INTERNATIONAL SECTION NEWS

NUMBER 16 JUNE 1998

Chairperson's Corner

by Michelle Chong Tai-Bell

The pace of globalization is accelerating. At the recent Summit of the Americas held in Chile, leaders of 34 nations affirmed their commitment to the establishment of a single, free-trade area by the year 2005. As the economic and political barriers fall, our companies must contend with the challenges of megamergers, global acquisitions by previously national players, and competition from global financial services groups.

Are we equipped with the global mindset to provide our employers with insightful advice as they attempt to craft solutions to the competitive and risk-management challenges of the new millennium? Have we begun to develop an informal network of international contacts? The International Section will sponsor nine sessions at the two 1998 Spring Meetings in Hawaii with just this in mind. For the first meeting the sessions are:

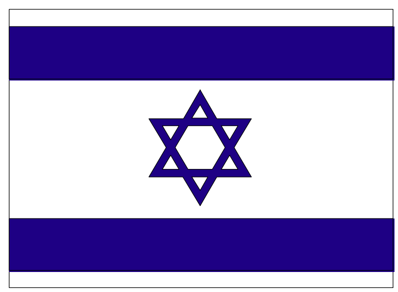
continued on page 19, column 1

Israel's Life Insurance Industry

by Akiva Zohar

Israel has an active and rapidly growing life insurance industry that has been favorably influenced by attractive tax incentives given to savings through life insurance. Insurance revenue places Israel on a par with many of the Western European nations.

Background



Before pursuing an actuarial career, I lived in Israel for six years. Three years ago, I had an opportunity to return and work as an actuary for Gabbay and Company. Gabbay and Company is the auditor for approximately 60% of the insurers in Israel. My family and I lived in Tel Aviv for that summer. Since returning to the U.S., I have kept in regular contact with Israeli actuaries and other professionals in the insurance industry.

This article attempts to introduce actuaries to the Israeli life insurance industry and is an outgrowth of my working notes from that period and updates thereafter. Benjamin Gabbay has helped me a great deal in obtaining background information and clarifying various concepts.

Israel had a socialist economy until the late 1970s. With the first non-Labor government, a dismantling of socialist systems began and is continuing today. These changes have had a considerable impact on all sectors of the economy, including insurance.

Inflation, as always, has a major influence on the insurance industry. While inflation has been below 15% per annum for the last five years, there have been periods that experienced more than that rate per month.

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In This Issue

Editor's Notes

by Kevin M. Law

This issue of *International Section News* includes a wide variety of articles that will be of interest to actuaries involved in international business.

Our lead article by Akiva Zohar provides a comprehensive overview of the life insurance industry in Israel, including descriptions of the various types of coverages sold, as well as premium and profit statistics over a period of several years for the most prominent life companies.

In his article, "Effectiveness in Administrating Individual Life Insurance Policies," Reg Munro describes a methodology that he has developed for measuring the efficiency of a company's administration of its individual life insurance portfolio. A questionnaire is included, along with an invitation for companies to submit data for the computation of the Administrative Effectiveness Index.

Roger Atkins has packed a large quantity of worldwide economic and financial statistics into his summary of Watson Wyatt's survey of *FAS 87* assumptions for non-U.S. defined-benefit plans.

The Brazilian Health Industry article on page 16 by Ronald Poon-Affat describes the major categories of health plans available in Brazil and the principal companies in this growing market. Ronald is planning to write a series of articles on various aspects of the life and health insurance industry in Brazil, and we look forward to his ongoing contributions to *International Section News*.

Thomas Kelly's article, "Worldwide Trends in the Insurance Industry," is also the first in a series of three articles for the newsletter. This material was originally presented by Mr. Kelly as a speech in June 1997 at the LOMA/LIMRA Strategic Issues Conference in Singapore. Special thanks are due to Randy Makin, an Assistant Editor of the newsletter, for his efforts in converting the speech outline into an article format for publication.

Two articles in this edition relating to overseas volunteer work performed by retired U.S. actuaries through the International Executive Service Corps (IESC). Dwight Bartlett and Anthony Spano relate the consulting experiences that they and Arthur Cragoe had during their one-month visit to Cairo, Egypt last year. There is also a separate article by Mr. Cragoe that covers his trip to Samara, Russia in 1994 under the same IESC program, which is sponsored by the U.S. Agency for International Development. Apologies are due to Mr. Cragoe, as this description of his work in Russia was to be published in the latter half of 1996 as Part 2 of his article that appeared in the April 1996 edition of *International Section News*. Fortunately we were able to retrieve the document and publish it, somewhat belatedly, in this issue.

Thanks are due to our two Assistant Editors, Randy Makin and Chiu-Cheng Chang, for their contributions in the areas of obtaining and editing articles for the newsletter.

I would like to encourage readers of this publication to share their international experiences by preparing articles. Contributions from members of the International Section are welcome and, in fact, necessary in order to be able to publish the newsletter on a regular basis.

Kevin M. Law, FSA, is Vice President, Group Actuary at Pan-American Life Insurance Company in New Orleans, Louisiana, a member and former chairperson of the International Section Council, and editor of International Section News.

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This newsletter is free to Section members. A subscription is $10.00 for nonmembers. Current-year issues are available from the Communications Department. Back issues of Section newsletters have been placed in the Society library. Photocopies of back issues may be requested for a nominal fee.

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Survey of FAS 87 Assumptions

by F. Roger Atkins

This article presents a brief summary of Watson Wyatt's Survey of *FAS 87* assumptions for non-U.S.-defined benefit plans as of December 31, 1996 and also includes some historical comparisons for selected countries. This is the eighth annual survey of assumptions used by major U.S. (and a few non-U.S.) corporations for their defined-benefit plans outside of the U.S.

Survey responses were received from more than 130 companies that had adopted *FAS 87* for their foreign plans and the following 20 countries were covered: Australia, Germany, Mexico, South Africa*, Austria, Hong Kong, Netherlands, Spain, Belgium, Ireland*, New Zealand*, Switzerland, Canada, Italy*, Philippines*, Taiwan, France, Japan, Portugal, United Kingdom.

This list includes the major foreign countries where companies have defined-benefit plans and also covers usage of a fairly wide spectrum of different local funding and actuarial approaches. In addition, the results from the U.S. survey have been included for reference.

Measurement Dates

The majority of the reported measurement dates are December 31, 1996 or within a few months of this date.

Background Economic Data

Europe

The European recovery in the 1990s has been hampered by consistently high unemployment rates. In 1996, however, growth in the core European economies started to strongly increase, and there was gradual improvement across the EU as a whole. Generally this expansion is being achieved without significant inflationary pressures, and there is evidence that the high levels of unemployment will result in continued capacity for growth without inflation. Interest rates, while rising slightly, remain at relatively low levels.

In Germany, interest rates remained stable during 1996. At the end of the year, yields on government long-term bonds (with maturity dates more than 10 years) were running at 6.8%, effectively unchanged from the previous year. The same picture prevails for shorter dated bonds, where yields at the end of 1996 were 5.8%, compared with 6.0% a year earlier. Inflation in 1996 eased further to 1.5% and is expected to remain at a similar level for 1997, although in the medium term cyclical pressures are likely to cause inflation to gradually increase.

Unemployment in France is a major problem, rising to 12.7% by the end of 1996 and showing no sign of decreasing in the near future. This has caused considerable strain on the French economy generally and on the social welfare system in particular. It remains to be seen how the newly elected socialist government will address the economy's structural problems. Inflation, however, has been contained and is stable at about 1.8%. Long-term interest rates at the end of 1996 were 5.85%.

> ***"The European recovery in the 1990s has been hampered by consistently high unemployment rates."***

The U.K. economy continued to grow in 1996, with a corresponding fall in unemployment and with concerns over capacity constraints leading to action to head off the threat of inflation. Sterling strongly appreciated in value against the major trading partners during the course of the year. In 1996, long-bond yields on government stock closed at 7.6%. Interest rates fell during the first half of the year, but had begun to rise by year-end when base rates stood at 6.0%; in the first half of 1997, there were further increases to 6.5%. Inflation fell during 1996 to a low point of 2.1% in September before creeping back up to 2.5% at the year-end. Since then there has been little change.

Asia/Pacific

In 1996, the Hong Kong market exceeded its 1995 comeback, posting a 35% return for the year (FTA-Hong Kong Index). This reflects the positive investor sentiment towards the 1997 handover of sovereignty.

In 1996, following the slump in 1995 real estate prices, the property sector strongly rebounded. This sparked a rise in bank mortgages, which boosted the financial sector. Investors who avoided utilities did especially well. Consumer price inflation dropped 3% to 6.6%, its lowest level in 10 years.

Japanese equities lost further ground in 1996 as Japan continued to be forced to manage its struggling economy and the dollar continued its assault on the yen. After the economy enjoyed a brief period of growth in the first quarter of 1996, the Japanese market ended the year down 16% in U.S.-dollar terms. The slowdown was caused by the further contraction in corporate-sector cash flow, which added to the deteriorating structural problems. Bond yields have plummeted in anticipation of falling interest rates, which have further weakened the yen. However, this could provide some economic stimulus for at least the export side of the economy in 1997.

The smaller Asian markets had a very mixed year. Despite leading indicators predicting a boom in Korea in 1996, Korean companies suffered the effects of an increasingly difficult export environment. Blue-chip stocks took a beating, and negative investor sentiment filled the market. Thailand struggled with uncertain developments in the government and weaknesses in the financial sector. The Thai stock market ended the year down 40%. The region's success story was found in Malaysia, which rallied in the first and fourth quarters of 1996, ending the year up 26% in U.S.-dollar terms. The foreign-exchange markets received assistance from the Malaysian central bank during the fourth quarter, as the Ringgit increased in strength.

continued on page 4, column 1

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*New to this year's survey.

Survey of *FAS 87* Assumptions
continued from page 3

Latin America

Mexico's economy experienced a 5% GDP growth during fiscal year 1996 along with a 23% real-terms peso appreciation. Recent forecasts have estimated that GDP will grow at least 6% during fiscal year 1997. After three years of very low returns (below inflation), the Mexican stock market rose more than 40% during the first semester of 1997. Such increment is mainly the result of a 6.5 billion foreign investment. Finally, it is important to note that during half of fiscal year 1997, salaries are expected to have an average growth of 6% to 7% above inflation to partially compensate for the loss of purchasing power experienced during fiscal year 1995.

U.S. and Canada

In the U.S., equity markets had another outstanding year with large-capitalization stocks once again leading the way. The DJIA neared 6500 at year-end, reflecting a 29.1% increase (including dividend income) from the end of 1995. The S&P 500 and Russell 1000 returned 23.1% and 22.5%, respectively. When taken with the 35% returns for 1995, the equity markets have increased more than 50% for the past two years. Clearly, performance of this level has not been seen since the mid-1950s. Growth stocks outpaced value for the year as the Russell 1000 Growth Index returned 23.1% versus the 21.6% return for the Russell 1000 Value. Capital goods, consumer staples, financial services, and technology were the top-performing industries.

The Russell 2000 small capitalization index ended the year up 16.5%, or

continued on page 5, column 1

TABLE 1
Bond Yields and CPI in the 20 Countries Included in the Survey

	Bond Yields					
	Government		Corporate		CPI	
Country	12/31/95 Percentage	12/31/96 Percentage	12/31/95 Percentage	12/31/96 Percentage	12/31/95 Percentage	12/31/96 Percentage
Australia	8.12%	7.36%	8.25%	7.68%	5.10%	1.50%
Austria	5.74	5.44	–	–	1.80	2.30
Belgium	6.64	5.91	7.25	6.32	1.50	2.50
Canada	7.10	6.40	8.30	7.35	1.70	2.20
France	6.51	5.76	6.81	5.80	2.10	1.70
Germany	5.88	5.69	5.24	5.60	1.80	1.40
Hong Kong	5.77	5.59	–	–	6.60	6.70
Ireland	–	6.80	–	7.55	–	1.90
Italy	–	7.48	–	6.41	–	2.60
Japan	3.06	2.75	2.76	2.51	-0.30	0.60
Mexico	44.70	27.37	–	–	52.00	27.70
Netherlands	6.32	5.70	6.47	6.09	1.90	2.50
New Zealand	–	7.14	–	8.12	–	2.55
Philippines	–	10.25	–	–	–	5.10
Portugal	8.93	5.40	8.90	6.10	3.40	3.30
South Africa	–	16.86	–	–	–	9.40
Spain	9.35	6.69	9.91	7.14	4.30	3.20
Switzerland	3.79	3.72	4.10	3.85	1.90	0.80
Taiwan	6.50	5.65	–	–	4.60	2.50
U.K.	7.45	7.51	8.37	8.23	3.20	2.50
15 years	7.79	7.65	–	–	–	–
U.K.	5.59	6.41	6.86	7.36	2.50	3.30
30 years	5.97	6.65	–	–	–	–

Sources:

Bond Yields: Hong Kong, Philippines, Taiwan, Mexico, Portugal (Government) and South Africa–*Economist*–Emerging-Market Indicators–Short-Term Interest Rates, Ireland, New Zealand and Portugal (Corporate)–Local Watson Wyatt Office, All others–*Economist*–Financial Indicators.

CPI: Hong Kong, Philippines, Taiwan, Mexico, and South Africa–*Economist*–Emerging Market Indicators, Ireland and New Zealand–Local Watson Wyatt Office, All others–*Economist*–Financial Indicators.

Survey of *FAS 87* Assumptions
continued from page 4

over 5% behind the large stock indices. Small-value outperformed small-growth as the Russell 2000 Value Index returned 21.4% versus an 11.3% return for the Russell 2000 Growth. Energy, capital goods, and financial services paced the small sector of the market.

Canadian stocks, as represented by the TSE 300, delivered a 28.4% return. The TSE Consumer Products Stock Index returned 19.6%, while the TSE Real Estate Stock Index gained 41.7%. The Canadian bond market had another good year, posting returns of 13.3% for long bonds (SM long-term), 12.5% for intermediate bonds (SM mid-term), and 10.7% for short bonds (SM short-term).

In the U.S. bond market, Treasury yields rose by approximately 70 basis points across the curve. As a result, the shorter duration mortgage and asset-backed sectors were the best performers of the year posting returns of 5.4% and 5.1%, respectively. The long end of the U.S. Treasury market faired relatively poorly with the 30-year issue losing 3.5%. Overall, small capital losses partially offset yields, providing a 3.6% return for the broad market as represented by the Lehman Brothers Aggregate Index over the year.

Table 1 on page 4 gives useful information on bond yields and CPI in the 20 countries included in the survey.

TABLE 2
Discount Rate Distribution

	Average		Lowest 1996	Highest 1996
	1996	1995		
Australia	7.78%	8.26%	6.50%	9.00%
Austria	6.40	6.80	5.50	7.00
Belgium	6.89	7.36	6.00	7.50
Canada	7.88	8.41	7.00	9.00
France	6.89	7.56	6.00	8.00
Germany	6.57	6.86	6.00	7.50
Hong Kong	8.82	8.38	7.50	11.00
Ireland	7.31	–	7.00	7.50
Italy	8.88	–	7.50	9.50
Japan	4.25	4.36	3.00	5.75
Mexico	15.13	13.49	5.00	25.40
Netherlands	6.33	6.73	6.00	7.00
New Zealand	5.83	–	5.50	6.00
Philippines	12.29	–	11.00	15.00
Portugal	7.16	7.90	6.00	8.00
South Africa	14.86	–	14.00	15.00
Spain	7.54	8.56	6.00	9.50
Switzerland	4.53	4.80	4.00	5.00
Taiwan	7.30	7.83	7.00	8.00
U.K.	8.21	8.56	6.75	9.00
U.S.	7.55	7.28	5.75	8.50

Discount Rates

Discount rates eased almost across the board following reductions in long-term interest rates in most of the world's economies. It is clear from the survey that companies are taking different approaches to recognizing the higher inflation in Mexico, thereby making the "average rate" somewhat misleading. The range of rates in Hong Kong looks rather extreme. Table 2 shows the distribution of rates and the average for last year.

Figure 1 on page 6 explores how closely the discount rate has been following long-term corporate bond rates, as the latter has become a benchmark for establishing the discount rate. Figure 1 shows the average discount rate *less* the long-term corporate bond rate for 1995 and 1996. I have excluded Mexico because of the special situation there. In those countries where no corporate bond data were available, I used government bond data as shown earlier, which in some instances means short- term interest rates.

It is interesting to note that in 1995 there were six countries, and in 1996 nine countries, in which the measured difference was greater than $\pm 1\%$. Also there were two countries in 1995 and four countries in 1996 in which the measured difference was negative (that is, the average discount rate was lower than the bond rate).

Rate of Return

The survey disclosed the following percentages of funded plans in those countries in which both funded- and book-reserved plans occur: Austria, 30%; Japan, 86%; France, 56%; Mexico, 89%; Germany, 55%; Spain, 25%; Italy, 75%.

As expected, in most cases the rate of return changed very little, but there are some wide ranges, which need further explanation. Mexico is a special case. Table 3 shows the distribution of rates and the average for last year, and Table 4 shows the range of results of "real returns."

While it would be desirable to use the best possible estimate of a long-term CPI to develop these data, for simplicity and convenience I have used the reported current CPI rates that appear earlier. Therefore, when interpreting these results, it is important to take into account that they are benchmarked against a current CPI as opposed to a long-term CPI.

Salary Increase

Table 5 shows the distribution of the salary increases, together with the average for last year.

The salary increase is very much company- and plan-specific, once the underlying country level of inflation is taken into account and there appears to be a modest reduction from last year.

Table 6 shows the range of results for "real salary increases."

Historical Data

Figures 2–7 provide historical information on the discount rate and government bond rate for six important countries: Australia, Canada, Germany, Japan, Netherlands, and the U.K. over the period 1989 to 1996.

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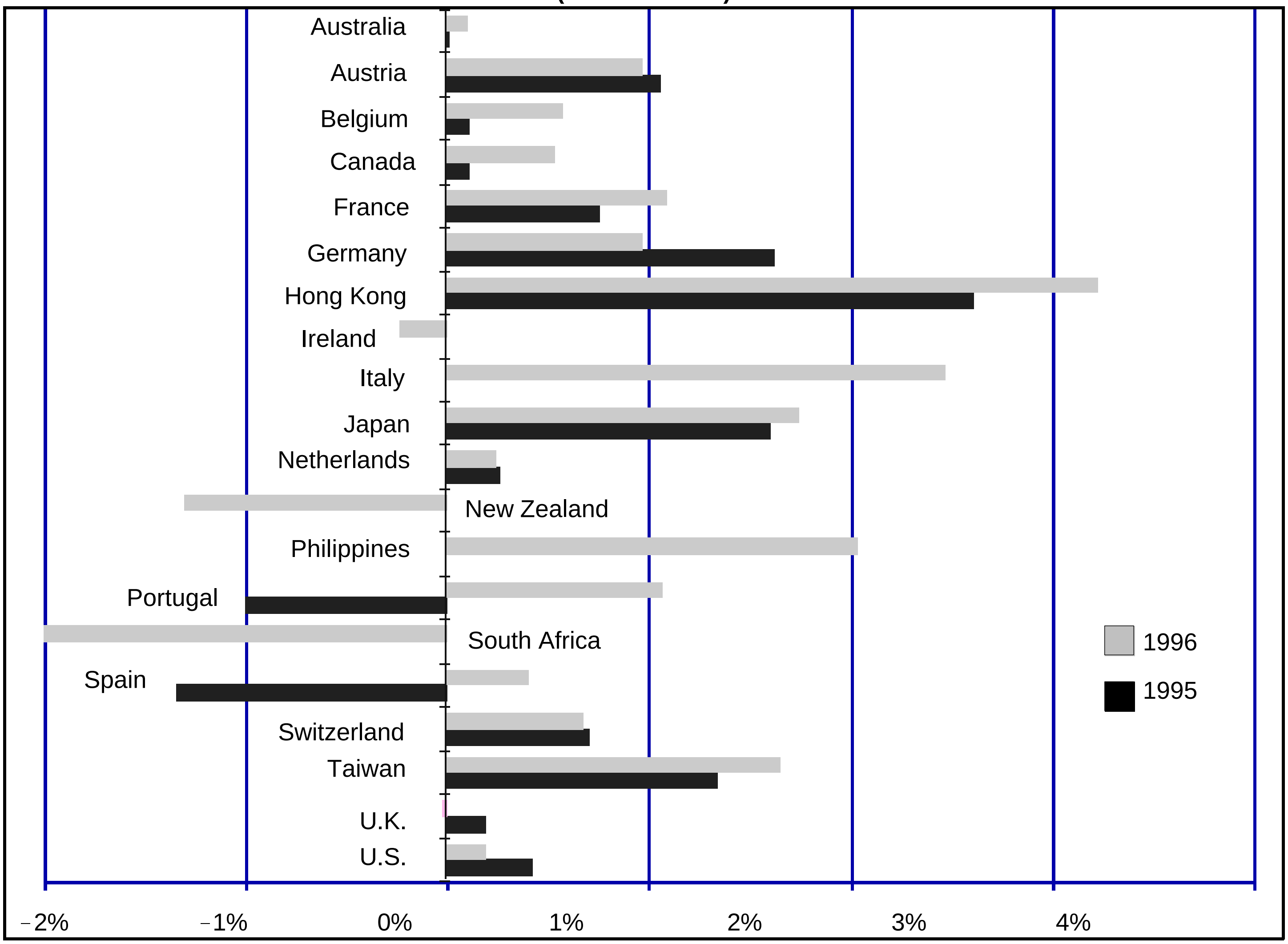
FIGURE 1
Average Discount Rate Less the Long-Term Corporate Bond Rate
(1995 and 1996)



It is curious that even since 1993, when the SEC set out its approach to selecting the discount rate, the survey shows that some companies are using discount rates below the government bond rate. This might arise from issues of materiality and a less than strict application of *FAS 87*, but we have not explored the matter. It might also arise from a continuing practice, in some cases, of using local funding assumptions for *FAS 87* purposes.

The December 31, 1997 survey is about to be started. I would be happy to answer any questions that readers may have.

My thanks to colleagues Angela Tamburino for managing the survey process and Mani Sundaresan for his review and preparation of the figures.

F. Roger Atkins, ASA, is a consulting actuary at Watson Wyatt Worldwide in Washington, D.C.

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Survey of *FAS 87 Assumptions*

TABLE 3
Rates of Return Distribution

	Average		Lowest	Highest
	1996	1995	1996	1996
Australia	8.52%	8.94%	8.00%	10.00%
Austria	7.42	7.08	6.75	8.00
Belgium	7.49	7.60	4.75	8.75
Canada	8.95	9.09	7.00	11.00
France	7.25	7.93	6.00	8.50
Germany	7.10	6.98	6.50	8.00
Hong Kong	9.86	9.50	9.00	12.00
Ireland	8.00	–	7.50	8.50
Italy	7.67	–	4.50	9.50
Japan	4.94	5.64	3.00	7.50
Mexico	16.19	16.00	6.00	26.00
Netherlands	7.47	7.43	6.00	8.50
New Zealand	6.46	–	5.75	7.00
Philippines	12.75	–	11.00	15.00
Portugal	7.28	7.90	6.00	8.00
South Africa	15.93	–	14.00	16.50
Spain	7.00	8.20	6.00	8.50
Switzerland	5.48	5.79	4.00	6.50
Taiwan	7.30	7.86	7.00	8.00
U.K.	9.20	9.36	7.75	11.00
U.S.	9.09	9.09	8.00	10.50

TABLE 4
Real Returns

Real Rate	1995	1996
Less than 3%	1	0
3%–4%	4	4
4%–5%	1	5
5%–6%	5	5
More than 6%	4	6

TABLE 5
Salary Increase Distribution

	Average		Lowest	Highest
	1996	1995	1996	1996
Australia	5.17%	5.63%	4.00%	6.50%
Austria	4.10	3.97	3.00	5.00
Belgium	4.36	4.75	3.00	6.00
Canada	4.90	5.32	3.50	7.90
France	3.40	3.97	2.00	5.50
Germany	3.76	3.85	2.50	6.50
Hong Kong	8.23	7.58	7.50	10.50
Ireland	4.88	–	4.00	6.00
Italy	5.81	–	5.00	7.00
Japan	3.53	3.71	2.30	5.30
Mexico	13.84	10.45	2.00	25.00
Netherlands	4.28	4.21	2.50	6.50
New Zealand	4.25	–	3.00	5.00
Philippines	10.25	–	9.50	12.00
Portugal	4.91	6.00	3.50	7.00
South Africa	12.43	–	10.00	13.50
Spain	5.33	6.21	3.75	7.00
Switzerland	3.28	3.56	2.50	4.50
Taiwan	7.10	7.43	6.50	8.50
U.K.	5.70	6.05	4.00	7.50
U.S.	4.73	4.78	2.50	8.40

TABLE 6
Real Salary Increases

Real Rate	1995	1996
Less than 1%	2	0
1.0%–1.5%	0	1
1.5%–2.0%	3	7
2.0%–2.5%	4	3
2.5%–3.0%	3	3
More than 3.0%	3	6

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Survey of *FAS 87* Assumptions

FIGURE 2
Australian Discount Rates

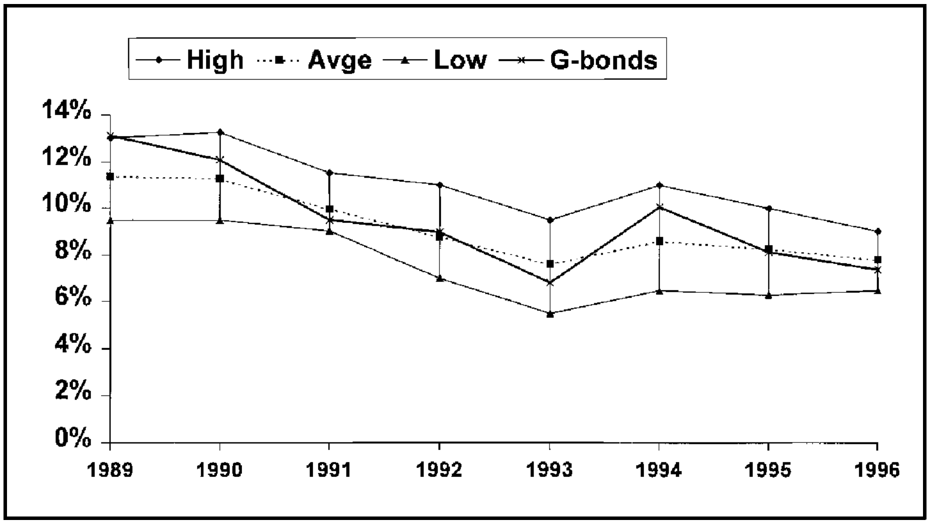

FIGURE 3
Japanese Discount Rates

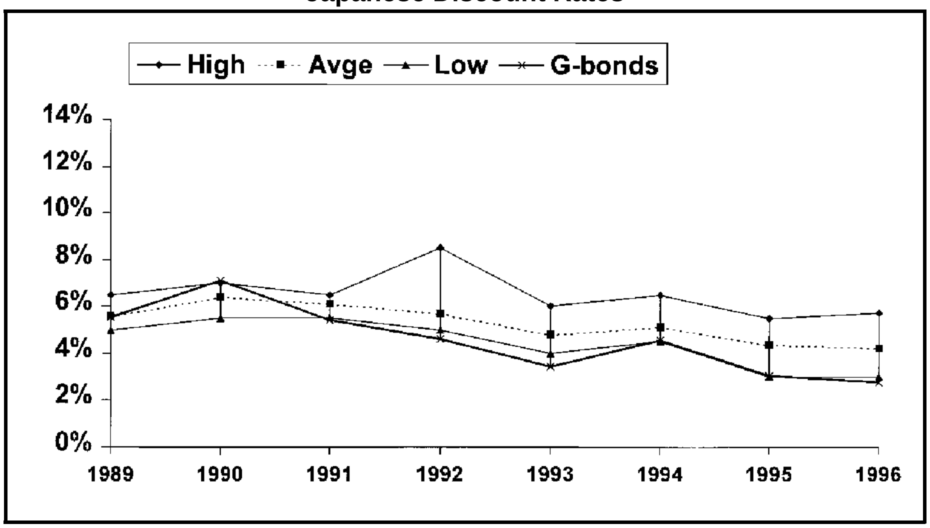

FIGURE 4
German Discount Rates

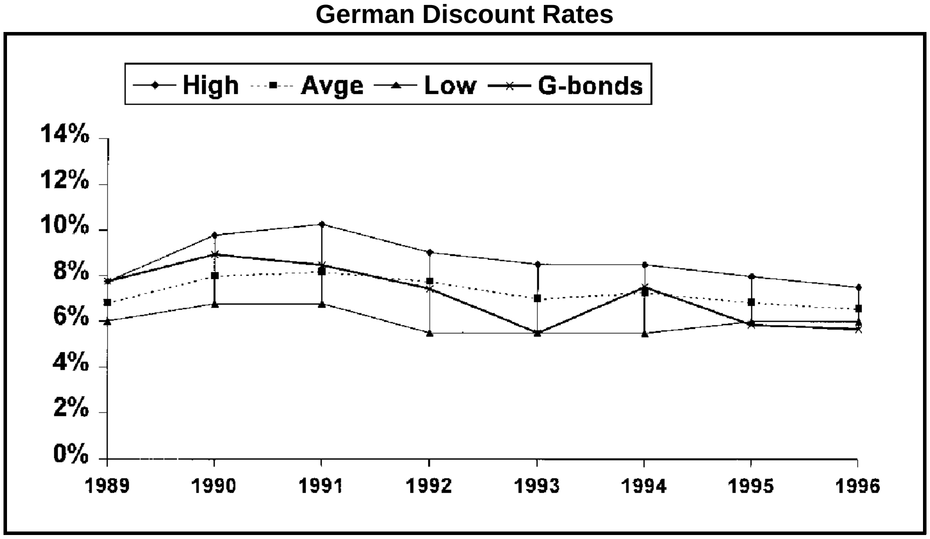

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FIGURE 5
Netherlands Discount Rates

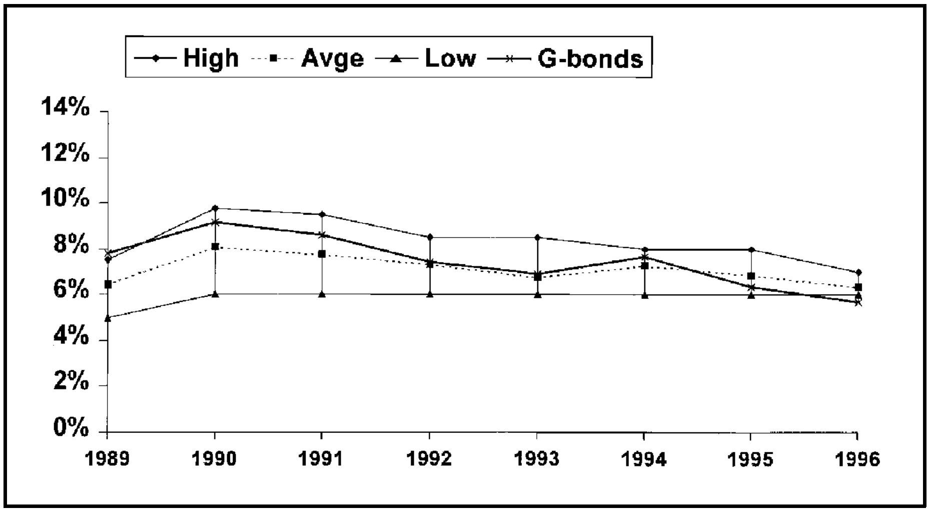


FIGURE 6
U.K. Discount Rates

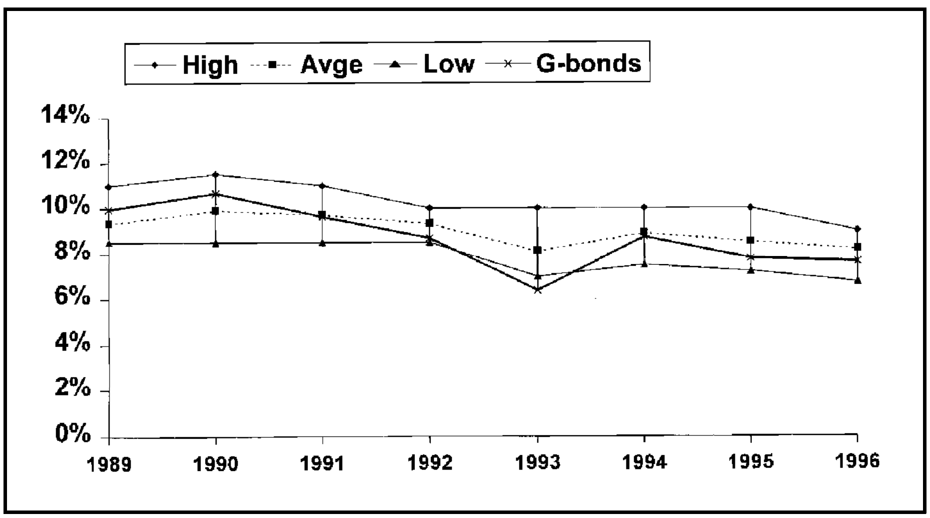
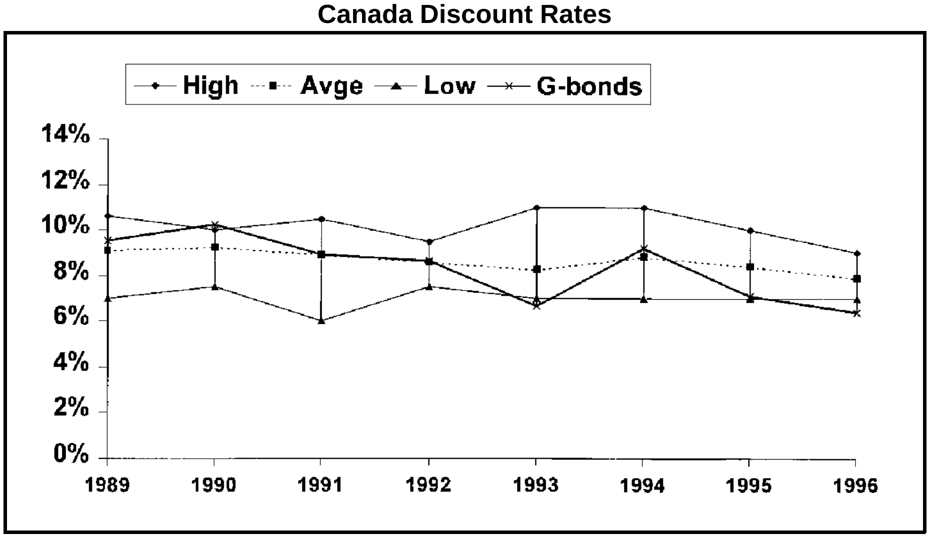


FIGURE 7
Canada Discount Rates



9th East-Asian Actuarial Conference

by Amornthip Chansrichawia and Aruna Visveswar

The Society of Actuaries of Thailand, together with the Thai Life Assurance Association and the Thailand Insurance Institute, had the privilege of hosting the 9th East-Asian Actuarial Conference (EAAC) October 19–22, 1997 in Bangkok, Thailand. This conference was rather unique in that it attracted a large number of delegates not only from its member countries of the East-Asian region, which includes Malaysia, Singapore, Hong Kong, Korea, Philippines, Indonesia, Japan, the Republic of China, and Thailand, but also Canada, France, the U.K., the U.S., Germany, Switzerland, India, Australia, and Pakistan, totaling 338 participants in all.

Globalization and financial liberalization have been accelerated in the process of economic growth the world over. Liberalization has brought about new business, together with various kinds of risk management situations posing challenges and competitions a-plenty. Thus, the theme selected was "The Actuary of the Next Decade: Challenges and Responses." This is all the more apt in the present scenario of economic downturn in the Asian region, which had set in even before the 9th EAAC and was much the topic of discussion.

A total of 44 speakers presented 42 papers at the various sessions, which included workshops, plenary sessions, and concurrent sessions, and a session of keynote addresses. In this session, the following four illustrious speakers shared their views with the august assembly:

- Mr. Yuan Chang, Vice President of the Society of Actuaries, USA, from Hong Kong, spoke on the SOA's commitment to Asia
- Mr. Pat O'Keeffe, Council Member, Institute of Actuaries, from England, concentrated on raising the profile of the profession, its assault on wider fields, and its unification
- Mr. Chris Daykin, Chairman, International Forum of Actuarial Associations, England, elaborated on internationalization of the actuarial profession
- Professor Harry Panjer, President, Canadian Institute of Actuaries, highlighted "Globalization of the Actuarial Profession."

The various sessions were as follows:

- Session 1: Expectations from the Actuarial Consultant
- Session 2: Keynote addresses
- Session 3: "Bancassurance," Plenary Session
- Session 4: Product Design for a Modern Insurance Industry
- Session 5: Issues Relating to Distribution System
- Session 6: Valuation Systems and Methods
- Session 7: Globalization of Insurance and Retirement Benefits
- Session 8: "New Definition of Risk," Plenary Session
- Session 9: "Financial Reporting" Workshop by Society of Actuaries
- Session 10: "Product Development and Pricing: The Actuary as an Entrepreneur," Workshop by ING Financial Services, Hong Kong.

For the first time in the EAAC's history, the national reports of member countries were presented by using multimedia slides. This maiden attempt by the host country was highly lauded and turned out to be a rich experience. The statistics and other technical material were extracted from individual national reports sent by the respective actuarial societies. Background music and the movie were obtained from the various embassies and tourism authorities.

With Korea formally agreeing to host the 10th EAAC, and Hong Kong moving its bid from the year 2003 to year 2001 and being accepted as the host of the 11th EAAC, the participants proclaimed the 9th EAAC, under the able chairmanship of Mr. Apirak Thaipattanugul, an exceptionally grand and successful conference. Sightseeing, shopping, and an evening of Thai culture and dance with special entertainment provided by participating delegations added to the richness of the experience. All in all, it was a conference that we in Bangkok can look back on and say, "Ah! That was a job well done."

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Israel's Life Insurance Industry
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Insurance Industry

The Israeli insurance industry began in the 1920s and 1930s. Israel was part of a British mandate, and local companies along with branches of European companies began operations there.

The insurance industry generated more than 8 billion NIS ($2.5 billion U.S.) of gross life premiums and was holding more than 35 billion NIS ($11 billion U.S.) of life reserves in 1996. In Israel, the level of premiums is 3% of GNP compared to 4.9% in the U.S., but is growing at a rate of more than 7% per year (after inflation) as compared to 1.7% in the U.S.

Swiss Re's Sigma produced a study, "World Insurance in 1995" (April 1997). Within this study are a number of measures of a country's or region's insurance market. These measures examine premium, premium growth, premium per capita, and premium as a percentage of gross domestic product. Israel's insurance density (total life premium per capita) placed twenty-first in the world (between Singapore and Hong Kong), and its insurance penetration (life premiums as a share of gross-domestic product) fifteenth in the world (between Germany and Taiwan). Its total life insurance premium ranks it twenty-eighth (between Portugal and the People's Republic of China)—not bad for a country of 5.863 million (as of 9/30/97).

In a study by Deloitte & Touche Consulting Group, "The Global Insurance Market: Surviving in a Competitive Environment," 12 market attractiveness criteria were identified. While Israel was not singled out in this article, its insurance market scores "highly attractive" or "very highly attractive" on 10 of these 12. The two areas that were scored low were population ("highly attractive," with more than 25 million) and size of insurance market ("highly attractive" with more than $5 billion (U.S.) of premium income).

The Israeli life insurance industry is dominated by five groups that account for 92% of the total gross premium and reserves. These groups are (by size): Migdal, Clal Israel, Israel Phoenix, Harel, and Menora and include 18 separate companies. In addition, there is one medium-sized independent company (Zion) and a few smaller independent companies. Most companies deal in both life and general (property and casualty) insurance.

While these companies have been domestically owned, a recent change in the banking laws now limits the investments in nonbanking institutions by banks. The two largest insurance company groups were majority-owned by banks, so this put sizable blocks of insurance company stock on the market. Generali (Italy), which had been a minority shareholder, now owns 64% of Migdal. The additional 37% that Generali acquired cost $370 million (U.S.). Allianz (Germany) acquired 25% of Clal Insurance for $150–$170 million (U.S.). In addition, AIG had already established a limited position in the industry.

Financial Results from Israeli Life Insurance

Tables 1–4 illustrate some indicators of the Israeli life insurance industry. All figures are based on 1996 price levels. At mid-year 1996, the exchange rate was 3.2 NIS per $1 U.S.

Actuarial Field

The Israel Actuarial Association celebrated its 50th anniversary in 1996. When the association was established, two years before the establishment of the state, there were nine members.

On a visit to Israel in 1988, a listing of all of the actuaries in Israel fit on one side of a typewritten sheet. A number of those listed were, in fact, semi-retired. At that time, when I inquired about the state of the industry in Israel, I was told that it was a very staid environment. Most products were endowment and limited-pay life and the government handled all investments. Under this system, the companies were almost guaranteed a profit.

In 1990, the Israel Association of Actuaries (IlAA) began testing procedures with the grandfathering of all practicing actuaries. There has been an active actuarial science program at the University of Haifa since 1989. Israel is also one of the overseas sites available for SOA exams, and the IlAA recognizes foreign designations. A Fellow of the Society may become an Associate of the IlAA by applying and, after one year of practice in Israel, becomes an IlAA Fellow. I have been an Associate of the IlAA since 1995.

The IlAA is a full member of the International Forum of Actuarial Associations. Most of its Fellows are members of the International Association of Actuaries. The IlAA holds regular meetings of both professional and social nature throughout the year. Currently, there are more than 125 Fellows, Associates, and students.

Types of Coverage

Israeli life insurance more closely resembles the British variations than North American. Many of the more senior actuaries in Israel are accredited by the Institute, and much of the insurance terminology is British-based.

Insurance coverage of war risk is required. It is differentiated as active (deaths occurring while in military service) and passive (deaths of civilians caused by war or terrorist action). Charges for this additional mortality were set at a flat rate of 0.5 per million for both active and passive. This has been used historically, but newly designed products do not use a specific load and reinsurers regularly factor in about 0.2 per mil for this risk.

An Israeli taxpayer is able to shelter up to 5% of his salary up to a maximum of 70,000 NIS ($20,000 U.S.) in cash-value insurance products.

Gross premiums and nonforfeiture values are set by government-approved formula. The government must approve premium rates for life business and automobile. The gross premiums, cash-surrender values, and paid-up insurance are computed using standardized sets of assumptions. Thus, each company charges the same premiums for the same type of policy. New policies currently being introduced are starting to use more current mortality assumptions, resulting in more competitive products.

Premiums are primarily paid on a monthly basis by automatic deduction from the policyholder's bank account. The premiums are computed on a monthly basis and the annual premium is simply 12 times this amount (modal factors are not usually encountered).

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TABLE 1
Premium—Gross Israeli Life Insurance Premiums by Group (000,000 NIS)
1996 Price Levels

	1996	1995	1994	1993	1992	1991	1990
Migdal	2,632	2,311	2,080	1,822	1,403	1,112	1,055
Clal	1,809	1,688	1,561	1,438	959	819	797
Israel Phoenix	1,303	1,421	1,492	1,189	888	799	642
Harel	751	683	613	544	486	443	440
Menora	742	678	648	580	547	504	501
Hasnei	(Entered Receivership in 1992)				375	451	489
Zion	304	283	260	232	215	214	212
Not in Groups	523	462	378	247	212	406	320
Total	**8,064**	**7,528**	**7,030**	**6,053**	**5,084**	**4,750**	**4,457**

TABLE 2
Premium Growth
Rates of Premium Growth Net of Inflation

	1996	1995	1994	1993	1992	1991	1990
Migdal	13.9%	15.0%	13.7%	30.6%	26.0%	5.5%	34.7%
Clal	7.2	10.7	9.1	50.9	16.9	2.8	15.2
Israel Phoenix	−8.3	−2.2	25.3	30.5	11.8	24.5	9.0
Harel	10.0	13.9	12.5	12.7	9.4	0.8	4.4
Menora	9.4	7.0	11.5	6.6	8.4	0.7	8.2
Hasnei	(Entered Receivership in 1992)				−17.1	−7.9	4.7
Zion	7.2	11.3	11.9	8.8	0.0	1.1	1.6
Not in Groups	13.1	−28.7	54.9	17.0	−47.8	26.2	−18.7
Total	**7.1%**	**7.1%**	**16.2%**	**19.1%**	**7.0%**	**6.6%**	**10.9%**
Average Annual Growth, 1990–1996							10.4%

Comparable Increases in U.S. Insurance Premiums after Adjustment by the CPI

	1995	1994	1993	1992	1991	1990	1990–95
U.S. Life	0.5%	−1.6%	10.5%	1.6%	0.5%	−1.2%	1.7%
U.S. Annuity	−6.9	2.3	21.9	15.2	−7.6	3.1	4.1
U.S. Total	**−3.3%**	**0.4%**	**16.0%**	**7.8%**	**−3.3%**	**0.8%**	**2.8%**

Linkage

The original policies once issued were either in a set level of local currency (wiped out by inflation) or linked to the U.S. dollar (or some other stable currency). Most of these no longer exist, and since the later 1960s, there has been linkage between policy values (face amount, premium, and cash-surrender value) and price levels.

Linkage is carried out through the implementation of the Basic Shekel. The Israeli currency is the New Shekel (NIS). Policy values are computed in Basic Shekel terms with the CPI set at 100. As of August 1997 the CPI was at 8,308. Since 1975, policy values have been linked on a monthly basis (prior to that a semi-annual determination was used). Each month the applicable CPI factor is multiplied by the policy values (expressed in Basic Shekel) to arrive at the nominal values.

With the advent of participating policies (explained below), the operation of linkage changed. The premium and face amount continue to be linked as described above, but the account value or cash value depends on the investment performance of the underlying fund. Most products have as a benefit the face amount *plus* the accumulated fund (bonus).

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TABLE 3
Net Profit—Israeli Life Insurance Net Profit by Group (000,000 NIS)
1996 Price Levels

	1996	1995	1994	1993	1992	1991	1990
Migdal	173	153	131	150	161	114	81
Clal	190	155	154	120	105	80	55
Israel Phoenix	−41	−91	105	149	124	78	66
Harel	56	51	46	40	33	42	43
Menora	52	48	38	45	43	40	34
Hasnei	(Entered Receivership in 1992)				72	98	56
Zion	22	23	25	26	34	26	25
Not in Groups	103	4	2	0	9	19	12
Total	**556**	**344**	**502**	**530**	**580**	**498**	**372**

TABLE 4
Profit Margin—Israeli Life Insurance Net Profit as a Percentage of Premium

	1996	1995	1994	1993	1992	1991	1990
Migdal	6.6%	6.6%	6.3%	8.3%	11.5%	10.3%	7.6%
Clal	10.5	9.2	9.8	8.3	10.9	9.7	6.9
Israel Phoenix	−3.2	−6.4	7.1	12.5	13.9	9.8	10.3
Harel	7.5	7.5	7.6	7.3	6.7	9.5	9.8
Menora	6.9	7.1	5.9	7.8	7.8	7.9	6.7
Hasnei	(Entered Receivership in 1992)				19.1	21.8	11.4
Zion	7.4	8.2	9.7	11.3	15.9	12.2	12.0
Not in Groups	19.6	0.8	0.4	0.2	4.4	4.8	3.9
Total	**6.9%**	**4.6%**	**7.1%**	**8.8%**	**11.4%**	**10.5%**	**8.4%**

Policies

Historically, the most common types of life coverage have been:

- Endowment (most often at age 65)
- Whole life
- Whole life paid up at 65
- Term insurance (5/10/12 years with renewability)
- Annuity with period certain of 10 years. Of these, the most common categories are:
  - Death benefit prior to annuitization is basically return of premium
  - Death benefit prior to annuitization is 50 or 75 monthly annuity payments
  - SPDA.

The more common riders are:

- Accidental-death benefits
- Loss-of-limb paid as a lump-sum based on a schedule
- Disability income with 3/6 months elimination for life.

Adif

Adif is a local variation, begun in 1983, with some similarities to UL, but more similar to the U.K.'s unit-linked products. There are a variety of products or options under this calculation method. Commissions are fast approaching the levels paid on whole life. Calculations are performed monthly and premiums can be changed at the discretion of the policyholder. The risk rates are select and ultimate but are set at policy inception and are not subject to change. The standard benefit paid at death corresponds to Option B under U.S. UL, that is, payment of face plus account value. There is no minimum-death benefit, and it could be zero.

The usual calculation methodology is to start with a premium (net of any riders) and then to divide this into three parts: about 18% to cover expenses, 10% to purchase term insurance coverage, and the remaining 72% going into the savings pool. Dump-ins are placed into different savings pools, depending on the year deposited. The savings pool is increased by the unit value increase in the corresponding investment portfolio. The "standard" working of the policy is to have an amount of term coverage that decreases each

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year with a benefit equal to that term coverage plus the accumulated fund. The largest use of these products is as a vehicle for employee savings plans (similar to our 401(k)).

The investments are in the commingled general investments of the life insurance company. In the U.K., unit-linked policies often have a selection of choices in which savings portions are invested. There are often a number of mutual funds as well as the general investment account of the insurer.

It is standard practice to include an annuity settlement option in the policy. There is concern that this option is too generous in that it does not take into account future mortality improvements.

The two common variations of the standard Adif form are:

- Increasing the savings portion (with a decrease in the term insurance portion). This additional savings is placed in a different savings pool and can have the effect of being a savings account or mutual fund if the term insurance portion were reduced to zero.
- Less common is to pay an additional amount to maintain a level death benefit. The term rates charged with this method will be different than risk rates charged on the underlying policy.

Health Insurance

Disability-income products are structured with level premiums set and subject to linkage only. This payment of a "level" premium is recognized in the reserves but the policy carries no cash value. Elimination periods may be very short. Because of the gains on surrenders, this has been a profitable product.

- A lump-sum version of the above DI product
- An ART version of DI insurance. This is far less profitable. There could also be some concern that in situations with aging work forces the premiums could ultimately pierce the limitation on the deductibility of premium payments by employers.
- Short-term disability (up to three years) products are sold with a double-indemnity feature for the amount of scheduled benefits.
- Disability is covered in both stand-alone policies and riders. Occupational causes are excluded because the benefits offered under National Insurance are richer than those offered on most policies. Economic cycles do not seem to have an impact on experience. Pre-existing conditions are dealt with on the basis of a reduction in benefits during the first five years.
- Some interesting highlights are displayed in the differences between riders and stand-alones. Stand-alones have an AIDS exclusion and are not issued on a rated basis. They can also have their premiums changed on a class basis. The definition of disability for the stand-alone policy is "unable to do any work," because this is more appropriate for the blue-collar market to which it is aimed. The riders are marketed to a higher economic group and use the professional definition of disability (unable to do work appropriate to training and education).
- Dread disease is issued as both a stand-alone policy paying a separate benefit and as a rider that pays out the policy proceeds at dread-disease occurrence.
- Medical insurance is available as an indemnity coverage but is not common. Until recently, Israel had a system similar to that of Britain, that is, a clinic-based national health plan with some providers in private practice. This has now changed to allow private medical plans to be formed. These plans are allowed to underwrite their selections (with guaranteed renewability) and have flourished. The original plan remains as a government-backed provider of last resort.
- A more important coverage is operations insurance, which gives the policyholder the right to choose the when, by whom, and where of a necessary operation. Under medical plans, there is a queue system with assigned surgeons and hospitals. These policies are sold on a 5-year term basis with guaranteed renewability.
- Additional types of coverage are long-term care and organ insurance (which pays a scheduled benefit for organ transplants).

Marketing

Marketing is done in a brokerage environment that seems very similar to that of the U.S. In a survey of insureds, the majority identified their broker as their insurer. The competition in the insurance industry is for brokers, so the main selling point is the level of commissions. Like the U.S, new product development is driven by the marketing function.

There has been limited movement toward direct marketing. Direct insurance, founded in 1994, has been very successful and there are several newer insurers being established to service this market. Until 1998 this was limited to nonlife products. Direct Insurance providers have now entered the life insurance market with competitive term insurance. As in the U.S., use of the Internet has been used to market insurance products. Zion Insurance Company (*http://www.zion.co.il/ezion.html*) supplies online quotes for term insurance and annuities. Several other insurers have a presence on the Internet and that avenue is growing rapidly.

Commissions

There are no expense limitations as per §4228. There is a standard base commission paid on standard (non-Adif) policies of 20% per year for years 1–3, followed by a collection fee of 4%. For Adif policies, there is no standard and initial commissions may be spread over a period of up to six years.

In addition to the base commission there are commission overrides, which are based on the agreement with the individual brokerage and are in the range of 60% to 90% of first year premiums. Commission overrides do not apply to Adif policies.

Investments

Funds

As mentioned above, until 1990, insurance company investments were controlled by the government and returned a guaranteed rate of return in excess of inflation.

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The investments of insurance companies are divided into funds. Each fund covers a generational issue of policies and guarantees a specified rate of interest plus linkage. Thus the investment performance of different companies relative to the amounts in each fund is identical. The government restricts or limits the amount of investments in these funds to an amount not greater than 85% of their reserves. The insurance companies maintain that level of investments in these funds because these government-controlled funds give better returns than are generally available in the open market.

Participation

Participating policies began in 1990. Participation is limited to participation in the investment performance of the funds invested by the company. Investment performance is measured in how the company's investments fared compared to the rise in the CPI During the first year, companies had the option of still taking advantage of the government's fund. In 1991 this option ceased, and all policies issued were participating.

There is usually no participation in the first two policy years, and a guaranteed minimum death benefit exists as long as the cash value is above a certain minimum.

At the time of reporting, the CPI is determined, the earnings on the investment portfolio are calculated, and the difference is divided between the policyholder and the company by a standardized, predetermined formula. These excess returns (losses) are carried in a separate account for the benefit of the policyholder. These accounts could be negative.

Reinsurance

The most common type of reinsurance is YRT. It is placed with the major European reinsurers (Munich, M&G/ SwissRe). There are some pooling arrangements among the Israeli insurers. There was an Israeli reinsurer (Israel Reinsurance), but the firm went into receivership some years ago.

Valuation/Regulation

The mortality table used for life insurance valuation is A49/52 (a U.K. table) with a three-year select (55%, 70%, 85%, 100%, …) period; it is not sex-distinct. This is used for both calculating reserves and setting premiums and nonforfeiture values. This is an old table, which has been kept for many years. Direct Insurance developed a new mortality table based on Israeli insurance experience. This table is very comparable to the current tables being used in the U.K. The tables used for reinsurance are an adjustment to the A49/52, which results in something comparable to the A67/70. For profit studies, a percentage (50%–60%) of this table is normally used. For the valuation of annuities, the A55 table is used. This is a sex-distinct U.K. table.

The most recent population mortality data (9/30/97) shows male life expectancy at 75.5 years (third in the world) and 79.4 years for females (fourteenth in the world).

Reserves are computed on a net-level basis and then may be reduced for statutory purposes by a Zilmer adjustment. The purpose of this is to give some relief for acquisition expenses. Since 1991, the tax authorities have mandated the Zilmer adjustment.

Those involved in U.K. valuation are familiar with the term "Zilmer adjustment" or "Zilmerized reserves." In the U.K., this adjustment is similar to a DAC adjustment. It is set up as the acquisition expenses (subject to statutory limitations) and is run off over an annuity factor. The actual basis of the term is from a nineteenth century Swiss actuary of that name who first developed full preliminary term (FPT) reserves (*Actuarial Mathematics*, p.424).

In Israel, the Zilmer adjustment is the product of the net amount at risk and a factor. This factor varies by product, for example, 30/mil on endowment and 20/mil on whole life. It is interesting to note that net level reserves adjusted by this give a reasonable approximation of FPT.

The insurance industry and regulators have been giving serious consideration to adopting either the British version of the Zilmer adjustment or including a DAC in the valuation process, because this gives much more substantial relief from issue expense. The use of a DAC has been legislated, but no effective date has yet been set. DAC will be amortized on a straight-line basis.

Filing dates for statutory statements with the Controller of Banking and Insurance are April 30 (annual) and for quarterly, two months after the end of the quarter but not later than seven days after approval by the board. The Tel Aviv Stock Exchange (TSAE) requires publicly traded firms to release their statements by March 31 so, for most firms, this date reigns.

Mr. Doron Shorer, CPA, retired as the Director, Insurance and Savings Department, which is the comparable position to Insurance Commissioner in the U.S. His deputy, Tzippi Semet, has been in that position since Shorer's retirement.

Tax rates are high, compared to those of the U.S. The taxes on profit (in place of VAT) and the income tax when combined have a top marginal rate of 45.13%. In addition, there is a tax on salaries paid of 17%. There is no premium tax.

Future

The life insurance industry has always been very profitable and is well capitalized. Premiums are rich, but commission and expense rates (as a percentage of premium) are high by American standards. This points to future opportunities in restructuring both administration and distribution methods. In addition, premiums may be deregulated.

Cash-flow analysis, while not being required, has been instituted by several companies. In addition, there is interest in the adoption of U.S. GAAP or a GAAP-like accounting system. Policy innovation has been rather limited, but this should open up as the market becomes more sophisticated.

I often am asked about safety in Israel. As someone who has worked in both Tel Aviv and New York City (my firm was a tenant in the World Trade Center when it was the target of a terrorist attack), I feel far safer in Tel Aviv. The added attraction is that the headquarters of all the major insurers are within a few blocks of each other in one Tel Aviv neighborhood.

The Israeli insurance industry is still emerging from a government-controlled environment. While gross premiums and policy values are still based on standardized parameters, direct insurance has introduced new standards for the computation of the premiums they are seeking to use. This is a period of great change and the insurance industry will be changing along with the country. With the outlook of increased economic activity with its neighbors, the future of the industry looks bright.

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Brazilian Health Industry

by Ronald L. Poon-Affat

This article is the first of a series that will analyze the present state of the Brazilian life and health insurance industry. The Brazilian market is currently in the spotlight for foreign investors, and I should start with setting out a few key statistics about the region. Brazil is home to 160 million people, making it the world's fifth most populous country and the world's third-largest democracy. At just over three million square miles, it is slightly larger than the continental U.S. and has the tenth-largest economy in the world. But perhaps most importantly, the Brazilian insurance industry is larger than Spanish-speaking Central and South America combined.

The world's attention turned to Brazil when overseas markets became confident that the economy was on the right track after the an economic stabilization plan, the Real Plan, was introduced by President Fernando Henrique Cardoso in February 1994, at which time he held the post of Finance Minister. The Real Plan followed four previously unsuccessful attempts by prior Finance Ministers to tame a runaway inflation rate that had been running at over 50% per month. Currently, the level of inflation is less than 0.5% per month. The first phase of the Real Plan was the introduction of the Unidade Real de Valor [Real Unit Value (URV)], in February 1992, which is a reference currency adjusted for inflation on a daily basis. In July 1994 the Real was implemented. This is the present currency that replaced the Cruzeiro Real at the parity value 1 Real = 1 URV. In addition to rebasing the currency, the Real Plan reduced import tariffs, abolished automatic indexation, and introduced the privatization and elimination of government monopolies.

In this, my first article on Brazil, I set out what is essentially an introduction to the health market.

Health Plans

Several different types of private health plans exist. The main ones are as follows.

Seguros Saúde (Health Insurance). These plans are sold by insurance companies via licensed brokers and are considered to be quite up-market, being the most expensive of all available health contracts. Coverage is comprehensive and often includes access to U.S. health care facilities. A directory of recommended doctors and specialists is provided, but clients usually have a free choice and receive reimbursement of expenses if care is provided by a clinic that is not listed. This is the only sector of the health industry that is regulated by the government body, Superintendência de Seguros Privados (Susep). Regulation under Susep means that policies must conform to the insurance code and may be sold only by licensed brokers. Companies must maintain defined reserves, adhere to minimum capital requirements, and cannot own any of the hospitals they use. These restrictions do not apply to any of the other types of health providers described below. The industry association that represents Seguros Saúde is Federação Nacional das Empresas de Seguros Privados e de Capitalização (Fenaseg). This sector accounts for 21% of the health market premium and 13% by number of members.

Co-operativas (Cooperatives) Co-operativas as the name implies, operate under a cooperative system where the participating health care providers are the owners of their facilities. The plans they sell are called "Planos de Saúde" (health plans; these are very different from Seguros Saúde described above). Unimed is the parent of all the co-operativas, and the associated members can be easily identified by the prefix "Unimed" (for example, Unimed-Paulista operates in Sao Paulo). Since its establishment in the 1960s, the growth of Unimed has been nothing less than spectacular and now covers more than 10 million members (24% of the market's private health members) and accounts for 22% of all health premium. Unimed provides comprehensive coverage to its members within a closed network and offers a more affordable plan than the Seguros Saúde. Given that Unimed does not fall under Susep's authority, its plans can be sold by unlicensed brokers, are not required to establish reserves or adhere to minimal levels of capital, and can own or lease hospitals attending its members. The cooperativas are effectively self-regulated but, for some archaic reason, fall under the authority of the Ministry of Agriculture. They are represented by the Confederação Nacional das Unimeds (National Confederation of Unimeds).

Medicina de Grupo (Group Medical). These organizations also sell "Planos de Saúde" (as Unimed above) and enjoy the same liberties allowed to Unimed regarding agents, reserves, capital, and hospital ownership. These plans offer very basic benefits and have a number of exclusions; the exclusion of major organ transplant and by-pass surgery is not uncommon. Clients are also limited to a few hospitals within a defined geographical region. The marketing focuses on the lower- to middle-income market. The association for these companies is Assoc. Brasiliera das Empresas de Medicina de Grupo (ABRAMGE). This sector accounts for 27% of the health market premium and 41% by number of members.

Autogestão (Self-Insurance). This health plan is designed for the establishment of self-insurance by a large

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individual company or a group of companies using either a specialized third-party administrator or a life company that will also offer excess-loss coverage. Their interests are represented by Comitê de Integração de Entidades fechadas de Assistência à Saúde (Ciefas), and this sector accounts for 30% of the health market premium and 22% by number of members.

Sistema Unico de Saúde SUS (Single Health System). This is the term for the heath coverage plan provided by the government to all Brazilians. It is, of course, the only option for those who are not fortunate enough to have a private health plan. The private market covers approximately 41 million people, leaving the remaining 119 million to be covered by the Sistema Unico de Saúde.

Distribution of Health Plans

Table 1 summarizes the membership, premiums, number of doctors, and loss ratios that are associated with each type of plan. All monetary figures are in Reais (U.S. $1 = Real $1.125 as of the March 1998 commercial rate).

An analysis by source of sales reveals that 75% of health plans are purchased via a group plan and the remaining 25% by individuals.

How Important Is Health to the Insurance Market in Brazil

The regulatory body, Susep, provides up-to-date figures on the insurance companies' Seguros Saúde production. The figures in Table 2 have been extracted from their reports and demonstrate an impressive growth of the health market since 1995. The Real Plan commenced in February 1994 and its success immediately benefited many sectors, including the health industry.

Who Are the Major Players in the Health Insurance Market?

As can be seen in Table 3, the health market is growing much faster than the overall insurance market. Health sold by insurance companies now accounts for 21% of the entire insurance market premium, up from 13% in 1995. Once again I must stress that these figures only include Seguros Saúde.

We are seeing deteriorating loss ratios, which are probably due to a combination of factors such as greater competitiveness, greater awareness amongst members of their entitlements, and slippage in claims management as a result of the sheer increase of volume. It is my opinion that these reported loss-ratio figures are underestimated because the general market does not establish IBNRs.

Nine large health carriers dominate 94% of the market; however, there are 36 players listed as participants in this market. In spite of this concentration, I would not label the market as oligopolistic. For example, Maritima only started in 1995 and now writes just under R200 million a year.

Potential Growth

Brazil is considered to be the country of the future, but what about the health industry? What is the potential for this sector?

In February 1994, the month in which the Real Plan began, the health sector represented 0.74% of the GDP (PIB, Produto Interno Bruto). In 1997, it represented 3.5% and is projected to rise to 5% in the short to medium term. To place some perspective on this projection, Argentina currently spends 7% of its GDP on health care and the U.S. 14%.

When considering the new sales potential, one can also compare the number of persons who are classified as falling within the total labor force (74.1 million) to the present number of persons who are covered under private plans (41 million). The industry's forecast is for the number of persons covered by health plans to increase to 57 million by the year 2000.

In addition to these positive economic and population indicators, there are other reasons to be bullish about future growth prospects—namely, the market is actively exploring new distribution channels; there is willingness to offer a range of health products with a price to suit every budget; there is great potential in increasing sales to individuals and there is now access to the services of multinational reinsurers in the area of health via the state reinsurer the Instituto de Resseguros do Brasil (IRB).

This article presents an overview of the market and tries to show the potential that exists in this sector. And while

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TABLE 1
Comparison of Health Plans
(Figures are as of December 1997)

	Number of Participants	R Billions Premium	Annual Average Premium	Number of Doctors	Loss Ratios
Seguros Saúde	5,300,000	4.00	755	45,000	77%
Co-operativas Medicinas	10,000,000	4.20	420	75,000	75
Medicina de Groupo	17,000,000	5.20	306	83,000	75
Autogestão	9,000,000	5.70	634	30,000	85
Total	41,300,000	19.10		233,000	

Brazilian Health Industry
continued from page 17

everyone appreciates the opportunity, the market is very much aware of the high degree of specialization that is required to achieve success in this area. There are many companies, some with international partners, that are very cautious, indeed reluctant, to enter the health arena. One should note that while there are more than 130 registered insurance companies, only 36 are writing health business.

In conclusion, the positives do appear to justify the underlying risk and challenges and the industry's projections appear to be wholly attainable, which support the continued growth optimism.

Ronald L. Poon-Affat, ASA, is Director and Vice President in charge of Life and Health at General & Cologne Re Brazil Ltda, São Paulo, Brazil. He also serves as the Ambassador in Brazil for the Society of Actuaries.

TABLE 2
Growth of the Brazilian Health Market since 1995

	Years	R Million	Increase
Total Insurance Industry Premium	1995 1996 1997	14.046 15.111 18.395	— 8% 22%
Health Premium	1995 1996 1997	1.818 2.153 3.975	— 18% 85%
Health Loss Ratio	1995 1996 1997	73% 76% 77% (to 9/97)	

TABLE 3
Major Players in the Brazilian Health Insurance Market

	Foreign Partner	R Million 1997	Percentage of Market
Sul America	Aetna	1,341	34%
Bradesco	Prudential	1,053	26
Golden Cross	Cigna	535	13
Maritima	—	191	5
Bamerindus	HSBC	188	5
Porto Seguor	—	173	4
Unibanco	AIG	131	3
Generali	Generali	71	2
Itau	—	64	2
Total		3,747	94%
Total Market		3,975	

Chairperson's Corner
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Monday, June 15, 1998

1:00–2:30 p.m.

19IF **IT'S A SMALL, SMALL WORLD**
Brian Reid moderates this session on the use of technology by insurance companies to assist their domestic and international operations. Areas discussed are actuarial/financial models, Internet strategies for the consumer and corporate marketplaces, data-mining, and technology platforms.

This session includes two guest speakers who will discuss their experiences in taking insurance companies to the next levels of technology: Ira Feinberg (technology platforms, Y2K, and data mining) and Jim Barnes (Internet strategies).

This is your chance to have your technology questions answered.

3:00–4:30 p.m.

29CS **SUCCESS IN BANCASSURANCE: A COIN TOSS?**
This session looks at a few successful models used for bancassurance. Ian Robinson is making the trek from Australia to present his experience with the models used successfully there.

Tuesday, June 16, 1998

10:00–11:30 a.m.

57PD **PROFITING FROM FINANCIAL TURMOIL IN ASIAN INSURANCE MARKETS**
Steve Conwill, Dale Kelly, Jeff Newman, and Clark Ramsey present the economic situation in Asia, its impact on insurance companies, and how insurers can profit. Steve, Dale, and Jeff reside in Japan, Singapore, and Indonesia, respectively. We look forward to hearing the speakers' experiences in Asia.

Wednesday, June 17, 1998

8:00–9:30 a.m.

78IF **FORUM FOR THOSE WITH PACIFIC RIM RESPONSIBILITY**
The moderator is John Taylor, Executive Vice President and Chief Financial Officer, Prudential Life Insurance Co. of Korea. Participants have the opportunity to share experiences and concerns in doing business in the Pacific Rim region. Examples of topics include regulatory systems, accounting standards, solvency considerations, product design, and distribution methods. Attendance is limited to people who are based in the region or have responsibility for activities in the region.

For the second meeting on June 22–24, six sessions are also scheduled.

Monday, June 22, 1998

10:00–11:30 a.m.

4PD **SOCIAL SECURITY: IS AN EQUITABLE DESIGN POSSIBLE?**
In this session, the speakers discuss the issue of defining equity in social security systems and how well the U.S. and Canadian systems have achieved equity. The panel consists of Rob Brown, Bob Katz, and David Knox from Australia, who will present concepts from his research paper in this area. Sessions 18 and 41 cover aspects of Social Security as well.

1:00–2:30 p.m.

18PD **TECHNICAL CONCERNS: INCREASING LONGEVITY IN NORTH AMERICA**
The moderator is Michael Sze. Speakers include Bernard Dussault, Stephen Goss, and Anna Rappaport, who discuss the research project on increasing longevity in North America. The SOA is taking a lead role in this project. These fundamental changes will have a great impact on future costs and payment levels in public- and private-benefits plans.

3:00–4:30 p.m.

41WS **PENSION NEEDS IN THE 21ST CENTURY: BIG CHANGES ARE IN STORE, CAN YOU BUY THEM?**
The chairperson is Michael Sze. Several experts in the public and private sectors will also be there to participate. This session addresses the impact of changes in Social Security and mortality on private-pension needs in Canada, the U.S., and Mexico in the next century. Attendance at Sessions 4PD and 18PD is a prerequisite.

Tuesday, June 23, 1998

8:00–9:30 a.m.

49PD **HEALTH-CARE REFORM AROUND THE WORLD**

The moderator is Dr. Chiu-Cheng Chang, a professor at Chang Gung University in Taiwan. Together with Dr. Chang, Josh Bank will provide an overview of main reform ideas and programs around the world to improve access to health-care providers, contain costs, and improve the quality of health care. They then will discuss the reform programs in Taiwan, South America, and Hawaii in more detail.

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Chairperson's Corner
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Wednesday, June 24, 1998

8:00–9:30 a.m.

87TS **HEALTH-CARE FINANCING AROUND THE WORLD**
The leader of this session is Dr. Chiu-Cheng Chang, who covers various characteristics of healthcare financing and alternative financing systems around the world. Several countries are featured to illustrate each alternative system.

10:00–11:30 a.m.

105IF **FORUM FOR THOSE WITH PACIFIC RIM RESPONSIBILITY**
The moderator is Hassan Kamil, Senior Vice President, Aetna Universal Insurance Company in Malaysia. Participants have the opportunity to share experiences and concerns in doing business in the Pacific Rim region. Examples of topics include regulatory systems, accounting standards, solvency considerations, product design, and distribution methods. Attendance is limited to people who are based in the region or have responsibility for activities in the region.

If you have already registered for one or both of the meetings, we look forward to seeing you at our sessions. If not, information and registration forms are available on the SOA's web site (www.soa.org) under Continuing Education or you can contact Sue Berg of the SOA Continuing Education Department (phone: 847–706–3545; fax: 847–706–3599; e-mail: (sberg@soa.org).

Many thanks to Mike Gabon and Bob Lyle, our Program Committee Representatives, for their tireless service to the International Section in putting together these sessions.

Michelle Chong Tai-Bell, FSA, is Executive Director, Individual Insurance, Maritime Life (Caribbean) Ltd., in Trinidad and Chairperson of the International Section Council.

Actuarial Volunteer Consulting and Training Experiences: Part 2. Samara, Russia

by Arthur C. Cragoe

Editor's Note: *In the April 1996 issue of* International Section News, *the author described his experiences consulting with a medium-sized life insurance company in Sri Lanka. He served as a volunteer with the International Executive Service Corp, a nonprofit organization that sends approximately 1,000 (mostly retired) Americans each year to developing countries. In Part 2, he continues with an assignment in Samara, Russia.*

❋ ❋ ❋

In 1994 I had a quite different experience in Russia. I was advising a very new company in Samara, a city of 1.3 million on the beautiful Volga River about 600 miles from Moscow. Although it had many cultural and other attractions, it had been closed to all foreigners until 1992 because of its many defense and space industries. Two Peace Corps workers and perhaps one or two other Americans were the only U.S. nationals in the city during my stay. I spent almost 100% of my time with Russians, few of whom spoke English. Because they host few visitors, there were no satisfactory hotels at that time. My wife did not accompany me, and I stayed in the one-bedroom apartment of a company doctor who moved in with her daughter.

Russia has always had an insurance industry—a fairly good-sized one, actually—run by the government with most home office functions and decisions made in Moscow. This industry is still in place, but soon after "Peristroka," significant capital became available to form new insurance companies in Moscow and St. Petersburg. Experts were hired from the government company and companies were formed in many large cities of the new Russia, often affiliated with one large company. There are two large, well-staffed, and very aggressive life companies—one in Moscow and one in St. Petersburg. I visited each in 1992 during the People-to-People organization's first trip for U.S. insurance professionals.

In Samara, however, there was only a small amount of capital, no true insurance expertise, and few true salespersons. However, several fledgling insurance companies were vying for existence. I believe they thought insurance companies accumulated and controlled large amounts of assets. That was the objective.

During my Saturday-morning strategic planning sessions with the client and his chief financial officer, I had a difficult time getting them to think beyond next week. In their defense, it is difficult to plan in an economy where inflation causes interest rates to run at 15% to 18% a month (this was 1994). TV ads from Moscow showed banks and (now failed) financial institutions offering 350% to 550% interest a year. For Samara Insurance Company, a one-month endowment was a popular plan; it was a way to reduce company taxes.

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Samara Russia
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The Russian tax system is Byzantine, and I once read a paper on it which helped prepare me for such things as "dead souls." This is the practice of carrying inactive employees on the payroll. It affected my visit because I was told the company had several hundred agents. It turned out that they previously had several hundred out-of-work people sign up for an agent's training class, from which no sales had been made. However, they still carried them on their records as agents because originally they had been given a small cash-signing bonus.

Reinsurers have not ventured out of Moscow or St. Petersburg in any great numbers; thus it is difficult to get advice, training, or reinsurance. I found good population statistics but a discouraging trend in male mortality. The 1941 CSO would probably be close to male mortality in the Samara region. Surprisingly, however, female mortality seems to be on a par with that in other Western countries. This was turning into a retirement problem because women retire at 55 while men retire at 60.

Women have equality of opportunity with men, but I could not develop a unique marketing approach for females. The closest I could come was to help develop a maternity plan. My company had two well-qualified doctors doing essentially administrative work who developed a relationship with a maternity hospital. The doctors and hospital agreed to guarantee a daily rate for all levels of care while in the hospital. The insurance company, through normal statistical methods, came up with a reasonably safe estimate for the length of stay. The plan provided prenatal, delivery, and a fairly long postnatal period of care, all at a guaranteed rate provided the female entered the plan before the fourth month of pregnancy and passed a physical at the time of entering the plan. It was little more than budgeting with low rates for starting early. However, like the short endowments and longer deferred annuities we set up, the product had to be easy to understand and have clear, short-range benefits.

The company was advanced, for Russia, in using clever newspaper ads and sponsoring cultural events. They appreciated the sales material I brought very much because selling was not something they were accustomed to doing. For a few days I listened and advised their salespeople as they gave their sales approaches. They had cargo insurance as well as life and health. As in most areas of their economy, sales consisted mostly of "deals" among friends or order-taking from people who approached the company.

After hearing a former nurse from Kazachstan give her approach, I asked her who had taught her to be so effective, sincere, and persuasive. No one, it seemed, and I again realized that there are natural-born salespeople around the world.

" ... we hear in the U.S. how insurance sales and other business deals are made on the golf course. In Samara it is at the sauna."

The main policy she sold was one that combined a tax savings to the business of the employer and medical benefits in the better private hospitals. There is a definite two-tier medical system in effect, and it is well-understood, if not well-accepted. One of my jobs was to address employee gatherings to describe the basics of insurance and to try to engender a market for my company's products. Most came to see one of the first Americans to visit their city. After hearing complaints about their medical system, I told my translator to tell them that we had the same problems in the U.S. and that in both countries "we want today's good medicine at yesterday's low prices." Even though we were talking about a different level and type of medicine, I believe the statement was true.

One of the main client supports came from a contract with the city to essentially act as a Medicare-type carrier for about 300,000 citizens of all ages in one section of the city. They were also to audit the medical care given by the government plan to be sure that the city and its people were getting proper care for the money spent. Like the Medicaid plans of many U.S. states, the Samara region was often late in payment to the insurance company.

The reduction of "top-down" regulation from Moscow and the chaos it is causing was evident in the supervision of financial institutions. I met with a sincere, but admittedly unqualified young man who had been an underwriter in the government insurance company. He was now the supervisor of insurance for a region larger than many of our states, with no experienced staff and no guidance from Moscow. I arranged to send him a State of Illinois statutes and a NAIC handbook on auditing insurance companies for which he was most grateful.

I only had one student in Samara. He was a whiz at computers but had never heard of life insurance. He brought me a Russian text, which was really a translation of a very old English math of finance text. I had given Jordan's text *Life Contingencies* to a Moscow actuary in 1992, but again thought that an even more elementary text was better for a beginning student in a country without a sophisticated financial system. Now my student is setting up the administration and rules for insurance plans and working on the programs I left. He knew some English—fortu-nately for me and my translator. Once I asked him what a certain actuarial word was in Russian. He paused. "I always think of actuarial work in English," was his reply.

One event occurred that probably could only happen in Eastern Europe. It was the blessing of the new office by a priest of the Orthodox Church who came in and went through each room with an incense burner. We had several admitted Christians, and I was included in the ceremony. I told the priest, who had a church in Samara for 25 years, to give a particularly strong blessing to the EDP room because we had been having many problems there.

On a lighter side, we hear in the U.S. how insurance sales and other business deals are made on the golf course. In Samara it is at the sauna. I went to one such affair. Several company officers, the Peace Corps workers, and several top public health officials

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Samara Russia
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met in a country-club-type setting. The men would go to the sauna, and between being inundated with steam and switching themselves with birch branches, discuss business. The public health officials were looking for insurers to assume some risks in restaurants, while the insurance people were looking for some laws requiring coverage. After the sauna, the ladies of the group took a turn. We next sat down to a huge meal, and then repeated the saunas again. I participated in all but the dip in the river after the hot room. At one affair, I even drank some fermented mare's milk.

Despite all their problems, I ended this assignment feeling that the only things that will keep the Russian insurance industry from expanding, albeit slowly, are the high inflation and general economic uncertainty, and the fear that the new companies will not be there to pay their obligations even five years from now.

I hope these experiences give the reader a flavor of the interesting experiences, and useful service, that can be achieved by working in less-developed countries. For those with two or three months' time available, I encourage writing me or the IESC directly at: Recruiting Department, IESC, P.O. Box 10005, Stamford, CT 06904.

Arthur C. Cragoe, FSA, is a retired Vice President of the Franklin Life Insurance Company in Springfield, Illinois.

Vote in the Section Election!

Section election ballots will be mailed the week of July 6. Take an active role in the International Section Council election process. Review the list of candidates and biographical material and determine whom you would like to represent you on the Section Council. Mail your ballot so it will reach the SOA office no later than **Friday, August 7.** If you are a Section member and do not receive the election mailing by July 21, please call Jeanette Selin at the Society office, (847) 706–3581.

Teaching Position Available

University of the Americas
Puebla, Mexico

The University of the Americas—Puebla in Mexico is looking for an instructor with a master's degree in Actuarial Science to teach an actuarial mathematics course in its Actuarial Licensing Program for one year. The university would pay travel and living expenses.

The university has a very strong actuarial program with the objective of forming professionals with solid math preparation, which will permit them to define, analyze, and resolve social and financial problems. The program includes four principal areas: insurance and actuarial calculus; probability and statistics; finances; and optimization. Part of its strength is a large library containing instruction materials for the actuarial science and statistics department. Of the 431,600 references, 1,427 volumes are for this area. The library also carries more than 1,700 subscriptions to periodicals and magazines, with 29 subscriptions to specialized magazines in actuarial science and 36 in the mathematical sciences.

The course covers Chapters 3–10 of *Actuarial Mathematics*, Bowers, N.L., Jr., Society of Actuaries, 1997. The course is given in two parts (Actuarial Math I and II). Lecture time involves a 45-minute class period each week. Because the department would like for its graduates to be able to express themselves in both Spanish and English, the course can be taught in English.

Puebla is a large city in Mexico with a population of just over one million approximately 60 miles from Mexico City. There is direct air service from Dallas to Puebla.

To express your interest in this position, please contact Lela Long at llong@soa.org or phone: 847–706–3533. For a course description, please see the International Section Web Site at http://www.soa.org/sections/intern/interna.html.

Call for Papers

Journal of Actuarial Practice
1999 Actuarial "Arts and Science" Education Contest

1st Prize, $1,000; 2nd Prize, $500; 3rd Prize, $250

The objective of this annual contest is to encourage the submission of papers geared to enhancing the *education and/or training of actuaries*. Submitted papers may be on *any* subject related to actuarial science or insurance. Papers do not have to contain original ideas and anyone can submit papers. However, papers must not be unnecessarily mathematical. Technical papers must be neither abstract nor esoteric. Instead, they must be readable and clearly have a practical application to actuarial science or insurance. In evaluating papers, priority will be given to those papers intended to educate (newer) actuaries on the methodologies, techniques, or ideas used in current actuarial practice.

To enter, mail, fax, or e-mail an abstract (200 words or less) on the proposed paper by September 15, 1998 to the address below. Five (5) copies of the completed paper must be received by November 15, 1998. Winners will be announced by July 15, 1999. All communications must be directed to:

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The Equation for Success—Professionalism and Profitability: Part I

Worldwide Trends in the Insurance Industry

by Thomas H. Kelly

Editor's Note: *This article contains material excerpted from a speech given on June 17, 1997 by Tom Kelly, Senior Vice President and Managing Director of LIMRA International, at a LOMA/ LIMRA Strategic Issues Conference in Singapore. Credit is also due to Randy Makin, who converted the outlines and slides from Mr. Kelly's speech into an article format for the newsletter. This is the first installment of three articles derived from the speech.*

It is an honor and privilege to have the opportunity to be with all of you and participate in this most important LIMRA/LOMA Strategic Issues conference with the theme, "The Equation for Success—Professionalism and Profitability." What I would like to do this morning is reflect upon the life insurance industry around the world and some of the forces driving change and their implications, take a close look at the Asia region, and conclude with six guidelines for the future.

Let me share with you some headlines from the trade press, newspapers, and conversations from my travels over the past 12 months:

- Number of Australian Agents Declined 50% Over Past Four Years as Industry Has Transitioned from Life Insurance to Financial Services—New Zealand to Follow
- Impact of U.K. Regulation Causes Attrition of 50,000 Agents Over Past Three Years
- PIA/Lautro (regulatory body) Fines Exceed £25 Million
- Major U.S. Insurer Fined $100 Million for Unethical Sales Practices. Sales Plummet 30%.
- New Business Written in Asia Has Exceeded 25% Annually Over Past Decade—Career Agent Distribution is System of Choice
- China, India: Markets of the Future (for the insurance industry)
- GATS, WTO Trade Agreements—Boom to Industry
- Growth of Middle Class Will Drive Industry Growth.

The winds of change are blowing across our industry worldwide, and depending on your geographic location and perspective, it could be the best of times or the worst of times. What are some of the market forces for change that are blowing, creating a global marketplace and insurance industry?

First, there have been economic reforms and stabilization, such as:

- Privatization of industry, moving from government-owned to private enterprise
- Stabilization of inflation and interest rates
- Growth of the middle class (which fuels our products and industry)
- Increase in retirement savings, and moving responsibility from government to individuals

Second, there has been an opening of markets, driven by:

- Trade agreements, such as the General Agreement on Trade and Services (GATS) and OECD, creating access to markets
- Entry of foreign players in other markets as their home-country market matures
- Growth of the local industry from the overall economic growth within countries.

All this creates competition, driving competence and the importance for everyone to become better, more effective, and efficient.

Third, companies are focusing on quality, excellence, and a customer focus—becoming market-driven and customer-oriented. Note that:

- Quality can be a competitive advantage and strategy. Companies can differentiate themselves such as Sony Life of Japan with its life planners (average 14 sales per month and an average sale of $1,200), Pru (U.S.) direct line, and Virgin Direct in the U.K.
- The emerging consumer needs of protection for life and property and for estate creation
- There is an increasing consumer awareness of financial security products. Great strides have been made, but there is still a long way to go.
- In the developing markets, certain factors favor agent distribution— low prevalence of checking accounts, little knowledge of products, knowledge of how much and what to own, and less dealing with financial institutions.
- Finally, the customers' desire for quality means that increasingly fewer and fewer of the goods and services you purchase are made in your country. Consumer choice means we are all contributing to globalizing the marketplace on a daily basis.

A fourth factor is technology/the information age:

- Technology and information transfer shrinks time, distance, and structure of work.
- Technology has given us better computerized brains and electronic speed, and thus better tools (e-mail,

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personal computers, fax, cellular phones, ATMs, VCRs, and so on) all with microprocessor intelligence.

- Population growth provides more brains—88 million brains are being added to the world population base each year.
- When you put the human and electronic brainpower together, it positions the global marketplace for things that would have been considered miracles just a few years ago.
- Today learning has never been easier, and information has never been more accessible. Thus, the biggest challenge today is not only getting an education, but keeping one as well, and with the advances in technology your job and your career become your classroom. Thus there is an importance and priority of professionalism in our chosen career of insurance.
- With every passing day, we get a bigger selection and choice of everything—entertainment, automobiles, medical techniques, athletic shoes, toothpaste—and certainly the choices will soon affect the range of life insurance and financial products that will come online in years to come.

The information age and information technology keep presenting us with more options and expanding our field of choices. Let me give you an example. Today in certain markets, you can walk into a store and buy a computer- designed pair of Levi's custom made to fit your legs, waist, and rear-end—and it's delivered in two days. That's bringing customization to the individual level. And that's exactly what we have the opportunity to do in our industry—sit with a client and design an insurance program that fits his needs.

Finally, regulation has arisen as a driving force for change. Today there now exists an International Association of Insurance Commissioners, an organization made up of insurance commissioners of the various countries around the world who meet to discuss issues such as solvency guidelines, risk selection, ethical sales practices, market conduct, and so on. This forum for information exchange will serve to influence the nature of regulatory practices in each country; thus, the speed with which regulatory decisions will take place will increase dramatically.

These forces—economic reform and stabilization, the opening of the markets, quality, excellence and customer focus, technology and the information age, and regulations—are driving the globalization of the insurance industry and the local development of our great business. Given this background, come with me as we take a quick tour around the world of insurance—to Europe and Latin America, the U.S., and a look in a bit more detail at Asia. We'll take a bird's-eye view into these markets and examine some of the successes and challenges of each.

Europe

The largest markets in Europe are the U.K., France, and Germany, in that order. However, the strongest growth markets are Portugal, Spain, Greece, Poland, Hungary, Italy, and the Czech Republic.

Regulatory changes will continue to play a major role in the evolution of the European life insurance industry—privatization (in France and Italy), deregulation (in Germany), and re-regulation (in the U.K.), driven by market conduct and compliance.

The marketplace in the U.K. is in particular turmoil, given the regulatory environment. The number of agents has declined from 240,000 in 1989 to 90,000 in 1994. Why? Perhaps it is from an overdue assault on the unethical, the uncommitted, and the unproductive agent under consumerist pressure, along with a recession and dramatic cuts in commissions on savings-plan products.

Today, with the presence or entry of banks into the business, experimentation with direct marketing, the continuous growth of brokers, and the attack on career agents, insurance distribution is currently in a state of transition. Every country is experiencing this transition, although the speed of change varies from one country to another. In that regard, it is similar to Asia. Bancassurance in France has already captured 60% of the new business market. In Italy and the U.K., banks have only recently entered the market, yet big gains are being made into what was predominantly the domain of the exclusive agent. An increasing integration of banking, investment, and the insurance industries appears likely to spread across Europe, although, again, the speed with which this takes place will not be uniform. However, this is already happening in Germany and the Netherlands, where the largest insurance company, Nationale-Nederlanden and the largest bank, Post Bank, have joined in a powerful strategic alliance.

Product knowledge and innovation will become important in certain markets as deregulation allows companies to offer a broader product range. For example, there will be an increase in private pensions, particularly in France and Italy, where penetration is particularly low.

Perhaps the most essential component of the sales and market process is distribution. It is, I believe, sufficient to say that those companies with the ability to reach customers efficiently, cost effectively, and with value-added services, will be those who take advantage of Europe's potentially lucrative life insurance and pension markets.

Latin America

Turning to Latin America, significant growth is taking place in Mexico, Chile, Argentina, and Brazil, with Peru and Colombia soon to follow. This growth will be driven by NAFTA in Mexico, and by the opening of the markets and privatization of the Social Security systems in Chile, Argentina, and Peru.

Most insurance companies are part of financial conglomerates with a strategic business unit organization structure—life, health, pensions, and non-life. Again, independent agents and brokers are now the distribution system of choice. The greatest opportunity exists with career agents' distribution of simple, basic individual life products.

Growth of the industry is driven by new entrants into the market from the U.S. and Europe. The hyperinflation of

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the 1960s, 1970s, and 1980s has given way to single-digit inflation in most countries, opening up the individual life market.

United States

In the U.S., we are witnessing a significant shift in the product mix from risk to living-benefit products, such as annuities, mutual funds, and variable products. This trend is being driven by the graying of America and a significant change in the profile of the family, in which there are more single heads of households, more one-person households, and more unrelated households.

The U.S. industry is moving from a high-margin, low-volume era to a low-margin, high-volume era, and this equals higher productivity and better, more creative expense management.

Perhaps one of the biggest challenges facing the industry in the U.S. is bringing new people into the business. Recruiting was down 9% in 1995 and has been down in seven of the last eight years. Because of this downturn in recruiting, the field force is slowly dwindling. It is down from 241,000 in 1986 to less than 207,000 at the end of 1995. As a result, companies are reassessing and re-engineering their marketing and distribution systems and strategies and deciding what system or systems are appropriate for their company (banks, multiple systems, Internet, and so on). They are looking to technology to improve prospecting and customer identification, at worksite marketing to get agents in front of more prospects more efficiently, and at arrangements with banks for the same reason. The thrust of companies' efforts to be creative in their marketing is to reach more people, but at a cost that is manageable.

Other major issues on companies' agendas are:

- Market conduct and ethical sales practices
- Focusing on core businesses (and the overall effectiveness and productivity)
- Strengthening the financial statement—in this regard, is a merger, acquisition or a strategic alliance an option that should be considered?

So there you have a quick perspective, a thumb-nail sketch of what is going on in our industry around the rest of the world.

Effectiveness in Administrating Individual Life Insurance Policies

by A. Reg Munro

I am an actuary, but over the years I have been involved in many aspects of the life and pensions business undertaken by my employer, Old Mutual, based in Cape Town, South Africa. When I was asked to manage our Information Technology (IT) Division in 1990, among other functions, I was immediately faced with a new measurement challenge. Having come from a business unit where personal selling was a major part of the business, I was accustomed to having very detailed measures of progress, which seemed much more difficult in IT. We could benchmark our IT shop against other IT shops and measure people against the performance contracts negotiated with them. But when it came to measuring the value provided to the various businesses, we didn't even have a conceptual framework for measurement.

The critical breakthrough, for me, came when I realized that no measurement internal to the IT division would provide this. The challenge then became finding a measure of the various businesses within Old Mutual that would demonstrate the strategic impact of their investment in IT. Fortunately, we already had an accepted method of allocating all centrally provided costs to the various businesses and this meant that we were able to develop measures that showed the impact of the increasing investment and expenditure in IT on the businesses. For each business a ratio similar to that proposed below was defined, and progress over time was tracked. Because the businesses are so different, varying from mutual funds to individual life to group employee benefits, comparing the ratios between businesses was clearly without meaning. Comparing the improvement trends, however, proved quite enlightening. One business was improving its measure by 50% every five years, while another was taking 30 years.

International Benchmarking

Throughout the world, there is an increasing interest in benchmarking against those companies that are perceived to be "best of breed" in some process or other. Several processes for this have been developed for life insurance companies, but almost all use the local currency as at least part of the exercise. This makes cross-country comparisons very difficult, because whatever currency conversion rate is used, severe distortions are inevitable.

For Old Mutual this is a particular problem because we are so large in our small industry. Although operating in a small country, we are assisted by the fact that when ranked by premium income expressed as a percentage of gross national product, the South African life insurance industry actually ranks as the top industry in the world with premium

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Effectiveness
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income equal to 13% of GDP, up from 6.5% 10 years ago. As a result, Old Mutual and its largest competitor both rank in the Fortune Top 50 life insurance companies. With the ongoing devaluation of the Rand against the U.S. dollar, it is doubtful that this high position will be maintained.

Therefore, we have been very keen to explore the benefits available from benchmarking internationally and to this end have developed a methodology that facilitates intercompany comparisons across countries. To enable the effectiveness of administrative processes to be measured in nonmonetary terms, costs have been converted from local currency to people equivalents (PEs) based on local conditions, workload has been expressed as weighted policies (WPs), and the ratio between them, that is, the number of PEs required per 10,000 WPs, has been used as an index of administrative effectiveness (IAE). Details of this relatively simple process are provided in the Annexure on pages 27 and 28.

Results Achieved to Date

For the past few years, a number of companies have provided data from which I have been able to calculate this index of administrative effectiveness. Over the years, the precise calculation method used has been significantly simplified and adapted as problems with earlier methods were resolved. Figure 1, therefore, contains results calculated on several slightly different bases, but the results are, I believe, a useful indication of what differences there are between companies around the world.

Figure 1 confirms the suspicion that there are significant benefits of scale in the administrative effectiveness of life insurance companies. The trend line shows a 40% improvement with every doubling of the number of weighted policies.

FIGURE 1
Index of Administrative Effectiveness
(Number of People Equivalents per 10,000 Weighted Policies)

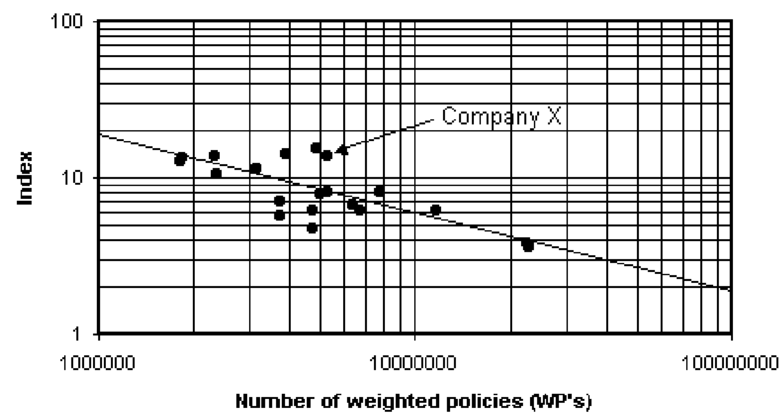

Figure 1 highlights two major implications for life insurance companies. First, companies can recognize how they compare with others and with the trend line. For example, Company X has an index of administrative effectiveness of 14 where the trend line for companies that size is close to eight. This implies that an improvement of 40% is required to get the company near to the trend line, let alone improve upon that.

Second, it reminds management that, even to remain in the same relative position, a company needs to improve its index of administrative effectiveness by 40% with every doubling of the number of weighted policies. This is no mean achievement.

Request for Data

The results from the initial study are sufficiently revealing to encourage me to request interested life companies to send me the data required, as listed in the Annexure. To make the submission of data easier and quicker, use our Internet Web site *http://www.oldmutual.com/adminsurvey*.

Once the results are in, I will see what conclusion can be derived from them. For example, I would like to explore the correlation between the degree of computerization and overall effectiveness. I will send the results and analyses to all companies that submit data to share any new learnings that emerge.

I trust that the proposals in this article will encourage you to invest the effort and short amount of time required to compile the required data and send it to me, so that together we can continue the search for meaningful measures that will help to improve both the value for money provided to policyowners and the profitability of our companies.

A. Reg Munro, ASA, is General Manager of Old Mutual in Cape Town, South Africa.

ANNEXURE

Reg Munro
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Fax: 27–21–509–2677

COMPANY DATA AND CALCULATION OF THE INDEX OF AMINISTRATIVE EFFECTIVENESS

Please enter the years here

*See Notes on next page

		Formulas	Year 1	Year 2
	Calculation of the Number of Weighted Policies WP (000's)			
A1	New Business Policies			
A2*	Weighted New Business	A1 × 4		
A3*	In Force with Weighting of *M*	*M* =		
A4*	In Force A3 Weighted by *M*	A3 × *M*		
A5	Other In Force Weighted by 1*x*	A5 × 1		
A6	**Total Weighted Policies**	A2 + A4 + A5		
	Calculations of Administrative People Equivalents (PEs)			
B1*	Total Costs of Individual Life Business (000s)			
B2*	*Less* Costs of Selling (000s)			
B3	Total Administrative Costs of Individual Life Business (000s)			
B4*	Total Administrative People Costs (000s)			
B5*	Total IT Cost Component (000s)			
B6	**Balance (000s)**	B3 − B4 − B5		
B7*	Number of Administrative People			
B8	Cost per Administrative Person	B4/B7		
B9	Factor for use in C1 to C4 below	A6 × B8/10		
	Calculation of Index of Administrative Effectiveness and Components			
C1	People per 10,000 Weighted Policies	B4/B9		
C2	IT PEs per 10,000 Weighted Policies	B5/B9		
C3	Other PEs per 10,000 Weighted Policies	B6/B9		

C4	**Total Index of Administrative Effectiveness**	B3/B9		

NOTES

If these notes are unclear, please feel free to e-mail me (rmunro@oldmutual.com) so that we can prevent unnecessary duplicated effort and so I can learn about the realities of life insurance business elsewhere in the world.

Throughout the Annexure, only individual life policies and the administration thereof is considered. All group or healthcare policies, and the associated expenses, must therefore be excluded. Because only administration costs are being examined, all selling costs must also be excluded, however, the administration costs of underwriting and setting up the records for new policies must be included.

A2. For New Business, a weighting of 4X is applied because of the additional work that is required. In my earlier study, I varied this weighting from 4X to 8X and found that the results were not very sensitive to changes in this weighting.

A3 and A4. Your company might regard some classes of in-force policies as requiring a different weighting. This section permits you to include such policies with the appropriate weighting. If you use this block, these policies must clearly be excluded from the number of policies included in A5.

B1. The total costs allocated to individual life policies is required here. Use whatever allocation basis your company uses for its own purposes.

B2. Because benchmarking of selling costs is outside the scope of this exercise, these must be excluded here. However, the administration costs of underwriting them and setting up the records for new policies must be included.

B4 and B7. These costs and the number relate to those people who are employed to underwrite, create the appropriate records, issue the policy documents, and administer individual life policies. Ideally, the costs include salaries, cost of fringe benefits, market rentals on space occupied, depreciation on furniture and other equipment used, and so on, but exclude those IT costs included in B5 below.

B5. This cost includes all the costs related to IT people (see note B4 and B7 above) including both the maintenance, operations, contractors, if any, and software development roles. Ideally this item would also include all mainframe costs allocated, as well as the costs (including depreciation) associated with PCs and departmental computers, but if these are not available, please include an estimate thereof.

Note: Clearly companies will have different protocols for allocating costs to business unites, but these differences are probably not significant enough to destroy the value of the intercompany comparisons.

The company name can be included in a list of contributing companies **YES** **NO**

The company IAE can be identified in the resulting chart

(If this proves possible) **YES** **NO**

Company contact person for queries:

Name: ______________________________

Company: ______________________________

E-Mail: ______________________________

Fax No.: ______________________________

China Update: The Life Insurance Industry—Not Many Get Invited

by Yuan Chang

To foreign insurers, the attraction of operating in a country with more than 1.2 billion people, and counting, is irresistible. For them the China market has become the prime target for expansion. Amid the explosion of activities in a multifaceted economic reform, growth of insurance in China in the past few years has been nothing but extraordinary. For life insurance alone, premium income more than doubled just in the last two years. Nearly 100 insurers from all over the world are seeking ways to get in the crowded door of the China insurance industry, but only a handful of the "fortunate" have been granted a license to operate primarily in one city—Shanghai.

If there is one thing common among these foreign companies, it is that they all have endured and maneuvered through a long and drawn-out process. In such a process, they needed to observe and study, to establish strong and close relationships with all levels of government officials at essential departments, to demonstrate long-term commitment to China, and finally to enjoy the good fortune of being the beneficiary of a favorable climate of nation-specific foreign relationships. For those waiting, there is no known pattern to follow and there is no formula that remotely approaches certainty of success.

> ***"Chinese leaders know that they have to open the insurance sector to foreign competition in order to develop a healthy insurance industry."***

Why the need for such a long, drawn-out process? Why can't China accelerate the process of opening up the insurance market? In approximately the past five years, there have been 10 single-city licenses issued to seven foreign companies. It is not, however, a thoughtless expression of antiforeigner sentiment. Foreign capital and foreign technology, along with foreign persons, are very much welcome in China. Contrary to how it may appear, it is not the result of a grand design to extract as many contributions of value as possible from those waiting outside the gate. It is not even a focus on the understandable political need to protect the fledgling domestic life insurance industry.

It is, in my opinion, the manifestation of a dilemma.

Chinese leaders know that they have to open the insurance sector to foreign competition in order to develop a healthy insurance industry. They realize that the development of a healthy insurance industry, especially life insurance, is essential to the building of a strong and healthy financial industry. They understand the need for foreign management, technology, and capital from foreign insurers, which can be made effectively available only if the foreign insurers are allowed to operate inside the boundaries of China and enjoy the same operating environment as the domestic insurers.

The leaders may need to have a clearer appreciation of the role of the life insurance industry in the economy, what it can contribute, and what risk it presents. But they do have a perspective of what foreign competition can do to the domestic industry. No doubt they are worried that domestic insurers are not ready for foreign competition. Individual life insurance and distribution of these products by career agency forces are new and virtually unheard of before the first foreign company began operation in Shanghai in 1992.

Compared to foreign insurers, domestic insurers are deficient in most categories of management activities, such as actuarial techniques, asset management techniques, operating know-how, and risk control. After all, China's largest insurer has a short history, less than 20 years, since it was reinstated in 1979; whereas most foreign insurers waiting to enter the China market each have more than 100 years of operating experience.

But they also must know that the domestic industry may never be ready for modern competition without adequate stimulation from the foreign sector. Without the management techniques and technological framework the foreign companies can provide, the domestic process of reaching maturity in all likelihood will take much longer than desired. To provide a level playing field, certain protective measures might be provided to domestic companies and mandated cooperative effort may also be appropriate. But sooner or later, the proverbial ugly bride must meet her in-laws, as the Chinese would say.

It is not only desirable, but necessary, that the contributing force of life insurance be effectively unleashed into a developing economy. When an insurance company sells an insurance policy or annuity to a buyer, it undertakes a long-term liability in exchange for an asset in the form of cash premium. To support the long-term liability, these assets must be invested in similarly long-term instruments. It is simply long-term capital by another name. In effect, at each institution a large volume of small savings is converted to a single stream of long-term capital.

Insurers, private or state-owned, are the only institutions that gather long-term assets, which they do very effectively. If the gathered funds can be used in the construction of the developing economy, then the life insurance industry will have fulfilled one-half of its role, the other half being that of a provider of individual and family financial security. The earlier the life insurance industry can be of use in this arena, the better it is for the economy.

But there is more to worry about!

Chinese leaders also must be concerned about the risk of financial failure and its impact on an unevenly growing economy, now further accentuated by the still-brewing Asian financial crisis. There is the feeling at the top that China is lucky to have been insulated against the spread of the crisis into

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China Update
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China, albeit not immune. But that feeling is not a very satisfying one because such insulation will not always be available if financial reform is to proceed on schedule. So it is with the life insurance industry. While the impact of foreign insurance companies is minute at this time, the risk that comes inevitably with a fast-growing industry will be considerable.

Because of China's short insurance history, no one in China has a comprehensive understanding of the risks that an insurance company faces or the risks to the economy and the society if one fails. This is an uncomfortable feeling. Without the comfort of knowing the nature and possible sources of future problems, one could hardly be sure that these problems can be brought under control when they are known. In general, well-managed institutions in a healthy external environment present very little concern. The fear, however, is that neither is assured. Indeed indications are to the contrary.

In a developing economy where well-balanced regulations are wanting, the situation is difficult for even domestic companies. China's current insurance law is at best formative. Its existing framework is fragmentary and prohibition-oriented rather than integrative and promotive to a healthy industry. Problem prevention can never be too extensive. What if some major problems are not preventable in the current laws? What if some problems are simply left out? What about the problems we cannot foresee? What if … Should one be worried? Decidedly so. Obviously much needs to be done and much can be done.

In such an environment, why are such worries directed at foreign institutions only? Wouldn't domestic companies, possibly even less well-managed, be as much a menace to financial tranquility as the foreign companies? To foreigners, the answer is probably yes but among Chinese officials, the answer is *no*!

Right or wrong, there is still a strong feeling among Chinese officials that if a problem is anticipated, the government can always mandate cooperation from even privately owned Chinese enterprises to prevent the problem. Right or wrong, there is also the belief that such mandated cooperation will be hard to come by from foreign enterprises without pre-existing laws that support such mandate. Right or wrong, until the leadership believes that the regulatory facilities are fully equipped, it is best to "probe the next rock to cross the river." Probing the next rock does not translate to a full run.

Lest I am taken to exaggeration, visualize an American insurance company being told to sell the high-end apartments in their approved portfolio because the government thinks that the real estate bubble is about to burst. Its first reaction, if not its first response, would probably be, "You have no basis to do that. Where is the law?" Right or wrong, right now there is no law. Right or wrong, the Chinese leadership does not want to deal with it.

Right or wrong?

Yuan Chang, FSA, is Chairman and CEO of MetLife, Greater China Operations in Hong Kong.

Highlights of the 1997 International Underwriting Congress

by Chris Cook and Vera Dolan

The first International Underwriting Congress (IUC) took place February 23–26, 1997 in Mexico City. More than 670 registrants representing 237 companies from 40 countries attended. The conference organizer, the Vermont Insurance Institute, was encouraged by the IUC's success to begin planning for the next IUC to be held in June 1999 near London. The following are summaries of presentations made at the first IUC.

Critical Illness Products

A summary of critical illness/dread disease products sold in the U.K. was presented by Jerry Brown, chief life and disability underwriter at Mercantile & General Re in London. A review of the experience with these products in Australia, New Zealand, and Asia was presented by Michael Molesworth, assistant general manager at Cologne Life Re, Australia.

"Critical illness insurance in its modern form was developed in South Africa in the early 1980s. It is a health insurance that seeks to protect consumers against the financial consequences of potentially catastrophic illness and injury by paying a lump sum on the occurrence of specified events such as the diagnosis of invasive cancers or myocardial infarction. The product has been successfully transported to many other developed insurance markets," Mr. Brown said.

"The payment of a critical-illness claim is a survival, living benefit. It is payable to the insured, not the insured's dependents. It is based on the diagnosis of specified diseases, not necessarily on their severity. Payment is made even if there has been a full recovery, and it is not based on the inability to work. The typical U.K. critical-illness product consists of six "core" diseases and 10 to 12 "additional" events. The six core diseases include: myocardial infarction, coronary artery bypass surgery, stroke, cancer, major organ transplantation, and kidney failure," Mr. Brown explained.

Mr. Brown described that as the number of critical illness sales have greatly increased in the U.K. over the past five years, the number of new endowment sales has decreased to a

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Highlights
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similar extent, indicating the success of critical illness as a new insurance product during a difficult recessionary period for the U.K. life and health insurance market. The average face amount of insurance purchased has stayed at about $70,000 (U.S.). To date, the market penetration for these products has been 1.5% within the total U.K. population, but 3.5% within the working population. "The average age of the typical purchaser is 34 and he or she tends to be in the higher socioeconomic classes. The average income is £16,300, and 68% of the buyers are male. About 57% of the buyers are married, and about 20% are self-employed," revealed Mr. Brown.

In looking at U.K. market's critical-illness claims experience, out of more than 4,000 claims, 55% were from cancer, 24% from heart attack, 8% from stroke, and 4% from coronary bypass. "The lessons learned from claims for underwriting include the high potential for nondisclosure of pertinent medical history. It is difficult to pursue nondisclosure concerns for apparently trivial complaints, and very difficult to forecast cancer claims. Family history is very important in determining the likelihood of a dread disease," Mr. Brown observed.

"You need to thoroughly understand all the demographic, social, economic, political, and cultural aspects of both the general population and your desired target market."

Mr. Molesworth explained that "dread disease insurance products were first introduced to our region in Singapore in 1985, in Australia in 1987, and are now in most local markets. Their penetration into the various markets has been variable, but generally it could be described as very successful with new business growth between 25% and 40%." They are typically an add-on feature to a life product that accelerates the payment of a death benefit if certain core events occur.

"The history of the products developed in each market is similar, but variances due to the underlying differences in the markets do exist. The two main areas of difference are the basic type of death covered and the actual 'additional' events covered. The Asian market generally writes dread disease business as a benefit added on to traditional types of coverage, such as whole life, endowment, and level-term policies. The Australian life-risk market is almost totally an annual renewable term market," Mr. Molesworth said.

"The claims experience from all the markets shows that the basic four or five core events make up the majority of claims. Cancer is the most common event in most markets, with 78% in Asia, 57% in Australia, but only 39% in South Africa. An analysis of Cologne's actual versus expected claims in Australia indicates that cancer claims (150% by number, 200% by amount), heart attack claims (just under 200% by number and amount), and coronary artery bypass surgery (over 300% by number and amount) show a worrying early trend. These concerns are accentuated by an analysis of claims by duration that does occur, particularly in cancer claims. The antiselection relating to female cancers is the worst, and this seems associated solely with breast cancer," Mr. Molesworth stated.

"Consumer groups in most markets are showing an increased interest in the insurance industry, the conditions and limitations of the coverages offered, sales and marketing practices, and, of course, underwriting and claims assessments. The dread disease products have a very high claim denial rate (between 20% and 30% in most markets) in comparison to the usual life insurance products. These denials arise mainly from nondisclosure associated with the original application, and failure of the insured's medical condition to satisfy the policy event definitions. There is a need for the industry to address these claims denials at the earliest opportunity to avoid incurring the wrath of the consumer advocates," Mr. Molesworth pointed out.

"The modern advances in diagnostic medicine and the effectiveness of treatments and vaccines over the past decades have been remarkable. The future will bring even more rapid developments in these areas. The dread disease product, the events covered, and their definitions need to be considered in terms of their appropriateness in the future. The individual policies written today may be in force for 30 or 40 years. Are we prepared for the advances in medical science in relation to dread disease benefit design? Is the right to amend policy conditions and events necessary in today's products?" asked Mr. Molesworth.

Using General Population Data

A framework for helping develop new underwriting guidelines and mortality assumptions for markets where there has been little or no insurance experience was presented by Rick Bergstrom, a consulting actuary with Milliman & Robertson in Seattle, Washington, and Vera Dolan, president of VFD Consulting.

"The methodology for converting general population and clinical study data into life tables has been long available, based on work done by Dr. Richard Singer and the late Edward Lew. Instructions in these methods can be obtained through the American Academy of Insurance Medicine. However, many people who discuss these methods customarily invoke the phrase 'apply the results carefully to risk selection,' and typically go no further. I have never liked this phrase, for it is vague and not very helpful," Mrs. Dolan said.

"Rick and I propose that insurers take advantage of the opportunities presented by new markets, better technology, and better population and clinical data to construct mortality assumptions that explicitly recognize all those factors that contribute to the difference in mortality due to the selection effect. Before going into any new country, insurers need to gather and assimilate the available general population information to establish their product design, pricing, and marketing plans. They need to establish an initial knowledge base that will be consistently and dynamically updated and evaluated as in-country experience is gained," suggested Ms. Dolan.

"Until you have more information, do the best with what you have. You

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need to thoroughly understand all the demographic, social, economic, political, and cultural aspects of both the general population and your desired target market. The factors that you determine are important to the local population should be assigned quantitative estimates that must be consistently monitored and updated as time goes on. Since you will not have fully trained people who already understand these things implicitly, explicit consideration will help you deal with the differences and potential problems in a shorter amount of time than would have been possible if you simply started selling and then checked on the results several years later," Ms. Dolan stated.

"Start with local or regional population life tables by age and sex and deconstruct these according to the causes of death and associated factors that affect your target market. Assign adjustment estimates that you believe to most closely reflect locally significant aspects which have an impact on selection. You will end up with a three- dimensional life table for each sex with the customary axis of age by policy duration, and another axis that itemizes each cause of death and each adjustment factor you applied. You can start with simple spreadsheets or a database, and expand your system from there. This is the basis of your product assumptions, and a change in these tables should then flow directly to underwriting, marketing, and your education efforts as you bring new ideas to the population you are serving," Ms. Dolan said.

Mr. Bergstrom described the relationship between general population life tables and insured mortality. "Overall, the mortality curves for insureds are not only reduced from the general population, but the slopes of the curves are different because the selection effect increases with age. The relative causes of death are different at different ages. For example, in the U.S. at age 20, the top causes of death are accidents, suicides, and homicides, which are hard to predict or underwrite. At age 60, the top causes of death are cancer, heart disease, and chronic obstructive pulmonary disease, which are far easier to underwrite and select."

"In mature insurance markets, we have access to a whole array of reporting and testing tools, each of which reveals information on particular causes of death. Given that we can then minimize the risk of early death for selected causes of death, at each age we can eliminate or reduce the contribution of one or more causes of death to the overall population mortality rate. This reduced rate reflects the effect of selection, yielding an estimate of expected insured mortality," Mr. Bergstrom pointed out.

"In developing markets, we will need to bring in the right underwriting tools and tests appropriate to the causes of death seen in each country. We can estimate their resulting effect on the general population mortality by applying the tool's or test's predictive value to what we already know about the general population matrix of causes of death. The result will be our working definition of the insured mortality. If no local population data are available, use data from a country that is similar, and replace that information with local information as it becomes known. I advise that you be conservative in establishing your assumptions, but not overly so," Mr. Bergstrom recommended.

Chris Cook is Regional Director of Unterwriting at Aetna in Hartford, Connecticut. Vera Dolan is President of VFD Consulting in Ukiah, California.

Hong Kong Seminar

Seminar attendees are spellbound at the Asia Seminar in November.

The Asia Seminar in Progress! (Left to right) An unidentified local actuary, Shirley Shao, Bruce Moore, Mo Chambers, and Bill Bugg.

Actuarial Volunteers Assist Egyptians

by Dwight K. Bartlett III
and Anthony T. Spano

Like various other developing nations, Egypt is in the midst of privatizing its insurance industry and strengthening its actuarial profession. Last spring, the two of us participated in a volunteer project to assist the Egyptians in these efforts. We were joined by a third actuary, Arthur Cragoe, who has been involved in similar activities in Russia and Sri Lanka.

Our project was conducted by the International Executive Service Corps, a nonprofit organization funded largely by the United States Agency for International Development. During our one month in Cairo, we worked with company executives, regulators, and educators on projects encompassing three broad subjects: products and markets, industry regulation, and actuarial education.

Products and Markets

The Egyptian insurance industry is redefining itself to move into the 21st century. The insurance companies were nationalized in 1961 and merged to form four large state-owned companies. Now the government is starting to privatize them and to allow foreign competition and free entry to the Egyptian insurance market. The impact on products and marketing will be substantial.

The primary life insurance product in Egypt has been a 20-year endowment policy with a fixed benefit. With inflation a major factor in their economy, the Egyptians will need to develop more suitable products. Universal life insurance has been suggested as a possibility.

With privatization, companies will have pricing flexibility. In this connection, they will benefit from a greater opportunity to control the size and composition of their employee staffs. Until now, these decisions have been dictated largely by the government's desire to control unemployment. Companies often have had to hire and retain unnecessary employees, with consequent effects on expense levels.

Industry marketing efforts, which under state ownership have been negligible, will need to be intensified in the competitive marketplace. We can expect much new advertising, sales promotion, consumer information, and agent-training material to be developed.

From a broader standpoint, marketing efforts will be only marginally successful unless there is substantial growth in the size of Egypt's middle class. Expansion of this segment of the population is a prerequisite for sustained growth in developing economies.

Industry Regulation

Privatization will also affect Egypt's insurance regulatory structure. Insurance in the country is regulated by the Egyptian Insurance Supervisory Authority (EISA), an independent governmental authority. A good regulatory framework exists, but effort is required in developing, updating, and implementing regulations. Also, many of the reference and technical materials need to be updated; some of these are more than 15 years old.

In our work, we identified three areas where regulations should be developed or amended: company solvency, consumer protection, and agent licensing and monitoring. Under solvency, we discussed asset/liability matching, asset valuation and interest maintenance reserves, risk-based capital, financial examination of companies, and guaranty funds. Consumer protection subjects included policy forms approval, market conduct examination of company practices, and disclosure of policy information to the consumer. As to agents, we touched on qualification of agents, monitoring their conduct, and continuing education requirements.

To assist the Egyptian authorities in making the necessary regulatory changes, we arranged for them to request model laws, regulations, and reference materials from the U.S. We recommended they review these materials, giving consideration to various questions and issues we had jointly identified, and we indicated our willingness to help implement the required changes.

Actuarial Education

The Egyptian authorities also recognize that their country will need significantly more professionally trained and qualified actuaries to have a successful and growing private insurance industry. At present, there are only half-a-dozen or so actuaries in Egypt, and most of them are nearing retirement. About half are members of the Institute of Actuaries and half of the Society of Actuaries.

To address the problem of the country's shortage of actuaries, EISA is working with Cairo University to develop an undergraduate program in actuarial science. We were asked to furnish advice and support to help develop this program. When we arrived, we discovered that the course structure had already been well developed under the direction of Roshdi A. Hamamo, FIA, ASA. The Institute of Actuaries has agreed to give examination credits through its part D2 (actuarial mathematics) for students successfully completing the Cairo University program and an intensive follow-up seminar in the U.K.

We advised EISA and the Cairo University authorities that the program seemed well-conceived. It has been in place for several years and has attracted approximately 40 students so far. The program faces a shortage of qualified instructors, and we offered to publicize in North America the lectureship openings.

The terms of the appointments for lecturers are similar to those for the

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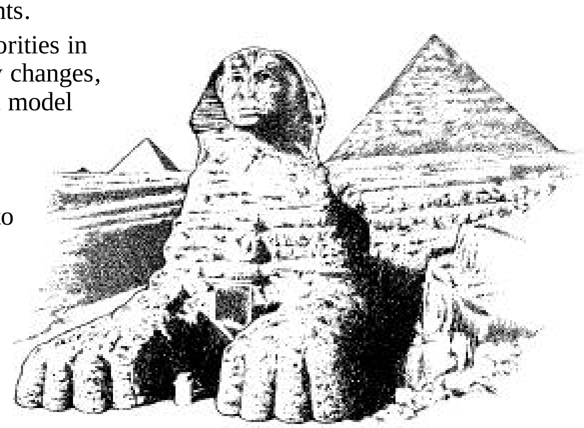

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program supported by the SOA at Nankai University in Tianjin, China. The university will provide room and board for appointees but not much more because of its limited resources. A major difference from the Nankai program, and probably a negative one, is that Cairo University will, in most cases, expect appointees to be resident for a full academic term. We indicated to the authorities that we believed this requirement will make recruitment difficult in spite of our efforts, unless financial support could be identified to provide at least a modest stipend and travel expense reimbursement. Since returning to the U.S., we have contacted several insurance companies and actuarial consulting firms that might have an interest in the Egyptian insurance market as possible sources of financial support, without apparent success.

We were delighted to be a part of this emerging activity. The Egyptians were cooperative, inquisitive, and always gracious and hospitable. And it was so stimulating to be exposed to this ancient culture and to some of its most treasured and historic sights. We wish the Egyptians the very best as they work to build a stronger economy and society.

Dwight K. Bartlett III, FSA, is Principal at Bartlett Consulting Services, Inc., in Annapolis, Maryland. Anthony T. Spano, FSA, is a consulting actuary in Fairfax, Virginia.

Minutes of the International Section Conference Call

Tuesday, March 3, 1998

Participating: Michelle Chong Tai-Bell (Chair), Josh Bank, Mike Gabon, Rick Geisler, Jay Hahn, Kevin Law, Bruce Moore, John Nigh, and Lois Chinnock, Linden Cole, and Lela Long of the SOA staff.

1. ***Minutes Approved.*** Minutes of the December 17, 1997 conference call were approved.

2. ***Spring Meetings***

   Mike Gabon reported on the status of recruiting for the Spring and Annual Meetings. So far, three sessions have not been completely recruited: "It's a Small, Small World" will need two or three speakers; "International Insurance and Capital Markets" will need two speakers if it is to be a case study; "Financial Turmoil in Asia" should also have at least two speakers.

   The second Hawaii meeting is already completely recruited. There are two Social Security sessions. Bob Katz and an academic from Australia will give a presentation for the first, and Mike Sze and Anna Rappaport will present the second. Josh Bank and Chiu Chang have both been recruited for the health care reform session. Josh Bank is working on getting a speaker from Hawaii to round out the panel. Chiu Chang is also acting as the instructor for the health care finance teaching session.

   If all the speakers are to be listed in the program, the Section Council has one week to forward their names to the Continuing Education Department.

   Speaker Expenses. Eight of the speakers will request funding. The Section has $5,000 available. In addition, four of the speakers may qualify for funding under the academic funding category.

3. ***Annual Meeting***

   The Section has five sessions planned for the Annual Meeting:
   - Off-Shore Life Insurance Markets
   - International Accounting Based on ISC and U.S. GATT
   - International Section Breakfast and Roundtable
   - IFAA Update and a 15–20 minute discussion of the IAA/IFAA transition
   - Manager's perspective on the best practices for international management.

   There are three joint sessions:
   - Lessons from the Financial Turmoil in Asia
   - International Valuation Systems
   - Fair Value Reporting for Insurers Update, an International Approach.

   The Section is also involved in two field trips:
   - A field trip to the U.N. on Tuesday
   - A boat cruise cosponsored by the Actuary of the Future Section and the Actuarial Society of New York. The Section Council is deciding the amount it will spend to cosponsor the boat cruise based on how many slots on the cruise will be available to Section members.

4. ***International Section News.*** Kevin Law gave the Council an update on the progress of the next newsletter. The most recent section newsletter just was mailed. It was a combination of John Nigh's last edition and Kevin Law's first edition. Kevin Law has received four articles for the next edition, which is expected to be mailed in May. Michelle Chong Tai-Bell asked for recommendations for the "Chairperson's Corner." It was suggested that she

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Minutes

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highlight the Section's sessions at the Spring Meetings. The submission deadline for the next newsletter is April 15.

5. ***Member Access to Information***. The Section's general philosophy for its web site should be to include only information that does not need to be updated extensively and that is not included elsewhere. For example, the IFAA already has a great deal of information on its web site that should not be repeated on ours. It was recommended that more hot links to other sites, especially those that are well maintained, should be added as well as the e-mail addresses of Section Council members.

6. ***Expenses Incurred Doing Section Business***. There is a lack of policy consistency among the Sections on this issue. While some Sections have a policy to pay for expenses for Section representatives to attend planning sessions for SOA meetings and to cover the expenses of the Section Chair to attend the Council of Section Chairs' Meeting, other Sections consider expense reimbursement only upon request. The International Section Council has decided to consider reimbursing its members on an ad hoc basis.

7. ***Product Development CD-ROM***. Josh Bank will prepare a cover letter to be sent to each Ambassador receiving the CD-ROM. The letter will invite them to share the CD-ROM with their colleagues. It will also ask if there are others in the Ambassador's area who would benefit from the CD-ROM, such as universities or local actuarial organizations. The International Section will pay the postage to mail the CD-ROM to each Ambassador.

8. ***Ambassadors.*** Josh Bank introduced the four new Ambassadors: Alan Dubin in Israel, Ronald Poon-Affat in Brazil, Won How Low in Taiwan, and Ralph Vasquez in Spain. On a recent trip, he met with the Ambassadors in Argentina and Columbia. The International Issues Committee is very interested in how the Ambassador program is performing, and Michelle Chong Tai-Bell and Josh Bank both plan to call Bill Bluhm for his input. While a few Ambassadors have articles in the most recent section newsletter and more are planned in the future, there is still an attempt to get a better response from them on work programs and country profiles.

9. ***Promotion of Research***. This item has been deferred to the next call.

10. ***North American Actuarial Journal***. Kevin Law attended a meeting in which Linda Delgadillo explained the plan to market the *NAAJ* around the world as the premiere actuarial journal. She asked for the Section's support. Kevin Law sent her a letter in January offering the Section's assistance in promoting the *Journal*.

11. ***Election Nominees***. The Council is currently selecting nominees for the next Council election. The deadline for nominations is May 22 with the Section having between six and nine nominees.

12. ***Actuarial Career Planner***. This initiative is sponsored by the Committee on Planning and Personal Development and needs a total of $15,000 in funding to pay for editing, printing and distribution. If the Section makes a donation for the Actuarial Career Planner, its members will receive a $10 discount for the publication and the Section will be thanked on an acknowledgment page. The Section Council decided to donate $500 for the project.

13. ***Section Finances.*** Lois Chinnock described the Section's current finances. At the end of December, the Section had $30,646. A total of approximately $5,000 was spent on the Annual Meeting and the four Asia seminars. Dues are beginning to come in for 1998; a total of $600 was received in December. Most of the dues collected will be reflected in the next quarter.

14. ***International Section Role in Continuing Education***. Bruce Moore, a delegate to the Continuing Education Coordinating Committee, discussed the new continuing education requirement needed to fulfill the last exam. While it will be easy for Canadian and U.S. members to obtain CE credit for the last exam, the Section Council needs to determine how difficult it will be for members outside North America to receive credit and how many members this change will affect. One consideration is how to accredit more seminars by other organizations outside North America and how to sponsor more seminars outside North America. Another consideration is whether members can receive credit for articles in the *Actuary* and the *International Section News*. The view was expressed that CE credit might not be a big problem for members outside North America because few of these members go on to obtain Fellowship and there will be many CE opportunities that do not require attendance at a meeting.

    These are areas in which the Section should be proactive and the Ambassadors can be utilized to find out about the availability of CE sessions in their respective countries. Bruce Moore will ask the SOA Information Services Department to rerun the exam tapes to see how many potential FSAs might be affected. If there is already a clear description of what qualifies as CE credit, Ambassadors can be asked if anything in their area qualifies.

15. ***Section Newsletter Advertisement***. The Council approved an advertisement for a one-year teaching assignment at the University of the Americas—Puebla, Mexico. The advertisement will be placed in *International Section News* and its web site. All such advertisements will be considered on an ad hoc basis.

Respectfully Submitted,
Lela Long
International Outreach Coordinator