SOCIETY OF ACTUARIES

ISSUE NO. 29

FEBRUARY 2003

INTERNATIONAL NEWS

NEWSLETTER OF THE INTERNATIONAL SECTION

contents

China's Life Insurance Market:
Can The Foreign Entrants Compete?

by Paul Headey, John Law and Carol Zhang

Introduction

Accession to the World Trade Organization "WTO" will further open the China financial services market to multi-national companies. Foreign life insurance companies, which do not yet have operations in China, are considering possible forms of entry to this potentially huge and lucrative market, researching potential partners and developing business models. As background for senior management reviewing various market entry strategies, we consider the following questions:

- How quickly is the market developing?
- What is the market potential?
- How are the existing foreign companies performing?
- What are the main implications of China's accession to the WTO?
- How do different market entry options compare?
- Which are the key issues to consider in establishing a joint venture?
- What is the future outlook for new entrants?

Pace of Market Development

In contrast to some other East Asian insurance markets where regulatory developments and product innovations have been negligible over the past decade, China's life insurance market might be likened to the proverbial hare. Indeed, some believe the pace of change is too fast. It is not that the China market is more developed than others, rather it is involved in a frenetic game of "catch up." In the last 10 years, since individual life agency business was first issued, it has developed more than some other markets have over the last 50 years. During the past three years product design, distribution practices and the ownership structures of some domestic insurers have undertaken dramatic change, as the list of market entrants continues to grow.

The first investment-linked product in China was launched by Ping An in late 1999. Prior to that all business sold had been traditional non-participating business, which was priced in line with current interest rates. Some long-term business sold in the mid-'90s had guaranteed interest rates of 9 percent and higher, although pricing rates for new business had been reduced to 2.5 percent by June 1999 after deposit rates plummeted. The rapid fall in interest rates limited the impact on companies' immature and rapidly growing in-force portfolios by forcing changes in pricing practices, increased risk awareness in the life insurance industry and accelerated the development of new product designs. The China Insurance Regulatory Commission "CIRC," was

Table 1: Long-Term New Business Mix in 2001

Line of Business	% of Business Premium
Traditional Non-Participating	39%
Participating	37%
Investment-Linked	24%

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established in late 1998 to guide the life insurance industry into the modern era.

When participating business was first permitted in March 2000, most companies preferred to develop participating products with cash dividends, subject to minimum surplus distribution rules prescribed by CIRC. Table 1 on the front page shows that participating business has grown to be a major product line in under two years. The proportion of traditional non-participating business can be expected to fall further as more companies move towards participating and investment-linked business. After an initial surge, investment-linked sales have been subject to an almost inevitable slow-down due to concerns about falling stock markets and aggressive selling techniques using optimistic sales illustrations. Despite this adverse publicity, there has been an increase in the number of foreign players launching investment-linked products recently and more are expected to follow. In addition, regulations on sales illustrations are likely to be introduced in the near future, which should result in more professional sales practices.

Tied agency remains the dominant distribution channel for individual life insurance business in China. Several new entrants in Shanghai have experienced problems in developing a successful agency force due to high turnover and poaching of agents, and the lack of well-trained, quality agents in the marketplace. Since 2000 a bancassurance channel has emerged involving exclusive distribution agreements between insurers and individual bank branches. Each branch of a particular bank is free to tie up with a different insurance company. Nevertheless, this resulted in significant sales growth in 2001, and for some companies bancassurance business comprises more than 10 percent of their total premiums. This channel is likely to grow further, particularly as new entrants such as Taiping Life aggressively expand, and the market share of agency business can be expected to decline in time as other channels including broker/IFAs emerge.

The domestic insurers have generally expanded rapidly throughout China while the foreign players have been restricted to a few cities. Although this expansion has been part of a “land-grab” strategy, capitalizing on temporary geographical and business restrictions imposed on foreign companies, it has also exposed the limited capitalization of the domestics, which has allowed some multinationals an alternative route into the market by acquiring equity stakes in national domestic companies. It can be expected that other multinationals will soon follow since the current foreign equity holding in some domestic life insurers is below the maximum permitted of 24.9 percent.

International Section News
Issue No. 29 • February 2003

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Table 2: Life Insurance Premium Income from 1997 to 2001

Year	Premium Income	Growth Rate
1997	7.4	22%
1998	9.0	17%
1999	10.5	17%
2000	12.0	14%
2001	17.2	43%

Table 3: 2001 Life Insurance Premium Income (USD millions)

Company	Individual Business	Group Business	Total Business	Market Share
China Life	7,937.1	1,862.2	9,799.3	57.1%
Ping An	3,828.3	1,003.4	4,831.7	28.1%
China Pacific	1,055.8	674.8	1,730.6	10.1%
New China Life	129.9	149.0	278.9	1.6%
AIA	249.7	-	249.7	1.5%
Taikong Life	90.7	104.3	195.0	1.1%
Manulife-Sinochem	33.2	-	33.2	0.25
ING Pacific-Antai	25.3	-	25.3	0.1%
Citic-Prudential	14.6	-	14.6	0.1%
AXA-Minmetals	7.7	-	7.7	0.0%
Allianz-Dazhong	6.7	-	6.7	0.0%
China Life-CMG	0.8	-	0.8	0.0%
John Hancock-Tianan	0.6	-	0.6	0.0%
Total	**13,380.4**	**3,793.7**	**17,174.1**	**100%**

Market Potential

The China life insurance industry has achieved tremendous growth over the past decade, with a cumulative annual growth rate (CAGR) over 23 percent since 1997. Total insurance premiums are projected to grow at 12 percent per annum for the next five years, and life insurance premium growth is expected to be in the range of 15 percent to 20 percent per annum in this period. In 2001, the total life insurance premium income was over US$ 17 billion (RMB 8.29 to US$ 1) Despite the impressive growth rates, by international standards, the Chinese insurance market remains relatively under-developed and hence still represents a great potential opportunity. In terms of insurance density, measured by insurance premiums as a percentage of GDP, the ratio for China is only 1.8 percent compared to around 6 percent in Taiwan, 9 percent in Japan and 10 percent in South Korea.

Besides the low penetration rate, there are other drivers for this significant growth. The savings rate in China is very high, over 40 percent, compared to approximately 30 percent in Japan and less than 20 percent in the United States. One reason for this phenomenon is the lack of investment vehicles in China. Most people in China keep their money in bank deposits. Even a small portion of the country's total savings could generate a considerable volume of funds flowing into the life insurance market, and with bank deposit rates so low, competition for bank savings is intense. Furthermore, increasing affluence, financial education and awareness of insurance contributes to the continuing growth in life insurance premiums.

Performance Of Foreign Companies

Table 3 above illustrates that the life insurance market continues to be dominated by the

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Table 4: 2001 New Business Premium for Individual Life Business (USD millions)

Company	Premium	Market Share
China Life, Ping An, China Pacific	5,478.2	95.1%
Taikang Life, New China Life	145.7	2.5%
All Foreign Invested Companies	139.0	2.4%
Total	**5,762.8**	**100.0%**

Table 5: 2001 New Business Premium For Individual Life Business In Shanghai (USD millions)

Company	Year of Entry	Premium	Market Share
Ping An	1994	256.7	54.0%
China Life	Pre-1990	69.6	14.6%
China Pacific	1991	58.9	12.4%
AIA-Shanghai	1992	43.5	9.1%
ING Pacific-Antai	1998	20.4	4.3%
Manulife-Sinochem	1996	12.6	2.6%
Allianz-Dazhong	1998	5.6	1.2%
AXA-Minmetals	1999	5.1	1.1%
Taikang Life	2000	1.1	0.2%
New China Life	2001	1.0	0.2%
China Life – CMG	2000	0.7	0.1%
John Hancock-Tianan	2000	0.6	0.1%
Total		**475.8**	**100.0%**

Table 6: Historical Statutory Profits Of Foreign-Invested Life Insurance Companies (USD millions)

Company	1998	1999	2000	Retained Profit 2000 Year End
AIA-Shanghai	(5.2)	(2.3)	(6.8)	(12.5)
AIA-Guangzhou	(3.7)	(2.2)	(3.9)	(14.7)
AIA-Shenzhen	-	(0.1)	(2.1)	(2.2)
Manulife-Sinochem	(5.2)	(4.3)	(4.3)	(17.6)
Allianz-Dazhong	-	(1.1)	(2.4)	(3.5)
ING Pacific-Antai	(0.5)	(3.5)	(5.2)	(9.2)
AXA-Minmetals	-	(3.1)	(4.9)	(8.1)

largest three domestic companies—China Life, Ping An and China Pacific. However, since it shows total premium income in China in 2001 the gap between domestics and foreign-invested companies is exacerbated due to the latter group's inability to operate nationwide, limited business scope (currently individual life only) and the limited period in which the foreign players have been in business.

Table 4 on the previous page focuses on new business premium for individual life business only. It shows that in 2001 the top three companies accounted for 95 percent of total new individual life premiums in China, while the eight foreign-invested companies accounted for around 2.5 percent. AIA, which operated in several cities in 2001, accounted for more than half of the foreign total, since the other foreign players were restricted to one city.

The most relevant statistics when comparing foreign company performance relate to the Shanghai market, since all but one of the foreign players operating at the end of 2001 started business in Shanghai. Table 5 on the previous page illustrates that in aggregate they accounted for around 18 percent of the new premium income in 2001. AIA, the first foreign insurer to enter the market, achieved a 9 percent market share in Shanghai, accounting for almost half of all business sold by foreign-invested life insurers in the city. It is interesting to note that most foreign players sold more individual life business in Shanghai than the domestics Taikang and New China Life, but these two companies operate in many more regions and are active in the group market. It is even more interesting that ING-Pacific Antai, which commenced business in 1998 had the highest market share of any foreign joint venture in 2001, and its new business premiums exceeded the total of the four other joint venture firms that commenced operations between 1998 and 2001. It has recently been reported that ING Pacific-Antai achieved higher sales in April 2002 than AIA and is challenging AIA to be the top foreign life insurer in Shanghai. This can be partly attributed to rapid growth in its agency force to around 7000 agents.

Table 6 on the previous page illustrates the historic post-tax statutory profits of the foreign-invested life insurers. Not surprisingly the new entrants have reported losses due to the startup nature of the business. It is only in 2001 that companies such as AIA and Manulife have reported profits in Shanghai, indicating a six-to 10-year start-up period before breaking even on a statutory basis. This is not out of line with break-even periods in other Asian markets, and inevitably depends heavily on the level of sales growth and the cost structures of the new operations.

Most of the players in Table 6 have either increased or applied to increase the total paid-in capital above the minimum starting level of RMB 200 million (US $24 million). The primary reason for additional capital injections is planned expansion into additional cities and regions. Foreign joint ventures with paid in capital of RMB 500 million (US $60 million) are permitted to operate up to four branches in different regions.

Post-WTO Implications

The Chinese government has agreed to open up the insurance market gradually upon accession to the WTO, which was formally approved on December 11, 2001. There will be no fixed quota on insurance licenses. Foreign-invested life insurers are currently technically permitted to provide services in Shanghai, Guangzhou, Dalian, Shenzhen and Foshan. Within two years, this will be expanded to Beijing, Chengdu, Chongqing, Fuzhou, Suzhou, Xiamen, Ningbo, Shenyang, Wuhan and Tianjin. All geographical restrictions should be lifted on foreign-invested life insurers by December 2004. In fact, in 2002 Sun Life Everbright and AIA commenced business in Tianjin and Beijing respectively, which demonstrates some flexibility to negotiate on a case-by-case basis. Foreign joint ventures would also be allowed to provide group life and pension business from December 2004.

A new regulation, "Administrative Regulations on Foreign-Invested Insurance Companies," was issued in December 2001 and became effective on February 1, 2002. These regulations were promulgated to accommodate the need to open up the insurance market after WTO accession. The regulations stipulate, among other things, the procedures and requirements for establishing a foreign-invested insurance company in China. The major changes are highlighted below:

- Foreign insurers can now apply to establish a foreign-invested insurance company in China if they satisfy the "prudential criteria" specified in the regulations. Previously, foreign insurers would need to get the "green light" from the CIRC before applying for a license. The key prudential criteria can be summarized as follows:

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- o 30 years of insurance industry experience
- o A representative office in China for at least two years
- o At least $5 billion of assets at end of year preceding application
- o Sound insurance regulatory system in country/region where company is located
- o Must meet solvency standards in country/region where company is located.

- An application for establishing a joint venture needs to be signed by both the foreign insurer and the Chinese partner. In other words, the foreign insurer needs to secure a joint venture partner before submitting the application. The foreign insurer can choose its own Chinese partner freely. This is different from past practice whereby an indication from the Chinese government was required before the foreign insurer could actively seek a local partner.

- The application process is now more defined and transparent. CIRC would make a decision within six months after the receipt of the complete application. Also CIRC would provide reasons in case of rejection. There is no mention of any waiting period before the applicant can re-submit the application if the previous application has been turned down.

- Finally, a foreign-invested insurance company may engage in reinsurance business, with limitations specified in the regulations.

The main implications would appear to be a greater urgency on the part of foreign companies to search for and select joint venture partners and more willingness from potential local partners to participate in serious discussions and negotiations. This could result in increased competition for the most attractive candidates, and a less orderly stream of new entrants in coming years, relative to previous years when a select few multinationals were given the "green light" each year.

One area where the "national treatment" WTO principle will not work to foreign-invested companies' advantage is tax equalization. Foreign-invested companies have until now enjoyed tax incentives in the form of a lower rate of enterprise income tax (15 percent) in the special economic zones and other regions, compared to the standard 33 percent rate applied to most domestic companies. Although the details of next year's tax reforms are not yet known, it is expected that in future a uniform tax rate will apply to both new foreign entrants and domestics. Existing foreign players may be hoping to be "grandfathered" so that they maintain their current tax advantage in the future.

Comparison Of Market Entry Options

There are currently two routes for foreign companies to gain access to China's life insurance market—apply for a license as a foreign joint venture or take a minority stake in a domestic insurance company. AIA is the only exception at present and has been permitted to establish wholly foreign-owned branches in several cities, although we understand this will not be permitted after establishing branches in Beijing, Suzhou, Dongguan and Jiangmen. At that time, AIA is expected to have formed form a joint venture company to conduct business in additional cities and provinces, in line with the requirements for all other foreign players.

Under the joint venture approach, a foreign insurer can hold up to 50 percent of the equity of the joint venture company. Most multinational companies have chosen this approach to enter the mainland market although the queue for joint venture licenses remains extremely long. The old application process was considered to be time consuming, uncertain and expensive. One license currently restricts operations to one city but this and other restrictions are scheduled to be eliminated over the next three years under the WTO agreement, as discussed in the previous section.

In October 2001 CIRC approved the applications of four domestic life insurance companies with unrestricted business scope, which, according to regulation, must set up joint ventures with foreign insurers. The four companies are Heng An in Tianjin, Minsheng in Beijing and Dong Fang (Eastern Life) and Sheng Ming (Sino Life) in Shanghai. At this stage, none of these companies have obtained a foreign joint venture partner. One reason often cited for this is that most multinationals prefer a passive partner from outside of the life insurance industry. This is discussed further in the next section.

Some multinational companies such as Winterthur, Zurich and Meiji Life have dipped their toes into the China life insurance market by acquiring minority equity stakes in domestic insurance companies. The insurance regulation limits the foreign equity investments to be less than 25 percent and the investment per foreign investor to be no more than 10 percent. However, a precedent was set when Fortis acquired 24.9 percent of Tai Ping Life in October 2001. In this case, an exemption was granted to allow Fortis to purchase more than 10 percent of Tai Ping Life, which is a domestic life insurer with national business scope.

Why would a multinational consider a minority investment in a domestic Chinese life insurer? Under this structure, the multinational has less management control relative to the joint venture option. However, the Fortis-Tai Ping deal showed that it is possible for the foreign investor to obtain a degree of management control, such as veto powers and rights to appoint senior management, and to be in a position to provide strategic guidance, training and technical support. Furthermore, the foreign insurer would gain immediate access to the national market with no limitations on business scope. This route could be particularly attractive to companies that don't currently meet the "prudential criteria", e.g. less than 30 years' life insurance experience, and therefore do not qualify for a joint venture license. Alternatively it may be a preferred option for multinationals that currently have limited presence and resources in the Greater China region, in that it offers an opportunity to build up local China market experience without the need to play an active management role. Furthermore, it does not necessarily preclude a foreign insurer establishing a separate joint venture company in the future.

It may therefore be of interest to some multinationals to know that the four new domestic companies referred to above might yet be permitted to seek foreign minority equity investment rather than form joint venture companies. This, however, has not been confirmed and would require high-level Government approval.

Valuation and due diligence are significant challenges for foreign investors considering a minority equity stake. Whether the domestic company is a greenfield or relatively new start-up or an established player with significant guarantees in its inforce portfolio, the main component of value will very likely be future business value. In a relatively new and rapidly developing market such as China, the valuation of future business is particularly subjective. Nevertheless, this has not prevented multinationals from paying substantial sums as summarized in Table 7 below, which shows the acquired stake and purchase price in recent transactions.

In May 2002, ACE Limited acquired 22 percent of Huatai Insurance, a national, domestic property and casualty insurer. We have included it in Table 7, since it is the largest stake acquired by a single foreign investor in an existing domestic insurance company (Tai Ping was a start-up) and would appear to indicate that a similar stake might be achievable in one of the domestic life insurers that do not currently have a foreign equity stake.

Key Issues To Consider In A Joint-Venture

There are many issues a foreign insurer needs to consider prior to establishing a joint venture life insurance company in China. Some key issues are briefly discussed here.

- **Joint Venture Partner**
  The most important issue in any joint venture is to find the right partner. Table 8 on page 8 shows a list of Chinese partners for existing and future foreign joint venture companies. It is interesting to see that several partners outside of the financial

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Table 7: Foreign Insurers' Minority Investment in Domestic Insurance Companies

Domestic Company	Foreign Insurer	Transaction Year	Purchase Share	Price (USD million)
Taikang	Winterthur	2000	10%	74
New China	Zurich	2001	10%	39
New China	Meiji Life	2001	4.5%	17
Tai Ping	Fortis	2001	24.9%	88
Huatai	ACE	2002	22%	150

Table 8: Foreign Joint Venture Life Insurance Companies

Foreign Insurer	Year of Est.	Chinese Partner	Industry Sector	Location
Manulife	1996	Sino-chem	Import/Export Trade	Shanghai
Allianz	1998	Dazhong	Non-Life Insurance	Shanghai
ING Aetna	1998	China Pacific	Life iNsurance	Shanghai
AXA	1999	Minmetal	Import/Export Trade	Shanghai
CMG	2000	China Life	Life Insurance	Shanghai
Prudential UK	2000	CITIC	Financial	Guangzhou
John Hancock	2001	Tian An	Non-Life Insurance	Shanghai
Sun Life	2002	Everbright	Financial	Tianjin
Generali	2002	China National Petroleum	Energy	Guangzhou
CGNU	N/A	COFCO	Import/Export Trade	Guangzhou
New York Life	N/A	Haierr	Manufacturer	Shanghai
ING	N/A	Beijing Capital Group	Financial	Dalian
Aegon	N/A	CNOOC	Energy	Shanghai
CNP	N/A	To be announced	-	Shanghai
Met Life	N/A	To be announced	-	Shanghai
Nippon Life	N/A	To be announced	-	Shanghai

Table 9: Statistics in Major Cities At The End of 2001 (USD billions)

City/Province	GDP	Number of Life Insurers	Premium Income	Insurance Density
Shanghai	60	12	1.7	2.8%
Beijing	34	5	1.2	3.7%
Guangzhou	32	7	0.7	2.3%
Shenzhen	24	4	0.3	1.4%
Tianjin	22	5	0.3	1.4%

services industry were selected. The current regulation does not permit banks or securities firms to have equity investment in an insurance company and this limits the universe of possible partners. A Chinese partner in the financial services sector can contribute in terms of local connections and financial expertise, brand name and distribution. Potential synergies can also be achieved by partnering with companies outside the financial services sectors but with a significant retail distribution component such as Haier, a household appliance enterprise.

While many foreign insurers appear to prefer a passive partner without life insurance experience, it is interesting that ING Pacific Antai—the fastest growing foreign-invested life insurer in Shanghai—is a joint venture between ING (previously Aetna) and China Pacific. The fact that both partners are from the life insurance industry does not appear to be impeding progress; more likely it has helped communication between partners and facilitated mutual learning. However, an ironic legacy of the pre-Aetna era is that ING has taken a 2nd partner, Beijing Capital Group, in Dalian. This raises questions as to how a multinational with multiple JV partners should expand into new regions, and how to deal with the conflicts this could create. ING is the precedent; it will be interesting to see if other foreign players follow suit, voluntarily or involuntarily.

- **Location**
  Shanghai and Guangzhou are currently the two most competitive cities for foreign-invested companies. As other cities open, foreign insurers entering China need to

select the location of their new ventures carefully based on economic and industry specific factors as well as company specific business strategies. Table 9 on page 8 shows that even for the more developed cities there is significant variation in economic activity and the level of insurance competition. Most companies are expected to adopt a geographic roll-out strategy starting in the more developed cities with higher wealth levels before expanding into less developed areas.

It is clear from Table 8 that Shanghai is still the first choice city for foreign entrants, although Manulife, ING and AXA will soon open their second branches in Guangzhou, which will reinforce it as the number two city for foreign life insurers. However, Table 9 shows that despite the lack of foreign participation, Beijing is the number two city for premium income and has a higher insurance density than Shanghai.

- **Corporate Culture and Management Control**
  Many joint ventures are experiencing growing pains due to the clash of two sets of corporate cultures and philosophies. It is common to share equally the seats in the supervisory board and executive committee between the two partners in a 50-50 joint venture. In such a venture, a dichotomy of views on both sides without an integrated management structure could significantly delay the decision-making process and detract from financial performance. Therefore, finding a partner with a similar culture and developing a clear decision-making hierarchy are both crucial to the success of the joint venture.

- **Expertise or Knowledge Transfer**
  Since the foreign insurer would typically have in-house expertise in areas such as product development and system infrastructure, the Chinese partner may expect the multinational company to contribute significantly in these areas. This may result in drawing resources from other operations in the Asian region. In many cases, the foreign partner has its own in-house administration systems, and it may be decided to install these systems in the China joint venture. One issue for consideration is whether this service and other expertise will be fully charged to the joint venture, or effectively subsidized by the multinational partner.

Future Outlook for New Entrants

We believe some of the key management issues and success factors for new entrants in China can be characterized as follows:

- Distribution Strategy – undoubtedly some companies will build successful agency forces as they have done in other East Asian markets, e.g., AIA, Manulife, ING/Aetna and Prudential UK, and these companies have all achieved initial success in China. However, it is unlikely in our opinion, that foreign entrants without a strong track record for agency distribution in the region will achieve success through a “me too” approach. These companies may be better served by exploring alternative, emerging distribution channels, e.g., bancassurance, which are currently not being fully exploited by the successful agency companies.

- Product Sophistication – while it has been argued that the market is not yet ready for more sophisticated products such as investment-linked savings plans, this is only partly true. There is a well-educated, financially-sophisticated middle class emerging, and it is not too soon to be targeting these customers. More to the point is that the average agent does not have the training nor education to sell the more sophisticated products in a professional manner, so this is perhaps more of an artificially imposed business model limitation rather than an absolute constraint. The undeveloped nature of China’s capital markets and limited long-term investment opportunities is another barrier to be overcome for insurers moving up the product sophistication spectrum. However, given the pace of change and continuing easing of regulatory restrictions, these obstacles should not be insurmountable to multinational organizations commencing business in the next two to three years.

- Management Quality – the need for top quality senior management is frequently paid “lip service” but not always achieved in practice. The importance of Putonghua language skills, and the lack of experienced local managers, limits the potential pool of recruits in China to a greater extent than in other Asian markets. This will inevitably be exacerbated as more companies enter the

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market, and the demand for experienced expatriate staff will likely continue for at least five to ten years given the anticipated pace of expansion. Companies trying to limit costs in the early years of operation by sacrificing management quality, risk incurring a far greater "opportunity cost."

- Commitment to China – it would appear that some foreign insurers have joined the queue for a China license more as a formality rather than as a demonstration of serious commitment to the China market. Recently Swiss Life and Tower Life reviewed their global strategies and decided to withdraw from China before they had even commenced operations, in order to focus management resources elsewhere. While some might question the rationale of these decisions following years of funding representative offices and other investments in China, this strategy could be considered superior to a half-hearted market entry attempt, with inadequate resourcing and lack of management focus. The most successful foreign entrants to date have strong regional teams and typically provide support from a regional office based in Hong Kong.

- Differentiation – the limitations of the "me too" approach are evident in Shanghai where new entrants have struggled in a competitive market, in which most players sell similar products to the same customers through the same channels. With such a lack of differentiation it is not surprising that staff and agents have high job mobility from competitor to competitor, and turnover rates are high. The most obvious way to differentiate is by geographical location and several recent new entrants have favored Guangzhou, in addition to foreign companies moving to Beijing, Dalian and Tianjin. Furthermore, in Shanghai, and other markets experiencing greater competition, we expect to see higher levels of innovation, differentiation by branding, and a trend towards specialization in certain business lines or alternative forms of distribution. One potential example is the group pension savings market, which is believed to have enormous potential following the China pension market reforms, and we expect some of the future foreign entrants will aim to specialize in this area after 2004. The winners will ultimately be the leaders in their fields, rather than the followers.

- Partner Synergies – joint ventures around the world have a notoriously bad track record, and many partnerships are short-lived. The most successful joint ventures in China will combine technical expertise and management experience of the foreign partner, with the local know-how, connections and possibly distribution outlets of the local partner. Furthermore, both partners will share the same long-term vision. The result should be a single integrated entity that exhibits the reputation and financial strength of a top-class international organization with the domestic appeal and public relations skills of a leading local company. This is very difficult to achieve in practice, and instead the inertia and stagnation arising from political infighting and internal competition between joint venture partners can be the unfortunate outcome of a hastily conceived and poorly executed joint venture partner selection process. Happily, there have been some success stories already and we believe there will be more in future.

Going forward, we believe there are real opportunities for significant, profitable operations for both foreign and domestic companies. At the same time, there are real risks and challenges that should not be underestimated. The new entrants with no track record nor critical mass are most exposed to the risk of underperformance, yet are also in a strong position to develop and implement a successful strategy based on comprehensive research and strategic analysis of the market opportunities, while free of the legacies of outdated business models and systems. ☐

** This article was originally published in the Milliman Global Newsletter, August, 2002.*

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Editor's Note:

Looking Ahead...

by Randy Makin

When I first came from an academic background into actuarial work twenty years ago (hard to believe now), I had the impression of stepping from a broad field of mathematics into a much narrower one. I remember through the exam-taking period the distinct illusion, or delusion, that somehow there was the possibility of mastering the whole field, of being able to take it all in. Experience has not necessarily rendered me wiser in all matters, but I do realize now that no-one can take in the whole of actuarial work, perhaps not even in one's own specialty, be it health, pensions, life or casualty. Actuarial knowledge simply continues to expand too quickly for that. Thus, there is the need for the various actuarial publications—so that we can share that knowledge with one another. Some is immediately useful, some is interesting for its own sake, and some is filed away for later use. We offer the *International Section News* as one of many to fill that need for our readers.

In this issue, Paul Headley, John Law and Carol Zhang have written an article on how foreign insurers are faring in the gradually-opening Chinese Market. In a nearby market, Frank Buck addresses handling pre-need plans in the Philippines under U.S. GAAP accounting. As the insurance markets grow in the Eastern European and Central Asian economies, so does the actuarial profession, and we have two articles from this region. One, by Michael Cohen, discusses pension reform in that part of the world; the other, by Marina Adelsky, tells about a recent seminar in Estonia for the benefit of actuaries in all three of the Baltic republics.

There are other ways besides the publications to help one another learn. Jim Toole writes about a special Latin American Committee breakfast at the ICA meeting last spring, and Shumei Kuo outlines the results of the recent Fair Value Webcast, as well as webcasts in general. Lisa Kuklinski-Ramirez has some remarks about the very entertaining International Section reception at the Boston SOA meeting. We also include the minutes from July's Section Council Meeting, a note from Mike Kaster of the SOA on how Practice Areas are working together with the sections, and Shumei Kuo's Chairperson's Corner.

Since we had too few articles for a fall newsletter, I want to take this time now to congratulate the new members of the Section Council on their election—Paul Sauve of Manulife Reinsurance, Germany, Carl Khor of AEGON and Marc Slutzky of Milliman USA. Thanks, too, to the retiring members who have worked so hard the past three years—Hans Wagner, Hubert Mueller and Lisa Kuklinski-Ramirez. You have all three been a tremendous help and encouragement to me, as well as the other section members. As we have said many times before, be sure to stay in touch with your Section Council representatives, and let them know any way in which they can help you do your job better. And feel free to contribute articles to help us all learn together. ☐

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"No Tax on Tea!"

BOSTON, Massachusetts, Oct. 29—This was the decision when International Section members and friends gathered at the Old South Meeting House.

The Old South Meeting House was built in 1729 as a Puritan meeting house. As the largest building in colonial Boston, Old South Meeting House was the site of lively public meetings, as well as a place for religious services. The most notable event in its long history occurred in 1773, when over 5,000 colonists crowded in and debated the controversial tea tax, and started a revolution with the Boston Tea Party. The second most notable event occurred in October 2002, when it hosted the International Section Reception at the Boston Annual Meeting.

In addition to networking, noshing and quaffing Sam Adams, International Section attendees had the opportunity to sit in the pews, take on the roles of Patriots and Loyalists and recreate the fiery tea tax debate. This role-play provided a somewhat unexpected turn of events for the evening, but everyone good-naturedly participated. In fact, some folks got quite caught up in the debate. In the ensuing discussion, protests were also voiced against premium taxes and deficiency reserves.

Thanks to everyone who organized and participated, making this a memorable evening for all! ☐

Chairperson's Corner

by Shumei R. Kuo

At the SOA 2002 Annual Meeting in Boston, a group of 40 people including myself gathered at the Old South Meeting House for the International Section Reception. After a day at the meeting sessions, we were ready to relax a little, network some and watch an act about the tea tax debate that took place in this very location in 1729. Within minutes of arrival, we were advised that instead of watching the act, we would be the ones acting and debating (this explained why the section subsidy for the reception was not as big as budgeted). After some nice food, wine and conversations, we actors assembled in the middle of the House. With prompt cards on hand and help from a facilitator, we not only reenacted a passionate debate but also enjoyed many dramatic, witty and sometimes humorous performances from the group. On the bus ride back to the hotel, the spirits were high from the feeling of accomplishment and good company. If we had had more Samuel Adams at the reception, we could have been singing!

The rapidly growing market and increasing number of members in the market have made the international issues one of the top three priorities of the Board of the Society in the coming year.

Does this incidence at the South Meeting House remind you of some of your international experiences? Have you ever discovered what the real mission is only when you are on location? The special challenges and rewards of our work were highlighted in the annual meeting session "The Life and Times of International Actuaries: Opportunities at Home and Abroad". During the session, our speakers provided a vivid and insightful account of their experiences to which we can relate. They also provided much advice. I find some of it very useful in my current job and wish I had learned about the others before finishing my expatriate assignment in Brazil a couple of years ago. Perhaps one Chinese saying can summarize this session: "Yi Dai Jien Quan Chung Boo Whei" which is roughly translated to "There is no regret whatsoever though the waistline of my clothes is getting bigger" (as a metaphor, of course). I think we gain a lot out of our work being in the international market as it is more than just a professional experience—it is a life experience.

During the annual SOA meeting in Boston, I met with many of you and talked about practicing in the international market. Facing the challenge of managing risks in environments with various insurance laws and accounting practices, unique insurance risks and products, diverse consumer behavior and social values, fascinating cultures and languages, international actuaries are thriving in this fast-expanding marketplace. The rich experience of our members makes the section a very stimulating and energetic place to learn and to network. The rapidly growing market and increasing number of members in the market have made the international issues one of the top three priorities of the Board of the Society in the coming year. Never before have there been this many actuaries conducting business all around the world and the Society membership growth rate outside of North America is at the record high (mainly driven by the growth in Asia).

With the market growth there is an increasing need for your participation in the section matters. Your contribution will be the most welcome, whether it be writing an article for the section newsletter, participating—a section session in a Society meeting or giving ideas of continuing education topics. Speaking of continuing education, the section has delivered its first two Webcasts in 2002, both cosponsored with the Financial Reporting Section—"International Accounting Standards" and "International Expansion." Webcasts are a new format that enables us to provide a live program followed by replays so members in any time zone would find it convenient to join in a two-hour presentation. More than one person can participate from each location so it is very cost effective. The business equipment requirement is minimum. The presentation comes through the Internet and you listen through a phone (for live program) or from your PC (for replays). Webcast is interactive. You receive the materials ahead of time via e-mail so you can review it in advance and make notes. The presenters take questions during the live broadcast and address any additional questions posted on the Web for 10 days after the program. Webcasts truly answer the continuing education need of our geographically widespread and always on-the-move membership. Please watch for future Webcast announcements and do not hesitate to try it out yourself.

This is the start of a new year for the section and I'd like to take the opportunity to thank the retiring Council members Lisa Kuklinski-Ramirez, Hubert Mueller and Hans Wagner for their three years on the Council. The Section benefited tremendously from their contributions. We will continue to take advantage of their experience and expertise as we involve them and other retired Council members in section matters. I'd also like to present the current Council members. Please contact any of us for topics that you're interested in hearing more about or sharing with other members, or any comments you may have about how the Council may better serve our members. We look forward to hearing from you. ☐

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SOA Latin American Committee Breakfast

by Jim Toole

The SOA Latin America Committee (LAC) took advantage of the ICA in Cancun to host an informal breakfast with the many representatives in attendance from the region. Invitations were sent to educators, regulators and businessmen from throughout Latin America, as well as interested parties from the SOA. Over 30 people responded positively to the opportunity to learn more about the SOA and the role of the LAC in the region.

The breakfast was beautifully presented and went very smoothly, thanks to the efforts of Martha Sikaras, SOA manager of global initiatives and Michael Braunstein, LAC committee member. Over 30 people attended from ten countries distributed throughout North, South and the interstices of Central America. SOA representatives included past president Rob Brown and president elect Harry Panjer, along with VP Stuart Klugman, board members Ed Robbins and Warren Luckner, and Randy Makin, long-time editor of the International Section newsletter.

After 30 minutes of coffee and conversation, everyone sat down for breakfast and 45 minutes of content. Jim Toole, LAC chair, welcomed the gathering and reiterated the committee's focus on education and research. The committee has been successful in promoting the exams in the region in its inaugural two years, and is eager to serve as a resource on research projects in the future, in roles ranging from peer review to partnership.

Attendees were invited to the Pan American Congress September 11–13 in Buenos Aires, and two members of the organizing committee were introduced: Eduardo Melinski and Simon Groel. LAC participation in the conference, along with tentative plans for having a Course One seminar in conjunction with the congress, is being coordinated by LAC committee member Josh Bank.

Michael Braunstein then gave an animated talk about the wealth of experiences that being a member of the SOA has afforded him, and how many doors are opened through membership in the SOA. Warren Luckner discussed the two Course One seminars that he has taught on behalf of the LAC, one in Puebla at Universidad de Las Americas (UDLA) and the other in Mexico City at Instituto Tecnológico Autónomo de México (ITAM). Warren is currently a professor at Benedictine University, and some of the challenges of teaching an exam prep course across cultures were highlighted.

Martha Sikaras introduced herself as a contact within the SOA for the Latin American actuarial community and gave a presentation (in Spanish!) summarizing the many projects she is involved in and the services she provides in her role as manager of global iniatives. Rob Brown batted clean up with a few words about the University of Waterloo's relationships with universities abroad (including ITAM in Mexico City) and the possible convergence of the worldwide actuarial education process in the years to come.

Questions in a brief follow-up session ranged from technical aspects of taking the exams (such as establishing an exam center) to when the exams might be available in Spanish. Surely the greatest benefit of the breakfast came from spreading the word that the SOA is proactively seeking to serve the needs of the actuarial profession in the region, and that there are people in the SOA who speak their language, literally and figuratively. ☐

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Professional Development Options for Candidates Residing Abroad

The Society of Actuaries staff and volunteers involved with the Education & Examination system are cognizant of the difficulties faced by some candidates, who reside outside Canada and the U.S., in obtaining the requisite number of Professional Development (PD) credits. The PD component of our education system was implemented with the 2000 exam system redesign. The intent of this element of our education system is to offer a mechanism by which candidates could participate in seminars and other learning experiences directed at nation and practice-specific subjects. Candidates are required to earn 50 PD units within a 25-month period for their Fellowship designation. Fifteen of those 50 credits come from an independent research project. The remaining 35 credits must be earned through a variety of mechanisms. This article will focus on those mechanisms best suited for candidates outside the U.S. and Canada, who may not have a regular opportunity to travel to North America to attend SOA or CIA meetings.

One alternative is an examination-validated option such as successfully passing a second Course 8 examination; earning the FCAS or Fellow of the Casualty Actuarial Society designation; completing the examinations for the Chartered Account (CA), Chartered Financial Analyst (CFA) or Chartered Life Underwriter (CLU) designations. The units earned for such work range from five to 25 units of PD credit. A complete list of examination-validated options and the credits that they are worth is available at http://www.soa.org/eande/values.html.

Candidates working toward a Master's or Ph.D. degree may be able to apply their work towards PD credit. Credits earned range from 10 to 25 PD units. Additional details on the requirements for this option are available at http://www.soa.org/eande/theses.html.

Your own employers may be offering programs that are eligible for PD credit. For example, programs that are technical in nature and relevant to one of the following recognized areas of practice: life insurance, retirement benefits, health benefits, finance or investment may be eligible. Focused expert presentations on actuarial topics that go beyond what is covered in the examination syllabus are appropriate for SOA program accreditation. These topics include regulatory environment and legislation, emerging products and markets and advanced technical theory and application. Programs on general management issues, communication skills or other non-technical subjects are not eligible.

Candidates may also use SOA distance learning programs, such as audiotapes and web-based training programs, in their Professional Development plan. For an additional $125 US over the cost of PD plan filing fee, candidates will be registered in the distance learning subscription and may receive up to 15 units toward completion of their PD plans from SOA Spring Meeting, Annual Meeting and Valuation Actuary session audiotapes and SOA Virtual Campus courses. The subscription saves candidates $725 over the separate purchase of these assets. A subscription will give the candidate an opportunity to purchase up to 10 audio cassettes from a large selection on a variety of topics as well as registration for the SOA's virtual campus.

Candidates should also join their local actuarial clubs and organizations. These groups frequently support local area seminars and lectures that may be eligible for PD credit. For example, the SOA's China Region Committee has successfully created a roving seminar program offered in the summer in major Asian markets such as Hong Kong, Taipei, Tokyo and Kuala Lumpur. Speakers from North America, Europe and Asia are recruited to speak on key topics such as product development, risk management and other issues. Critical to the success of this seminar program has been the involvement of local clubs to promote and support the event. Candidates should urge local club organizers to contact the SOA in advance in order to secure PD credit approval.

The staff at the Society of Actuaries is here to help those candidates find suitable PD programs. Questions on the Professional Development component including employer program accreditation from the SOA may be addressed to pdcomments@soa.org. ☐

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Life Insurance Seminar in Estonia

Can you point out the Estonian Republic on the map of Europe? Recently, the Estonian Actuarial Society invited me to prepare a course on Life Insurance for actuaries from the Baltic Republics. Even though at the time I could find Estonia on a map, as I began preparing to head over there, I did not fully know what to expect. Did the country retain economic dependence on Russia? Are there the same unexplainable laws and rules that still slow down the economic progress in Russia? Corruption? Theft?

My observations and my conversations with Estonian actuaries convinced me that Estonia and the other Baltic republics (Latvia and Lithuania) became fully independent from Russia and should be ready by 2004, as planned, to become members of the European Union. The actuaries in these countries are technically strong professionals committed to performing their work with pride and integrity. I enjoyed being there and hope that the seminar was helpful to the development and growth of the actuarial profession in Estonia, Latvia and Lithuania.

From November 4-8, 2002 35 participants threw themselves wholeheartedly into the seminar, which took place in Tallinn, the capital city of Estonia. They worked hard through the six hours of classes for the first four days. (from 9 a.m. to 4 p.m. every day, Monday-Thursday.) On the last day, Friday, I explained the objectives and structure of the take-home exams. Participants discussed in groups the outlines and analysis needed to complete the exam, and we discussed the outlines as a group. Finally, I distributed three topics and gave participants a chance to discuss all three and choose one for their take home assignment. They will be sent to me by the end of November, and, actually, started coming already. When will I get the time to read them and comment on them?

The topics covered in the seminar were:

- Pricing
- Risk Based Capital
- Financial Reporting (U.S. Statutory, U.S. GAAP and IAS) and Respective Authorities
- Role of Actuary in Financial Reporting Process, Actuarial Standards of Practice and Ethical Standards
- Solvency Framework and Asset Adequacy Testing
- U.S. GAAP—Actuarial Issues in FAS 60, FAS 97 and FAS 120
- IAS—Actuarial Issues
- Actuary and Auditor

The scope of the course was coordinated with Tarmo Koll, the president of the Estonian Actuarial Society and his associates. The choice of topics seemed to be appropriate except maybe, US GAAP, which had a purely educational value for the participants. It was very rewarding for me to see that the participants were interested in the standards of practice and code of professional conduct, as I consider them cornerstones of our profession worldwide. It took me a fairly long time to prepare for the course, and I consider this time well spent. I heard it many times before, and I am convinced that it is true: you learn a lot about the things you know well already while you prepare to explain them to others.

Although we all worked pretty hard in class, we had time to talk to each other after classes, share experiences and have fun! We went out to dinner twice, once with a smaller group of participants, once with all participants in attendance. The second dinner was sponsored by the Estonian Actuarial Society. Before dinner some participants and I went on a tour of Tallinn led by a professional guide (who happened to be the husband of Marika Guralnik, an Estonian actuary). Although I was in Tallinn as a tourist many times before, I learned many new things about the history of Tallinn, both ancient and more recent. It is a beautiful, very well preserved medieval city, full of hilly narrow streets, gothic churches, courtyards and charming cafés and restaurants. The feeling of camaraderie and friendship between the Estonian, Latvian and Lithuanian actuaries and myself gave the tour and dinner a very pleasant flavour and, together with a good teaching opportunity, made my stay in Tallinn a very rewarding experience.

I am very grateful to the Society of Actuaries for sponsoring my flight to Estonia, to the Estonian Actuarial Society (and personally to Tarmo Koll) for efficiently organizing the seminar and my stay in Tallinn and to my company, PricewaterhouseCoopers LLP, for allowing me to take the time off work during our busy season to contribute to the development of the actuarial profession in the Baltic Republics. ☐

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Adopting U.S. GAAP Accounting for Pre-Need Plans

by Frank J. Buck

Introduction

Significant amounts of pre-need plans are sold in the Philippines. The benefits are designed to meet a number of known future events such as education fees, memorial benefits and payments upon retirement. In return for premiums paid, benefits are guaranteed. In some cases, inflationary increases are covered as well. Surrender values may be available for early terminations. The benefits payable on early death are, in general, modest.

This paper discusses approaches for reporting pre-need plans under the generally accepted accounting principles of the United States "U.S. GAAP."

Background

A pre-need contract, as defined in the pre-need regulations, is "a contract which provides for the payment and/or performance of future service(s) or monetary considerations at the time of actual need, payable in cash or installment by plan holders at stated prices, with or without interest or insurance coverage." While the majority of life insurers consider pre-need products to be life insurance, the industry is currently regulated by the Securities and Exchange Commission and not by the Insurance Commissioner. However, there is a proposal to place the regulation under the jurisdiction of the latter implying the reclassification of pre-need plans from securities to insurance.

Initially, pre-need companies sold memorial plans that guaranteed the payment of interment services. Now pre-need contracts are classified into three major categories: life, pension and education. Some pre-need companies also sell plans that pay for medical expense, travel, weddings and even business expansion.

Pension plans normally provide fixed payments on specific dates, usually at retirement. They do not provide pension payments contingent upon death. Likewise, education plans provide for fixed payments on specific dates. In both cases the amount of mortality and morbidity cover is small. Premium waiver on death or disability is common, but additional payments on death are usually limited to a return of premiums.

The industry has achieved phenomenal growth since the 1980s. It has consistently outpaced the life insurance industry by a wide margin. Throughout the 80s, the annual growth rate was in excess of 30 percent more than double the growth rate of the life insurance industry. By 1996, the number of pre-need organizations increased to 83. It is now down to 50 following the failure of several companies.

Table 1 on page 17 shows a summary of the pre-need sales from 1994 until 2001. It also shows the sales for the first six months of each year from 1999 until 2002.

The average annual growth rate of the sales amount from 1994 through 2001 was 11 percent.

In 2000, the life insurance industry reported total first year premium income valued at PhP 6.34 billion up from PhP 5.23 billion in 1999. The total premium income for 2000 was PhP 26.9 billion. The corresponding premium for 1999 was PhP 22.4 billion. The ratio of premium income to disposable was .92 percent. More recent figures are unavailable at this time.

Compared to the earlier years when sales were restricted to memorial (life) plans, the sales composition has changed significantly. In 2002, life plans only accounted for 5 percent of total sales. Pension plans accounted for 61 percent and education plans 34 percent. The top five companies for each major category make up over 70 percent of total sales. The market leaders, based on the sales results for the first six months of 2002, are shown in the tables on pages 17 and 18.

U.S. GAAP Accounting

Products sold by life insurers in the United States are classified into various types and accounted for according to the relevant Statement of Financial Accounting Standard "SFAS" issued by the Financial Accounting Standards Board "FASB."

SFAS 60 was the first life insurance accounting standard. It covers traditional business and distinguishes between short term and long-term products. SFAS 97 modifies the approach to limited payment contracts and deals with investment contracts and Universal

Table 1: Sales by Year

Year	Plans Sold	Sales Amount (Php)	Initial Collection (Php)
1994	379,120	16,208,710,138	893545,664
1995	429,820	17,362,675,370	1,024,011,780
1996	419,069	20,652,272,987	1,293,937,305
1997	575,254	27,169,024,671	1,869,683,352
1998	608,874	29,657,330,079	1,813,495,398
1999	626,088	31,093,149,840	2,154,645,843
2000	582,003	36,073,035,938	2,319,545,742
2001	675,173	38,611,725,540	3,509,055,076
First half 1999	305,843	8,454,777,580	583,283,917
First half 2000	310,714	17,044,060,081	1,150,303,432
First half 2001	359,172	19,714,509,925	1,580,242,101
First half 2002	311,977	19,988,085,925	1,580,242,101

Table 2: Top Companies by Sales Volume of Education Plans, Q1&2 2002

Company	Plans Sold	Sales (Php)	% of Total Sales
Philam Plans, Inc.	11,512	1,569,641,543	27
College Assurance Plans Inc.	39,992	1,207,131,792	17
Prudentialife Plans, Inc.	9,247	868,827,388	13
Berkley Int'l. Plans, Inc.	9,452	790,827,815	11
Pacific Plans, Inc.	7,266	787,499,100	11
Top Five Companies	77,469	5,223,927,638	76
Total Education Sales	99,306	6,899,981,287	

Life-type contracts. SFAS 120 addresses participating business sold by mutual life insurers where policyholder dividends are paid in accordance with the Contribution Principle.

There are accounting standards addressing reinsurance, taxation and investments and other guidance in the form of practice bulletins, statements of accounting concepts, emerging issues task force pronouncements, etc. General industry practice has also developed over time.

The approach to accounting for life insurance products is to issue standards and guidance, but not to set out rigid rules. There are areas of interpretation, especially with products that are unusual in the United States.

Accounting for Pre-Need Policies

Each plan should be considered on its merits and classified according to the appropriate accounting standard. Contracts are normally long duration and terms are normally fixed, both in terms of premium payments and benefits, so that it is unlikely that SFAS 97 Universal Life would be appropriate. If there is a significant mortality or morbidity element, SFAS 60 or SFAS 97 limited pay would probably apply. If the mortality or morbidity risk is not significant, the contract should be accounted for as an investment contract under SFAS 97.

Although SFAS 97 paragraph 7 states "a mortality or morbidity risk is present if, under the terms of the contract, the enterprise is required to make payments or forego required premiums contingent upon the death or disability of an individual or group of individuals", paragraph 40 states "a nominal mortality risk—a risk of insignificant amount or of remote probability—is not sufficient to permit that a contract be accounted for as an insurance contract." There is no rule which determines

continued on page 18

Table 3: Top Companies by Sales Volume of Life Plans, Q1&2 2002

Company	Plans Sold	Sales (Php)	% of Total Sales
Pacific Plans, Inc.	5,392	203,473,120	21
Philam Plans, Inc.	2,999	195,817,634	21
Prudential Plans, Inc.	4,882	127,033,600	13
Loyola Plans, Inc.	4,794	120,306,772	13
St. Peter Life Plans, Inc.	4,710	80,221,000	8
Top Five Companies	22,777	726,852,126	77
Total Life Sales	32,966	949,111,660	

Table 4: Top Companies by Sales Volume of Pension Plans, Q1&2 2002

Company	Plans Sold	Sales (Php)	% of Total Sales
Philam Plans, Inc.	34,999	3,335,291,786	27
Prudentialife Plans, Inc.	21,348	1,842,625,385	15
Loyola Plans, Inc.	18,013	1,305,272,820	11
Comprehensive Annuity Plans & Pension Corporation	24,970	1,256,741,301	10
TPG Corporation	11,887	785,853,477	6
Top Five Companies	111,217	8,525,784,769	70
Total Pension Sales	179,705	12,138,993,050	

whether a mortality risk is significant or not. It is a matter of judgement.

If the plan has significant mortality or morbidity, it should be accounted for under SFAS 60 or SFAS 97 limited pay. This treatment is standard and well defined. However, if the mortality risk is insignificant and SFAS 97 investment contract is appropriate, the methodology is less well defined. The balance of this paper describes approaches for reporting under SFAS 97—investment contract methodology.

Interpreting SFAS 97—Investment Contracts

SFAS 97 paragraph 15 says that investment contracts should be "accounted for in a manner consistent with the accounting for interest-bearing, or other financial instruments." Further guidance is available in Practice Bulletin 8 issued by the American Institute of Certified Public Accountants. Paragraph 7 states that the FASB 97 UL method for amortizing acquisition costs should be used if there are significant surrender charges or if the contracts yield significant revenues from sources other than the investment of contract holder funds. This approach is normally used where there is a clearly defined account value (for example, U.S. SPDA contracts).

Paragraph 7 also says that the alternative is to use an accounting method that recognizes acquisition and interest costs as expenses at a constant rate applied to net policy liabilities and that is consistent with the interest method under FASB Statement No. 91.

SFAS 91 was designed for non-refundable fees and costs associated with loans. The examples in Appendix B of the statement make it clear that the methodology is (1) to project future cash flows, (2) calculate the equivalent yield such that the present value of future cash flows equals the initial cash outflow, (3) use this interest rate to calculate the carrying amount at subsequent reporting dates and (4) set the unamortized net fees equal to the difference between the remaining principal and the carrying amount.

Applying this to long-duration contracts subject to SFAS 97–Investment Contracts leads to the following: (1) Project future cash flows,

(2) calculate the equivalent yield such that the present value of future cash flows equals the initial cash outflow, (3) use this interest rate to calculate the net liability at subsequent reporting dates and (4) set the unamortized DAC equal to the difference between the benefit reserve and the net liability. The difficulty is in calculating the benefit reserve where there is no obvious account value.

Example of a Pre-Need Contract

Table 5 in the appendix contains an example of a pre-need policy. Using an education plan, the appendix illustrates many of the concepts described above. The assumptions are set out in page 25.

The plan has a twenty-year duration and provides four years of education benefits and a maturity value. Premiums are payable for five years. Benefits are payable whether the policyholder is alive or dead. In addition, there is a benefit of the return of premiums upon death. There is a cash value which grades into 50 percent of premiums paid, but it is assumed that it is collected by only 30 percent of those who lapse through non-payment of premium.

The reserves are estimated and are based on Philippine statutory reserves. The mortality rates are from the 1973-78 Philippine Intercompany Table posted on the SOA Web site. (These are for illustration purposes only.)

The policy pricing on a statutory basis is shown in Table 6 on page 26. Net present values of the various cash flow items are calculated. The net present value of the additional death benefit is 1.5 percent of the net present value of the premiums and the net present value of the waiver of premium on death is 0.5 percent of the present value of premiums. In many examples of materiality under U.S. GAAP, a level below 5 percent tends to be considered insignificant. This suggests that the mortality benefit is not significant and that this should be treated as an investment policy. It could also be argued that the substance of this contract is to provide education and maturity benefits and that the death benefit is a minor selling point.

The internal rate of return is calculated in table 7 on page 28. If the earned interest rate were replaced with the break-even rate, the present value of gross profits in Table 6 would be zero. This internal rate of return is used in Table 8 on page 29 to calculate the net liability. This will provide the basis for the U.S. GAAP projections.

Calculation of the Benefit Reserve and DAC

For other products under US GAAP, the benefit reserve and DAC are calculated relatively independently and the net liability is the difference between the two. For investment contracts, the net liability is calculated first and the DAC becomes the balancing item between the benefit reserve and net liability.

One approach is to apply the SFAS 91 methodology to the cash flows excluding deferrable expenses. Table 9 on page 28 shows the calculation of the internal rate of return for the cash flow excluding deferrable expenses. The resulting benefit reserve calculation appears in Table 10 on page 29. Given the amount of deferrable expenses, the resulting DAC starts at a reasonable level.

The U.S. GAAP income statement that would result is shown as table 11 on pages 26-27. It should be noted that the investment income is based on the GAAP net liability as opposed to the statutory reserves in Table 6. It should also be noted that the present value of gross profit is unchanged. The difference is the emergence of profits.

Using a proxy account balance

An alternative approach is to calculate a proxy account balance for the benefit reserve. One method could be to look at the policy from the point of view of a policyholder who keeps the policy in force. This approach is shown in Appendix on Table 12 on page 36 and Table 13 on pages 32-33). The GAAP earnings are unchanged, but both benefit reserve and DAC are lower.

Using SFAS 60 / SFAS 97 Limited Pay

If it could be argued that there was a sufficient mortality benefit, the treatment would be as for a traditional plan. Appendix 3 (tables 14 and 15) shows how this approach would work. DAC would be written off over the premium paying period and, as the premiums are payable over a period less than the benefit period, an Unearned Revenue Reserve would be established. In this example, profits would emerge approximately in proportion to the in force and, although the total profits would be the same, would be higher in the early years.

Product Classification

The pre-need business consists of education plans, pension plans and life plans. Our initial

continued on page 20

The pre-need business consists of education plans, pension plans and life plans. Our initial review of current business suggests that there is minimal mortality benefit in the pension plans...

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review of current business suggests that there is minimal mortality benefit in the pension plans, a small mortality benefit in the education plans and significant mortality in the life plans. This suggests SFAS 97 investment contract treatment for the pension plans, SFAS 60 / SFAS 97 limited pay for the life plan and probably SFAS 97 investment contracts for the education plans.

In order to classify products appropriately, a study should be made of the amount of mortality/morbidity covered by each contract. In the example given, the present value of mortality benefits, including waiver of premium on death, was 2.0 percent of the present value of premiums. If waiver of premium on disability was added, this would change to 2.2 percent, still an insignificant amount. However, other at other ages or in different plans the level could be higher.

Summary and Conclusions

Reporting pre-need plans under US GAAP will require a careful review of the amount of mortality/morbidity benefit provided. For most education and pension plans, we believe that the mortality/morbidity benefit is minimal and that these contracts should be classified as investment contracts.

The treatment of investment contracts where there is no defined account balance is rare in the United States, however, the authoritative literature points to the equivalent yield method of SFAS 91, which, in turn, shows how to approach the calculation of the net liability.

The GAAP benefit reserve should be set equal to the account balance, if one is readily determinable, otherwise, the approach described above, where a second equivalent yield is used to obtain the benefit reserve is the suggested approach for these contracts. □

International Section Council Photos

Gathering in Boston to plan the future activities of the International Section are council members (left to right) Rejean Besner, Marc Slutzky, Randy Makin (newsletter editor), Shumei Kuo (2002-2003 section chairperson), Lisa Kuklinski-Ramirez (2001-2002 section chairperson), Carl Khor, Hubert Mueller (retiring council member) and Michael Enright.

Shumei Kuo, incoming International Section chairperson, presents a gift of appreciation to Lisa Kulinksi-Ramirez, retiring section chairperson.

Members of the International Section enjoying the ambience of the Old South Meeting House during the section reception in Boston.

Webcast for International Continuing Education

The International Section, along with its partner, the Financial Reporting Section, delivered its first Webcast in October 2002. Directed to the section members who were unable to attend the annual meeting in Boston, the two-hour "International Accounting Standards" Webcast attracted over 50 parties and more than 100 people all over the world. The second Webcast featured "International Expansion" in early December, also cosponsored by International and Financial Reporting Sections.

Both Webcasts had a live session as well as two replays, 14 and 20 hours after the start of the live program, respectively. The live programs were in the afternoon time of the Americas region. The two replays were specifically designed for the convenience of the members located in the Asian and European regions.

In a live Webcast, participants follow along with a graphics presentation broadcast over the Internet and access the audio portion of the conference through a phone. In a replay, the participants follow the presentation the same way and listen to the synchronized recording of the Webcast through the speakers on the computer. Participants are sent a PDF file of the actual presentation prior to the broadcast in order to take notes and follow the program. The live program allows for interactivity through a real-time question and answer session and participant polling. To continue the educational exchange and answer any additional questions, the presenters respond to questions posted on the SOA discussion forum for 10 days following the program.

The Webcast, with its ability to reach a member in any location with minimum requirement for equipment, is an effective way to provide continuing education opportunities for the geographically widespread International Section membership. Moreover, more than one person can join the Webcast in each site which makes it a very cost effective option.

I participated in the replays of the two Webcasts since I was out of the office during the live program time. I accessed the Webcast from my office and found it easy to use though I had not done it before. Within just a few clicks of the PC mouse, the program was right there for me. I was happy to receive the information from these two sessions of interesting and timely topics with only a little effort on my part—just printing out the presentation ahead of time and getting connected to the Web site—in less than the time one takes to sign up for it. I think the return on the time and money invested is very high. If you have not participated a Webcast, just imagine: You are in a familiar surrounding with the presentation right in front of you and the presenters to keep you entertained. Any questions you may have can either be sent in during the live program or be posted on the SOA Web site after the broadcast. You just listen, watch, drink coffee, eat doughnuts and take as many stretch breaks as you want. There is no travel hassle or expense—a big plus these days. I do have one suggestion, though if you're not joining the live broadcast, you should check to see if the sound quality and volume from the built-in speakers of your PC is efficient or loud enough. If not, you may consider connecting some standalone speakers or using a headset.

Below are the agendas and presenters of the two Webcasts in 2002:

International Accounting Standards
IAS Activities – Elizabeth Rogalin
Business Implications – Mark Freedman
IAA Activities – David Congram
A Company's Implementation Efforts – Al Zlogar
Case Studies: Illustrating Business Implications – Doug Doll & Emma McWilliam
Q&A

Considerations for International Expansion
Overview of Recent Cross-Border M&A Activities by North American Insurers – Hubert Mueller
International M&A: Financial Reporting Issues – John F. Bevacqua
Practical Issues and Experiences in Asia – Daryl L. Boltz
Latin America – Jim Toole
Europe – Hubert Mueller
Q&A ☐

• Martha E. Sikaras • manager of global initiatives • msikaras@soa.org •

Pension Reform in Eastern Europe and Central Asia—

A Multi-Pillar Approach

by Michael Cohen

While the United States and Western European nations are debating the challenges facing national pay-as-you-go pension schemes, former socialist countries in Eastern Europe and Central Asia have got on with the job and introduced reforms that harness the ability of the financial market place to provide superior rates of return in the long run.

The impetus for the reform included the familiar demographic challenges of steadily climbing old-age dependency ratios, common to developed and developing countries alike. However, in the countries of the former Soviet Union and other socialist countries a more immediate cause was apparent—a collapse in output and in the workforce, as well as a legacy of over-generous and unsustainable social programs. In the best cases, employment fell by 10 percent in Poland and the Czech Republic and in the worst cases (excluding countries of the ex-Yugoslavia) by 30 percent in Hungary and Bulgaria. With relatively low retirement ages (typically 60 for men and 55 for women) and weak unemployment and disability income systems, many of these displaced workers were eligible for benefits in the pension system. This drove up pension system dependency ratios by 50 percent to 100 percent in most of these countries.

Obvious responses to these changes are to reduce the generosity of the pay-as-you-go system and increase contributions. The first response is being employed throughout the region, by increasing retirement ages, decreasing accrual rates, tightening eligibility rules for disability and survivor benefits and limiting indexation. The second response is not so easily achieved, as contribution rates are already so high as to encourage evasion and growth of the informal economy and further increases in contributions would simply exacerbate this. Combined employer and employee rates of 25 to 30 percent are typical, with rates of over 35 percent in Albania, Bulgaria and Poland.

But simply reforming the mandatory pay-as-you-go system, the first pillar, is not enough. While this might rescue the systems in the short-run, demographic changes will again plunge the systems into crisis, requiring either declining replacement rates, other benefit reductions or an increase in already high contribution rates. The answer is to introduce a funded second pillar, generally by way of individual capitalized accounts. To see why this is, we need to examine the pay as you go system from an investment perspective.

A pay as you go pension system could be looked upon simply as a government program transferring resources from workers to those unable to work because of old-age, disability or death of a working spouse, generally financed by ear-marked payroll taxes. Alternatively, it could be looked at as a savings scheme whereby workers create an entitlement to future income by paying contributions. In this latter schema, we can legitimately ask what is the rate of interest on these savings. In a sustainable pay-as-you-go system the answer is quite simply the growth in wages plus a component representing the increase in the labour force. Even in transition economies after they have begun to recover, it is difficult to foresee a level of real wage growth in excess of about 2 percent per year. Also, “growth” in the labour force is likely to follow the same pattern as in developed countries. Due to low family size (1.5 children per couple is typical, although in some Central Asian countries it is a little higher) this component is negative—about minus 0.5 percent. Therefore the real rate of return in a pay-as-you-go system is generally around 1.5 percent per year, whereas in the long run a diversified portfolio can be expected to yield a real return of 3 to 4 percent.

Another advantage of a multi-pillar approach is diversification of risks. Clearly a pay-as-you-go system is vulnerable to demographic changes, labour participation rates and other economic phenomena. The financial market is not immune to risks either, but they tend to be different, although there is some correlation among economic risks. A system based on both pay-as-you-go and funded accounts should be less prone to demographic and economic risks. Also, employees like capitalized accounts and where choice was allowed an unexpectedly large number of employees switched (current turmoil in the stock market must be testing their mettle!). While social security contributions are generally seen as a tax, contributions to capitalized accounts, even if they are mandatory, are often seen as savings. This is expected to have a positive impact on labour markets, reducing evasion and assisting in a shift from the informal to the formal sector. A further advantage is the availability of funds for investment in the economy and the development of capital markets, which are often weak in these countries.

Generally, these countries have also introduced a voluntary "third" pillar, consisting of employer-sponsored plans and individual savings, often with some degree of incentive. Most of these third pillars are still in a rudimentary stage.

Of course the transition to a multi-pillar system is not without its costs. The principal issue is the transitional cost imposed on the "sandwich" generation, which has to continue to fund pay-as-you-go benefits for previous generations and begin to build up investments for themselves. This is achieved through various mechanisms, from the savings resulting from compressing current overly generous benefits, to modest contribution increases and budgetary sources, such as privatization receipts and government borrowing.

Other issues that need to be addressed include the questions of international investment and investment in government bonds. While unfettered global investment maximizes the prospective rate of return, developing countries need to weigh that against the need for development capital. Out-flow of capital can also cause balance of payments problems. Similarly, enforced investment in government bonds is sometimes a necessary evil to assist in the transition.

As these experiments mature developed countries will have much to learn from transitional economies. Don't be surprised to see the odd Kazakh or Estonian wondering around the Social Security Administration in a few years time—they will not be on a study tour, they will be participating in some reverse technology transfer! ☐

Selected bibliography

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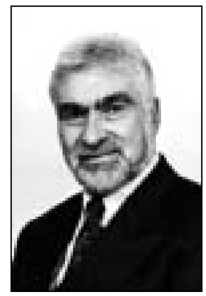
Pension Reform and the Fiscal Stance, G. A. Mackenzie, Philip Gerson, Alfredo Cuervas and Peter S. Heller, International Monetary Fund, 2001.

The World Bank Approach to Pension Reform, Robert Holzmann, World Bank, 1999.

Reforming Pensions: Myths, Truths, and Policy Choices, Nicholas Barr, International Monetary Fund, 2000.

Social Security—Adequacy, Equity, and Progressiveness: A Review of Criteria Based on Experience in Canada and the United States, Robert Brown and Jeffery, *North American Actuarial Journal*, 2000—the discussion on this article is particularly interesting.



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ISC Minutes

Meeting Minutes of the International Section Council Conference Call • July 24, 2002 • 8:00 am EST •

1. Roll Call

Lisa Kuklinski-Ramirez, Rejean Besner, Michael Enright, Mike Gabon, Shumei Kuo, Randy Makin, Marc Slutzky, Hans Wagner, Hubert Mueller and Lois Chinnock, Martha Sikaras and Michael Kaster of the SOA

2. April Meeting Minutes

Approved.

3. Treasurer's Report

The second quarter books are closed and the financials will be available during the first week in August. Fund balance at the end of June was approximately $74,000. The council has received requests to fund activities that will use some of the surplus and should investigate other ways to spend this surplus effectively.

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4. Working with Practice Areas

Michael Kaster, SOA managing director of practice areas and liaison to the special interest sections, spoke about a new study recently completed by a task force with the objective of finding additional ways to support the needs of the members, the practice areas and the sections. One step he discussed will be to assign a representative from the practice areas to each section. Michael will serve as this representative for the International Section. Other steps are under discussion. The report is available on the SOA Web site.

5. Proposed Research Project

We received a proposal from Steve Easson of the Futurism Section to provide financial support to a Delphi Study of plausible economic indicators. We agreed to defer the request until more information is available.

The SOA asked for our support for the SOA Library Enhancement Project. We voted to approve a commitment of $5,000. This project will improve the online search capabilities of the SOA publications.

6. Annual Meeting

We are still recruiting speakers—one speaker for each of two sessions.
The Section Council will meet from 4 p.m. to 7 p.m. on Sunday before the annual meeting begins. Rejean Besner will be our representative on the committee planning the 2003 Annual Meeting. Their first meeting will be by Webcast, and the second in Chicago. We have found that the real draw for the sessions we sponsor is at the annual meeting.

7. October Reception

We have planned for 100 people to attend the field trip reception that has been arranged at the Boston Old South Meeting House. Details will be included in the next newsletter.

8. October WebCast

The Webcast on fair value accounting will take place immediately after the meeting has ended. A second Webcast on International M&A is being planned for a date subsequent to the annual meeting.

9. Section Web site Discussion

Meeting minutes, information about the sessions at meetings, information about the ambassador programs and other interesting information now appear on the Web site.

10. Ambassador Program

Mike Gabon was appointed co-ambassador to Bermuda.

11. Newsletter

Randy reported that the latest newsletter is now at the printer. We discussed the paper quality and color, and the possibility of using lighter paper to save postal costs.

The cutoff date for the October newsletter will be August 19th. Articles are expected from Jorge as a follow-up to his talk on products and regulation in Latin America, Mike Gabon on Argentina, Yiji Starr on the SOA Library project, the SOA report discussed earlier, the Webcast and Asia Seminars.

12. Education & Exams

August reported that the core Course 7 course seminar will be given on August 12 and 15 in Hong Kong. Approximately 45 candidates are registered to attend. In addition, the China Region Committee sponsored a regional seminar series in July. It has already been given in Singapore, Shenzen, Taipei and Seoul. SOA candidates in attendance received nine units of PD credit. There were approximately 100 attendees in each location.

13. Clearinghouse Scholarship Program Update

There is currently a motion to make the program a cooperative effort between the SOA and the CAS. The CAS is still reviewing and considering its participation and has requested additional information from the SOA. They have been discussing it with the SOA.

14. Next Meeting

The next meeting will take place Sunday October 27rd at 4 P.M. at the SOA Annual Meeting. ☐

Appendix

Table 5: Assumptions For Sample Education Plan

Male	35		Annual Premium					11,500 payable			5 years
Interest Rate		12.0%	Inflation Rate		8.0%	Percentage claiming surrender value in premium paying period					30.0%
VAT		10.0%	SEC Registration Fee		0.1%			Other Taxes			0.75%
Year	**Cash Value**	**Additional Death Benefit**	**Reserve**	**Commission**	**Lapses**	**Education Benefit**	**Maturity Beneftit**	**Fixed Expenses**	**% Premium Expenses**	**Death Benefit Expenses**	**Mortality per 1000**
						-	-	1,200	-	-	-
1	2,300	11,500	5,750	65%	40%	-	-	300	2.5%	500	2.26
2	6,900	23,000	12,650	25%	25%	-	-	324	2.5%	540	2.33
3	13,800	34,500	21,275	5%	20%	-	-	350	2.5%	583	2.42
4	23,000	46,000	30,475	5%	10%	-	-	378	2.5%	630	2.54
5	28,750	57,500	39,675	5%	5%	-	-	408	2.5%	680	2.68
6	28,750	57,500	44,275	-	2%	-	-	441	2.5%	735	2.86
7	28,750	57,500	50,025	-	2%	-	-	476	2.5%	793	3.05
8	28,750	57,500	56,925	-	2%	-	-	514	2.5%	857	3.26
9	28,750	57,500	64,400	-	2%	-	-	555	2.5%	925	3.49
10	28,750	57,500	73,600	-	2%	-	-	600	2.5%	1,000	3.76
11	28,750	57,500	82,800	-	2%	-	-	648	2.5%	1,079	4.04
12	28,750	57,500	94,300	-	2%	-	-	699	2.5%	1,166	4.35
13	28,750	57,500	106,950	-	2%	-	-	755	2.5%	1,259	4.68
14	28,750	57,500	121,900	-	2%	-	-	816	2.5%	1,360	5.03
15	28,750	57,500	138,000	-	2%	-	-	881	2.5%	1,469	5.43
16	28,750	57,500	128,800	-	0%	28,750	-	952	2.5%	1,586	5.87
17	28,750	57,500	112,700	-	0%	34,500	-	1,028	2.5%	1,713	6.37
18	28,750	57,500	88,550	-	0%	40,250	-	1,110	2.5%	1,850	6.94
19	28,750	57,500	53,475	-	0%	46,000		1,199	2.5%	1,998	7.58
20	28,750	57,500	-	-	0%	-	57,500	1,295	2.5%	2,158	8.30

Assumes premiums and expenses are at start of year
Surrender benefits and maturity benefits are at the end of the year
Education and death benefits are in the middle of the year
Mortality is 1973-78 Phillipine Intercompany Table - (Source: SOA Web site)
Statutory Reserves are approximate

Table 6: Pricing For Sample Education Plan									
Year	In Force	In Force For Benefits	Total Premium Income	Investment Income	Total Income	Surrender Benefit Outgo	Additional Death Beneftit	Education Benefit Outgo	Maturity Benefit Outgo
1	1.0000	1.0000	11,500	117	11,617	276	26	-	-
2	0.5977	0.6000	6,874	897	7,771	309	32	-	-
3	0.4469	0.4500	5,139	1,166	6,305	370	37	-	-
4	0.3564	0.3600	4,099	1,302	5,401	246	42	-	-
5	0.3199	0.3240	3,679	1,527	5,206	460	49	-	-
6	0.3030	0.3078	-	1,446	1,446	174	50	-	-
7	0.2961	0.3016	-	1,583	1,583	170	52	-	-
8	0.2893	0.2956	-	1,753	1,753	166	54	-	-
9	0.2826	0.2897	-	1,957	1,957	162	57	-	-
10	0.2759	0.2839	-	2,171	2,171	159	60	-	-
11	0.2694	0.2782	-	2,433	2,433	155	63	-	-
12	0.2629	0.2727	-	2,683	2,683	151	66	-	-
13	0.2565	0.2672	-	2,996	2,996	147	69	-	-
14	0.2502	0.2619	-	3,332	3,332	144	72	-	-
15	0.2439	0.2566	-	3,723	3,723	140	76	-	-
16	0.2377	0.2515	-	3,711	3,711	-	80	7,230	-
17	0.2363	0.2515	-	3,347	3,347	-	87	8,677	-
18	0.2348	0.2515	-	2,774	2,774	-	94	10,123	-
19	0.2332	0.2515	-	1,958	1,958	-	102	11,569	-
20	0.2314	0.2515	-	1,571	1,571	-	110	-	14,461
	NPV @	12.0%	26,990			1,688	403	5,400	1,499
							1.5%		

Assumes premiums and expenses are at start of year
Surrender benefits and maturity benefits are at the end of the year
Education and death benefits are in the middle of the year

Gross Initial Expenses	Gross Renewal Expenses	Commission	Total Pre-Need VAT & Duties Payable	Other Taxes	Increase in Revenue	Total Expenses	Gross Profit	Premiums Waived on Death
1,200	589	7,475	1,162	86	3,450	14,263	(2,646)	-
-	366	1,719	694	52	2,243	5,414	2,357	26
-	286	257	519	39	1,967	3,474	2,831	36
-	238	205	414	31	2,215	3,390	2,011	41
-	223	184	372	28	2,338	3,653	1,552	47
-	134	-	-	-	1,143	1,502	(55)	-
-	142	-	-	-	1,433	1,797	(214)	-
-	150	-	-	-	1,703	2,073	(320)	-
-	158	-	-	-	1,792	2,169	(213)	-
-	167	-	-	-	2,194	2,579	(408)	-
-	176	-	-	-	2,099	2,492	(59)	-
-	185	-	-	-	2,621	3,024	(340)	-
-	195	-	-	-	2,809	3,220	(224)	-
-	206	-	-	-	3,276	3,698	(367)	-
-	217	-	-	-	3,423	3,857	(133)	-
-	228	-	-	-	(2,314)	5,225	(1,514)	-
-	245	-	-	-	(4,049)	4,960	(1,613)	-
-	264	-	-	-	(6,074)	4,406	(1,632)	-
-	283	-	-	-	(8,821)	3,132	(1,174)	-
-	304	-	-	-	(13,449)	1,426	145	-
1,200	2,237	9,477	2,726	202	-	-	2,157	124
							8.0%	0.5%

Table 7: Calculate Internal Rate Of Return

Year	Total Premium Value	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo	Ongoing Expenses	Deferrable Expenses	Cash Flow
1	11,500	276	26	-	-	915	9,597	687
2	6,874	309	32	-	-	418	2,413	3,702
3	5,139	370	37	-	-	324	776	3,632
4	4,099	246	42	-	-	268	619	2,924
5	3,679	460	49	-	-	251	556	2,363
6	-	174	50	-	-	134	-	(358)
7	-	170	52	-	-	142	-	(364)
8	-	166	54	-	-	150	-	(370)
9	-	162	57	-	-	158	-	(377)
10	-	159	60	-	-	167	-	(385)
11	-	155	63	-	-	176	-	(393)
12	-	151	66	-	-	185	-	(402)
13	-	147	69	-	-	195	-	(412)
14	-	144	72	-	-	206	-	(422)
15	-	140	76	-	-	217	-	(433)
16	-	-	80	7,230	-	228	-	(7,539)
17	-	-	87	8,677	-	245	-	(9,009)
18	-	-	94	10,123	-	264	-	(10,480)
19	-	-	102	11,569	-	283	-	(11,953)
20	-	-	110	-	14,461	302	-	(14,875)

Internal Rate of Return 10.26%

Table 9: Calculate Internal Rate Of Return Excluding Deferrable Expenses

Year	Total Premium Value	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo	Ongoing Expenses	Cash Flow Excluding Deferrable Expenses
1	11,500	275	26	-	-	915	10,283
2	6,874	309	32	-	-	418	6,115
3	5,139	370	37	-	-	324	4,408
4	4,099	246	42	-	-	268	3,543
5	3,679	460	49	-	-	251	2,919
6	-	174	50	-	-	134	(358)
7	-	170	52	-	-	142	(364)
8	-	166	54	-	-	150	(370)
9	-	162	57	-	-	158	(377)
10	-	159	60	-	-	167	(385)
11	-	155	63	-	-	176	(393)
12	-	151	66	-	-	185	(402)
13	-	147	69	-	-	195	(412)
14	-	144	72	-	-	206	(422)
15	-	140	76	-	-	217	(433)
16	-	-	80	7,230	-	228	(7,539)
17	-	-	87	8,677	-	245	(9,009)
18	-	-	94	10,123	-	264	(10,480)
19	-	-	102	11,569	-	283	(11,953)
20	-	-	110	-	14,461	304	(14,875)

Internal Rate of Return 4.81%

Table 8: Calculate Net Liability

Year	Total Premium Value	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo	Ongoing Expenses	Deferrable Expenses	Cash Flow	Net Liability
1	11,500	276	26	-	-	915	9,597	687	787
2	6,874	309	32	-	-	418	2,413	3,702	4,983
3	5,139	370	37	-	-	324	776	3,632	9,539
4	4,099	246	42	-	-	268	619	2,924	13,770
5	3,679	460	49	-	-	251	556	2,363	17,839
6	-	174	50	-	-	134	-	(358)	19,295
7	-	170	52	-	-	142	-	(364)	20,895
8	-	166	54	-	-	150	-	(370)	22,651
9	-	162	57	-	-	158	-	(377)	24,580
10	-	159	60	-	-	167	-	(385)	26,697
11	-	155	63	-	-	176	-	(393)	29,023
12	-	151`	66	-	-	185	-	(402)	31,578
13	-	147	69	-	-	195	-	(412)	34,383
14	-	144	72	-	-	206	-	(422)	37,465
15	-	140	76	-	-	217	-	(433)	40,851
16	-	-	80	7,230	-	228	-	(7,539)	37,116
17	-	-	87	8,677	-	245	-	(9,009)	31,452
18	-	-	94	10,123	-	264	-	(10,480)	23,662
19	-	-	102	11,569	-	283	-	(11,953)	13,524
20	-	-	110	-	14,461	304	-	(14,875)	(0)

Internal Rate of Return 10.26%

Table 10: Calculate Benefit Reserves and DAC

Year	Total Premium Value	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo	Ongoing Expenses	Cash Flow excluding Deferrable Expenses	Benfit Reserve	Net Liability	DAC
1	11,500	276	26	-	-	915	10,283	10,791	787	10,005
2	6,874	309	32	-	-	418	6,115	17,735	4,983	12,752
3	5,139	370	37	-	-	324	4,408	23,226	9,539	13,687
4	4,099	246	42	-	-	268	3,543	28,069	13,770	14,299
5	3,679	460	49	-	-	251	2,919	32,501	17,839	14,662
6	-	174	50	-	-	134	(358)	33,698	19,295	14,403
7	-	170	52	-	-	142	(364)	34,946	20,895	14,052
8	-	166	54	-	-	150	(370)	36,248	22,651	13,597
9	-	162	57	-	-	158	(377)	37,605	24,580	13,025
10	-	159	60	-	-	167	(385)	39,018	26,697	12,321
11	-	155	63	-	-	176	(393)	40,491	29,023	11,468
12	-	151	66	-	-	185	(402)	42,025	31,578	10,448
13	-	147	69	-	-	195	(412)	43,623	34,383	9,240
14	-	144	72	-	-	206	(422)	45,287	37,465	7,821
15	-	140	76	-	-	217	(433)	47,019	40,851	6,167
16	-	-	80	7,230	-	228	(7,539)	41,556	37,116	4,440
17	-	-	87	8,677	-	245	(9,009)	34,325	31,452	2,873
18	-	-	94	10,123	-	264	(10,480)	25,240	23,662	1,578
19	-	-	102	11,569	-	283	(11,953)	14,209	13,524	685
20	-	-	110	-	14,461	304	(14,875)	(0)	(0)	(0)

Internal Rate of Return 4.81%

Table 11: US GAAP Income Statement

Year	Total Premium Income	Investment Income	Total Income	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo
1	11,500	117	11,617	276	26	-	-
2	6,874	578	7,452	309	32	-	-
3	5,139	1,081	6,220	370	37	-	-
4	4,099	1,528	5,627	246	42	-	-
5	3,679	1,994	5,673	460	49	-	-
6	-	2,122	2,122	174	50	-	-
7	-	2,295	2,295	170	52	-	-
8	-	2,486	2,86	166	54	-	-
9	-	2,696	2,696	162	57	-	-
10	-	2,926	2,926	159	60	-	-
11	-	3,179	3,179	155	63	-	-
12	-	3,457	3,457	151	66	-	-
13	-	3,762	3,762	147	69	-	-
14	-	4,097	4,097	144	72	-	-
15	-	4,465	4,465	140	76	-	-
16	-	4,449	4,449	-	80	7,230	-
17	-	3,914	3,914	-	87	8,677	-
18	-	3,147	3,147	-	94	10,123	-
19	-	2,125	2,125	-	102	11,569	-
20	-	1,580	1,580	-	110	-	14,461
NPV @	12.0%						

Initial Expenses	Renewal Expenses	Commission	VAT, duties and other Taxes	Increase in Reserve	Increase in DAC	Total Expenses	Gross Profit
1,200	589	7,475	1,248	10,791	10,005	11,600	17
-	366	1,719	746	6,943	2,747	7,368	84
-	286	257	558	5,491	935	6,064	156
-	238	205	445	4,843	612	5,406	221
-	223	184	399	4,432	363	5,384	289
-	134	-	-	1,197	(260)	1,815	307
-	142	-	-	1,248	(351)	1,963	332
-	150	-	-	1,302	(455)	2,126	360
-	158	-	-	1,357	(572)	2,306	390
-	167	-	-	1,414	(704)	2,503	423
-	176	-	-	1,473	(853)	2,719	460
-	185	-	-	1,534	(1,020)	2,956	500
-	195	-	-	1,598	(1,208)	3,217	544
-	206	-	-	1,664	(1,418)	3,504	593
-	217	-	-	1,732	(1,654)	3,819	646
-	228	-	-	(5,463)	(1,727)	3,803	645
-	245	-	-	(7,231)	(1,567)	3,345	568
-	264	-	-	(9,085)	(1,295)	2,690	457
-	283	-	-	(11,031)	(893)	1,815	310
-	304	-	-	(14,209)	(685	1,351	229
							2,157

Table 13: US GAAP Income Statement

Year	Total Premium Income	Investment Income	Total Income	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo
1	11,500	117	11,617	276	26	-	-
2	6,874	578	7,452	309	32	-	-
3	5,139	1,081	6,220	370	37	-	-
4	4,099	1,528	5,627	246	42	-	-
5	3,679	1,994	5,673	460	49	-	-
6	-	2,122	2,122	174	50	-	-
7	-	2,295	2,295	170	52	-	-
8	-	2,486	2,486	166	54	-	-
9	-	2,696	2,696	162	57	-	-
10	-	2,926	2,926	159	60	-	-
11	-	3,179	3,179	155	63	-	-
12	-	3,457	3,457	151	66	-	-
13	-	3,762	3,762	147	69	-	-
14	-	4,097	4,097	144	72	-	-
15	-	4,465	4,465	140	76	-	-
16	-	4,449	4,449	-	80	7,230	-
17	-	3,914	3,914	-	87	8,677	-
18	-	3,147	3,147	-	94	10,123	-
19	-	2,125	2,125	-	102	11,569	-
20	-	1,580	1,580	-	110	-	14,461
NPV @	12%						

Initial Expenses	Renewal Expenses	Commission	VAT, duties and other Taxes	Increase in Reserve	Increase in DAC	Total Expenses	Gross Profit
1,200	589	7,475	1,248	7,486	6,699	11,600	17
-	366	1,719	746	4,220	24	7,368	84
-	286	257	558	2,946	(1,610)	6,064	156
-	238	205	445	3,697	(533)	5,406	221
-	223	184	399	4,404	334	5,384	289
-	134	-	-	1,439	(17)	1,815	307
-	142	-	-	1,530	(69)	1,963	332
-	150	-	-	1,627	(130)	2,126	360
-	158	-	-	1,730	(199)	2,306	390
-	167	-	-	1,839	(279)	2,503	423
-	176	-	-	1,955	(371)	2,719	460
-	185	-	-	2,079	(476)	2,956	500
-	195	-	-	2,210	(595)	3,217	544
-	206	-	-	2,350	(732)	3,504	593
-	217	-	-	2,499	(887)	3,819	646
-	228	-	-	(3,963)	(227)	3,803	645
-	245	-	-	(5,806)	(143)	3,345	568
-	264	-	-	(7,805)	(15)	2,690	457
-	283	-	-	(9,975)	164	1,815	310
-	304	-	-	(14,461)	(937)	1,351	229
							2,157

Table 15: US GAAP Income Statement

Year	Total Premium Income	Investment Income	Total Income	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo
1	11,500	117	11,617	276	26	-	-
2	6,874	544	7,418	309	32	-	-
3	5,139	1,032	6,172	370	37	-	-
4	4,099	1,476	5,575	246	42	-	-
5	3,679	1,951	5,629	460	49	-	-
6	-	2,096	2,096	174	50	-	-
7	-	2,250	2,250	170	52	-	-
8	-	2,423	2,423	166	54	-	-
9	-	2,618	2,618	162	57	-	-
10	-	2,836	2,836	159	60	-	-
11	-	3,080	3,080	155	63	-	-
12	-	3,354	3,354	151	66	-	-
13	-	3,660	3,660	147	69	-	-
14	-	4,003	4,003	144	72	-	-
15	-	4,388	4,338	140	76	-	-
16	-	4,396	4,396	-	80	7,230	-
17	-	3,890	3,890	-	87	8,677	-
18	-	3,147	3,147	-	94	10,123	-
19	-	2,139	2,139	-	102	11,569	-
20	-	1,592	1,592	-	110	-	14,461
NPV @	12.0%						

Initial Expenses	Renewal Expenses	Commission	VAT, duties and other Taxes	Increase in Reserve	Increase in DAC	Total Expenses	Gross Profit
1,200	589	7,475	1,248	4,975	4,467	11,322	295
-	366	1,719	746	3,554	(516)	7,242	176
-	286	257	558	3,068	(1,464)	6,040	132
-	238	205	445	3,048	(1,247)	5,470	105
-	223	184	399	2,981	(1,239)	5,535	94
-	134	-	-	1,293	0	1,652	445
-	142	-	-	1,452	0	1,816	434
-	150	-	-	1,629	0	1,999	424
-	158	-	-	1,826	0	2,203	415
-	167	-	-	2,046	0	2,431	405
-	176	-	-	2,292	0	2,685	395
-	185	-	-	2,566	0	2,968	386
-	195	-	-	2,872	0	3,284	376
-	206	-	-	3,214	0	3,636	367
-	217	-	-	3,596	0	4,030	358
-	228	-	-	(3,492)	0	4,047	349
-	245	-	-	(5,465)	0	3,544	347
-	264	-	-	(7,677)	0	2,803	344
-	283	-	-	(10,156)	0	1,797	342
-	304	-	-	(13,623)	0	1,252	339
							2,157

Table 12: Calculate Policyholder's Internal Rate Of Return
Policy remains in force

Year	Total Premium Value	Education Benefit Outgo	Maturity Benefit Outgo	Cash Flow	Benefit Reserve	In Force At End	Benefit Reserve	DAC
1	11,500	-	-	11,500	12,477	0.6000	7,486	6,693
2	11,500	-	-	11,500	26,013	0.4500	11,706	6,708
3	11,500	-	-	11,500	40,700	0.3600	14,652	5,087
4	11,500	-	-	11,500	56,634	0.3240	18,349	4,544
5	11,500	-	-	11,500	73,921	0.3078	22,753	4,869
6	-	-	-	-	80,200	0.3016	24,192	4,849
7	-	-	-	-	87,012	0.2956	25,722	4,777
8	-	-	-	-	94,402	0.2897	27,348	4,645
9	-	-	-	-	102,421	0.2839	29,078	4,445
10	-	-	-	-	111,120	0.2782	30,917	4,165
11	-	-	-	-	120,559	0.2727	32,872	3,794
12	-	-	-	-	130,799	0.2672	34,951	3,319
13	-	-	-	-	141,909	0.2619	37,161	2,725
14	-	-	-	-	153,963	0.2566	39,511	1,997
15	-	-	-	-	167,040	0.2515	42,010	1,115
16	-	28,750	-	(28,750)	151,282	0.2515	38,047	894
17	-	34,500	-	(34,500)	128,197	0.2515	32,241	760
18	-	40,250	-	(40,250)	97,161	0.2515	24,436	754
19	-	46,000	-	(46,000)	57,500	0.2515	14,461	928
20	-	-	57,500	(57,500)	-	-	-	0

Internal Rate of Return 8.49%

Table 14: SFAS 60 Calculations

Year	Total Premium Income	Surrender Benefit Outgo	Additional Death Benefit	Education Benefit Outgo	Maturity Benefit Outgo	Deferrable Expenses	Ongoing Expenses	In Force	Benefit Reserve	DAC	Unearned Revenue Reserve	Maint. Reserve
1	11,500	276	26	-	-	9,597	915	1.00000	3,987	4,467	735	254
2	6,874	309	32	-	-	2,413	418	0.5977	6,686	3,950	1,262	581
3	5,139	370	37	-	-	776	324	0.4469	8,996	2,486	1,742	859
4	4,099	246	42	-	-	619	268	0.3564	11,315	1,239	2,212	1,118
5	3,679	460	49	-	-	556	251	0.3199	13,533	0	2,713	1,380
6	-	174	50	-	-	-	134	0.3030	14,930	0	2,594	1,395
7	-	170	52	-	-	-	142	0.2961	16,497	0	2,471	1,404
8	-	166	54	-	-	-	150	0.2893	18,252	0	2,343	1,405
9	-	162	57	-	-	-	158	0.2826	20,220	0	2,209	1,397
10	-	159	60	-	-	-	167	0.2759	22,425	0	2,070	1,378
11	-	155	63	-	-	-	176	0.2694	24,895	0	1,923	1,347
12	-	151	66	-	-	-	185	0.2629	27,661	0	1,768	1,301
13	-	147	69	-	-	-	195	0.2565	30,760	0	1,604	1,238
14	-	144	72	-	-	-	206	0.2502	34,231	0	1,429	1,156
15	-	140	76	-	-	-	217	0.2439	38,118	0	1,243	1,052
16	-	-	80	7,230	-	-	228	0.2377	34,955	0	1,043	932
17	-	-	87	8,677	-	-	245	0.2363	29,876	0	822	759
18	-	-	94	10,123	-	-	264	0.2348	22,649	0	576	554
19	-	-	102	11,569	-	-	283	0.2332	13,016	0	303	304
20	-	-	110	-	14,461	-	304	0.2314	0	0	(0)	0
NPV	26,990	1,688	403	5,400	1,499	13,163	2,680	3.522				

Benefit Net Premium 33.3% NPV 5 2.347

DAC Net Premium 48.8%
Maintenance Expense N P 9.9%
Excess Premium 17.1%