Article from:

International Section News

October 2004 – Issue No. 34

Republic of China Delegates Meet Insurance Actuaries in Chicago

by Tom Herget

Taiwan has experienced tremendous economic growth during the last two decades. Consistent with all affluent societies, economic success is accompanied with increased insurance needs for income protection and accumulation of wealth. In response to growing insurance needs, Taiwan has allowed more domestic insurance companies and foreign insurance companies from the United States, Japan and Western European countries to participate in this market of 22 million people. About 30 life insurance companies currently operate in Taiwan.

Chih Hung Chang, Li Chun Chen and Yu Hwa Wang

In April 2004, a team of delegates from China and Taiwan came to the United States to learn more about the valuation and supervision of insurance companies. On the U.S. side, the visit was coordinated by Shirley Shao of the Prudential Insurance Company of America. Shao, also a Society of Actuaries vice president, arranged four meetings. These were held at the Society of Actuaries offices in Schaumburg, PolySystems in Chicago, the National Association of Insurance Commissioners (NAIC) office in Kansas City and at the NAIC's SVO office in New York.

Members of the Chinese/Taiwanese delegation included:

- Ms. Lih-Jue Shih, section chief, Department of Insurance, Ministry of Finance
- Ms. Li-Chun Chen, staff, Department of Insurance, Ministry of Finance
- Mr. Jacob Liang, division chief, MIS Department, Insurance Institute of the Republic of China
- Mr. Chih-Hung Chang, actuarial analyst, Actuarial Department, Insurance Institute of the Republic of China
- Ms. Yu-Hwa Wang, assistant vice president, Actuarial Department, Nan Shan Life Insurance Company
- Mr. Shih-Nin Low, vice president and actuary, Nan Shan Life Insurance Company and board member of the Actuarial Institute of the Republic of China

This article provides highlights of the two days the group spent in the Chicago area.

Day One

On April 5, the delegation met Larry Gorski at the Society of Actuaries' office in Schaumburg, Illinois. Gorski is an actuary with Claire Thinking, Inc. and is the former chief life actuary for the Illinois Department of Insurance (IDOI). The focus of the meeting was on the NAIC Risk-Based Capital formulas (life and P&C).

The U.S. regulatory RBC is being used in Taiwan as the regulatory standard for required capital and the Chinese/Taiwanese delegation was interested in hearing about and discussing the background behind the development of the RBC formula.

The session started with an overview of the U.S. regulatory framework for life insurers. Gorski presented a history of the life insurer RBC formula, including the significant changes that have been made since the first version became effective in 1992. Questions concerning the way in which the life RBC formula is used by regulators—specifically whether the U.S. regulators had developed a manual that explained how to use the RBC formula—led to a discussion of the NAIC Model RBC Law with its action levels and associated company and regulatory actions. A discussion about the impact of NAIC accounting rules on the RBC formulas followed. Other topics of interest included the interest maintenance reserve (IMR) and the different treatment of common stock in the life formula as compared to the P&C formula.

The mechanism for keeping the life formula up to date focused on the role of the American Academy of Actuaries (AAA) Life Capital Adequacy Subcommittee, and the process for moving a recommendation to an actual formula modification was a topic of much interest. Three major changes to the life RBC formula were talked about at length: introduction of the modeling approach to quantify (C-3) interest rate risk, recognition of the Deferred Tax Assets and Liabilities and the post-tax nature of RBC charges, and, of course, the current project dealing with variable annuity guarantees (C-3 Phase 2). This segued into a discussion of the broad range of input and support provided by the AAA. Gorski shared current AAA Reports dealing with the modeling approach and the Alternative Methodology factors.

During the afternoon, the Chinese/Taiwanese delegation asked questions concerning the requirements imposed by U.S. regulators on stock insurers that market, or have inforce, participating policies. Participants talked about the regulatory framework that exists in Illinois, but Gorski pointed out that the requirements in other jurisdictions may differ.

Bob Meilander, Jay Jaffe, Vincent Tsang, Ted Trenton and Tom Herget

Day Two

The delegates attended a practitioners' forum in Chicago on the second day of their visit. On the agenda were practical issues of the Appointed Actuary concept, United States statutory insurance regulations and solvency monitoring process.

This forum was co-hosted by Tom Herget, executive vice president of PolySystems and SOA Board member, and Vincent Tsang, also of PolySystems. The U.S. practitioners invited to participate were prominent and distinguished actuaries from insurance companies and consulting firms. Their goal was to provide insight and feedback to the delegates from an insurance company perspective.

The U.S. actuaries participating in the meeting were Errol Cramer (Allstate Life), Jay Jaffe (Actuarial Enterprises), Paul Hekman (PolySystems), Cheryl Krueger (CNA), Dan Kunesh (Tillinghast), Don Maves (PolySystems), Bob Meilander (Northwestern Mutual), Ted Trenton (State Farm), and Lone Yee (State Farm).

The members of the Chinese/Taiwanese delegate team expressed their gratitude for the meeting and provided a background on the current Taiwanese insurance market.

From an insurance company perspective, most insurance companies in Taiwan are either very large or very small. There aren't many in the mid-sized range.

Existing inforce insurance contracts are mostly traditional policies. Participating products are becoming increasingly popular. Although there are regulations on the division of profits between shareholders and policyholders, Taiwanese regulators valued insight on monitoring the determination and distribution of divisible surplus for participating business.

To compete for a bigger market share, some foreign insurance companies and smaller domestic insurance companies are offering innovative products such as universal life and unit-linked products embedded with guaranteed minimum death benefit (GMDB) features. As existing Taiwanese insurance regulations are geared toward traditional life policies, members of the delegation questioned the appropriateness of applying existing regulations to these innovative products.

The low interest rate environment is adversely affecting insurance companies in Taiwan. Taiwanese insurance regulators are now focusing on insurance companies' asset-liability management and have introduced the Appointed Actuary requirement to all insurance companies. Due to lack of experience in reviewing reports from Appointed Actuaries, members of the delegation desire input from U.S. regulators and insight from the panel.

The delegation then expressed their specific areas of interest which included:

- The interactions among insurance regulators, SOA and the American Academy of Actuaries (AAA)
- Insurance regulations for participating business
- Reserving for GMDB
- Risk-based capital (RBC) requirements
- Product filing and approval processes
- Auditing
- Electronic datawarehousing for insurance companies

Roles of the SOA and AAA

As a member of the Board of Governors of the Society of Actuaries, Herget talked about the educational, research and professional aspects of the Society. He also covered the Society's

continued on page 10

basic, advanced and continuing education and examination programs, its publications, its research projects and its promotion of high standards for professional performance.

In addition, he explained that the SOA provides opportunities for networking with other actuarial professional organizations (for example, the FCIA of U.K.) around the world. Although SOA members are concentrated in the United States and Canada, many Associates and Fellows are practicing in Asia, Australia, South America and Europe.

Bob Meilander and Errol Cramer explained that the Academy focuses on public policy issues and professionalism. The Academy has formed many working groups (e.g., Variable Annuity Reserve Working Group, Deficiency Reserve Working Group) to work closely with insurance regulators to resolve actuarial issues and to develop insurance regulations for actuarial reserves. Some of the latest achievements

Vincent Tsang, Ted Trenton, Tom Herget, Chih Hung Chang, Chun Chen and Yu Hwa Wang

are the newly adopted Standard nonforfeiture Law for Deferred Annuities, revised Actuarial Guideline 34, Risk-Based Capital Phase I project, etc. If appropriate, members of the Academy provide testimony in congressional hearings regarding insurance industry issues from an actuarial perspective.

To assist actuaries in rendering their professional actuarial services, the Actuarial Standards Board (ASB) of the Academy periodically issues Actuarial Standards of Practice (ASOPs) for the members. These ASOPs are designed to provide high-level guidance rather than prescriptive guidance. However, some regulators prefer the latter. The panel noted that most ASOPs do not address specific laws or regulations.

The timeline for the adoption of a proposed ASOP is approximately two years. The panel emphasized the need for feedback from the industry and other interested parties affected by the proposed ASOP. The existing 41 ASOPs have evolved over two to three decades. Although the current insurance products in Taiwan are not as complicated as the products in the United States, the actuarial profession in Taiwan probably also needs considerable amounts of time to develop its own standards of practice.

The Chinese/Taiwanese delegates wanted specific examples of disciplinary action that have been taken by the Actuarial Board for Counseling and Discipline (ABCD) over the years. The panel did not have detailed information on any specific case, as most resolutions are confidential. The panel did note that most cases of counseling revolved around actuaries accepting assignments outside their province of expertise or by performing substandard actuarial work.

Solvency Monitoring and Actuarial Reserving

Representatives of the U.S. companies provided an overview of their processes for rendering actuarial opinions: a general description of company size and product lines, the staff required, reliance on nonactuarial staff, functions performed, and preparing and filing of the opinion and memorandum (AOM).

The Republic of China's insurance regulators introduced the Appointed Actuary requirement last year. Taiwanese regulators struggle with specifying the appropriate amount of disclosure. The panel indicated that appointed actuaries in the United States generally disclose just the required information. The U.S. practitioners do not want to disclose information that could be used by competitors.

According to the delegation, public accounting firms frequently audit insurance companies in Taiwan. However, the scope of these audits concentrate on compliance with existing laws and regulations and seldom involve risk management and business quality. The panel noted that, in the United States, rating agencies provide a different dimension of oversight and evaluation of company management.

The next discussion topic covered risk characteristics of some U.S. insurance products:

- Variable annuities and equity-based products, once considered to be risk-free to the insurance company, are now embedded with many types of guarantees that are fraught with risk.

- Fixed annuities are subject to disintermediation risk when interest rates increase. Companies may hedge the risk with a combination of product design (e.g., higher surrender charges on new issues), derivatives and selling products with offsetting risk. Most insurance companies are now using dynamic hedging even though it may be costly. Small insurance companies might not have adequate resources to manage the interest rate risk.

- Seasoned fixed annuities with relatively high guaranteed interest rates often generate losses when interest rates stay low for an extended period of time.

- Other discussed products included noncancelable health insurance and long-term care. The former is risky because premiums are guaranteed and are not subject to change even when actual claims are higher than expected. Long-term care policies are risky due to the long-term morbidity risk and lack of experience data.

The Chinese/Taiwanese delegates requested specific examples of companies experiencing or who have experienced financial difficulties. Dan Kunesh of Tillinghast shared his experience in assisting state insurance departments in the supervision of insurance companies that were in financial trouble.

Taiwanese insurance regulators currently utilize some commonly used indices such as IRIS to monitor the financial health of insurance companies. To achieve more in-depth and efficient monitoring, the delegation is also interested in the automation of the audit process.

Participating business

Taiwan's 30 life insurers are all stock companies. Par business is a recent innovation as there are no mutual companies in Taiwan.

Bob Meilander, Ted Trenton and Lone Yee work for two of the largest mutual organizations in the United States and have extensive experience in managing the participating business. Meilander, Trenton and Yee provided a background on the processes for determining and allocating distributable surplus to par policyholders. They discussed how the contribution principle, the three-factor formula, asset shares and experience studies affect the dividend determination process. The panel contrasted the retrospective nature of dividends with the prospective nature of nonguaranteed elements.

It was noted that some (a minority of) companies never change their dividend scales, which may be due to lack of credible data for experience studies. For large mutual companies, dividends are reviewed frequently and are adjusted in accordance with emerging experience. Market competition is also an important factor for determining dividends.

A fair amount of time was devoted to discussing dividend limitations and requirements. A few states such as Illinois, New York and Wisconsin have limitations on allocating participating business' profits to stockholders. These limitations are not significant issues for U.S. stock companies because they generally do not sell participating business. In Taiwan, at least 70 percent of profits attributable to participating business must be paid out as policyholder dividends. In the United States, the Illustration Regulation impacts dividends through the self-support test and the non-lapse supported test.

The panel also highlighted some potential gamesmanship in areas such as allocation of capital gains and losses among participating business. Another area with ample interpretation is the combination of losses on a leading money-losing product with profits on a profitable contract. Such a combination may lower the aggregate profits and hence lower the distributable surplus to policyholders.

A fair amount of time was devoted to discussing dividend limitations and requirements.

The Chinese/Taiwanese delegates indicated that some Taiwanese insurance companies have proposed a new regulation requiring the disclosure of the dividend formula in the life insurance contract. The panel generally disagreed with such a disclosure requirement. In addition, the panel indicated that other nonguaranteed elements should not be subject to much regulation, although some states have restrictions.

continued on page 12

In the United States, there are numerous risk classes for participating products and this refined classification system may lead to additional complications in dividend determination and allocating processes. According to the delegates, standard and nonstandard are the only two risk classes currently available in Taiwanese insurance products. There are no special risk classes based on smoking status.

Risk-Based Capital and GMDB

RBC and GMDBs are two hot regulatory issues in the United States. The panel concentrated on the recent regulatory development of RBC as it relates to the proposed regulation for variable annuities with book guarantees such as GMDB. The primary risk factors for variable products include:

- More complex guaranteed benefits with inadequate risk charges
- Recent adverse experience in the equity market
- Ineffective hedges
- "Dollar-for-dollar" partial withdrawal benefit feature

Cheryl Krueger of CNA described the current insurance regulations of variable annuities. The recent revision of Actuarial Guideline 34 is an example on how insurance companies and insurance regulators worked together to resolve the reserve issue for the "dollar-for-dollar" partial withdrawal benefit feature. Krueger also prepared materials for the delegates to review.

Errol Cramer of Allstate Life discussed the recent development in the variable annuity market. The "dollar-for-dollar" partial withdrawal benefit is no longer offered in new variable annuity products. There are also significant regulatory changes. Under the proposed regulations, reserves and RBC of variable annuities are to be determined using asset adequacy analysis under multiple equity and interest rate scenarios. Reserves are based on the 65 percent conditional tail expectation (CTE) of the accumulated deficiency on a pre-tax basis. RBC, on the other hand, is based on the 90 percent CTE of the accumulated deficiency on an after-tax basis. Companies may incorporate certain hedging assets in setting reserve and RBC levels. Obviously, reserve and RBC levels are good reflections of the underlying risks only if the model offices used for the analysis have reasonably high quality.

Another important consideration for stock companies is the economic surplus because it affects the return on equity. While the perceived margins for reserves and RBC are expected to cover approximately one and two standard deviations of adverse experience, respectively, economic capital may range from three to four standard deviations.

Policy approvals

The Chinese/Taiwanese delegates inquired about the components of actuarial memoranda that were filed with various types of insurance products. The panel described the typical contents of a new product's actuarial memorandum while noting variations among different products. Health products, for example, generally must meet certain required loss ratio standards on an ongoing basis. An actuarial memorandum for a traditional life insurance is relatively simple as the contractual terms are mostly guaranteed except for dividends. UL products, on the other hand, are more complicated as they contain many nonguaranteed elements.

Conclusions

The panel applauded the delegation's initiative in seeking input for effective regulatory apparatus for the growing Taiwanese insurance market. The group appreciated the opportunity to participate in this effort. If the entire day could be summarized into the most important points, the U.S. practitioners hoped the delegation could:

- Promote the actuarial profession as a highly respected and responsible profession in Taiwan
- Set appropriate qualification standards for appointed actuaries addressing regulatory requirements such as actuarial opinion and memorandum
- Become familiar with the senior management of the companies
- Focus on risk management

This task is not easy and the delegates have a stiff challenge ahead. At the end of the two-day visit, all participants were confident that they had assisted the delegation in taking a big step toward designing a sound and viable regulatory system. The panel also felt that the bonds of personal friendship and professional respect that were established have strengthened all. ☐

Tom Herget, FSA, Executive vice president of PolySystems, Inc., in Chicago, Illinois. He can be contacted at: THerget@PolySystems.com.