


THE GLOBAL ACTUARY

By Carl Hansen

VENTURING OUTSIDE ONE'S COMFORT ZONE IS CHALLENGING. The most difficult thing I've done was to interrupt my job in the United States to work in London for one year. Looking back, it has been the most rewarding part of my actuarial career so far. From this one-year investment, the friends I've made and the different world perspective I've gained will pay dividends for a lifetime. And the actuarial lessons learned continue to enrich my career.

Modern actuaries must respond to changes in the world around us, as well as demands from both clients and employers. Multinational organizations are spreading their approaches to insurance and employee benefits around the world. Thanks to e-mail and the Internet, communicating and sharing information across time zones is much easier than in the past. Pacts such as the European Union and the North American Free Trade Agreement changed the way companies do business. Employers and consulting firm clients are demanding on-the-ground expertise and knowledge in many different jurisdictions.

Also, the title "multinational" is no longer reserved for huge conglomerates; smaller companies are expanding across borders. The actuary of the 21st century must respond with global



**Today's actuary
has to be willing to learn
the skills and knowledge
required to prosper in a
multinational marketplace.**

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vision, combined with local knowledge, to solve broad business problems on a global scale.

Actuaries around the world currently face many common challenges, regardless of the discipline in which they normally practice. In particular:

- ☒ Populations are aging rapidly, especially in more developed countries. This trend has a broad range of implications for financial security programs and insurance.
 - ☒ Recent lapses in corporate governance have local regulatory authorities pushing for more transparent accounting standards. Accounting bodies are discussing the convergence of all international accounting standards as well. In the longer term, multinational insurance companies and employers will be concerned with fewer sets of accounting rules. In the shorter term, local rules will change, in some cases quite dramatically.
 - ☒ The spread of multinationals requires local knowledge of cultural and business rules, as well as benefits and compensation practices for employees. It also presents a golden opportunity to share knowledge within the worldwide actuarial community.
- In addition to these common threads, there are many distinct issues facing each actuarial discipline.

Insurance

Insurance actuaries were kept busy over the past decade with a steady stream of merger-and-acquisition activity. Through all of it, the emerging trend is that insurance markets are becoming increasingly global. Populous countries such as India and China are opening their potentially huge insurance markets to foreign competition. Along with new areas of operation, however, come new risks due to volatile economies, currency fluctuations, natural disasters, and potential political instability. In-house and consulting actuaries must have both the knowledge to assess and quantify these risks and the local insight into the regulatory hurdles and cultural barriers that arise in different markets.

Insurance companies can normally cope with aging societies by projecting changes in mortality. It's not so easy to predict how aging populations will change the demand for insurance products. The need for more income over a longer retirement period may increase demand for creative savings accumulation products in many countries. Actuaries are being called upon to help with product design and to clear the regulatory path.

Starting in 2005, publicly traded companies in the European Union must publish financial statements that comply with International Accounting Standards (IAS). Australia is also likely to adopt IAS reporting. When these developments are combined with the countries that, having no local standards, already follow IAS pronouncements, North American accounting bodies will be pressured to conform. It's becoming clearer that accounting standards will eventually converge, and reporting will be more consistent from country to country.

Unfortunately for insurance companies, IAS reporting has not had a unique standard for insurance contracts. An exposure draft issued last year attracted substantial criticism, particularly the need for any standard to consistently measure assets and liabilities. This issue will likely touch insurance actuaries in all countries before fully running its course.

In the property/casualty arena, current and emerging mass torts are affecting the finances of the insurance market and what future policies will cover. Even though asbestos litigation dates back more than 30 years, the ultimate cost of claims to businesses and their insurers is constantly increasing as the number of claims and the full effects of asbestos-related diseases become known.

Mold-related litigation has gained momentum recently, although the long-term health problems caused by exposure to mold appear to be much less severe than those caused by asbestos. Other mass torts such as illnesses due to lead or silica exposure, complications from medical devices, and construction defects pose large financial threats to insurance companies.

These problems aren't specific to the United States, but the U.S. legal system exacerbates their financial impact. Insurers (and reinsurers) around the world will be dealing with the implications of these and other mass torts for years to come.

In 2003, the European Commission outlined a proposal for a directive on equal treatment that has potential ramifications for insurance companies operating within the European Union.

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Among other things, the proposal calls for sex-neutral pricing for annuities, life insurance, and auto insurance. To back this up, the proposal refers to unidentified studies stating that sex is not the main determining factor in life expectancy or the incidence of car accidents, despite the actuarial profession's contrary statistical evidence. The proposal will likely face opposition from European Union member countries.

Retirement

For pension actuaries, the aging of populations means more pressure on financially strapped pay-as-you-go social security systems. Actuaries in many countries have been and will continue to be at the forefront of politically rebalancing the needs of retired people with governments' ability to pay benefits and workers' ability to pay taxes. This often means shifting responsibility from governments to employers and individuals.

Unfortunately, there's no one-size-fits-all answer for reforming social security programs, as different countries often have varying mixes of government, employer, and individual responsibility for retirement. Also, the term "retirement security" can have different meanings, depending on the country or culture. In some cases, a large family is still viewed as the best way to ensure security in retirement.

Meanwhile, where employer-sponsored retirement plans exist, employers are also shifting more responsibility for retirement to individuals. The trend from defined benefit to defined contribution retirement plans is picking up steam worldwide, even in historically "paternalistic" countries. Employer cost containment, as well as the desire for more flexibility in retirement planning by employees, fuels the trend.

Unfortunately for the potential retiree, the ultimate benefits from a defined contribution plan depend heavily on the amounts contributed over the years and recent investment returns. A trend in the United States that's just starting to spread to other countries is giving plan participants educational tools on the implications of their contribution and investment choices. Depending on how funds are invested, economic doldrums just before retirement may translate to inadequate retirement benefits or altered retirement plans. Actuaries are uniquely qualified to tackle the problem of retirement income shortfalls because of their in-depth knowledge of financial mathematics and life expectancies.

Actuaries in the United Kingdom have a long history of working in the investment area. Actuaries in the United States, Canada, and other countries are beginning to realize the insight they can bring to pension fund investing. As funded pension plans mature in many parts of the world, sophisticated asset/liability modeling developed by actuaries will assist in creating

investment strategies aimed at smoothing out peaks and valleys in employer contributions and accounting expense.

International accounting standards for employee benefits are far along the path to convergence. In almost all countries with standards, employers disclose assets and liabilities and book expenses using similar methodology. Where standards currently differ is in how rapidly additional unrecognized items such as plan changes or gains and losses due to changes in asset values or assumptions must be recognized in expense. The new U.K. standard (FRS 17) calls for immediate recognition, which tends to make the employee benefits accounting numbers more volatile than in the current U.S. standard (FAS 87). Practitioners in several countries have argued that volatility of results is a strong deterrent to employers, offering defined benefit pension plans.

The next revision of the international standard for employee benefits will likely employ the "immediate recognition" approach, as the champion of the U.K. standard is now the chair of the IAS Board. North American actuaries need to understand the implications of immediate recognition, since it may not be long before this approach migrates to the United States and Canada.

As employers seek local knowledge and workers seek better education and working conditions, global employee mobility is increasing. The recent trend in tax treaties negotiated by the United States is to grant favorable tax treatment to pensions, often one of the most difficult issues to address when an employee is working outside the home country.

Many European Union rules encourage the free movement of labor, but pension rules continue to be driven by local taxation. Multinationals operating in several European countries are hoping for the "holy grail" of pan-European pension plans, allowing coverage of workers in more than one country in a single pension plan. Recent developments in the European Court of Justice may start to dismantle some of the tax barriers inhibiting pan-European pensions. Understanding the implications of later taxation can help stimulate thinking on plan design and funding.

Health

Until recently, most health actuaries practiced in the United States, due to its large and well-developed market for private health care. Now, many state-run health systems in other countries are experiencing financial strain. New technologies and drugs, which have helped fuel the increase in the cost of health care in the United States, are also having an effect overseas. In addition, non-emergency procedures may have waiting lists and well-qualified health care professionals are often in short supply.

As a result, private health coverage is gaining acceptance in countries with established national health systems and in some countries has already become an integral part of the health care system. Whether the system is public or private, the risk-taking entities are becoming increasingly aware of the important contribution actuaries can make to the forecasting of program costs.

Actuaries can play an integral role in health care reform and cost containment around the world. An unbiased voice in the

discussion is beneficial, as much of the other input comes from drug companies, health care providers, or the political arena. Sound fiscal analysis of financing and coverage alternatives is a useful addition to the debate over resource allocation and budgeting for contingent events. Experience gained in the U.S. health care arena may prove useful, but U.S. solutions can't just be exported to another country and expected to work. The global actuary must respect the historical and cultural aspects inherent in each country's health care system.

For health care, aging populations may translate to increased utilization of services. In the United States, the emphasis is often on extending life through whatever means necessary, regardless of cost. Other countries tend to take more of a "quality of life" approach. This philosophy may mean that the latest medical procedure or breakthrough drug is not an appropriate fit everywhere it could be used. Again, local knowledge of cultural issues is invaluable when assessing the financial impact of aging populations.

Disease management programs have had some success in limiting health care spending in the United States. These programs developed from data analysis showing that as much as 70 percent of medical costs go toward treating chronic conditions, mostly relating to a few diseases. Program participants are educated about their disease and encouraged to take control of managing their condition.

The hope is that this approach will lead to less medical care in the future, especially costly emergency treatment. In some cases, government health systems have employed a version of disease management, with common goals being education and lifestyle changes such as smoking cessation or weight loss. Actuaries will play a significant role in modeling the financial impact of disease management programs.

While education and research have helped slow the spread of AIDS, there is still work to be done to fund more research and find a cure. So far, the impact of SARS and avian flu has been contained. With crowded cities and easy international travel, the potential certainly exists for a new epidemic to spread rapidly, severely taxing the health care systems in affected countries.

Looking to the Future

There are currently many interesting global developments affecting the actuarial profession. The potential for cross-border work and sharing ideas with actuaries in other countries is huge and expanding. The actuary of the future must have a broad field of view to see not only the trees but also the surrounding forest.

But having a global perspective isn't easy. There's more information to process, and sometimes communications and cultural issues make routine tasks difficult. Being on the leading edge of the movement, however, promises a wealth of rewards for future actuaries. ☐

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