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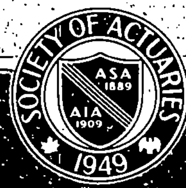

The Newsletter of the Society of Actuaries
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# THE Actuary

# The Search for Competitive Advantage

by James C.H. Anderson

*(Ed. note: The following paper was presented at the Sixth International Week of Insurance Marketing conference, June 1987, Paris, France. It is reprinted with the kind permission of the Committee on Action for Productivity in Insurance (17, rue La Fayette — 75009 PARIS — France). The conference was attended by 570 persons, from 25 countries. Two main topics were discussed: "Crossing the Frontiers of Financial Services" and "New Approaches to Distribution." Seventy papers were delivered in 25 working sessions, with simultaneous translations into English, French, German, and Spanish. The next such conference is scheduled for May 28-31, 1990. It should be of special interest to insurers marketing or planning to market in Europe, since geographical boundaries within Europe will "blur" in 1992 with respect to insurance, and significant changes may come about as a result.)*

Many life insurance product concepts, distribution methods and management techniques have developed in one country and then been transplanted successfully to another. Variable life insurance, for example, migrated from the Netherlands to the United Kingdom and then to many other countries. ... There is also an important corollary: many problems which emerge in one country may, if identified and understood, be avoided in other countries where similar driving forces may later be present. ...

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# Pensions and Tax Expenditures

by Paul H. Jackson

Much attention has been focused on broad reforms of the U.S. tax structure. The generally accepted "facts" are the tax expenditure figures published in the Special Analyses of the Budget of the U.S. Government. The largest single tax expenditure is for excluding both pension contributions and investment income on pension funds from the taxable income of covered individuals. Thus, annual tax reform legislation usually contains significant cutbacks in the tax advantages of qualified pension plans.

Tax expenditure complexity and the almost complete lack of information on the development of the numbers force people to accept the figures provided by the Office of Management and Budget (OMB). Unfortunately, these tax expenditure "facts" are conceptually flawed, arbitrary, and almost useless for budget purposes. For example, many assume that if the tax law were changed to delete an exemption, tax revenues would increase by about the amount shown as an expenditure for that item. This is no longer the case.

**The Tax Expenditure Concept**

Special Analysis G of the Budget of the U.S. Government contains the listing of tax expenditures that is required by the Congressional Budget Act of 1974. The Act defines tax expenditures as "revenue losses attributable to provisions of the federal tax laws which allow a special exclusion, exemption or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability."

The estimates are based on sample tax returns and other data. They estimate the direct cost of the individual tax expenditure provision and do not account for the second order effects that might occur if the particular provision were repealed.

The tax expenditure estimates have varied considerably from year to year. According to the Congressional Budget Office in "Tax Expenditures:

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*Reserve Controversy cont'd.*

will not fit those guidelines. We think we must first develop a reserve method appropriate for the line of business, and then deal with the IRS.

Another important issue has to do with the timing of recognition of gains and losses. The benefit ratio method can substantially affect this timing.

**Poppel:** *What would you like to see happen to the reserve standards?*
**Barnhart:** We've been asking people who aren't satisfied with our proposal to come forth with other proposals. We'd eventually like to see the adoption of an adequate, realistic, and flexible standard that fits the type of coverage we're trying to value, whatever its specific characteristics may be.

**Poppel:** *Could the issues raised here apply to other lines of business?*
**Barnhart:** To some extent, yes. For example, the benefit ratio reserve concept of dealing with valuation net premiums in an aggregate, implicit way could apply to other lines of business. The tax issue arising when proposing something that doesn't fall within existing IRS guidelines could also occur in other lines of business. Property and liability insurance is probably subject to the same issues, and coverages like universal life could come to involve similar ones.

**Poppel:** *How about the issue of balancing rigid standards and actuarial judgment?*
**Barnhart:** Yes, that could be an issue under any line of business. In that connection, the so-called valuation actuary movement is heading in the direction of placing more responsibility on the actuary's judgment. We think our proposal is consistent with that.

**Poppel:** *Is this the first time that you have been so closely involved in a professional controversy?*
**Barnhart:** It's the first one I've been involved in where the positions are so deep and sharply defined, and which has gone on for such a long time at an intense level.

**Poppel:** *Is it worth putting so much time and effort into making your case and being willing to take a strong stand?*
**Barnhart:** I think so. There seem to be a number of misunderstandings and misinterpretations of our proposal, and I feel it is important to clarify them so people focus on the real issues and not on erroneously perceived issues. I have always felt a strong obligation to participate in professional discussion and to contribute time and thought to further development of actuarial concepts. This particular controversy very much deserves the effort to place the genuine issues in a true, balanced perspective.

# New Zealand Society of Actuaries Conference Speakers Wanted

Would you enjoy freshwater fishing, boating, golf, white water rafting, skiing, hunting, bush walks, deep sea fishing, and visiting an active geothermal field? How would you like to try your public speaking skills on an audience that hasn't yet heard what you have to say? Have we got an opportunity for you!

The New Zealand Society of Actuaries will be holding its biennial conference (we call it a Hui) October 6 and 7, 1988, at Waireki, near Lake Taupo and Rotorua. Our agenda topics include: Solvency Bases for Life Companies, GAAP Accounting for Life Companies, Pension Fund Accounting (FASB) 87, and Risk Management.

We are recruiting speakers to bring us up to date on the situations in the U.K., Australia and New Zealand. We need speakers to do the same for the U.S. and Canada.

If you will be in the area in early October 1988 and would like to speak, please write to Ken Magee FSA, FCIA, Metropolitan Life of New Zealand, P.O. Box 1117, Auckland, New Zealand. We'll need to know who you are, what you do, and why we should choose you over the thousands of others who are certain to respond. Don't miss the experience of a lifetime!

## Spring Exam Preparation Seminars

Exam preparation seminars for May 1988 will be held in various locations for Courses 120, 130, 135, 140 and 150. For details please contact Prof. S. Broverman of the University of Toronto at his *Yearbook* address.

## *TSA* Papers Accepted

Four more papers have been accepted for publication in the *TSA* Volume 40. They are:

Christian J. DesRochers, "The Determination of Life Insurance Under Section 7702 of the Internal Revenue Code"

Edward W. Frees, "Net Premiums in Stochastic Life Contingencies"

Richard G. Schreitmueller, "The Federal Employees' Retirement Act of 1986"

Robert W. Stein and Joseph H. Tan, "Source of Earnings Analysis for Flexible Premium and Interest-Sensitive Life and Annuity Products"

*Competitive Advantage cont'd.*

The life insurance industry, in Europe and elsewhere, has borrowed extensively and built upon the successful agency system of distribution developed mainly in North America. Important changes in that system began to appear 15 years ago. Those changes are now quite profound and quite disturbing. The time has come for those in other countries to look again at the North American experience — this time not as a model to imitate, but as one to avoid. ...

**The North American Agency System**
The life insurance industry in North America began about 150 years ago. From the earliest years and still today, the prosperity of the industry has depended primarily upon the sale of personal life insurance policies to individuals. From the earliest years and still today, almost all of those sales were made by agents and at least 80% were made by "full-time" agents, those who earned a majority of their livelihood from selling life insurance. It was primarily in North America — in Canada and the United States — that the agency system was developed to its full maturity. In other countries — particularly in Europe, in Japan and in the British Commonwealth — similar systems emerged, sometimes as a parallel development and sometimes by imitation. In several countries, the result represented an improvement on the original model!

It was no accident that the commission based agency system developed mainly in North America.

*Continued on page 6 column 1*

*Competitive Advantage cont'd.*

From the beginning, those responsible for the management of the newly-formed life insurance companies recognized that their products provided high margins to cover expenses, many of which were of a fixed nature. They were quick to realize that incremental sales provided additional margins far in excess of the additional costs incurred. Thus began the progressively more aggressive search for new sources of business. To these new companies, headquartered mainly in New York, Philadelphia, Boston, Montreal and Toronto, the developing western regions of Canada and the United States represented a tempting untapped market. The obstacles were the forbidding transportation and communications problems. The solution was the appointment of general agents, paid on the basis of commissions, which provided strong incentives to produce and effectively substituted for direct supervision of their day-to-day activities.

The general agency concept was quickly adopted by most companies and competition for manpower soon became intense. The inevitable result was the escalation of commission rates. At the beginning, agents received a first-year commission of no more than 10% and renewal commissions of 5%; general agents received additional commissions of half that amount. Although renewal commissions remained stable, total first-year commissions increased to and even beyond 100% during the 19th century. This commission competition continued in the United States until the early years of the 20th century, when statutory limits were adopted by the State of New York which applied nationwide to all companies licensed in that state. Because many Canadian companies also operated in the United States, this legislation exerted an indirect effect on commission rates prevailing in Canada.

The New York commission legislation was embraced by the industry. It caused a shift in competitive focus away from rates of commission and towards the building of agency relationships and loyalty. Single company representation became the industry norm. Vast amounts were spent on agent training and development. The result was a better trained and more professional agency system, much admired and often copied in other countries.

The agency system in North America achieved its greatest growth and development between 1950 and 1970. Not surprisingly, the life insurance industry experienced its greatest period of prosperity at the same time. These were the Glory Years. What was the basis of this success?

**The Social Contract**

... Jean-Jacques Rousseau wrote and published in 1762 the work that would change the history of France, then Europe and, eventually, much of the rest of the world. Its title *Du Contrat Social* has become part of several languages. The success of the life insurance industry in North America during the Glory Years can be explained in terms of the stable Social Contract which then prevailed among three concerned parties:

- The consumer was tolerant of the high margins charged for life insurance products and did not recognize that other lower cost financial products were substitutes for life insurance.
- The agent accepted the commission cartel of the industry and was loyal to his primary company and his general agent; he sold all of the products of his primary company, good and bad, rather than choosing among companies, product by product, seeking the lowest price or the highest commission.
- The industry supported and protected its agents and general agents by refraining from low priced competition and alternative low cost distribution methods; it also succeeded in its efforts to obtain legislation which prohibited commission rebating to persons not licensed as insurance agents.

The success of the life insurance industry in North America and its distribution system did not go unnoticed in other countries. In several countries, including some in Europe, life insurance distribution systems were modeled or re-modeled along similar lines. The membership of [the Life Insurance Marketing and Research Association] expanded to include companies from many different countries. The Million Dollar roundtable adopted currency conversion rules to accommodate qualifiers outside North America. The lingua franca of life insurance marketing worldwide acquired a distinct North American accent. ...

**Gone with the Wind**

... [A]nother author, Margaret Mitchell, ... published in 1936 the most widely read novel of all time. Its title, *Gone with the Wind*, has also become part of several languages. The title describes what happened to the society which existed in the southern states after the American Civil War; it also aptly describes what has recently happened to the Social Contract which prevailed during the Glory Years of the life insurance industry in North America.

The collapse of the Social Contract began with consumer revolt. Around 1970, a shift in consumer preference became unmistakable — a shift towards low commission products such as term insurance and annuities. "Buy term and invest the difference" became a familiar theme of financial journalists and mutual fund salesmen. This shift did not necessarily threaten directly and immediately the prosperity of the industry but it directly and immediately reduced the income of agents and general agents.

The first response by agents was to seek an increase in commissions and, in particular, to share the commissions of general agents. A later response by agents was the instigation of wholesale replacement of existing business, which re-cycled "old" cash values as "new" premiums, earning thereby another "sales" commission.

Weaker competitors within the life insurance industry, struggling with deteriorating cost fundamentals in their agency development efforts, seized the opportunity to hire trained agents of other companies and paid general agents' commission rates to nonexclusive solo producers — so-called Personal Producing General Agents (PPGAs). In effect, they exchanged lower fixed costs for higher variable costs. Initially, the exchange succeeded. But their actions caused the cost fundamentals of their stronger competitors to deteriorate and many of these companies soon adopted the same tactics. Commission competition then ensued at the new, higher levels, led by companies

*Continued on page 7 column 1*

*Competitive Advantage cont'd.*

unaffected by or willing to evade the New York commission limits. Single company representation collapsed for all but a few companies. Because the typical PPGA represented more than one company, price competition intensified on a product-by-product basis and became more visible as a result of the introduction, around 1980, of unbundled products such as universal life. At the same time, the emergence of money market mutual funds as unregulated savings banks increased extra-industry competition, leading to further price reductions on life insurance products. The new unbundled products and the new external competition also fostered wholesale replacement of existing business, which quickly became endemic; renewal lapse rates of many companies doubled between 1975 and 1985.

The end result, for all companies, was higher costs, higher lapse rates and lower pricing margins. No longer can success be measured by sales results alone. Marginal cost pricing has now become the implicit norm of the industry. Most companies, including many of the largest and most successful, are now incurring large and unsustainable new business subsidies. Today, the industry is engaged in an internal price and commission war on a product-by-product basis and also faces formidable external competition from other savings products. This position cannot continue for long. The marvel is that it still continues.

**The Interval of Calm**

The life insurance industry in North America has experienced a series of major competitive disturbances since 1970. In different circumstances, the industry might have been decimated by these major shocks.

Fortunately, the industry has also been the beneficiary of several extraordinary events:

- From 1978 – 1983, the industry in the United States exploited a reinsurance opportunity which reduced its income tax liability by perhaps $10 billion.
- The 5 year surge in stock and bond markets, which began in 1982, restored the depleted capital base of the industry.
- Tax legislation enacted in the United States in 1986 retained tax advantages enjoyed by life insurance products while eliminating most other "tax shelters."

In recent years, the industry has also achieved some improvement in its cost fundamentals other than distribution costs. As a combined result of good fortune and good management, the increased resources of the industry have provided the capital required to subsidize its uneconomic distribution system while it seeks longer term solutions. This large and continuing subsidy has masked the seriousness of the distribution cost problem.

This interval of calm will not last forever and might end abruptly if stock and bond prices declined significantly, if tax advantages were withdrawn or if potentially important new competition from banks becomes a reality.

**The Zero-Sum Game**

How can the life insurance industry in North America meet the competitive challenge which threatens its fundamental methods of doing business and even its survival as a separate industry?

The governing principles are these:

- All economic activity is essentially competitive — a zero-sum game with winners and losers.
- Success or failure of each competitor can be measured by its return on capital versus its investors' expectations.
- Winners are generally those which enjoy a sustainable competitive advantage: lower costs, higher price realization, less capital employed or lower investor expectations.

The zero-sum game begins when the existing competitive equilibrium (the Glory Years, 1950-70) is disturbed. How does the game then proceed?

**The Search for Competitive Advantage**

When the game begins, each player searches for the sustainable competitive advantage. Some of the areas of search are these:

- Cost Advantage
The advantage of low cost can relate either to manufacturing costs or to distribution costs; if cost advantage is found, the player competes on the basis of low prices or high commissions.
- Differentiation Advantage
Differentiation advantage can be based on product, service or distribution methods; if found, the player uses the advantage to compete on the basis of higher price realization or lower commissions (the Dunhill example).
- Focus Advantage
Focus can be used either to reduce costs through simplification (critical mass in small packages) or to differentiate through specialized expertise, product or service, thereby increasing price realization.
- Preferred Access Advantage
A captive customer base or captive distribution system can support higher price realization.
- Information Advantage
Customer information can be used to reduce distribution costs or to create preferred access to markets.
- Capital Structure Advantage
Debt can be substituted for equity to reduce investor expectations; note that mutual companies enjoy the inherent advantage that policyholders have lower investment expectations than shareholders.

Strategic acquisitions, mergers and joint ventures are other routes to competitive advantage. Some advice to the players: if no competitive advantage exists, then BUILD IT, or BUY IT — or EXIT! Few companies are prepared to accept this advice.

**The End Game**

The game is cruel and unforgiving. While the game is in progress, marginal cost pricing often prevails. Those who succeed in establishing a sustainable competitive advantage become part of the new competitive equilibrium. Those who do not are gradually eliminated, most often by sale to and absorption by another competitor. Those with the weakest cost structure, the poorest market position and the smallest capital base are usually the first to go. In general, the market shares of the most efficient, the best positioned and the best capitalized competitors expand. The game is an exercise in Darwinian Economics — only the fittest survive!

**Implications for Other Countries**

What is there for others to learn from the recent and current experience in North America? Some observations:

- To preserve the competitive equilibrium within the life insurance industry, companies must "own" either their agents or their ultimate customers; if not, a commission limitation or price convention is required to prevent the

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*Competitive Advantage cont'd.*

formation of a destructive coalition of agents and consumers against the industry. (The textbook strategy of three-player games calls for two players to form a coalition against the third.)

- Even if stability within the life insurance industry is achieved, external competition will be a serious potential problem. Individual life insurance products are usually the highest cost personal-savings products and, as such, are always vulnerable to extra-industry competition from the banking and securities industries, which enjoy significantly lower costs. Eventually, the life insurance industry must become competitive with these alternative producers of financial security products.
- The cost structure of the life insurance industry is high primarily because its distribution system is labor-intensive. In particular too many man-hours are spent prospecting. Technology and sophisticated customer information may provide the opportunity to reduce the labor cost involved in the inefficient process of prospecting by agents.
- At least in North America, the traditional agency distribution system is in trouble. Eventually, and perhaps soon, companies may be required to choose between their own survival and the survival of their cherished distribution systems in their present form.

The message for the life insurance industries in other countries is clear. Unless circumstances are very different, the problems now present in North America may soon appear elsewhere. The capital cost of developing a North American-type agency distribution system is very large and the pay-back period is very long. Today, in Europe and elsewhere, an undertaking of this type should be approached with much caution. A better plan might be to invest the same resources in the development of a different and more efficient type of distribution system — one better able to withstand the internal and external competitive forces of the future.

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## Editorial

by Daniel F. Case

As people we are all deeply concerned over the AIDS epidemic. As actuaries we have a special additional concern: the impact of the epidemic on financial security programs and what to do about it. We have special skills and resources in the area of data-gathering and analysis. Should we be using those skills and resources in additional ways?

There have been some solid investigative efforts: (1) the report, "AIDS, HIV Mortality and Life Insurance," by Michael Cowell and Walter Hoskins; (2) the work of the Society's AIDS Task Force; and (3) surveys of AIDS-related life and health insurance claims, which have been carried out largely by actuaries working within the insurance business.

The Cowell-Hoskins model and others have shed light on the course of the epidemic. They are generally based on reported AIDS cases and deaths, observed rates of progression from HIV infection to AIDS, estimates of the numbers of persons infected by HIV and estimates of the numbers of persons considered to be at highest risk of becoming infected. The weakest areas of the data base are the estimated numbers of infected persons and of persons at highest risk.

This issue of *The Actuary* contains an excerpt from a draft paper, by Linda Bilheimer, on the problems of AIDS-related data collection. The excerpt which we have printed deals with a very difficult area: estimating the numbers of infected persons. Ms. Bilheimer explains that two basic approaches have been used in the U.S. One is based principally on the observed prevalences within a few small groups of high-risk individuals and estimates of the total numbers of high-risk persons in the U.S. The other is based, more simply, on ratios of seropositives (infected persons) to AIDS cases within those same observed groups. Neither approach is reliable, and the government is looking to larger scale seroprevalence surveys to improve the estimates.

The largest bodies of seroprevalence data now available come from the blood banks and the armed forces. Neither can be considered representative of the population at large. Blood donors (because persons in high-risk groups and persons who have tested positive are asked not to donate) are deemed to constitute a relatively low-risk population. Military recruits are too young to have reached a representative level of seroprevalence, and active-duty military personnel, who are also tested, are also not typical of the population at large. The government would like to make a nationwide random survey, but indications are that the percentage of persons agreeing to participate may not be high enough to make the results meaningful. Various surveys are being carried out locally, some on an involuntary, but anonymous, basis. Since anonymity severely limits the amount of demographic information which can be attached to each specimen being tested, surveys of this type will be of limited value.

It is widely agreed that detailed seroprevalence data are important in order to learn the extent of the epidemic and better predict its future course. Can the actuarial profession contribute to the data-gathering effort? Large numbers of HIV-antibody tests are given each year to applicants for life or health insurance. The results of those tests must, of course, be held in the strictest confidence. Within that constraint, however, it may be possible to use this abundant source of information for research.

The demographic information which insurers send to their laboratories may not be detailed enough for a meaningful study. The information which insurers give to the Medical Information Bureau is even more limited. The insurers themselves are, presumably, able to keep fairly extensive demographic information in their confidential files. Should the Society consider whether studies could be based on such information? As always, data for such studies would be purged of information that might identify the individuals involved.

Certainly such studies would have their own limitations. For example, they would not include all the risk characteristics of the tested persons. In view of the great need for seroprevalence information, however, using insurers' HIV-antibody test results for prevalence studies deserves serious consideration.