators also have a role, and they generally look to the IHA for authority and to the Acquisition of Control-Statement Filing (Form A) for information.

The IHA was adopted by the NAIC in 1969 with material amendments in 1980, 1985 and 1995. There were a variety of technical amendments over the years and, in 1994, the act was made applicable to

nonprofit medical and hospital service plans. All jurisdictions have adopted the model act or legislation that is essentially similar.

The model act provides that a tender offer—or other agreement to exchange securities that would result in a change of control of an insurer—may not take place until approved by the commissioner. The act requires the filing of information to be used in the approval process and the grounds for disapproval. In some cases, the grounds for disapproval point to other statutes.

For example, if, after the change of control, the insurer could not satisfy the requirements for the issuance of a license to write the same lines of insurance, that constitutes grounds for disapproval. Other requirements depend on the regulatory judgment of the regulator, such as a finding that the acquisition is likely to be hazardous or prejudicial to the insurance-buying public.



In most of the cases described above, the acquisition might have been blocked under paragraph D(e) of Section 3 of the IHA, which provides that the acquisition may be disapproved if the commissioner finds that:

"The competence, experience and integrity of those persons who would control the operation of the insurer are such that it would not be in the interest of the policyholders of the insurer and the public to permit the merger or other acquisition of control."

It has been my experience, however, that biographical affidavits tend to gild the favorable attributes and obscure or omit the negative. Criminal convictions, abuse of fiduciary responsibility, involvement with failed enterprises and unresolved indictments will often be left to the regulator to discover. Efforts to discover these "character flaws" may still be insufficient, but regulators must try. I recall the incident involving a person who had given no indication of lack of fiscal integrity until the day he took several million dollars out of the insurance company accounts in cash. He left his family and the United States for a tropical country without an extradition treaty with the United States. It happens.

**_Criminal convictions, abuse of fiduciary responsibility, involvement with failed enterprises and unresolved indictments will often be left to the regulator to discover._**

Despite the success of Frank W. Abagnale Jr., as depicted in the movie "Catch Me If You Can," in most instances, careful investigation will reveal false representations and disclose a history of previous actions that cast doubt on the future. Some insurance regulators do not have direct access to criminal databases that will reveal information not disclosed by an individual, but the research can be performed on their behalf by another state agency that has the required access.

You may have noticed in the cases described here that the funds used to acquire control might provide some indication of future problems. Section 3B of the IHA provides the authority for the content of Form A, and paragraph (3) is critically important. This paragraph requires disclosure of "the source, nature and amount of the consideration used or to be used in effecting the merger or other acquisition of control … ."

It isn't enough to know that the money exists; the regulator needs to know the source of the money. If you want to know who really has ultimate control, follow the money. The source of funds is a far better indicator of control than any organization chart. Just as with biographical affidavits, the disclosure of the source of funds is not likely to tell all, if the information might be viewed unfavorably. A careful investigation might find that the money doesn't exist at all and that the only source will be the company's own surplus.

Despite the best efforts of the regulator, bad deals still occur. What happens after the deal when the bad guys are in control? The IHA still provides tools to the regulators who will use them. Section 4 requires an insurance holding company to file a registration statement annually and to update the statement within 15 days after the end of a month in which any material change occurs. This is Form B, containing detailed information about the insurance holding company system, all significant transactions and arrangements within the system and material transactions outside the system.

Section 5 of the IHA requires advance notice of certain kinds of transactions, such as sales or purchases of assets that exceed 3 percent of the insurer's assets or reinsurance agreements with a premium of more than 5 percent of surplus. Extraordinary dividends or other distributions to shareholders also are subject to the advance notice requirement, and the commissioner has 30 days in which the transaction can be disapproved.

This section also has requirements that at least one-third of the directors of the insurer shall be persons who are not officers or employees of the insurer or its affiliates. Committees made up of these nonaffiliated directors are expected to control independent and internal audits and the compensation of principal officers.

I have just touched on the authority granted by the IHA and the information that it requires, but it should be noted that Section 10 provides for severe penalties for willful violation of the act. These

*continued on page 10*

## Regulators and insureds also have a stake in mergers and acquisitions

*continued from page 9*

include fines to be paid by the individual, not the company, and up to three years imprisonment.

As stated earlier, at the very heart of the M&A process is the Form A filing. The acquiring company must file with the potentially acquired insurance company's domestic state appropriate documents outlining the process by which it will gain control. When the documentation is complete, the commissioner will review it and hold a hearing to determine whether the transaction will be approved. In most cases, this is a formality, as enough discussions will have taken place prior to the hearing so that there are no problems remaining.

Part of the regulator's function is to determine not only whether policyholder rights will continue, but also whether the surviving company will be strong enough to pay the promised policy benefits upon completion of the transaction. In other words, will the surviving company be as strong as the individual companies prior to the transaction? Over the past several years, we have all seen some outrageous prices paid for acquisitions, usually in the name of expense consolidation. Not all of these acquisitions have been success stories.

The hearing process should not be taken as perfunctory to the approval process. On the contrary, regulators take great pride in ensuring that the interests of the policyholders are not compromised by the proposed transaction. However, it should not be taken to mean that the regulator is involved in obtaining the "best or fairest" price for each party either. The regulator's role in this process is not as a financial analyst. That is the responsibility of the "willing" buyer and the "willing" seller. One would like to hope that issuers of "fairness opinions" are "god-like" and protectors of the policyholders. However, with the high prices paid for these instruments, sometimes good judgment can be clouded with dollar signs.

### The insured's view

Let's turn our focus to the policyholder. Where do they stand, or better yet, do they stand? Clearly, unless they own shares in the company being acquired, the only rights they have are those contained in their policies. This does not mean that they have no voice. Policies are bought for many reasons, including price, features and the perception of company strength. However, paramount to the process of purchasing insurance is that the company will pay the promised benefits when policy conditions are met. Sometimes these are shortly after the policy is purchased, and other times there is a long lag until benefits are paid. In either case, the policyholder has to believe that the company will be around to pay these benefits.

One of the biggest precepts of the M&A process is that it is in the "best interests of all parties" for the transaction to be approved. Included in the definition of "all parties" are both the shareholders and the policyholders. While this is true most of the time, it is not true all of the time. I think we can all think of at least one example where insurance companies have been acquired and, sometime afterward, the acquiring company runs into some financial trouble. To work through the financially troubling times, policy benefits are sacrificed for survival to levels below what would have probably been paid to policyholders had the transaction not been approved. Sure, the shareholders also usually suffer during these times; however, policyholders suffer as much, if not more.

***...With the high prices paid for these instruments, sometimes good judgment can be clouded with dollar signs.***

How is this possible? While benefits may not be specifically lost:

- Premiums may be required to increase,
- Premium periods may require extension just to keep them alive,
- There may be an inability to withdraw funds or
- Buildup of policy values may be deferred.

So what are policyholders to do? Clearly, if they have concerns regarding the transaction, they should voice them to the insurance commissioner. If they are unhappy with the new owners, they can cancel their policy and purchase it from another company. This is sometimes difficult if the policyholder has had a change in health status. Beyond these steps, there is probably little else a policyholder can do other than enter the quagmire of litigation.

In conclusion, in order for any transaction to take place, all four of these parties should be heard prior to making a final determination. The insurance commissioner should take all "interests" into consideration when making the final acquisition determination. In the end, the sole reason for approving the transaction should not be that the sellers received a great deal.

*Robert Wilcox, ASA, MAAA, FCA, is a consulting actuary with Wilcox & Company Inc., Alpine, Utah. He can be reached at* bob.wilcox@worldnet.att.net. *Carl Harris, FSA, MAAA, FCA, is a consultant with Insurance Strategies Consulting LLC, West Des Moines, Iowa. He can be reached at* charris@insurance-strat.com.

# SOA Board of Governors endorses E&E redesign direction

*This is the second in a series of articles addressing potential changes to the education and examination (E&E) system. Look for follow-up articles in future issues of* "The Actuary."

The SOA Board of Governors continued strategic discussion of E&E redesign issues at its March 13-14 meeting. The discussions focused on key parameters of the revised system. The subsequent Board action indicated their commitment and clarified further direction for the working groups. With this direction, the working groups are continuing their efforts and plan to present a refined and more detailed design to the Board in June.

The Board endorsed five statements that are intended to shape the E&E redesign. In addition to providing direction to the working groups, this action represents Board commitment to resolving issues of importance to SOA candidates, members and employers of actuaries.

*1. All Fellowship tracks should be of approximately the same scope with regard to the number of exams/experiences and the expected travel time through those exams/experiences. That scope should be equivalent to three or four (to be recommended by the working groups) traditional Fellowship exams.*

Board endorsement of this statement reinforces the working groups' thinking that the qualification process should be essentially equal for each of the traditional specialty tracks (finance/investment, health, life and retirement) in terms of amount of material, number of exams and depth of treatment. The Board's action also sets an upper limit for the working groups.

The working groups are in the process of defining instructional objectives and learning outcomes for each of the practice areas. With practice-area-specific objectives defined, the working groups are also identifying common elements important to all Fellows, regardless of specialty area. Central to the redesign is the understanding that, while a new Fellow has demonstrated attainment of a certain level of knowledge and expertise, the attainment of the FSA should not be regarded as the end of an actuary's education. Once the complete scope of desired learning is defined and articulated, the working groups will prioritize learning objectives to assure that the scope falls within the three or four exams/experiences upper limit. Content not included in the three or four exams will be retained for continuing education.

*2. With the exception of a possible track in enterprise risk management, no additional Fellowship tracks should be investigated or proposed at this time.*

The Board discussed the opportunity/demand for a specialty focus on enterprise risk management (ERM). Although a Risk Management Task Force is already in place, the Board discussed opportunities to move quickly to an ERM section or practice area. An informal group consisting of key Board volunteers and SOA staff will explore the possibilities. Members of this informal group include Mike McLaughlin, Shirley Shao, Peter Tilley, Kathy Wong, Valentina Isakina and Mike Kaster. That group will report to the Board and involve the working groups as appropriate.

*3. The ASA Course should provide an introduction to financial security systems, utilizing the control cycle context where applicable. Development of learning objectives is more critical at this time than are delivery and evaluation mechanisms. Creation and implementation of the ASA Course should not delay the implementation date of the new education system.*

The overarching goal of the ASA Course is to introduce candidates to financial security systems and common actuarial techniques. Additionally, the course will focus on commonly practiced techniques, with an introduction to more specialized practices and methods, enable skill development in common applications and reinforce understanding of the Actuarial Control Cycle.

The Board approved flexibility in course selection to satisfy the educational requirements of the ASA in the current system

*continued on page 17*

## Working Group Principles

The following eight principles reflect the completed work and the continuing direction for the working groups in defining the framework for an E&E system redesign. These underlying principles support the overarching goals of enhancing the value of the E&E system and preserving and enhancing the value of the FSA.

1. Improve education for actuaries.
2. Maintain suitable standards of accreditation.
3. Use appropriate assessment methods.
4. Meet the needs of our stakeholders.
5. Use appropriate education delivery tools.
6. Make best use of volunteer expertise.
7. Effect a sound balance between the practical and the theoretical.
8. Provide flexibility so that the system may evolve.

The initial report of the working groups is available on the SOA Web site at *www.soa.org/eande/report_membership02.pdf.*

## Letters to the editor

*continued from page 3*

unrealistic expectations about their retirement life. This knowledge gap can be filled by a compulsory formal education on aging just before we retire.

As the baby boomers retire, the demand for resources to service the aged will increase at an increasing rate. More money alone is not sufficient to resolve the aging challenge. We need more workers, especially knowledgeable workers. The provision of CCS will greatly increase the supply of workers serving the aged. One big source is those who are newly retired or about to retire. Many are still in perfect health, fit and ready to work.

I would compare the provision of CCS to the aged to the compulsory military service in some countries for national defense. The same argument applies to the aging challenge facing us.

There is another big advantage from the arrangement—it will discourage people from retiring early. The CCS before retirement will make it more difficult, if not impossible, to carry on with one's usual trade after retirement. And, of course, we all know that a reduction in the early retirement pattern will have big cost savings to our social security systems.

Before this idea can be applied, a number of issues must be dealt with: the age of normal retirement, the length of the learning period, the length of the CCS period, exemptions, transitions, legalities, human rights, administration and compliance.

The purpose of my note is to generate discussions, comments and thoughts on the idea from other members. Hopefully, we can all work together and contribute toward our profession's continued effort to find a good solution for the aging challenge facing us.

*C. K. Cheung*
*Hewitt Associates LLC*
*Hong Kong*
ckcheung@hewitt.com

## SOA unveils revolutionary new tool to help people successfully plan for retirement

*by Bill Breedlove, SOA communications specialist*

The Society of Actuaries has published a first-of-its-kind chart that summarizes many potential hazards that can jeopardize an individual's retirement dreams. The Post-Retirement Risk Chart (PRRC) was created specifically to help people face down potential pitfalls in retirement planning.

"While most Americans understand the importance of saving for retirement, many might not understand the risks after retirement—but that doesn't mean they aren't there," said Anna Rappaport, one of the creators of the PRRC. "Just as one wouldn't own a home without fire insurance, we must also look realistically at the risks that might face us in retirement."

With factors such as increased longevity, the vulnerability of markets and the large numbers of baby boomers rapidly approaching retirement age, the importance of knowing—and being able to deal with—the real risks to retirement is more critical than ever.

"There are two major parts of the retirement planning process: accumulating retirement funds and managing those funds during retirement. We're concerned that most of the focus to date has been on the accumulation and too little on the post-retirement management," said Rappaport. "The PRRC goes a long way in breaking down all the various threats to an individual's retirement in clear, everyday language anyone can understand."

To that end, the PRRC reviews the reality of increased longevity and how traditional government programs and retirement planning tend not to adjust for that increased lifespan and use of resources. It also examines the various economic unknowns, including inflation, interest rates and stock market returns, and then cross-references that information with business and public policy conditions that may play a large part in an individual's retirement plans. The PRRC even examines how a person needs to plan for the day when he or she will need assisted-living services.

"This chart is very important as a compliment to other, already-existing retirement planning materials on topics such as how much to save or how to invest funds. It is our hope that people will use this chart to make smart, informed choices," said Rappaport.

The PRRC also has been posted on the SOA Web site at *www.soa.org/sections/retirement/PRRD_chart.pdf*. Indeed, it is hoped that as many people as possible will utilize this new resource. Any questions regarding the PRRC can be directed to the SOA at 847.706.3528.

## "Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics" symposium to be held June 24-25 in Vancouver

*by Judy Anderson, staff actuary, actuarial education*

Does the financial economics' perspective apply to the liabilities and risks faced by employer-sponsored pension plans? Is it appropriate for funding, measuring plan solvency and determining pension expense?

These questions are considered in the article "Reinventing Pension Actuarial Science," by Lawrence N. Bader and Jeremy Gold ("Pension Forum," January 2003). The authors contend that the actuarial pension model, used in compliance with ERISA and FAS87, does not reflect the teachings of financial economics. In fact, the authors feel that the traditional pension valuation model is not an accurate reflection of the price of the risk, both in selection of assumptions and the smoothing of assets and gains and losses.

Of course, many would disagree, feeling that our current model supplies a true present value of pension liability and an appropriate level of contributions/expense. Smoothing has been seen as an important tool for protecting the sponsor from volatility in a way that's fair and safe for an ongoing plan. Anticipating future market gains in the actuarial assumptions would also be considered appropriate.

To address these issues, the SOA's Pension Section, the Actuarial Foundation and the AAA have joined forces to present the symposium, "Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics," to be held June 24-25 in Vancouver. The 23 papers that will be presented at the symposium were written in response to a call for papers on the possible intersection of the financial economics model with pension liability measurement, accounting models and funding models.

The symposium will be held in conjunction with the SOA's Vancouver Spring Meeting. You can register for the symposium alone or for the entire Spring Meeting at the SOA Web site *www.soa.org/section/pension_financial_econ.html* or by calling 847.706.3581.

Consider the appropriateness of new and older ways to look at pension finances. Find out where you stand and discuss the issues with all sides of the debate. Attend the symposium.

## LOMA embarks on life insurance consortium study

LOMA is sponsoring a new study to provide clear customer feedback to life insurance providers. The study, conducted by J.D. Power and Associates, is expected to provide a comprehensive source of information about the expectations, needs and desires of today's insurance customers.

Using surveys of companies' insurance clients, a consortium will identify the key elements of the customer experience and provide companies with actionable feedback. Specifically, the consortium will explore the following:

- Reasons for selecting a life insurance provider.
- Overall customer satisfaction, including attributes that have the greatest impact on customer satisfaction.
- Individual provider profiles with competitive comparisons.
- Recommendations and repurchase intentions.
- Provider loyalty, customer retention.
- Identification of cross-selling opportunities.

LOMA was accepting commitments from life insurance companies to participate in the consortium early this spring. If there are a sufficient number of participants and respondents in the study, some of the results will be made available to the public at the J.D. Power Consumer Center at *www.jdpower.com*. For additional information about the consortium, visit *www.loma.org* or call 770.984.6446.

# ce corner

## Presenters sought for Annual Meeting

The Society of Actuaries Program Committee is currently seeking presenters for the 2003 Annual Meeting to be held Oct. 26-29, 2003 at the Walt Disney World Swan and Dolphin Hotels.

A list of sessions needing presenters is located on the SOA Web site at *www.soa.org/conted/index.asp*. Sessions with an "X" in the "Entirely Unrecruited" and "Partially Recruited" columns need presenters. An "X" in the "Recruiting Completed" column means the session is fully recruited and no longer needs additional presenters.

If you are interested in volunteering your time as a presenter for the 2003 Annual Meeting, please forward the session title and number for which you would like to share your expertise, along with a brief biographical sketch, to Sandy Neuenkirchen at *sneuenkirchen@soa.org*.

### Upcoming programs

The SOA Continuing Education Department has assisted with the development of several programs to be presented in June and July. See the table on this page for program dates and locales. For complete details, visit the SOA Web site at *www.soa.org*.

## CAS/SOA collaborations

Tumbling equity markets, record low interest rates, terrorism, Sarbanes-Oxley, corporate governance… it is indeed a different world that property and casualty (P&C) insurers, casualty actuaries and risk managers find themselves in today.

In response, the Casualty Actuarial Society (CAS), with help from the SOA, has built on its educational offerings in the arena of risk, capital and enterprise risk management. This year there will be excellent educational opportunities for SOA and CAS members to participate in continuing education programs in these areas.

First, the annual CAS Risk and Capital Management Seminar (RCMS) will be held in Washington, D.C., on July 28 and the morning of July 29. Then, the Enterprise Risk Management Symposium (ERMS), cosponsored by the SOA and CAS, will be held the afternoon of July 29 and all day July 30. Both events will be held at the Washington Hilton.

While the two seminars are closely aligned in terms of subject matter, there is a fundamental difference between the two. The RCMS will maintain a focus on the P&C insurance industry and the role that casualty actuaries can play in the management of risk and capital. The ERMS will focus less specifically on P&C issues and look toward financial and nonfinancial companies. Issues will be presented both from a CAS as well as an SOA perspective.

We think it is ideal for the interested actuary to attend both: the RCMS for its focus on P&C issues and the ERMS to gain an understanding of a broader financial services and corporate context.

### Seminar on Risk and Capital Management

The RCMS is intended for professionals who are interested in the theory, tools and practice of managing risk from the

| Date | Program | Location |
|---|---|---|
| June 11 | Designing and Pricing Secondary Guarantees on UL & VUL Products (Product Development Section) | Oak Brook, Ill. |
| June 12-13 | 3rd Annual Product Development Actuary Symposium (Product Development, NTM, Reinsurance and Actuary of the Future) | Oak Brook, Ill. |
| June 16-17 | Reserves Education Week – Individual Health | Chicago, Ill. |
| June 17-18 | Reserves Education Week – Deferred Annuity | Chicago, Ill. |
| June 19 | Reserves Education Week – Universal Life | Chicago, Ill. |
| June 20 | Reserves Education Week – Traditional Life | Chicago, Ill. |
| June 23-25 | Spring Meeting (Health, Pension, Long-Term Care) | Vancouver, B.C. |
| June 24-25 | The Great Controversy: Current Pension Actuarial Practice in Light of Financial Economics Symposium (American Academy of Actuaries) | Vancouver, B.C. |
| July 28-29 | CAS Risk and Capital Management Seminar | Washington, D.C. |
| June 29-30 | CAS/SOA Enterprise Risk Management | Washington, D.C. |

perspective of a P&C insurance enterprise. Sessions at this year's seminar will include:

- A look back at industry results with a discussion of the role that risk management could, and should, have played in this recent history.
- A candid discussion of the state of dynamic financial analysis (DFA) modeling today, both in terms of the technology as well as its acceptance throughout the industry.
- New approaches to capital allocation.
- Educational sessions on the basics of capital management and the cost of capital.

As always, there will continue to be specific topics for the practitioner of dynamic financial analysis.

**Enterprise Risk Management Symposium**
This joint symposium came about from a realization that both the SOA and CAS are increasingly involved in risk management issues—each specializing in unique risks but using common techniques and both asked to demonstrate how their activities add corporate value.

The two societies realized it would be beneficial to share knowledge, broaden perspectives and enable actuaries to play a larger role in ERM, which, broadly defined, is the identification, measurement, prioritization and management of risks that face an organization. ERM is not unique to the insurance industry. In fact, both societies have benefited from learning about ERM issues and practices in the broader financial services industry. Actuaries' training and specialization make them uniquely qualified to play a role in this area.

The joint ERMS will include sessions on modeling, risk metrics and capital management, among others. One highlight will be a general session featuring chief risk officers who will give their perspective on key risk issues facing organizations.

Look for information on the CAS Web site, *www.casact.org*, and in the mail in late May.

---

**Insurance mergers and acquisitions—change driven *and* change driving**
*continued from page 4*

(SPNBM). It won't be sufficient merely to continue adding more and more mass through deals, as some of the aggressive acquirors of the 1990s did. As insurers struggle to refine their SPNBMs, they will need to be much more careful in their M&A approaches to assure that they don't impair the new business machines. Hence, future sellers often won't fit the need of many future buyers. There will be fewer buyers for messy or troubled companies, at least at price levels that such transactions sold for in the past. As the power in financial services in sales situations continues to move from agent/company to customer, historic simplistic integration and post-purchase management protocols that characterized much of the M&A environment of the 1990s will be replaced by principles and processes that are much more sensitive to the nuances of the buyer's SPNBM and the customer it serves.

*It won't be sufficient merely to continue adding more and more mass through deals, as some of the aggressive acquirors of the 1990s did.*

## The future of insurance M&A

Eventually, insurance M&A will increase. It appears that the marketplace will land on a more fundamentally sound transaction foundation. In the end, as actuaries know, real economic value is the key.

This fundamental is appreciated by more acquirors today. So, although the M&A marketplace is changing, transaction activity will pick up—but likely at prices that are more closely related to real economic value.

Every time an insurance company sells a division, buys another organization, merges or establishes a joint venture with another entity, it is both acting on its perceived need to compete in the changing marketplace and disrupting the insurance universe by sending messages that will change the future behavior of other executives inside and outside of the insurance industry.

An analogy is the butterfly flapping its wings and creating air currents that later affect life halfway across the globe. The sum of all insurance company events, in total and over time, has a significant effect on the future environment in which we will operate and the companies that we will manage.

Robert D. Shapiro is president of The Shapiro Network Inc. in Milwaukee. He can be reached at *shapironetwork@ameritech.net.*

## Who owns your intellectual property?

*continued from page 6*

where constraints are not imposed on the way people think and where invention may even be rewarded. Or, the patents are for data processing systems or other similar support processes utilized in the insurance industry but owned by companies in these support industries.

For example, IBM has five of the 175 U.S. patents issued between 1978 and 2002 in the insurance business method patents designation (class 705, subclass 4). This is more than any other company. In fact, very few insurance companies have insurance-related business method patents assigned to them.

### Hidden R&D resource

Of course, not all insurance companies are ignoring the talent of their people or the value of the intellectual property they create. Some insurance companies are beginning to realize that they have a large research and development (R&D) budget; they just had not recognized it as such. Clearly, many actuaries, underwriters, advanced marketing and systems people who work for insurance companies and are involved in product development often find themselves doing R&D. The need for insurance companies to recognize and claim this individual creative effort in a more formal way is going to become critical to the future success of insurance companies that want to protect their investment in R&D.

***...Most invention in the insurance industry is done in small shops where constraints are not imposed on the way people think and where invention may even be rewarded.***

Why is the value and ownership of intellectual property important? It's important because things are changing. "Business method patents," the category that most easily includes insurance product design, marketing, underwriting and sales concepts, were given a tremendous boost when the U.S. Supreme Court, in July 1998, upheld the U.S. Federal Circuit Court of Appeals affirmation (in *State Street v. Signature Financial*) that "business methods" were proper subject matter for patents.

From 1998 through 2002, 128 business method patents were issued in the class 705/4 insurance category. Only 47 were issued from 1985 to 1998, and none at all were issued from 1978 through 1984!

Currently, there are over 200 insurance business method patents pending, and the count grows daily. The insurance segment is not big in the whole scheme of things. The USPTO issues over 180,000 patents and gets over 350,000 new applications each year. However, you may be getting the idea that you could be missing out on something.

### Recognizing and rewarding creative talent

The answer to the question, "Who owns your intellectual property?" begins with a recognition that you might have some. If you are an employer, you may want to consider what your employees' expectations are regarding this question, because a difference in expectations can create a problem.

Clearly, it would be difficult to impose an employment contract that makes demands on creative talent on an unsuspecting employee population. My belief is that a requirement to sign such an agreement cannot be made a condition of continued employment. Rather, an insurance company that wakes up to the patent revolution would probably have to be selective in which of its existing employees it asks to sign an employment agreement and provide some reward or compensation if it expects those employees to assign their intellectual property to the company.

And, of course, appropriate job description modifications and employment contracts that clearly provide for invention will become a necessity for new hires in positions like actuarial product design and development, or in any other position in which problem solving is a job requirement.

Even if your employer doesn't suggest an employment agreement, you may find it advantageous to address this issue and arrive at some agreement relative to invention prior to accepting employment. For example, this may be particularly important if the reason you left your previous employer was because of a dispute regarding an invention.

Basically, you, the individual inventor, are the initial owner of your intellectual property. You can retain and use it for your own profit if you have carefully avoided any outside claims others may have on your work. Or, you can license it to others or sell it outright and reap the rewards of your invention that way.

If your employer is enlightened, you may find yourself working in an environment that encourages and rewards your inventive efforts, but this is probably a little bit into the future yet. Any way you go, however, recognize that your inventiveness has value.

*Tom Bakos, FSA, MAAA, is president of Tom Bakos Consulting Inc., Ridgway, Colo. He can be reached at* tbakos@BakosEnterprises.com.

**SOA Board of Governors endorses E&E redesign direction**
*continued from page 11*

(see Board Bulletins in the February 2003 issue) and has explicitly directed the working groups to set the ASA at approximately halfway to FSA in the redesign.

The ASA Course will be module-based and concentrate on integrating general concepts and functions across all practice areas and using current practice-area applications of the concepts and functions. Material will be developed so that the ASA Course will be equivalent to one course in the current system.

To accomplish these goals, the working groups' current and primary activity, as endorsed by the Board, is to continue to define instructional and learning objectives for the ASA Course and the practice areas. This includes objectives that are common to all practice areas, practice-area-specific objectives required of all candidates, and fundamental and practical functions expected of candidates planning to practice in a given practice area.

With specific objectives in hand, the working groups will be exploring innovative presentation, delivery and assessment options for the modularized, integrated ASA course. Delivery and evaluation mechanisms will be considered to create a more engaging and useful learning experience for candidates and to capitalize on available technologies and resources. The Board and the working groups will look to SOA staff to research and recommend mechanisms. One anticipated benefit of a more innovative approach to delivery mechanisms is an expected reduction in travel time.

*4. Preliminary education as conceived in the September 2002 report is acceptable as is. The working groups should continue to refine learning objectives and define "validation by experience."*

The working groups submitted a report to the Board in September 2002. Subjects addressed in the preliminary (pre-ASA) education will be categorized as prerequisite (with no validation required), validated by experiences, or validated by examination. The SOA will directly test the subjects in the "validation by examination" category. Alternative means of acquiring and demonstrating mastery, such as completion of an approved set of college courses with acceptable grades and/or the completion of an approved learning/testing experience, will be acceptable for subjects in the "prerequisite" or "validated by experience" categories.

The working groups have recommended that calculus, linear algebra and accounting be prerequisite subjects. Subjects to be validated by experiences include economics, corporate finance and applied statistics. Subjects to be validated by examination (formally examined by the SOA) include mathematical probability, financial mathematics (theory of interest), contingencies and actuarial modeling. The placement of mathematical statistics is yet to be determined.

With the Board's March action, the working groups will finalize the preliminary education proposal, including the meaning of "validation by experience," in advance of the June Board meeting.

*5. Implementation of the new structure should be preceded by the assurance that high-quality study materials are in place.*

Commitment to developing high-quality materials prior to implementation is crucial to providing effective education for candidates and creating a successful system. The Board strongly endorsed this statement and will look to the working groups and staff to define a process for identifying needs. The working groups and staff plan to review what currently works well, what needs to be adapted or is yet to be developed and what resources will be used to create new materials.

The Board has contributed substantially to the process to date. The working groups very much appreciate the Board's commitment, support and direction and will be working diligently via a systematic and multidisciplinary approach to design, develop, deliver, implement, evaluate and maintain the new system. The working groups consider their efforts as works in progress and will continue to balance market forces with the E&E system's purpose.

## Second ballot voting kicks off in July

The Society of Actuaries will hold the second ballot election for officers and board members beginning July 8. Board member candidates can be found at *www.soa.org/second_ballot03.html.*

Since SOA elections materials are sent via e-mail, please check your contact information on the online directory to make sure it lists your current e-mail address. Fellows who do not have an e-mail address on the SOA database will receive paper election materials in the mail. All voters will have 30 days to cast their ballots.

If you have any questions about the election, please contact Lois Chinnock at the SOA office at 847.706.3524 or *lchinnock@soa.org.*

# executivedirector**news**

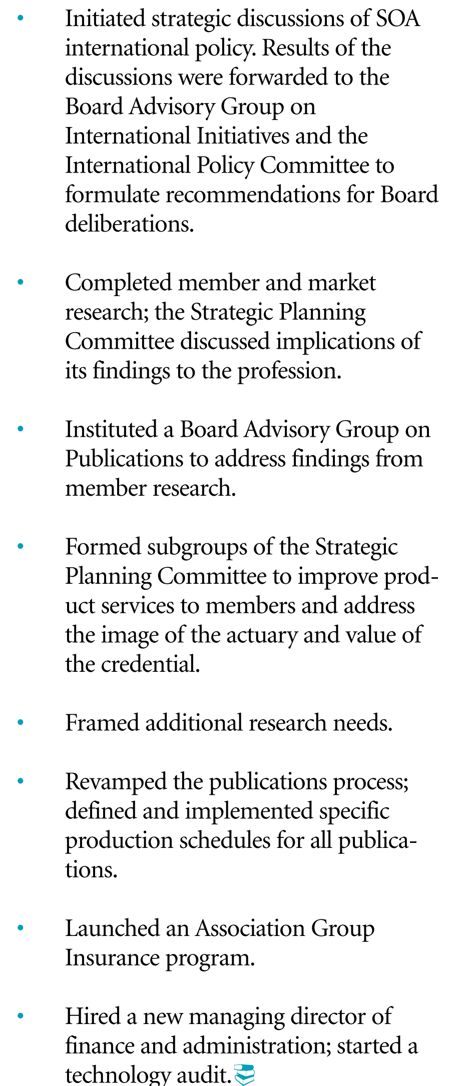
## Board of Governors reviews 2002 organizational results

At its March 13-14, 2003, meeting, the SOA Board of Governors reviewed the results of an extremely successful year for the SOA. The year 2002 started off with some special and significant challenges. In the aftermath of the September 11 tragedy and the widely acknowledged slashes in industry support for professional education and business travel, the pressure on financial performance in all aspects of the organization was even greater than usual.

However, 2002 was the third consecutive year of strong financial performance for the SOA. Currently, the member equity/reserve fund balance is at the high end of the designated range. This will allow the SOA to fund planned initiatives.

The strategic focus of the organization remains strong, and every strategic initiative outlined in the Strategic Plan was addressed. Here are some of the strategic highlights of 2002:

- Offered 25 percent more seminars than last year.
- Generated record levels of participation and revenue from continuing education.
- Attracted record attendance at the multidisciplinary Long-Term Care Conference; held successful critical illness and underwriting multidisciplinary seminars. All brought significant numbers of actuaries and nonactuaries together.
- Established inclusive dialogue with employers and practitioners regarding education and examinations (E&E) programs.
- Adjusted ASA requirements and decided to reintroduce nation-specific material into Course 8 examinations.
- Completely rebuilt practice areas under the leadership of a new managing director. Every practice area is staffed; activity is robust and energetic throughout.
- Successfully implemented an industry-sponsored secondment staff actuary to support the finance practice area.
- Defined recommendations for leveraging the strengths of SOA sections into practice areas; created the Implementation Task Force.
- Reinvigorated the Board Committee on Research.
- Developed a more systematic approach to defining research projects that address significant actuarial problems.
- Significantly increased the research activity generated by sections and practice areas.
- Launched the Actuarial Education and Research Fund (AERF) Web site and the Actuarial Research Exchange.
- Created a new functional area called "Actuarial Promotion," which encompasses the Board Advisory Group on Intellectual Capital, the Committee on Academic Relations, the Committee on Career Encouragement and the Committee on Minority Recruiting.
- Adopted knowledge-based strategic governance as the model for Board functioning. By using this governance model, Board members dramatically increased the amount of time they spent on strategic and emerging issues.
- Incorporated two existing projects—education redesign and section/practice area realignment—into a new governance model.
- Created a draft proposal for E&E redesign.
- Addressed long-term growth and development of the profession as a strategic issue; specific recommendations were forwarded to the managing director of continuing education and the Joint CAS/SOA Committee on Career Encouragement. Additional recommendations were forwarded to the Strategic Planning Committee to be considered in its efforts to address the image and marketability of actuaries.



- Initiated strategic discussions of SOA international policy. Results of the discussions were forwarded to the Board Advisory Group on International Initiatives and the International Policy Committee to formulate recommendations for Board deliberations.
- Completed member and market research; the Strategic Planning Committee discussed implications of its findings to the profession.
- Instituted a Board Advisory Group on Publications to address findings from member research.
- Formed subgroups of the Strategic Planning Committee to improve product services to members and address the image of the actuary and value of the credential.
- Framed additional research needs.
- Revamped the publications process; defined and implemented specific production schedules for all publications.
- Launched an Association Group Insurance program.
- Hired a new managing director of finance and administration; started a technology audit.

*Sarah J. Sanford, CAE*

# presidential**musings**

## Risk is our business

*by Harry Panjer*

*I returned, and saw under the sun, that the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favor to men of skill; but time and chance happeneth to them all. — Ecclesiastes 9:11*

This biblical wisdom is the opening of *The New Financial Order: Risk in the 21st Century* (Princeton University Press), a new book by Yale University's famous economist Robert J. Shiller. The quotation illustrates that, even centuries ago, it was recognized that random events can play important, and often determining, roles in the lives of individuals.

Close to 400 years ago, the fundamentals of insurance developed out of the ideas that financial risk could be mitigated by pooling mechanisms and by risk transfers. The work of actuaries evolved out of the need to assess and manage risk. In *The New Financial Order,* Shiller argues that mankind is on the verge of the next phase in risk management—risk management for the masses.

The convergence of financial theories and technology already has allowed major corporations to use forward contracts, futures, swaps and many other derivative products to limit the uncertainty associated with future cash flows. The development of derivatives is to investors what the development of currency was to barterers. They allow persons to participate in markets without actually physically owning tangible assets.

Holding cash has its own risks, as we know from many financial crises over the years in which cash was severely devalued. (The bank looter carrying arms-full of currency in Baghdad that I see on television as I write this column will learn this lesson soon, I'm sure.)

Shiller presents many ideas for individuals, at all levels of wealth, to be able to hedge future uncertainty in many everyday aspects. For example, how can individuals protect the value in their most important investment, namely, their own homes? For a variety of reasons familiar to actuaries (antiselection, asymmetric information, moral hazard), it is virtually impossible to provide insurance against the loss in market value of an individual property except in the case of damage by an external force: fire, earthquake etc.

Shiller suggests that a person can hedge much of the real estate devaluation in a neighborhood by the creation of derivative products based on macro-level indices of market values of properties. If these indices are realistic and up-to-date, then there should be a high correlation between the index value and the actual individual value of a property.

Option pricing and other theories developed in the past 30 years can be used to price the risk; recent technology such as high-speed computing and the Internet allow for indices to be quickly and objectively updated on a daily basis. Shiller has put his money where his mouth is by forming a company that builds such indices. Furthermore, he postulates that a "world full of macro markets" based on objective indices can help stabilize future world development.

He spends a lot of his time in the book discussing the management of individual incomes. Various types of health, disability and unemployment insurance have been available at the individual level through private and public insurance schemes for many decades.

Shiller would like to augment these with derivative products that could be used by individuals to protect against the decline in incomes in specific sectors of the economy by using objective macro indices. One can easily imagine using derivatives based on a NASDAQ index in, for example, the biotech sector. On the surface, some of Shiller's ideas seem unlikely to be able to be executed. I won't spoil the fun and leave it to you to decide.

Risk management has become the *de rigueur* topic in the Society of Actuaries and the Casualty Actuarial Society. The focus has been primarily on managing risk in insurance and other enterprises. There will be two collaborations between the SOA and CAS at the end of July in Washington, D.C.: a seminar on Risk and Capital Management and a symposium on Enterprise Risk Management. For more information on these events, see the CE Corner in this issue.

If we listen to Shiller, we will soon be holding seminars on individual risk management. In fact, we are already in the business. Last month, the SOA released its "Post-Retirement Risk Chart" (PRRC), which provides advice on managing risks after retirement. Former president Anna Rappaport, one of the creators of the PRRC, hopes that individuals will use the chart to make informed choices about managing post-retirement risks, including planning for the possible need for assisted-living services.

Growth in risk management by actuaries of all stripes will continue. Risk is our business. Insurance has traditionally provided a means for handling diversifiable risks. Derivative products and hedging tools are now beginning to help us manage nondiversifiable risk better.

Shiller's book points out that this is the time for risk management to move forward to the individual level. This is our profession's chance to manage its own long-term risk and contribute to the betterment of society.

As we say in our family, "Opporknockity only tunes once."

And happy reading.

Harry Panjer