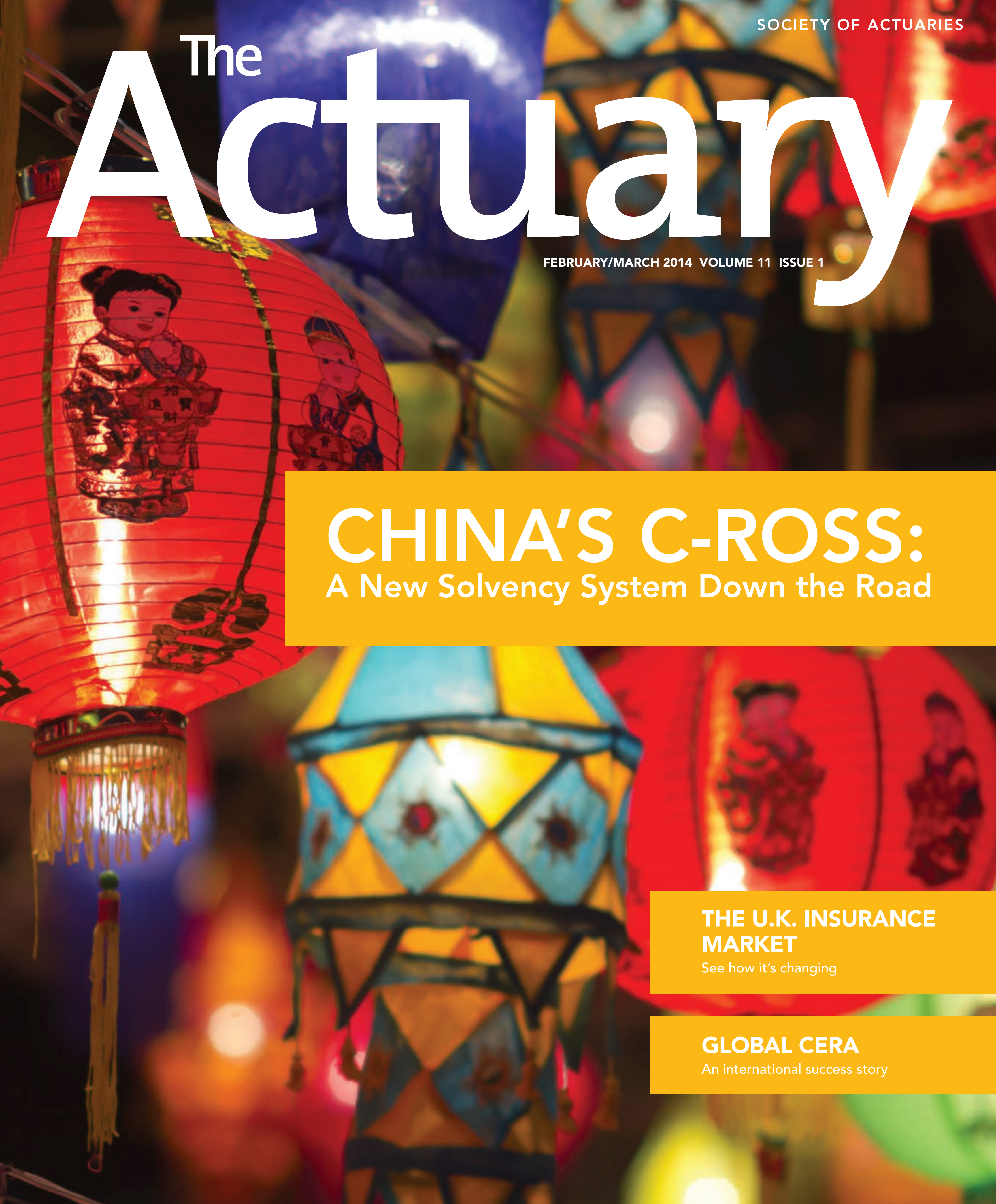


SOCIETY OF ACTUARIES

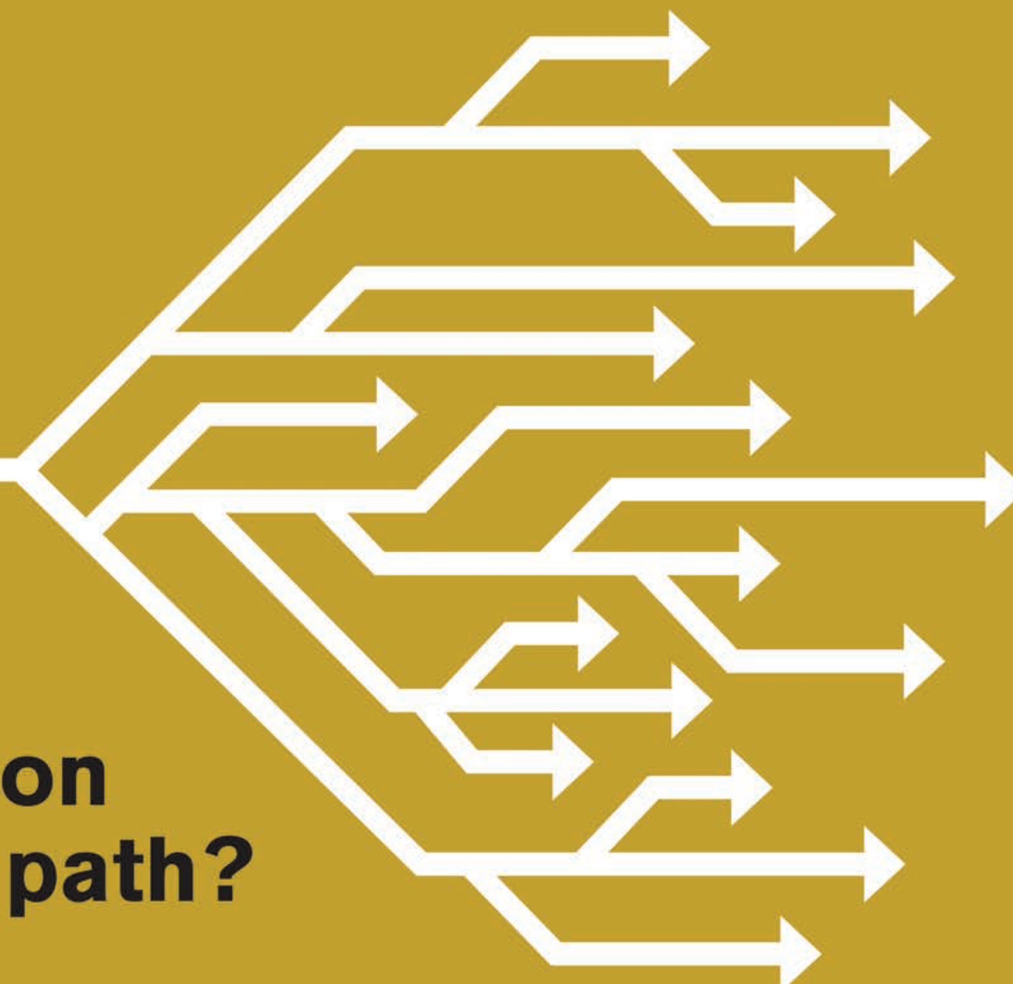
The Actuary

FEBRUARY/MARCH 2014 VOLUME 11 ISSUE 1

CHINA'S C-ROSS:
A New Solvency System Down the Road

THE U.K. INSURANCE MARKET
See how it's changing

GLOBAL CERA
An international success story



Feb/March'14

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The Actuary
SOCIETY OF ACTUARIES

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February/March 2014
issue of *The Actuary*

DEPARTMENTS

Editorial

LEADERSHIP LEARNINGS FROM THE AFFORDABLE CARE ACT

BY KARIN SWENSON-MOORE

2013 WAS QUITE A YEAR. For health actuaries like me, understanding and implementing the Affordable Care Act (ACA) offered challenges and opportunities far beyond expectations. As I thought about the year and my role as a pricing actuary, I noted many leadership and management lessons from both internal work and observations of activities externally. Here are some of my key learnings that I will keep in mind as we move to see the results of the initial implementation and work through future decisions.

Create realistic and flexible project plans. Building new systems and processes (e.g., new models, rating engines or insurance exchanges), or overhauling existing systems to meet new requirements, is hard. So is taking the time to create a plan. Most of us like to jump in and get to work! Planning is critical for identifying key intermediate and final deliverables, time and resources needed, and gaps to be filled. Moving along the plan timeline, we need to constantly re-evaluate and adjust for the inevitable roadblocks, new information and unanticipated requirements, as well as work through our constant juggling of work priorities.

Of course, the best laid plans still may go haywire. Our internal actuarial pricing teams created a great plan to ensure we submitted our 2014 filings for consumer and small group products on time and worked hard to manage and adjust to the timeline. We still had several long weekends to complete the work on time, but it would have been far more difficult to complete the filing process successfully without investing up front in the planning.

Sometimes simpler is better. The initial implementation of an important new system needs to work. That likely means some of the ideal features won't be part of the initial rollout. It's much easier to gain support for adding more features after you've received kudos for a successful first phase than to have a complete failure because you tried to include too much too soon. In addition, incorporating the knowledge gained from that initial implementation provides a springboard for more bells and whistles. Of course, my organization's implementation of required activities to support ACA can be improved, and we've spoken with other insurers and regulators that felt the same way. Completing the work for 2014 gave all of us lots of ideas to make it easier and better next time.

Peer review and testing are critical to project success. No matter how smart, innovative or experienced the team, everyone benefits from a second opinion, and new systems need thorough testing to be successful. It's easy to let project timelines slip and shortchange the review and testing, but it's critical that we don't let those tasks disappear. (Our actuarial professional standards won't allow it either.) In my organization, we sought external peer review for our pricing and filing work to ensure we had a complete and fresh perspective on our assumptions and methodology. We found plenty of value in working through alternative approaches with our independent reviewers.

Keep your boss informed. When I think about my own experience and projects that didn't go well, lack of candid informing almost always plays a role. As a manager, I want to know the truth about project status and what is or is not going well, in terms that I can understand and carry forward if needed. I can help adjust expectations with customers if I'm in the loop along the way. I'm also far more sympathetic to the situation if I have time to plan the communication of a failed project to my own manager and ensure he's not caught in an unpleasant conversation without being informed. I've also learned the importance of regular and detailed communication of progress to all stakeholders. Our 2014

ACA product and rate development process included regularly scheduled updates to senior leaders, ensuring they had accurate understanding of our status, and time to adjust course as needed.

If you're the boss, make sure you're listening to your people. Leaders often have multiple projects for which they are accountable, and it's easy to get distracted from the issue being discussed or to hold onto our personal beliefs even when the evidence suggests an alternative would be better. We have smart people working for and with us, and they have thoughtful and important things to say that need to be heard as a call to action. Based on recent headlines regarding the exchanges' technology troubles, it seems that many state and federal exchange leaders, as well as elected officials, could have benefited from better active listening skills as well.

Change and ambiguity can be overwhelming for your team. It's hard to do something new with continually evolving regulatory guidance and information. As I ponder my teams' work to price and file our 2014 ACA consumer and small group products, we did our best to start analysis early, reflecting our best thinking. However, we still needed to rework multiple pieces of our analysis as state and federal guidance varied from our expectations or was adjusted throughout the process. In addition, much of the process was new, so even our most experienced staff felt like beginners. This created frustration for staff, but provided management with the opportunity to support and work through the change curve.

Simple recognition goes a long way. Our pricing teams worked really hard this year. Not everything was completed quite as we hoped or planned; still, much good work was completed, and we achieved good results. We all like to have our contributions acknowledged. I wrote each of my team members a personal note to bolster spirits during some of the especially challenging times in the filing development process. We also enjoyed a group celebration dinner, complete with award certificates for each person.

Help bring opposing views to achieve a common goal rather than fighting for the win. When used effectively, multiple views and discussion of varying opinions provide a richer perspective on an issue and most likely a better decision to resolve the issue. "Effective" in this case means all parties understood the goal, provided their views, and agreed to support the final decision. Almost all of our government leaders say they want to improve the U.S. health care system. They continue to disagree on the best way to make that happen. After the ACA was passed, I found it frustrating to have the debate and repeal attempts in Congress continue for months, seeming to be more focused on "winning" than how to most successfully support the legislation to achieve common goals. Within our organizations, we often have to support a strategy or decision with which we disagree. It is our job as leaders to find the best way to make that decision a success. A

Karin Swenson-Moore

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Letter From The President

COMMITTED TO SERVING THE PUBLIC INTEREST

BY MARK J. FREEDMAN

PUBLIC POLICY has been on my mind a lot lately. The need for actuaries to contribute to the solution of key, societal problems has never been greater, yet the actuarial voices are not always heard. To increase our presence, the Society of Actuaries (SOA) recently decided to enter into the arena of public policy research on a more formal basis, and I couldn't be more excited about that decision. We have the opportunity to use our knowledge and our expertise to inform policymakers and to enhance public understanding of policies through our research.

In this letter, I will explore the thinking behind the SOA's decision, discuss the role of the actuarial profession in general, and consider the SOA's role in public policy both today and in the future.

ROLE OF THE ACTUARIAL PROFESSION

When I think of core principles, it begs the question, "What is a professional?" There are many definitions, but the most common features (paraphrasing Wikipedia) are:

- High levels of education and training;
- Rigorous ethical standards and a code of conduct; and
- A commitment to serving the public (i.e., serving some important aspect of public interest and the general good of society).

SOA members—and for that matter, actuaries whose organizations are members of the International Actuarial Association (IAA)—are clearly professionals. We are highly trained. We abide by a formal code of conduct. And, perhaps most importantly, we are committed to serving the public interest.

How do professionals serve the public? My two children, one in law school and one in medical school, remind me how much lawyers and physicians serve the public. Many lawyers do pro bono work. Many physicians volunteer their time to work in free health clinics in underserved communities. Well, what about actuaries? Actuaries serve the public in a variety of ways:

- Pension actuaries have an obligation not only to the pension plan sponsor, but to plan participants as well, to protect their earned benefits at retirement.
- Insurance company actuaries have an obligation not only to stockholders, but to policyholders as well, to ensure that their insurance benefits are there when they need them.
- Actuaries serve the international public by volunteering for the IAA's Actuaries Without Borders special interest section.

There are also numerous examples where our profession is involved meaningfully in public policy or major social issues. However, when I chaired the SOA's Strategic Plan Task Force in 2012, many members told us that our profession and the SOA in particular had to do more. We need to be more focused on the key societal challenges and provide our actuarial expertise and voice on big issues facing the countries where we work.

DOING MORE—THE SOA'S ROLE

Some members push back on this topic by suggesting that the American Academy of Actuaries and other national actuarial organizations should be the sole, unified voice of the actuarial profession in the field of public policy in the United States. As I mentioned in my annual meeting speech,

Mark J. Freedman

I am not so concerned with arbitrary boundaries and the political structure of our profession. I am sure that our employers and the public do not care about this either. All actuaries and all actuarial organizations can and must contribute.

Our new strategic plan hints at what the SOA's specific role will be. The first sentence in our mission states: "The SOA, through research and education, advances actuarial knowledge and improves decision making to benefit society."

The plan specifically establishes policymakers and regulators as stakeholders of the SOA, along with candidates, members, employers/clients, and the general public. The plan also states that "the SOA, through its research and communications, ensures that the actuarial point of view is expressed in a non-partisan way to legislators, regulators, and the public through a variety of channels." This means that our unique contribution to public policy and social issues is grounded in providing research and education, from a uniquely actuarial perspective, to policymakers and regulators on the issues they (and we) face.

Then, there is a question about who will deliver our research to the public. Our strategic plan states the SOA needs to develop research that serves the public interest. It further states that "either independently or with partners, we will communicate our knowledge to policymakers and regulators to inform their decisions, thereby impacting the common good and ensuring that actuaries are recognized as valued contributors to public policy debates." The SOA is very interested in partnering with other actuarial organizations in productive, constructive and mutually helpful ways to address these issues together. We cannot, however, leave important, unbiased research on our shelves. Doing so would be unfair to not only the researchers, but to the public. In addition, of course, those who are interested in our research clearly want to hear directly from the researchers themselves.

A recent example of collaboration with another actuarial organization is our study on the "Sustainability of the Canadian Health Care System and Impact of the 2014 Revision to the Canada Health Transfer." This was a joint research project between the Society of Actuaries and the Canadian Institute of Actuaries (CIA). The study estimates the future costs of the Canadian health care system, assesses the sustainability of the system over a 25-year horizon, and analyzes the implications of the changes to the Canada Health Transfer that the federal government proposed on Dec. 19, 2011. The report, available in English and French, summarizes the findings and indicates that without significant government intervention, the Canadian health care system in its current form is not sustainable. In this case, we collaborated with the CIA in planning the research project, selecting the researcher, organizing and overseeing the project, and reviewing the final research report. The CIA took the lead in the rollout and public explanation, bringing the research to the Canadian media and policymakers. They received a good response to the work, including requests for further discussion from policymakers up to the provincial financial ministry level.

Another current example is one where the SOA is acting on its own. In 2013, the SOA established a blue ribbon panel on public pensions. It charged the panel with identifying the primary reasons why currently, public pension plans are underfunded, as well as recommending prospective solutions, including those where actuaries play an important role. The panel is independent of the SOA. Its members consist of economists, a plan administrator, a labor union representative, a former head of the Pension Benefit Guaranty Corporation, a few people from think tanks, a former state lieutenant governor, a president of a life insurance company, and a few actuaries, one of whom works with public pensions. Bob Stein, FSA, MAAA, and a former managing partner of a major accounting firm, chairs the panel. The panel intends to release its report in the first quarter of 2014. The SOA will publicize the report's contents to the media and other interested parties, providing a much-needed voice on this critical issue facing policymakers, taxpayers and U.S. state and municipal government employees.

The plan specifically establishes policymakers and regulators as stakeholders of the SOA, along with candidates, members, employers/clients, and the general public.

THE ROLE THE SOA WILL PLAY IN THE FUTURE

Recently, Jennifer Gillespie chaired the SOA Public Policy Strategy Task Force, which looked into the question of the SOA's role in public policy in the future. Based on this task force's work, the SOA Board recently established principles to guide the selection and implementation of research projects in public policy. The key principles of our strategy are that the research must:

- Be objective;
- Have strict quality controls;
- Be relevant; and
- Be quantitative.

The task force also developed a formal public policy research and analysis statement summarizing these principles. Later in this edition of *The Actuary*, we interview Jennifer about this work. We also include a copy of the statement.

So far, most of the SOA's research has been in the United States and Canada. In 2014, we will start thinking through how to build our research strategy outside of North America.

We always seem to wonder why the media, regulators and policymakers do not contact our profession more about social policy issues that require actuarial expertise. These interested parties want more non-partisan research and want to be able to talk directly to the researchers. It is time for the SOA to be ready and at the table with timely research on public policy issues and events shaping the way we, our clients, and employers conduct business.

This is a great opportunity to use our knowledge and our expertise to inform policymakers and to enhance public understanding of key societal issues through our research. It is our time to get even more involved in this very important area. Let's do it and do it well. A

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Taiwan e-Learning Module

A LOCALIZED LEARNING EXPERIENCE ON REGULATIONS AND TAXATION

BY WAI LING YUNG

AT THE END OF 2013, the Society of Actuaries (SOA) launched a new e-Learning module for individuals who plan to practice actuarial science in Taiwan. The SOA partnered with the Actuarial Institute of Chinese Taipei (AICT) to develop this customized module on the local regulatory environment in Taiwan, which is what makes this module so unique.

The SOA has a large group of members and candidates in Taiwan, so the module is an important part of continuing to serve the local community there. This module provides localized content in Traditional Chinese, which is designed to cover the regulatory and tax environment that affects the life and annuity insurance industry in Taiwan overall and actuaries in particular.

This customized online module is the first to be built and offered in a language other than English. Thanks to the SOA's membership growth globally and the demand for actuarial services outside of North America, there is a beneficial opportunity in customizing content to local regulatory environments and also providing the content in the local language.

This module is ideal for candidates who live or work in Taiwan; completed the Fundamentals of Actuarial Practice (FAP) assessment in the last two years; and have not registered for or completed the existing Regulation and Taxation module. The module can also be used by individuals who are interested in the Taiwan regulatory environment or want to learn more about the Taiwan regulation and taxation processes.

The learning objectives and overall design of the Taiwan module are consistent with the current Regulation and Taxation module, a required part of the Individual Life and Annuities Track. The Taiwan module has half of its content focused on Taiwan-specific information, including the local regulatory environment. The other half of the content is focused on topics relevant to the North American environment.

Taking a more country-specific, localized approach, the Taiwan module covers the impact of regulation and taxation on policy design, pricing, reserving and compliance monitoring. In addition to the localized Taiwan-specific content in Traditional Chinese, there are also audiocasts available in Mandarin, all of which are designed to help prepare candidates on regulatory information through the online module. The SOA is proud to offer a module that is localized to Taiwan, not only in language, but most importantly by its customized content on regulations. It is important to understand the purposes for rules, how these rules are made, when and where to find the rules and how to identify constraints when designing and maintaining insurance products.

In the December 2013/January 2014 issue of *The Actuary*, SOA President Mark J. Freedman noted in his letter how international development is one of the top priorities during his year as president. The new Taiwan module serves as a timely example of the SOA's continued efforts to have the credentials recognized globally. The Taiwan module also opens the door to the possibility of creating modules in other languages in the future. From an international perspective, the new, customized module marks an interesting turning point with localizing technical content, as the SOA now has the capability to produce educational content in multiple languages. There is an opportunity for other actuarial organizations to partner with the SOA to develop customized educational content available on the global level.

For more information on the Taiwan module, visit ***www.soa.org/RegTaxModule***. A

Wai Ling Yung, Ed.D., is SOA programs manager, Hong Kong. She can be contacted at *wlyung@soa.org*.


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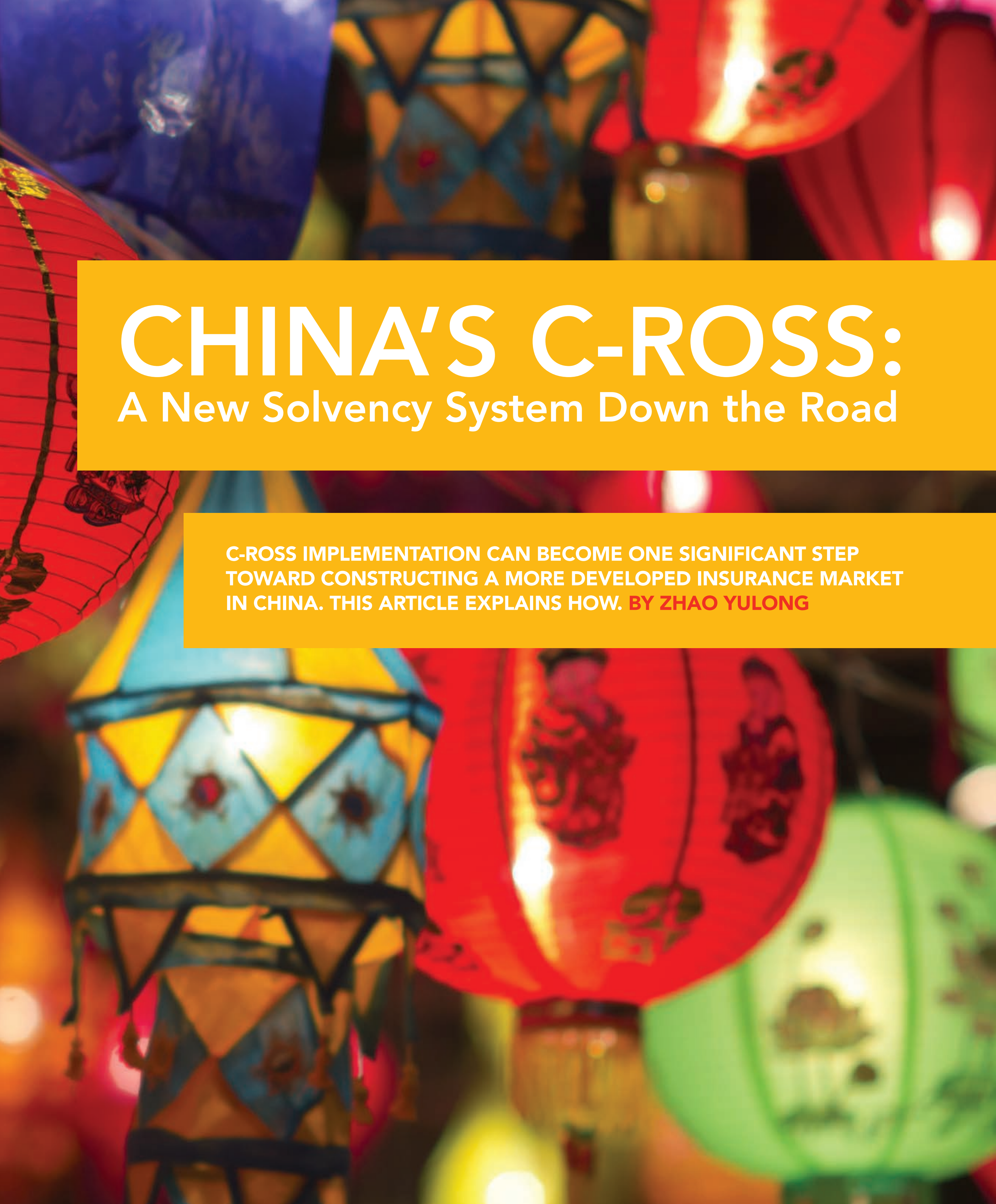


CHINA'S C-ROSS:

A New Solvency System Down the Road

C-ROSS IMPLEMENTATION CAN BECOME ONE SIGNIFICANT STEP TOWARD CONSTRUCTING A MORE DEVELOPED INSURANCE MARKET IN CHINA. THIS ARTICLE EXPLAINS HOW. BY ZHAO YULONG

Since the reopening of its insurance industry in the 1980s, China has become one of the fastest growing insurance markets in the world. The annual premium growth rate in the last 10 years reached 18 percent, and the total annual premium volume exceeded $253 billion in 2012. One of the consequences of rapid growth is that regulators had to consistently chew over how to improve the existing solvency regulation system such that the market continues to develop in a healthy and sustainable way.

BACKGROUND

Currently the China Insurance Regulatory Commission (CIRC) adopts a factor-based solvency system similar to Europe's Solvency I regime. This system worked well in the early stages of market development and contributed to solvency management being recognized as a key management issue among Chinese insurers. However, with the growth of the market and increasing complexity, the current solvency regime falls short of reflecting the actual risks

being undertaken. Solvency management is at the core of any insurance business, and so China's current solvency regime needs an upgrade.

Globally, a worldwide trend toward more risk-oriented regulations and governance of insurers' solvency has gained significant momentum in the last decade. The International Association of Insurance Supervisors has set out a series of insurance core principles (ICPs) to provide high-level guidance of insurance supervision, the European Union has been rolling out the new Solvency II regime, and the U.S. National Association of Insurance Commissioners is also working on its Solvency Modernization Initiative. As one of the fastest growing insurance markets in the world, China's development of a new solvency system not only will be designed to meet local market needs, but could also provide pragmatic and invaluable experience for other emerging markets as well as the international insurance community.

ROAD MAP AND THE CURRENT DEVELOPMENT

In April 2012, CIRC formally kicked off the project to establish "China's 2nd generation solvency regulation system." Appearing somewhat ambitious, CIRC's plan is to implement a new risk-oriented insurance solvency regulation system within three to five years. Not only will the new regime follow the ICPs, but more importantly, it will crucially take into account local market characteristics, both currently and in the future.

In May 2013, CIRC published the conceptual framework of the new solvency system, the "China Risk Oriented Solvency System" (C-ROSS), which highlighted three overall objectives:

1. To measure the risks insurance companies undertake scientifically and comprehensively and to link capital requirements more closely to risks

2. To ensure the solvency of China's insurance industry while improving its overall competitiveness, and to promote risk management ability across the industry and

3. To explore an appropriate solvency supervisory model for emerging markets.

CONCEPTUAL FRAMEWORK: THREE-PILLAR FRAMEWORK

Similarly to Solvency II, C-ROSS adopts the "three-pillar" solvency framework. However, by incorporating specific approaches or placing a different emphasis on each pillar, China's "three-pillar" framework is intended to fully reflect its own evolution.

Overall, C-ROSS has three key characteristics:

1. **One supervisory level:** Unlike the European Union or the United States, where supervision is decentralized to regulatory

bodies of each member country or state, CIRC adopts a unified supervision approach at the national level.

2. **Considerations for emerging markets:** Despite its rapid growth, China's insurance market is still at the early stages of development and is exhibiting the behavior of an emerging market. Relative to mature markets, China's market is quite different in terms of market size, growth rate, product features, risk management capabilities, talent management, internationalization, etc.

   For example, an enormous need still exists for capital injections to fuel growth for many Chinese insurers. Thus an overly prudent solvency requirement might heavily burden shareholders and hinder overall growth. Therefore, the aim of C-ROSS is to be careful not to create an unnecessary capital burden for insurers and give more emphasis to improving capital efficiency. As a solvency system designed for emerging markets, C-ROSS emphasizes the following five items:

   i. To rely more on a qualitative supervisory approach as a key supplement to quantitative measurement

   ii. To consider the cost of capital that this new solvency system might bring about and encourage improvement of capital efficiency

   iii. To ensure C-ROSS can adapt to the dynamic and rapidly changing market environment

   iv. To utilize the enforceability and authority of the new regulations to identify and mitigate various risks on a timely basis

   v. To ensure C-ROSS could be implemented efficiently in practice by the industry.

3. **Risk-oriented with value consideration:** Risk prevention plays an important role in solvency supervision and is the primary duty of insurance supervisors. Under C-ROSS, the valuation of assets and liabilities should reflect the actual risk profiles and be able to capture its changes in a timely and appropriate manner. Capital requirements should be linked directly to the actual amount of risks of various types undertaken by insurance companies.

Chinese regulators carefully look for an optimal balance between a usable solvency buffer with robust confidence to retain sufficient protection of policyholders' interests and avoiding too much capital demand to lower the efficiency and robustness of the market. The bottom line of the C-ROSS capital requirement is to prevent regional risks and systematic risks. Once the bottom line is secured, insurance companies should have sufficient freedom to decide on their own capital level to promote capital efficiency. This will enhance the value of China's insurance industry as a whole.

As a result, from a technical perspective, the quantitative calculation model for C-ROSS will not be a simple factor-based model for risk warning purposes, nor will it be constructed as a complicated model such as a full economic capital model. C-ROSS for an emerging market should achieve a balance between risk warning and complete economic valuation.

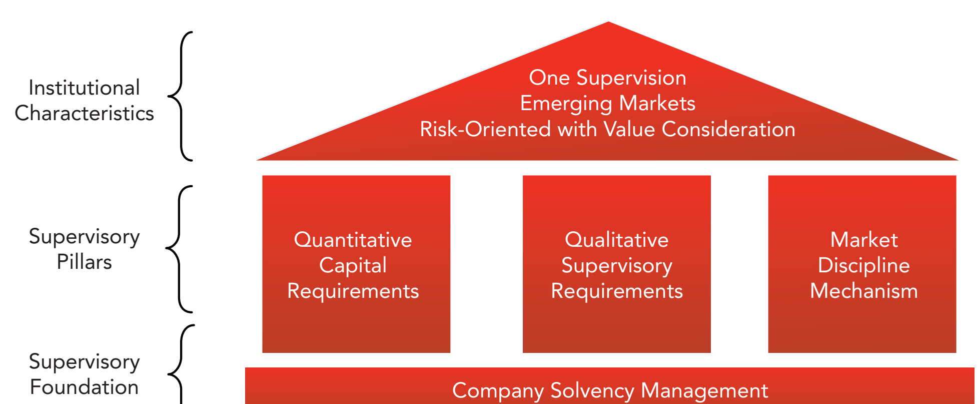
CHARACTERISTICS OF THE "THREE PILLARS"

Bearing in mind the various intentions behind C-ROSS, the details of the three-pillar framework are shown below.

- **Pillar I—Quantitative Capital Requirements**

The calculation for the Pillar I capital requirement uses a bottom-up approach. As indicated by its name, C-ROSS links capital requirements with the underlying risks. Specifically, it links these requirements to three types of risks: insurance risk, market risk and credit risk. The capital requirements for these three types of risks are quantified using a prescribed standard method and aggregated together, allowing for a diversification effect.

On the top level, additional capital might be required for pro-cyclical and systemic risk of systemically important institutions. However,



Realizing that supervisory resources are limited, the self-regulatory effect is a good complement of the proposed C-ROSS regime.

an effective internal risk management program approved by CIRC could reduce the overall minimum capital requirement in Pillar I.

This will provide significant incentive for Chinese insurers to reduce overall risks, by implementing effective enterprise risk management programs.

- **Pillar II—Qualitative Supervisory Requirements**

In Pillar II, CIRC allows for four other types of risks, which are difficult to quantify at the current stage given companies' current technical capabilities and data availability. These four risks are operational risk, strategic risk, reputational risk and liquidity risk. CIRC places the following two supervisory actions in this pillar:

1. Integrated risk rating (IRR): CIRC comprehensively evaluates an insurer's overall solvency based on both quantitative results in Pillar I and qualitative risk assessments in Pillar II, including operational risk, strategic risk, reputational risk and liquidity risk.

2. Solvency Aligned Risk Management Requirements and Assessment (SARMRA): Companies' own solvency management (often called COSM) plays an important role in the C-ROSS regime. CIRC will set up the minimum standards of risk management for insurers and will evaluate their practices periodically, such as governance structure, internal controls, management structure and processes, and it will assess insurance companies' risk management capability and risk profile.

Not only can effective risk management reduce an insurance company's overall solvency requirement, it is also a mandatory part of Pillar II of C-ROSS.

- **Pillar III—Market Discipline Mechanism**

Similar to European Solvency II, Pillar III of C-ROSS enforces oversight of insurance companies by the media, rating agencies, financial analysts and the general public by requiring information disclosure from these companies. It also utilizes markets' self-regulation power to improve insurers' overall risk management capability and market discipline.

Realizing that supervisory resources are limited, the self-regulatory effect is a good complement of the proposed C-ROSS regime. However, unlike a developed market, the concept of market self-regulation is not well recognized, so by placing it formally in C-ROSS, CIRC hopes to enhance the market discipline mechanism in China.

FUTURE OUTLOOK

According to the current pace, C-ROSS could come into effect by the beginning of 2015 at the earliest. Since C-ROSS consists of both quantitative and qualitative solvency requirements covering various key aspects of insurance business management, CIRC hopes insurance companies in China are able to improve not only their overall enterprise risk management but also their capital efficiency by effectively implementing the new solvency regime.

Meanwhile, CIRC will also encourage public oversight of insurance companies in China to forge better market discipline. In this way C-ROSS implementation can become one significant step toward constructing a more developed insurance market.

Finally, with China gaining more influence in the global insurance community, Chinese regulators are actively looking forward to learning from more developed markets and sharing our developing experience with the rest of the world. A

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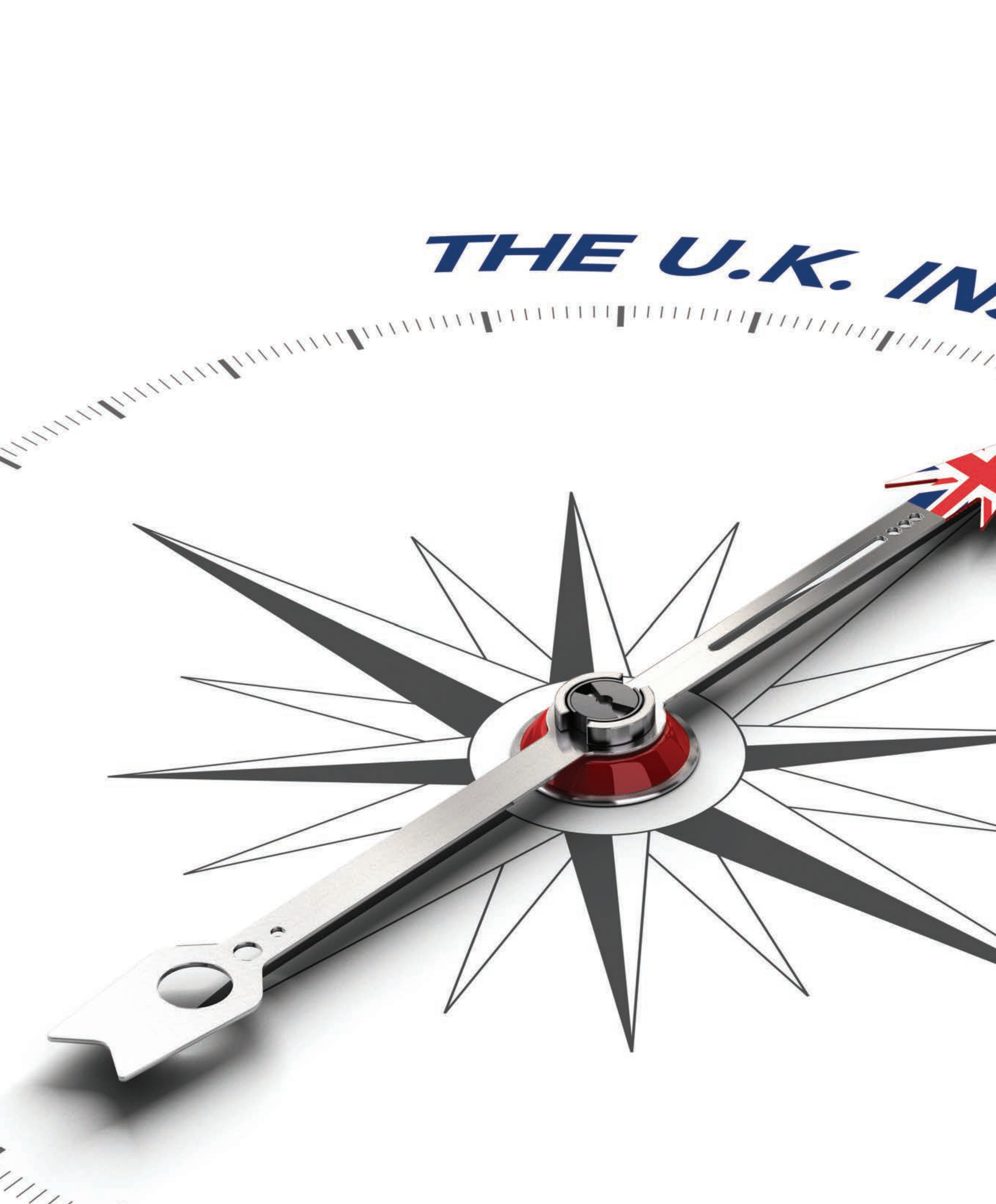

THE U.K. IN

COMMERCIAL, CONSUMER AND REGULATORY ENVIRONMENTS ARE COMBINING TO FORM A FERTILE BREEDING GROUND FOR MUCH-NEEDED INNOVATION IN THE U.K. INSURANCE MARKET.

The U.K. life insurance market is the largest in Europe and the third largest in the world, but life insurance sales have been stagnant over the last decade, as illustrated in the chart on page 22.

This article is expected to be of interest to actuaries and students who either already operate in or would like deeper insight into life insurance/protection product markets. I hope you will be able to draw some comparisons with your home market and perhaps apply some learning points. I would be interested to receive any observations from a U.S. market perspective.

THE MAIN PRODUCTS

TERM INSURANCE

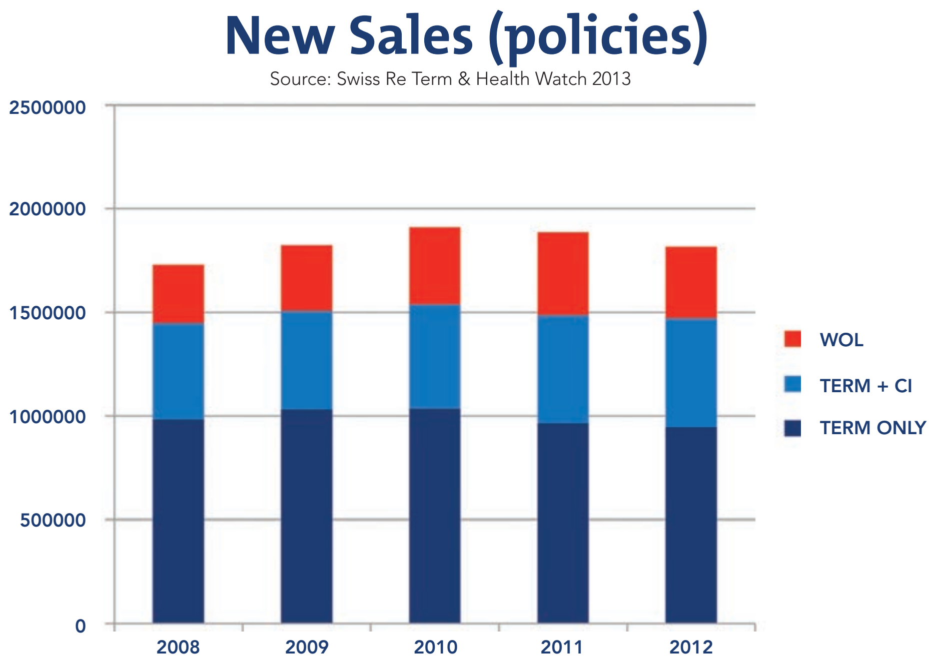
Level term insurance is a staple product in the U.K. market, providing cover for a specified duration, usually up to a maximum age of 85. Customer premiums are constant over the duration of the policy.

Decreasing term insurance is often used to cover repayment mortgages. The reducing outstanding mortgage is estimated by making an assumption of the average long-term interest rate. Life cover decreases in line with this schedule.

CRITICAL ILLNESS INSURANCE

Critical illness insurance emerged in the 1980s, initially paying a lump-sum benefit on diagnosis of a few specified “dread diseases.” It is usually linked to life insurance so the customer also receives the benefit on death.

For early products, customer premiums were regularly reviewed, for example, every five years. The process for calculating such reviews and the corresponding negotiations with reinsurers was complicated; the U.K. regulator would issue TCF (treating customers fairly) guidelines for how reviews should be calculated. As reinsurers became more confident at pricing the risk, guaranteed products became more popular. Initially, these were significantly more expensive than reviewable policies, but there is now little difference, perhaps reflecting the risk of pressure to reduce reviewable rates in the light of favorable experience.



At the risk of confusing customers, insurers have competed by adding multiple additional conditions, some medical procedures, and more recently partial payments for some less serious illnesses.

WHOLE OF LIFE INSURANCE

One purpose of underwritten whole of life cover is inheritance tax planning. This is a niche market, and terms tend to be less competitive.

Over 50s policies, otherwise known as Funeral Plans, are more popular, paying relatively small amounts on death. There is no underwriting; this is replaced by a moratorium, usually two years. Such plans are often sold via direct marketing with free gifts and have been recently criticized as offering poor value. Although they are significantly more expensive than underwritten term insurance, premium payment terms are often limited to age 80. The low interest rate environment has meant some plans have value from an investment perspective but are not marketed as such.

INCOME PROTECTION

Income Protection is a type of product that enables customers to protect their income, should they become unable to work because of incapacity or illness. Unemployment is sometimes also covered. Most policies are now sold on an own occupation basis. Recent sales have been poor, with only 120,000 policies sold in 2012, just over half the level of 2003.

Limited payment policies are starting to appear on the market, most paying claims for five years with some one- and two-year products as well.

THE MAIN PLAYERS

INSURANCE COMPANIES/PROVIDERS

Historically, the market has been dominated by large established life insurers. Product differentiation has been limited, and providers have tried to gain advantage through scale, although this has proved difficult in a stagnant market. Smaller providers and niche operators are now increasing their influence and bringing product differentiation to the market.

REINSURERS

Reinsurers have had a significant influence for some time. Competition for business has been ferocious, with reinsurers cutting rates, which reflects mortality improvements and the prospect of such improvements continuing. Life insurers have found it profitable against their more cautious internal assumptions to cede an increasing share of the risk, often as much as 100 percent. This has ceded control of the risk market, including its pricing, to reinsurers.

Reinsurers' domination of the market price of risk has, however, become a double-edged sword. The increased cessions drew increased focus on reinsurance terms and more frequent rebroking by insurers, which the intensely competitive reinsurance market has accommodated. As reinsurers' margins have been squeezed, the market has become more commoditized and price driven, to the detriment of product innovation.

DISTRIBUTORS

Distribution has always been a key battleground. Traditional strategy has been based around the premise that "life insurance is sold, not bought." Products have tended to be designed for distributors such as independent financial advisors (IFAs) to sell, often leading to more complex features and underwriting processes.

More recently, products have been differentiated according to distribution channel, which tends to define the pricing strategy. Distributors are starting to recognize their power to influence both the product design and its pricing/underwriting strategy to fit a specific distribution process.

DIFFERENT DISTRIBUTION MODELS

INDEPENDENT FINANCIAL ADVISERS

The IFA market advises customers on how much and what type of cover customers require and recommends an appropriate product. Price is a primary driver, particularly for term insurance, which is often regarded as a commodity, although a provider's underwriting practice can also be a differentiator. Products for the IFA market are almost always fully underwritten and regularly repriced to ensure a competitive market position.

Some IFAs are members of networks that centrally provide product research and compliance services for member IFAs.

AGGREGATORS (PRICE COMPARISON WEBSITES)

Aggregators have grown substantially in recent years and have taken a large share of the online market. They attract brands to advertise their prices for customers to compare according to their requirements. Brands usually have a choice of how to pay the aggregator, including per click or per application.

Aggregators generally host nonadvised products, although some are accompanied by guided sale information on an associated website. Customers might have access to a similar product through a different sales channel, which might be at a different price. Some brands employ an active algorithm to adjust their prices according to their position in the comparison table. This might be facilitated by agreeing to terms through which they are able to reduce prices in return for accepting lower commission payments.

DIRECT

Although most life insurance companies have a means of selling directly to the public, this has generally been considered a minor distribution channel. There has been increased recent interest, with retail distribution review (RDR) perhaps operating as a catalyst, but a widely engaging direct proposition has yet to emerge. The challenge is to design propositions specifically for a direct market, whether advised or nonadvised, potentially through a powerful brand.

BANCASSURANCE

At the turn of the century, banks were widely expected to utilize their wide customer base by taking a dominant position in the distribution of life insurance products. Several joint ventures were formed between banks and life insurance companies to sell investment, pensions and protection products. Some banks shared both distribution and manufacturing profits with insurers, some bought their own insurance company, and others retained 100 percent of the distribution activity via a single tie commission arrangement.

The most successful bancassurance operations were banks that were able to integrate an in-house insurance company into their banking distribution model, but banks were unable to dominate the market. Some banks chose to price their products at a premium to the market. Although some existing customers were prepared to pay premium prices, this limited their ability to encourage their wider customer base to buy their insurance products. As price comparison websites became more popular, the market polarized between those bank customers who shopped around for price and those who didn't.

Some banks now compete more closely on price and include comparison websites in a multichannel distribution strategy. However, the reduced public trust in banks and the RDR are now additional barriers to overcome.

SINGLE TIE

Distributors with well-known brands, such as retailers and banks, have typically entered into an exclusive arrangement with an insurance company. A "base price" is negotiated that includes an agreed-to commission allowance, and the distributor is usually able to flex the retail price against corresponding adjustments to the commission rate.

Advised propositions are generally fully underwritten. Otherwise, the advice process might exploit any simplifications in the underwriting process, to the detriment of the insurance company. Simplified underwriting is better accommodated in a nonadvised sales process.

Customers might have access to a similar product through a different sales channel, which might be at a different price.

Pricing tends to be higher than that in the IFA market. This partly reflects both higher commissions and an adverse business mix, which tends to exhibit higher mortality.

REGULATION

The U.K. market is heavily regulated, and market change has often been driven by changes in regulation or taxation, such as those listed below.

RETAIL DISTRIBUTION REVIEW

RDR took effect on Jan. 1, 2013. In addition to increasing training requirements, this effectively banned commission payments on investment products. As many banks decided that RDR made providing advice to their mass market customers uneconomical, it had a huge effect on bancassurance business models. Although commission was still allowed on protection products, many such sales were previously made on the back of investment products. On reorganizing their sales forces, protection product sales collapsed for many banks.

GENDER DIRECTIVE

The Gender Directive came into force on Jan. 1, 2013, for all European insurance markets. Apart from a few exceptions, such as group risk products, pricing now has to be gender neutral. Life insurance premiums for males reduced modestly, and those for females increased more substantially as insurers were conscious of the increased business mix risk.

At the same time, a new tax system took effect in the United Kingdom. This significantly reduced the tax relief available on expenses for some companies, which is substantial for fully underwritten products. The effect was to balance or outweigh the reduction in male premiums due to the Gender Directive.

In the IFA market, most insurance companies reprice their products several times each year, as they compete to reflect mortality improvements. However, the regulatory changes in 2013 have combined to increase most premiums, making rebroking less attractive. Reported protection sales for 2013 have generally been lower as a result.

MORTGAGE MARKET REVIEW (MMR)

Although already partially implemented, MMR will fully come into force on April 26, 2014. This tightens the process for customers seeking a mortgage and so lengthens the time for such sales. The consequences for protection sales, which are often built into mortgage sales processes, are unclear. It could squeeze time for protection sales out of the process, or an improved customer relationship could lead to increased sales, especially if going through a simplified underwriting process.

UNDERWRITING

Most reinsurers have developed their own underwriting models. These models usually comprise an automated set of rules to determine which customers can be offered standard rates and which should be offered a rated premium or be declined. For most providers, their core proposition is fully underwritten and usually based around their lead reinsurer's underwriting model. Products sold via the IFA market are often akin to preferred life propositions, because of the strength of the underwriting. The strategy for customers who fail the underwriting can range from a sophisticated rating process to a straight decline.

Simplified underwriting propositions exist but are not widespread. They need to be carefully tailored to a suitable distribution opportunity to avoid anti-selection risk. The reduced administration and distribution costs can more than offset the additional risk cost.

SO WHAT'S CHANGING?

AGGREGATOR MARKETS

A common feature of the aggregator market is that customers receive a quote before submitting their health details, so they will potentially be disappointed by subsequent ratings of their premium. Some market operators have tried to address this by proposing a common question set to insurance companies who present their propositions on a particular comparison site. iPipeline, from the American market, as well as reinsurers and other innovative companies have been active in this area, threatening to wrest control of the underwriting process from the established insurers.

DISTRIBUTOR-LED BUSINESS MODELS

New business models are emerging in the wider market, enabling ambitious distributors to take control of their propositions. A distributor partners with a provider and reinsurer to agree on the product design, underwriting process and pricing, both wholesale (reinsurance terms) and retail (customer price). A small or mutual life insurance company, with a life insurance license but no strongly established product or proposition, will typically host the proposition. The model presents a new, more direct route to market for reinsurers, who will take most if not all of the life insurance risk. Propositions can be tailored to a specific distribution opportunity.

For example, an online proposition that is to be competitive on price comparison websites would have a strong underwriting process, potentially resulting in a high proportion of customers being declined. The distributor may or may not choose to develop a refined rating process to cover the maximum amount of customers possible.

This business model offers considerable scope for data and analytics to be leveraged, to both target the product more effectively and reduce costs across the value chain.

PREDICTIVE UNDERWRITING

Distributors who are prepared to utilize "big data" have opportunities to use "predictive underwriting" to select better risks, with an improved propensity to buy, while simplifying the application process.

A distributor with a deep knowledge of its customers, perhaps through a high-quality data asset, has the capability to develop a simple proposition with an easy customer journey. It might target customers who are identified as of a particular socioeconomic class (they might live in a certain area and/or exceed a minimum level of earnings) with a simplified underwriting proposition of one to five questions. By targeting a healthier than average cohort, which can still be expected to remain at or above average after a limited underwriting process, competitive premiums can still be offered. Although the mortality risk would be higher than that of IFA customers, who undertake a thorough underwriting process, there are likely to be savings across other parts of the value chain. Distribution and administration costs are likely to be lower, and by sharing the value chain, all parties have "skin in the game."

REGULATION

Regulation has traditionally served as a barrier to new entrants and has constrained the market from within. Post-RDR, the advice sector has contracted, suggesting that the biggest opportunities might arise from Direct to Customer or redeveloping the advice system. Online audit trails could enable effective regulation of such sales processes and provide some much-needed confidence to regulators and developers of new sales processes. There is potential for applying learning points from innovation in the investment sector of the American market to the U.K. market.

Regulators are encouraging the market to develop simpler products by considering an endorsement scheme for products that meet certain criteria.

PRODUCTS

The simplicity of guaranteed acceptance products with exclusions for pre-existing conditions, often with a limited sum insured, is becoming more popular. There is greater scope to combine such products with predictive underwriting.

Investment/wrap platforms are starting to recognize the complementary benefits of adding protection, whether in a conventional or unitized form. Unitized whole of life products were popular in the 1990s. These were essentially savings plans that applied reviewable charges for mortality or critical illness benefits and could potentially be redeveloped to complement investment platforms.

SUMMARY

Commercial, consumer and regulatory environments are combining to form a fertile breeding ground for much-needed innovation to be brought to the U.K. market. I am optimistic that the market will move forward, through a combination of ambition and trust between all stakeholders. A

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SOA AT WORK

PUBLIC POLICY AND THE GENERAL INSURANCE TRACK

BY SOA EXECUTIVE DIRECTOR GREG HEIDRICH

We are well into 2014 and have a lot going on at the Society of Actuaries (SOA). My focus for this SOA at Work column is our work related to public policy research and our progress made on the new General Insurance track.

PUBLIC POLICY RESEARCH

Why are we getting involved in public policy research? Well, in a sense, we're not doing anything differently at all. We have a long history of conducting certain types of research that are of particular value to policymakers or people working in the public sphere. We have conducted—without a particular design—research projects on topics that have had great public and social significance. A good example is the work we did on the cost of obesity a few years ago. That report garnered a great deal of public attention and the findings were frequently cited in the news.

Another report that received quite a bit of press and policymaker attention, and continues to do so, is the "Cost of the Newly Insured Under the Affordable Care Act." During the consideration of health care reform, we had many members saying, "Actuaries have important information to share on these issues. Our work can contribute to this debate and we can best do it through analysis and research."

That call from members was significant in our decision to add regulators and policymakers to our list of "stakeholders" in our strategic plan. With this addition, we were saying that we owe them something. We were faced with several questions. What does that mean for the SOA? How do we understand what these stakeholders need? How should we implement our plan? To answer these questions, the Board created the Public Policy Strategy Task Force that met throughout 2013 to work out the details. What came out of many hours of work and discussion was the adoption of our public policy research and analysis statement. This statement will guide us as we develop our public policy research capabilities.

President Mark Freedman and Jennifer Gillespie, SOA Board member and chairperson of the Public Policy Strategy Task Force, address this topic in articles in this issue of *The Actuary*. The official Public Policy Research and Analysis Statement is also included. I hope you take the time to learn about the SOA's work in this very important area.

THE GENERAL INSURANCE TRACK

The most important reason we launched the new General Insurance track is that the team working on our international strategy felt strongly that our candidates outside North America, or those who want to work there, needed access to this training. Because general insurance is one of the fastest growing areas of actuarial work, and to meet the needs of our candidates, we decided it was important for the SOA to offer this track.

The SOA has a history of successfully developing specialty tracks. We've created six, incorporated them into the education system, and have grown them over time. I'm amazed at the progress we've made during the last year and a half in the design and development of the pathway. It wasn't an easy project and required a significant amount of work by staff, volunteers and some retained educational professionals. We've literally built this track from the ground up—exams, learning modules, textbooks, marketing programs and other associated materials. We're enormously proud of what we've accomplished so far.

I invite you to read the article in this issue titled, "On Track With General Insurance." SOA Staff Fellow, Stuart Klugman, provides an overall look at this important SOA program, including what motivated us to build the track, how students will benefit, and highlights of the development process.

That wraps it up for my column this time around. If you have questions or comments about the material in my column, or feedback on the articles I reference here, please send them to *theactuary@soa.org*. A

PUBLIC POLICY— THE ROLE OF THE SOA

AN INTERVIEW WITH JENNIFER GILLESPIE

The Society of Actuaries (SOA's) 2013-2016 strategic plan introduces a role in public policy that is more active than in the past with an objective to inform public policy development and public understanding. A task force was created and they provided a report that was adopted by the SOA Board in October 2013. We had an opportunity to interview Jennifer Gillespie, who chaired the task force about that work.

Q: WHY DID THE SOA BOARD APPOINT A TASK FORCE TO CONSIDER ITS ROLE IN PUBLIC POLICY?

A: The SOA was consistently receiving unsolicited feedback from members that actuaries have an important contribution to make to major public and social issues. We have things to say about these issues and ways in which we can contribute to public understanding of these issues. The Board saw that historically a number of SOA research reports have had implications for public policy and were integral to serving policymakers and regulators. Furthermore, the 2013 Strategic Plan formally identified policymakers and regulators as stakeholders, but without defining what that would mean in practice.

Q: WHO WAS ON THIS TASK FORCE?

A: I had the privilege of chairing the Public Policy Strategy Task Force, which included seasoned actuaries from different practice areas, bringing wide-ranging perspectives on SOA research: Mary Bahna-Nolan, Larry Bruning, Jay Bushey, Gordon Enderle, Ian Genno, Steve Goss and Alice Rosenblatt. Mike Boot from the SOA staff was also an important participant. The task force held a face-to-face working meeting and a series of conference calls to wrestle with issues ranging from whether the SOA should do any research in the public policy space to how we ensure high-quality work and careful communication.

Q: WHY DID THE TASK FORCE DECIDE IT WAS IMPORTANT TO HAVE A FORMAL STATEMENT ON PUBLIC POLICY RESEARCH AND ANALYSIS?

A: We recognized the need for a one-page statement introducing the SOA to audiences, beyond actuaries, who would be encountering our research. The SOA increasingly receives questions from a range of audiences about who we are and what is our purpose and intent in producing research. This document, "Appendix I—Society of Actuaries Public Policy Research and Analysis Statement," can address many of those questions and is included on page 30.

Q: HOW DID YOU GO ABOUT CREATING THIS STATEMENT?

A: To get a running start, we reviewed similar statements and best practices of 45 other well-regarded organizations including research organizations, think tanks, other professional organizations, other actuarial organizations, industry trade groups, employers of actuaries, and government organizations. Examples of these organizations included EBRI, the GAO, RAND, CD Howe, Brookings, Pew, the Urban Institute and LIMRA. The group debated which messages were most important to capture. We agreed that what is unique about the

perspective and skills of actuaries and the research from the SOA were the most important elements to convey. The SOA Board also had a chance to discuss and make some changes to the statement.

Q: WHAT ARE SOME OF THE KEY ELEMENTS OF THE PUBLIC POLICY RESEARCH AND ANALYSIS STATEMENT?

A: It is common for organizations to list their principles in such a document, but we thought that the four principles the task force identified should be more prominent. They are foundational to our research efforts, so we describe them in more detail in the document. Actually, the list was originally in alphabetical order, but the task force kept landing on objectivity as a key theme, so it is listed first. Another important message conveyed in this statement is that the point of SOA research is not to take advocacy positions or to lobby specific policy proposals. Rather, its goal is to inform with data and models on topics where actuaries have particular expertise. Other actuarial organizations, such as the Canadian Institute of Actuaries or the American Academy of Actuaries, include these other objectives as part of their mission.

We also can help attract great new talent as more young people desire to be part of a profession that is visible in these societal discussions.

Q: WHAT OPPORTUNITIES ARE CREATED FOR THE SOA AND THE ACTUARIAL PROFESSION BY INVOLVEMENT IN PUBLIC POLICY?

A: Actuaries can contribute to discussions on important societal topics. We can demonstrate expertise and enhance the perception of the actuarial profession. We also can help attract great new talent as more young people desire to be part of a profession that is visible in these societal discussions.

Q: DID THE TASK FORCE MAKE ANY RECOMMENDATIONS ABOUT THE PROCESSES THE SOA SHOULD USE FOR THIS TYPE OF RESEARCH WHEN THERE ARE MANY VOICES TRYING TO DRAW ATTENTION IN A VERY POLARIZED POLITICAL ENVIRONMENT OF PUBLIC POLICY TODAY?

A: The task force made a number of recommendations with regard to how projects should be selected and how the process should work. For example, it is important to choose a topic about which actuaries have special expertise—one which we could contribute to in a timely fashion. If you pick poorly or wait too long, you are irrelevant. We also recognize that research in the public policy and regulatory space may receive extra scrutiny. It is important that we plan about communicating the results before the project even starts. Who will be the researcher? Who will be on the project oversight group (POG)? What concerns do other actuarial organizations or employers of actuaries have? And so on.

Q: HOW DOES SOMEONE STAY INFORMED ABOUT SOA RESEARCH, INCLUDING ITS PUBLIC POLICY RESEARCH?

A: A section of the SOA website is dedicated to research topics. You can check out past research e-newsletters. You can view completed experience studies and other completed research projects. And, you can see information about planned research. Another great way to learn more is to get involved! The SOA always needs qualified volunteers to participate on the POGs. It's an important way to contribute.

APPENDIX I—SOCIETY OF ACTUARIES PUBLIC POLICY RESEARCH AND ANALYSIS STATEMENT

The Society of Actuaries (SOA), formed in 1949, is one of the largest actuarial professional organizations in the world dedicated to serving 24,000 actuarial members and the public in the United States, Canada and worldwide. In line with the SOA Vision Statement, actuaries act as business leaders who develop and use mathematical models to measure and manage risk in support of financial security for individuals, organizations, and the public.

The SOA supports actuaries and advances knowledge through research and education. As part of its work, the SOA seeks to inform public policy development and public understanding, through research. The SOA aspires to be a trusted source of objective, data-driven research and analysis with an actuarial perspective for its members, industry, policymakers, and the public. This distinct perspective comes from the SOA as an association of actuaries, who have a rigorous formal education and direct experience as practitioners as they perform applied research. The SOA also welcomes the opportunity to partner with other organizations in our work where appropriate.

The SOA has a history of working with public policymakers and regulators in developing historical experience studies and projection techniques as well as individual reports on healthcare, retirement, and other topics. The SOA's research is intended to aid the work of policymakers and regulators and follow certain core principles:

OBJECTIVITY The SOA's research informs and provides analysis that can be relied upon by other individuals or organizations involved in public policy discussions. The SOA avoids taking advocacy positions or lobbying specific policy proposals.

QUALITY The SOA aspires to the highest ethical and quality standards in all of its research and analysis. Our research process is overseen by experienced actuaries and non-actuaries from a range of industry sectors and organizations. A rigorous peer-review process ensures the quality and integrity of our work.

RELEVANCE The SOA provides timely research on public policy issues. Our research advances actuarial knowledge while providing critical insights on key policy issues, and thereby provides value to stakeholders and decision makers.

QUANTIFICATION The SOA leverages the diverse skill sets of actuaries to provide research and findings that are driven by the best available data and methods. Actuaries use detailed modeling to analyze financial risk and provide distinct insight and quantification. Further, actuarial standards require transparency and the disclosure of the assumptions and analytic approach underlying the work.

Jennifer Gillespie, FSA, MAAA, is vice president and actuary, Underwriting, at Blue Cross/Blue Shield of Minnesota. She is also a member of the SOA Board of Directors. Gillespie can be reached at *Jennifer_gillespie@bluecrossmn.com.*

ON TRACK WITH GENERAL INSURANCE

BY STUART KLUGMAN

November 2013 saw an important milestone in the development of the Society of Actuaries (SOA's) newest track to fellowship—General Insurance. That month, the full extent of the track curriculum was released. This included availability for registration of the Applications of Statistical Techniques module (specially created for this track) and release of the syllabi for the Financial and Regulatory Environment and Advanced Topics exams (to be given in spring 2014). This makes now a good time to look back on why the SOA Board decided to add this track, examine how well the Board's vision has been realized, and note what remains to be accomplished.

The SOA Board approved the new track at its March 2012 meeting. This was done as part of the Board's ongoing efforts to achieve the SOA's vision to be the leading global provider of actuarial education. Research done at that time, which has continued to be confirmed, indicated that general insurance (also called property/casualty insurance and nonlife insurance, depending on location) is the fastest growing branch of actuarial work, particularly outside the United States and Canada, and that the gap was not being filled by existing actuarial organizations.

A further motivation for the track was that in many parts of the world the distinction between practice areas is not as sharp as in the United States. Employers and those who hire actuarial consultants look for actuaries from an organization that covers the broad range of actuarial work. The SOA has long believed that its members should have basic grounding in all practice areas (general insurance has been part of SOA education for all members for several decades, currently through the Fundamentals of Actuarial Practice course). The addition of the General Insurance track ensures that SOA candidates have an opportunity to specialize according to their interests and goals while being grounded in the full range of actuarial practice.

On Track With General Insurance

THE GENERAL INSURANCE TRACK from the SOA fully equips actuaries with the knowledge, skills and ability to make a positive impact on organizations around the globe. Learn more at *soa.org/general-ins.*

A corollary to having a full spectrum of options is that those seeking an actuarial career can delay their choice of specialization. Prior to the formation of the General Insurance track, candidates who wanted to keep their specialty option open for as long as possible were better off choosing other international actuarial organizations for their actuarial home. Now, SOA candidates can work all the way to their ASA designation without having to make a specialty track decision.

So, the Board's vision was to add a sixth track that would complete the SOA's offerings. How well did we do? A dedicated team of volunteers and staff created the overall structure and content for the track that ensures SOA candidates receive an education comparable in most cases and exceptional in some with regard to that offered by other actuarial organizations. Highlights of the process include the following:

- Hiring a consultant, Terrie Troxel, to lead the effort to construct an introductory exam based on CPCU materials. This exam was administered on Feb. 10, 2014. Troxel is the former president and CEO of the American Institute for Chartered Property Casualty Underwriters and retired professor of insurance (Indiana State University). He also served three terms on the Board of Directors of the American Risk and Insurance Association.

- Created a new text, *Introduction to General Insurance Actuarial Analysis,* authored by Jacqueline Friedland. This is the main text for the Introduction to Ratemaking and Reserving Exam. The exam itself was administered on Oct. 30, 2013. Eleven candidates from a broad geographic area took the exam, with five passing; a result that is consistent with SOA fellowship-level exams.

- Developed a new text, *General Insurance Financial Reporting Topics*, which includes significant educational material for the Financial and Regulatory Environment Exam.

- Released the Applications of Statistical Techniques module. Rather than ask candidates to read about techniques such as using generalized linear models for classification ratemaking, candidates apply the methods to data sets using comprehensive software.

- Hired two staff fellows with more than 40 combined years of general insurance actuarial experience. They play a major role in ensuring that every aspect of the track meets the quality standards expected of SOA education.

A final component in constructing the track has been to ensure that fellows are qualified to practice in general insurance in the United States, Canada and other countries where SOA designations are recognized. The main motivation has been consistency. When a candidate, regardless of location, enters the SOA pathway by taking the preliminary examinations he or she must be confident that when finished the qualification standards will have been met (perhaps with additional local requirements). This goal is being fulfilled in two ways. First, when setting the syllabus, attention is paid to meet the requirements set forth in the United States and Canada. This is true for all of the SOA's tracks that have a product focus and must be true for the general insurance track as well. At the same time, the curriculum contains significant material on international standards.

The second component is seeking formal recognition that our general insurance fellows meet specific qualification standards in several jurisdictions. Those discussions have been taking place since the announcement of the track and the SOA continues to make progress.

As we begin 2014, what remains for the implementation of the track? With the spring exam administration, the complete pathway will be available. It is possible that the first general insurance fellows will receive their FSA by the end of 2014. SOA leadership and staff continue to work with the organizations that set the requirements for qualification.

As we move through the year, more professional development opportunities will also be available with a general insurance focus and during 2014 the SOA's Research Executive Committee will be exploring ways in which the SOA can support research in general insurance.

It is nearly two years since this project began. Great things have been done and we expect that a year from now the SOA's involvement in general insurance will be business as usual. A

Stuart Klugman, FSA, CERA, is a staff fellow, Education, at the Society of Actuaries. He can be reached at *sklugman@soa.org.*

E-COURSES: GROWING YOUR KNOWLEDGE

The SOA is proud to offer 20 e-courses worth more than a combined 80.00 CPD. E-course topics range from professionalism and communication to social insurance and enterprise risk management and can be completed in as little as two hours. Whether you're changing fields, in need of some refreshers or looking to improve your communication skills, get the knowledge you desire by registering for an e-course today. See our full listing at *www.soa.org/ecourses*.

FINANCIAL ECONOMICS: FINANCIAL MATHEMATICS

This e-course focuses on the financial mathematics branch of financial economics. You will learn about derivative securities and options, modeling returns, and option pricing and hedging.

FUNDAMENTALS OF ACTUARIAL PRACTICE (FAP)

This e-course is set in the context of the control cycle. It encompasses real-world applications and uses examples to demonstrate actuarial principles and practices. You will also have opportunities to apply these principles and techniques in traditional and nontraditional actuarial practice areas. With the fundamentals in your toolkit, you will be better prepared to apply your learning to new areas of practice that may emerge during the course of your actuarial career.

HEALTH FOUNDATIONS

The Health Foundations e-course discusses the health care system at a micro level. It begins with an exploration of health care terminology and coding. The module moves on to discuss sources of data with regard to medical treatments and claims experience. The next step is to learn about the administrative systems that bring the data sources together. The module ends with examples illustrating how these elements combine to help provide solutions to actuarial problems.

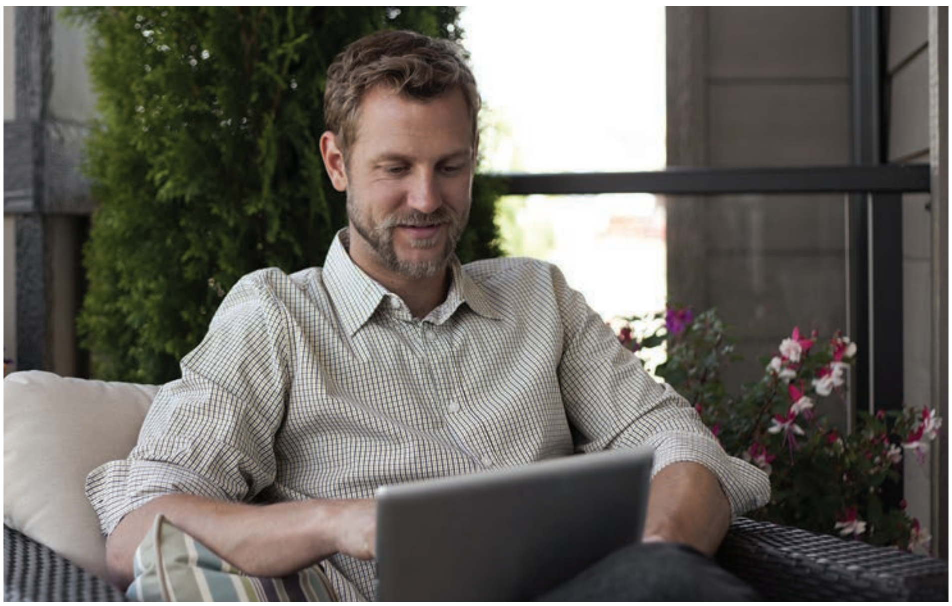
INTEGRATED DECISION-MAKING PROCESS (IDMP)

The Integrated Decision-Making Process (IDMP) provides a foundation for making decisions related to complex business problems that require the involvement of many stakeholders and decision makers. IDMP presents a decision-making process that is specific enough to provide solid guidance when making decisions yet general enough to be applicable in a wide variety of situations.

PRICING, RESERVING AND FORECASTING

This e-course is designed to build upon the information presented in the Design and Pricing (DP) and Company Sponsor Perspective (CSP) examination syllabi and the Health Foundations module in the Group and Health FSA Track. Basic concepts that were presented in the exams will be integrated and expanded upon in this e-course. You will learn practical techniques involved in managing the financial control cycle of a health care company—from trend determination to pricing and reserving to analysis of historical results to forecasting future experience. A

GOOD RESEARCH READS



COMPLETED EXPERIENCE STUDIES

SOA Releases the 2010 CLICE Life and Annuity Expense Study—This study, the 10th in the series, is based on contributions of individual life and annuity expense data received from 13 life insurance companies for their U.S. business.

Variable Annuity Guaranteed Benefit Study—The SOA and LIMRA have published a new study of variable annuity guaranteed benefit options. The analysis was based on 2011 experience and looked at how policyholders use their guaranteed lifetime withdrawal benefit, guaranteed minimum withdrawal benefit, guaranteed minimum accumulation benefit, or guaranteed minimum income benefit options.

2013 Survey of Lapse and Mortality Experience—The latest results from a survey of mortality and lapse assumptions used in the pricing and modeling of level premium term products are now available. This report summarizes the responses of 41 companies and compares the results to a similar survey completed in 2009.

To view a complete listing, visit ***www.soa.org/Research*** and click on Completed Experience Studies.

COMPLETED RESEARCH STUDIES

NEW PBA Implementation Guide Just Released—This new research report offers key considerations an insurer would encounter in making a principle-based framework for determining reserves and risk-based capital (PBA) a reality.

New Report: Issues in Applying Credibility to Group LTD Insurance—This research report examines issues in applying credibility to group long-term disability (LTD) insurance and provides background information on the use of credibility in LTD insurance and its challenges.

SOA Releases New Report: Improving Retirement Outcomes—The Pension Section recently published a report evaluating several of the more common retirement timing and claiming strategies using a retirement simulation model that incorporates investment, inflation, health and long-term care risks.

Natural Resource Sustainability Summary—This paper summarizes the December 2012 Natural Resource Sustainability Summit and outlines many considerations for the SOA on natural resources sustainability and how actuaries might get involved in this area.

Applying Fuzzy Logic to Risk Assessment and Decision Making—This new report explores areas where fuzzy logic models may be applied to improve risk assessment and risk decision making.

To view a complete listing, visit ***www.soa.org/Research*** and click on Completed Research Studies.

Education

GLOBAL CERA: AN INTERNATIONAL SUCCESS STORY

BY STEVE EADIE AND FRANK SABATINI

A LITTLE OVER FOUR YEARS AGO, the Society of Actuaries (SOA) and 14 other actuarial education organizations took the unprecedented step of agreeing to collaborate to develop and administer a new credential in enterprise risk management (ERM), the Chartered Enterprise Risk Analyst (CERA). Prior to this ground-breaking achievement all of the major actuarial education and credentialing organizations had developed their own curricula and assessed their own credentials largely in isolation from each other while being mindful of meeting, and in most cases exceeding, the International Actuarial Association's requirements for accreditation as an educator of Fully Qualified Actuaries.

At times some of the actuarial organizations would agree to update each other on recent curriculum and content changes or the introduction of new forms of assessment, but there had never been a detailed level of scrutiny applied to these updates. Even the SOA and Institute and Faculty of Actuaries' benchmarking project, as comprehensive as it was (and still is), stayed clear of any meaningful comparison of learning outcomes. There had always been an unspoken agreement that each association knew best how to meet the needs of its local stakeholders and that we were all educating and assessing above the minimum standard anyway, so why burden these associations with external review?

That changed in November 2009 when the SOA and 14 other actuarial organizations signed the Global CERA Treaty. The treaty established a framework for cooperation between the organizations to enhance, expand and promote the CERA credential worldwide. The goals were to provide a high-quality education for any candidate wanting to practice in ERM and to accredit successful candidates with the CERA credential so that they may practice within the jurisdiction of any award signatory association. The two major goals of the treaty are the creation of:

- One credential, based on mastery of one set of learning objectives, with accreditation applied on a consistent basis worldwide.
- A new organization (the CERA Global Association, or CGA) dedicated to promoting and administering the CERA credential worldwide.

These are very ambitious goals that have been achieved and continue to be successfully managed. We now have a valid worldwide CERA credential, a world first for the actuarial profession, as well as the infrastructure to support it.

The treaty requires that each association achieve award signatory status to grant the CERA credential to its successful candidates. To achieve award signatory status, each association applied to the CGA Board and had its application thoroughly reviewed by the CGA Review Panel. The Review Panel originally had one representative from each association that signed the treaty, but now it is composed of representatives only from associations that have achieved award signatory status.

The reviews were quite onerous, but very worthwhile. Each award signatory applicant was required to provide the Review Panel with information on their education system relevant to the CERA credential. Applicants are required to demonstrate that they cover the global CERA learning objectives well and that they assess their candidates' performances with the necessary rigor.

The Review Panel learned a lot from these reviews, and this has led to emerging "best practice" for CERA education around the world. Every award signatory has made improvements to its CERA education system as a result of this work, including the SOA.

Responsibilities of the Review Panel also include reviewing each award signatory's education system after award signatory status has been granted. A review is scheduled each year as well as a very thorough triennial review during which the award signatory is subjected to a level of review similar to that required for their initial application.

The Review Panel recently completed a triennial review of the SOA's CERA education pathway. We are pleased to confirm that our pathway was rated very highly in this review. Some parts of our pathway were singled out for recognition by the Review Panel. For example, the case study used for the ERM examination has allowed us to ask better and more appropriate questions at a higher cognitive level on our ERM examination. This is recognized as a definite step forward in ERM education.

We recently adopted a new textbook that was written for candidates pursuing the CERA through another award signatory. The textbook was written to improve this other award signatory's CERA pathway. It is a two-way street because our members are also writing new textbooks that are being adopted by other award signatories. This cooperation is leading to better education for all candidates.

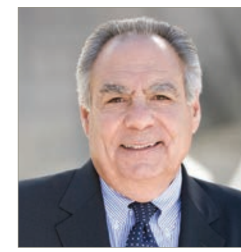
The SOA Education Committee has been able to use what it learned from the Review Panel's work to revise the SOA's existing CERA pathway. Our new CERA pathway has opened up the credential to candidates in all practice areas. The new pathway has produced better coverage of ERM in our Fundamentals of Actuarial Practice course. In addition, it has enhanced the ERM module for all of our candidates and has created a more focused ERM examination. These are all very positive outcomes.

This work has taught us to better assess learning objectives and readings for our other examinations. All of our candidates will benefit from what we have learned. Again, this is a two-way street, as candidates in other associations are also benefiting from our work.

At this point there are 15 global CERA award signatories, who cover all of the major actuarial associations worldwide. New associations are now applying to become part of this process. We have momentum.

It is not all about education and credentialing. The CGA is hard at work promoting the credential. Until recently the focus has been on creating the infrastructure to support a global credential. Now the focus will shift to creating awareness of the global credential among actuaries and the public worldwide and to disseminating ERM content globally. All constituents, especially potential employers, will be getting a consistent message: Hire a CERA; we assure you that they have been properly trained and educated.

Steve Eadie



Frank Sabatini

This is the most important change in educating actuaries that has occurred during our careers as volunteers for the SOA. The treaty has led to worldwide cooperation that has been critical and has fostered the worldwide development of ERM. Most actuaries will work in ERM in the future. Count on it. The best career advice we could give any new candidate would be to make sure you get a good education in ERM and get your CERA as part of that. You can take your CERA anywhere. A

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Section Highlights

LAND THIS PLANE

AS THE BABY BOOMER GENERATION continues to retire, the need to find a way to finance and provide the long-term care (LTC) services they will need is becoming more and more urgent. So far, the solution hasn't been found. Neither consumers nor insurance companies are very interested in private LTC insurance as it currently exists: private LTC insurance has enrolled only about 10 percent of the market, and only about 10 percent of the carriers who were selling LTC insurance 10 years ago still sell it today. The government has been grappling with the issue, first by passing the CLASS Act as part of the Affordable Care Act, and then repealing it and establishing a commission to study the issue as part of the American Taxpayer Relief Act of 2012. The commission's report was published in September of 2013, and although it has some good ideas, it doesn't directly address the funding issues.

The difficulties of the issue seem insurmountable, but the problem isn't going away. Could a diverse panel of LTC experts including actuaries, regulators, marketing and sales leaders, public policy experts, and insurance company executives have a productive conversation and come to a consensus about what America ought to do in order to deal with these issues?

This was the goal of the project "Land This Plane," sponsored by SOA's Long-Term Care Insurance Section and Forecasting and Futurism Section. Using the Delphi method, an expert panel of 45 experts was iteratively asked a series of detailed questions so that they could propose ideas, consider the ideas of the other panel members, reconsider their opinion, and hopefully come to a consensus. The study and subsequent projects will play a key role in the national policy discussion. **A**

Questions or comments can be directed to **Jim Berger,** chairperson of the Long Term Care Insurance Section at *James.Berger@ge.com* or **Alberto Abalo,** chairperson of the Forecasting and Futurism Section at *Alberto.Abalo@oliverwyman.com*.

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