



SOCIETY OF ACTUARIES

Article from:

International Section News

November 2005 – Issue No. 37

Report on the 2005 Shanghai Insurance and Actuarial Open Forum

by Tong Zhou



The 2005 Insurance and Actuarial Open Forum was held on June 8, 2005 at the Management and Development Center of Fudan University in Shanghai, China. The Forum had two themes: health insurance and the SOA Education Redesign. It intended to address some critical issues of the Chinese health insurance market and the new SOA education structure that many actuarial students and educators in China are now facing.

The Forum was organized by Professor Hanji Shang, Director of AIA-Fudan Actuarial Center, and Tong Zhou. There were 115 attendees representing the China Insurance Regulatory Commission (CIRC), Shanghai Insurance Association, Shanghai Insurance Institute, 19 companies and three universities.

Three VIPs spoke at the opening session: Jingzhi He, Chairwoman of the Shanghai Insurance Association and the 8th and 9th China National People's Congress-woman; Professor Zukang Zheng, Vice President and Dean of the School of Management of Fudan

University and Xueping Ma, deputy commissioner of the CIRC at Shanghai Bureau. Deping Cheng, the General Secretary of Shanghai Insurance Institute, made the closing remarks.

The Health Insurance Market in China

This year the Chinese health insurance sector is experiencing very rapid growth. In the first six months, the health insurance market generated 16 billion RMB (about \$2 billion) in premium income, representing a 17 percent increase over the same period in 2004. Demand for health insurance products remains exceptionally strong.

In 2003, the Development Research Center of the State Council of the People's Republic of China conducted a survey of demand for insurance in 50 metropolitan areas. The survey showed that health insurance was the most desirable coverage. Among the respondents who had plans to purchase insurance policies, 77 percent of them wanted to have health insurance.

David Campbell, a partner of PWC in China, made a presentation on the health insurance market in China. He discussed three factors driving these demands. First, the State is spending less and less on health care. Expenditure is down from 36 percent in 1980 to currently around 10 percent of total health care cost. This means the private sector needs to step in to fill the gap. Second, health care expenditure in China was around 5 percent of GDP in 2002, trailing behind South Korea, which was at 5.9 percent. David expected that it had to grow to the 8 to 9 percent of GDP, which would then be more consistent with France, Germany and Canada. Third, the Chinese economy today depends heavily on export, whereas mature economies depend more on consumer spending. Therefore, it is important to stimulate consumer spending in order to move the Chinese economy away from

export dependency. However, Chinese consumers have a very high propensity to save and worrying about the costs of major health care events is one of the primary reasons for high savings. Private health insurance can be an effective means to encourage consumption and reduce savings.

In his presentation, David also discussed profitability in the Chinese health insurance market. The profit margin for individual accidental was around 6 percent, whereas the margins for group business ranges from 4 percent for accidental coverage to -2 percent for Social Insurance Benefit coverage. The loss ratios of medical insurance in most areas were above 80 percent, and they were above 100 percent in some affluent and highly populated provinces such as Zhejiang, Guangdong, Jiangsu and Liaoning. The keys to controlling risk are market identification, product design, and underwriting and claim control. "The growth rate is tremendous and the opportunity is huge. But the risk is also huge. Health insurance is a great way to lose money as well as to build up a business," said David as he closed his presentation.

The Chinese health insurance industry faces a serious problem in the lack of credible experience data. This point was emphasized by both Jingzhi He and Xueping Ma in their opening speeches. "In the health care field, we don't have sufficient historical experience and data. The raw data we collected in recent years require further research and analysis by the actuaries before they can be used for pricing and regulation," said Jingzhi.

To address the data issue, Associate Professor Rongmin Li of Fudan University presented a study on incidence rates of cancers. The material presented is part of a research project on demography, mortality, critical illness and hospitalization. For sampling purposes, Rongmin collected the data from the Center of Disease Control (CDC) of Yangpu district, which is the largest district of Shanghai with a population of 1.24 million.

While the death records of critical illness kept by the CDC of Yangpu district can be traced back only to 1979, the study still revealed many discernable trends on cancer

incidence rates. For example, the incidence rates of colon and rectum cancers for males have doubled from 1992 to 2000, which Rongmin attributed primarily to changing dietary habits. The speedy social reform and transformation, started in 1979, has resulted in substantial increases of personal wealth and rapid proliferation of western-style fast foods in China. "The distributions of incidence rates of cancers are vital to the pricing and risk management of critical illness insurance. This is because more than half of the so-called critical illness cases are cancers," said Rongmin.

The health insurance sessions continued into the afternoon when Edwin Betz, a senior vice president at the Samsung Fire & Marine in South Korea, presented the pricing and risk management techniques employed in the health insurance field. The speaker began with an overview of health insurance products that are available in the United States, including medical indemnity, disability income, critical illness and long term care insurance. Using disability income as an example, he described various methodologies for pricing insurance products. Each method was introduced as an enhancement of the preceding method. The spreadsheet model used in the presentation was well-received by the audience as Betz received a dozen follow-up e-mails after the forum.

Moving from pricing to in-force management, he described various risk measurements used in the United States and South Korea. The tools that measure insurance risk include interest-adjusted loss ratios and experience studies in the United States, and earnings by source analysis in South Korea. Embedded values and cash flow testing were also discussed as tools for risk management.

Actuarial Education and Profession in China

Prior to the establishment of the first actuarial program at Nankai University in 1987, actuarial education and the profession did not exist in China. There are now 11 graduate-level actuarial science programs at the universities in Anhui, Beijing, Guanzhou, Hunan, Shanghai and Tianjin. The Society of Actuaries

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of China (SAC) was established in 1999 and offers its Fellowship designation upon successful completion of the Chinese actuarial syllabus. In the same year, the CIRC organized the first Chinese actuarial exams that produced 43 Fellows of the SAC. The membership has now grown to 50 Fellows and 164 Associates. The qualification standards, promulgated by the CIRC, for an appointed actuary require Fellowship of the SAC, but also accept Fellowships from the United States (SOA), Britain (IA), Australia (IAA) and France.

There are 12 actuarial exam sites spread across major cities and provinces in China. Eight of the sites are following the U.S. track, two are British and the other two are Japanese. "Among the 47 locally produced FSAs, 20 had graduated from the AIA-Fudan actuarial program," said Zukang Zheng proudly. While the U.S. track is still the most popular designation within the actuarial community in China, many exam takers and educators are very perplexed by incoming changes brought about by the SOA's new Education Redesign. Some educators said that they were confused and were advising students to take either the Chinese or the British tracks.

To help answer their concerns, Tong Zhou made a presentation on the SOA Education Redesign. He discussed the many new features and processes of the 2005 education system and included information about the Enterprise Risk Management track. The presentation received a positive response from the audience with an extensive Q&A session. As China is making fast progress in establishing actuarial standards of practice, accounting rules and insurance regulations, the actuarial education and designation will conceivably have significant long-term business implications, especially for the foreign companies in or planning to enter China.

One obstacle facing Chinese actuarial students is the cost of the exams and seminars. Unlike the situation in North America, actuarial student programs and corporate sponsorships are uncommon in the Chinese insurance industry. Most exam takers (or most likely their

parents) have to bear the costs of exam and study materials.

The chairman of the China Region Committee (CRC), Robert Fok, an actuarial director at PWC in Hong Kong, introduced the mission and initiatives of the CRC. The CRC was established in 1997 to serve the SOA members in Asia. One of the highlights from his presentation are the measures currently undertaken by the CRC to mitigate against the reduction of exam fee discounts. This issue is quite sensitive in China now. "If I have to stop taking the SOA exams for this reason, it will be a loss to both sides," said one of the managers at the Supervision Division of CIRC after the forum.

Some cheerful news from Fok's presentation: Course 7 Seminars are now held in Hong Kong every year; APCs have been offered in China since 2001; and an FAC in Hong Kong will be planned once the demand reaches a certain threshold level. Changes resulting from the Education Redesign will also mean fewer travel requirements for international candidates as Course 7 and the Professional Development component will be eliminated in 2007.

After the open forum, representatives of the CIRC, E&Y, Fudan University, PWC and Shanghai Insurance Institute attended the banquet hosted by Samsung Fire and Marine.

Last, but not least, I would like to thank Professor Hanji Shang once more for his dedication to actuarial education in China. Without his efforts in arranging many thoughtful details for the open forum, it would not have been such a great success. I am also indebted to Pat Kum's help to obtain the PD credits from SOA. □



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