



SOCIETY OF ACTUARIES

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# Ambassador Program Update: Country Web Pages Take Shape

by Jim Toole

Alluded to in the previous Ambassador Program update in the last issue of the newsletter, an exciting new program initiative is now underway, harnessing the boundless energy, remarkable skill, and unwavering dedication of our Ambassadors, all for the benefit of you, the international actuarial community. Ambassadors in 26 countries have united for a single purpose: to assemble country-specific market information and identify useful Web pages to serve as the backbone of an international insurance resource center that is located at [www.soa.org/links/amb.html](http://www.soa.org/links/amb.html).

## The Problem

You have been asked by your team to do some background research on the insurance market in Country X. Fine, you say. I speak the language; I'll just fly down for the week, visit the insurance department, conduct some interviews with local professionals, write my report and that will be that.

Problem solved? Well, budget issues aside, say you need to make the presentation at the strategy meeting mañana. Although surfing the Web is undoubtedly a big step forward from visiting your local library, it can still be pretty frustrating when you are trying to find information as specific as capital requirements, doubly so when you are dealing with a foreign country. And when it is all said and done, how confident can you be in the reliability of your sources?

## The Solution—Country Web Pages

I had the opportunity to "speak" via e-mail with program architect and page designer, New Zealand Ambassador Richard Geisler. All quotes included in

this article are his. What he has to say gets right to the point of what the International Section and Country Web Pages are all about:

*The International Section is always looking for ways to provide service and information to actuaries practicing around the globe. Not only are more SOA members transferred to other countries, but also there are increasing numbers of new members qualifying from outside North America. The Section recognizes that the Internet is a universal tool for information dissemination, and it is really our duty to find ways to use that tool.*

## The Process

In envisioning the page content, we had some simple guiding principles in mind: to provide relevant and reliable country-specific information that does not substantially duplicate links found on the SOA or other commonly used actuarial Web sites. Ultimately, we set out to collect on one page the basic information needed to open a window into the condition and practice of insurance in the specific country. With these objectives in mind, the design team constructed an information survey that was then forwarded to all Ambassadors.

*Actuarial practices vary from region to region, which increasingly requires actuaries to bridge those differences for the sake of communicating within either their own organization or with others in the profession. Whether it is valuation of liabilities, product pricing, or investment strategies, the terminology and practices of one's home country are often merged with operations in other countries requiring broader understanding of both. The ability to network and find information worldwide has become vital*



*for most SOA members, particularly those operating outside North America.*

The Ambassadors research and assemble the information and send the completed surveys to Debbie Jay, SOA Web development coordinator, for inclusion on the SOA site. They are encouraged to select "best in class" examples when multiple sites are available. Although the most reliable information generally comes from local pages in the local language, external sites are encouraged if the Ambassador feels they contain the most reliable information.

*As with any web site, it has to be up-to-date, easy to use and provide a service. I think the Country Web Site has the potential to meet those criteria and is designed to be reviewed regularly by each Ambassador.*

The survey as conceived was not intended to be an exhaustive treatment of the subject or unduly onerous for the Ambassador. Ambassadors were encouraged to have some fun, to show off a little and add links to sites showing some of the flavor of their host country (potentially as important as reserve requirements in making an investment decision). For Brazil, it had to be football and beaches...

*I enjoyed filling in the survey as I discovered that pride could be taken in what New Zealand has done with the Internet. In just a short time, I was able to locate the types of sites the Country Web Page was designed for that will be useful, I think, to anyone needing a starting point for information about New Zealand. The Country*

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*Web Pages are flexible, allowing hot buttons to addresses that present unique differences important for the region. In the case of New Zealand, being a small country, there is a Web site that searches only New Zealand Web sites so the user can easily surf the Land of the Long White Cloud.*

### The Pages

We are proud of what we have accomplished so far. By the end of this year, we hope to have more than 15 active Country Web Pages from our 26 Ambassadors. But we need your help to do more. We are currently recruiting Ambassadors for a number of countries including



England, France, Germany, Ireland, Mexico, The Netherlands, Pakistan, South Korea, Switzerland and Scotland. If you are interested in learning more about the Country Web Pages or the Ambassador program, please contact Jeanette Selin at [jselin@soa.org](mailto:jselin@soa.org) or Jim Toole at [Jim.Toole@milliman.com](mailto:Jim.Toole@milliman.com).

*I think it's right on target. The objective of the project was to provide country-specific pointers to insurance and statistical related sites. It is an easy site for starting a search and gives some personal addresses for further contact that could be useful. I am sure most Ambassadors would welcome the chance to give guidance to any visitor to the site if requested. I look forward to the feedback from members and direct contact from anyone using the site. Come and surf New Zealand!*

*Jim Toole, FSA, is a consulting actuary at Milliman & Robertson, Inc. in Denver. He can be reached at [jim.toole@milliman.com](mailto:jim.toole@milliman.com). He is also a member of the International Section Council.*

# Valuation of Cross-Border Insurance Ventures

by Ken Mungan

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Insurance companies around the world are expanding to achieve a global presence. To become international firms, insurers are establishing cross-border subsidiaries and forming partnerships with foreign firms. As the pace of this activity quickens, insurers need a financial framework for evaluating potential ventures and for monitoring the performance of existing ventures. Moreover, any useful framework must account for the unique features of the insurance industry. Namely, evaluation techniques should account for the long-term, predictable nature of insurance company liabilities.

In this article, I will show how blending two well-known financial techniques can help insurers evaluate cross-border transactions. An analysis of a cross-border insurance transaction should use both actuarial projections and the no-arbitrage approach used to price securities. When each technique is used in its appropriate context, one can form a clear understanding of the value of a cross border transaction.

Actuarial projections are commonly used to analyze the expected earnings, which will be generated by an insurance enterprise. These projections account for the fact that insurance company customers are willing to pay for the valuable services provided by the company. For example, customers value the advice offered for financial planning, the financial security offered by insurance products, and access to the financial markets. Actuarial projections account for the value which the company realizes through its expertise in the financial markets, its long time horizon, and its ability to benefit from risk sharing and pooling. A purely domestic transaction,

such as a merger or block acquisition, will rely heavily on actuarial projections.

Security pricing techniques that rely on the no-arbitrage approach are used in a different context. These techniques are used in the realm of sophisticated financial competitors who constantly analyze security prices. These competitors will exploit any possible advantage by simultaneously trading multiple financial instruments. In this world, opportunities for riskless profit quickly vanish. This process of eliminating arbitrage opportunities is used to price financial instruments.

Actuarial projections and security pricing techniques can be used together to value cross-border insurance transactions. For an insurer evaluating a transaction in a foreign country, actuarial projections can be used to project annual earnings in the foreign currency. Security pricing techniques can then be used to translate those earnings to the insurers home currency. Finally, this stream of translated earnings can be discounted at an appropriate hurdle rate. This rate should account for the risk of the investment and be appropriate for the economic conditions of the insurer's home country.

To understand this process, I will outline each of the major steps. First, actuarial projections will be produced to evaluate the transaction in the foreign currency. To create the projections, one starts with a set of assumptions. Liability assumptions such as mortality, morbidity, and reserving basis will determine the liability cash flows and the development of the reserves. Also, one needs assumptions that will determine asset performance. Asset assumptions include an interest rate scenario, fixed income asset spreads, an investment strategy for the new venture, and the cost of expected asset defaults for this strategy. With the assumptions in place, it is possible to project the year-by-year distributable earnings for the venture. Distributable