RECORD OF SOCIETY OF ACTUARIES
1982 VOL. 8 NO. 1

INFLATION: MAKING PEOPLE PART OF THE SYSTEM

Speaker: WILLIAM A. DREHER

Preamble

It is a particular honor to share with Ashby Bladen the keynoter's role and suggest some themes that can help us focus our professional response to inflation. There is an American flavor to my remarks, but inflation is a global problem and our thoughts, we believe, have relevance in the Canadian environment.

Ten years ago last month the Society of Actuaries held its first regional meeting devoted to a single topic. The subject was pension plans and I remember it well, because I chaired the organizing committee. From that experience and others since, I know how much energy and imagination go into planning an intellectually stimulating program. I would like to offer my compliments to Harold Ingraham, Jr., Vice President in charge of the Committees on Services to Members; Frank Irish, Chairman of the Continuing Education Committee; and Fred Rickers, Chairman of the Program Committee; and the members of their committees for the appealing menu of panels, workshops, and forums they have arranged.

After accepting the invitation, I checked the calendar and saw that I would be rising to speak on April 1st. Perhaps, I said to myself, someone is giving me a not-so-subtle personal message or perhaps the committee is telegraphing its private despair about our ability to correct the causes of inflation or control its consequences. These musings sent me searching for the origin of April Fool's Day. It is lost in the mists of time, judging by this rhyme from Poor Robin's Almanac of 1760:

> The first of April, some do say,
> Is set apart for All Fools' day;
> But why the people call it so,
> Nor I, nor they themselves, do know.

Finding little illumination there, I considered the question from another angle and decided that April Fool's Day was not a bad choice at all for an exploration of inflation and its consequences. Our record of coping with inflation is not exactly studded with success. It would not be foolish to approach the future with a proper respect for the power and cunning of our adversary and a modest appraisal of the cleverness and ingenuity of our strategies for dealing with it. John Ruskin, from whose writings our Society has taken its motto, had his own word of warning that we might bear in mind:

> In general, pride is at the bottom of all great mistakes.

An Analogy

Inflation is an economic disorder, and invites comparison to bodily disease, but which one? Not the common cold. Inflation won't disappear if you take aspirin, plenty of fluids, and wait a week. Perhaps a fair analogy is to malaria, or some tropical disease that is accompanied by spiking fever and unexpected attacks that leave you helplessly weak and delirious. If inflation were a disease, the doctor would study its symptoms and look for its cause. He might treat the symptoms, but only to give temporary comfort or to stabilize the patient's condition before beginning a more aggressive medical procedure. His ultimate objective would be to remove the cause of the disease, then help the body heal.

Our approach to inflation has not been so intelligent. We have ignored it, but it won't go away. We have sought to limit it with wage and price controls, but any such relief is superficial and temporary. The problem does not disappear, but soon erupts again, usually in more extreme form. We have attempted to offset its consequences through cost-of-living adjustments and other compensatory devices, but these accommodations do nothing to attack the cause, and have about the same healing power as a glass of cold water for a patient with a high fever. As doctors for inflation we deserve to lose our licenses.

Some Effects of Inflation

A few statistics will demonstrate the magnitude and gravity of the inflation threat. The examples are myriad, but I will mention only a handful that bear most directly on our own professional work:

° In the past ten years health care expenditures in the United States have grown at an annual rate of about 12 percent and now exceed 9 percent of GNP.

° Disposable personal income has risen by 160 percent in this same decade but, net of inflation, the increase has been only 48 percent. Also, much of this growth has been due to expansion of the labor force, which rose from 79 million to 97 million, an increase of 23 percent.

° The inflation rate has averaged 8 percent and the average worker's real income has grown by less than 1.5 percent per year. Conditions were worse in the immediate past.

° Investment returns for the decade were low by historic standards. Real returns on U.S. common stocks averaged only 0.5 percent and bond portfolios produced returns that fell 2.3 percent below the inflation rate.

° Statistics for the Canadian economy and investment markets were similar; inflation averaged 8.6 percent; bond portfolios had negative real returns of 0.6 percent; and common stocks, assisted by an explosion in the price of natural resource shares, showed real returns of 4.8 percent.

Another awesome indicator of the impact of inflation is the current size of entitlement programs in the U.S. federal budget. Their total cost in 1981 was between $305 and $310 billion. As actuaries, you will be impressed that nearly 75 percent of this total was associated with programs requiring actuarial skills and judgments: military retirement programs, Medicare, Social Security, unemployment compensation, and civil service retirement benefits. These expenditures are projected by the Office of Management and Budget to grow to $460 billion, a 50 percent increase, by fiscal year 1987. This growth rate is more rapid than the projected rate of inflation.

Structural Flaws in Traditional Solutions

The damaging consequences of inflation are dramatized in the current struggle between Congress and the Reagan Administration. Enormous budget deficits, for not only the current year but the indefinite future, focus attention on the flaws in the network of entitlement programs. Our social insurance programs--like many of our corporate compensation and benefit programs--have responded to inflation by addressing the symptoms rather than the causes. The purchasing power of the pensions of over 30 million Social Security beneficiaries, and many other millions retired under the federal civil service and military retirement systems, is constantly adjusted to reflect changes in a Consumer Price Index that is itself a redundant expression of the actual impact of inflation on their lives. These people are already fully protected against inflation's effect on the cost of their medical care. The cost of this insulation from economic reality is a major factor in historically large and growing federal deficits, and it continues to mount while the real growth rate of our economy is declining and real wages are growing slowly or even declining. We must act, as individuals and as a profession, to cope with these distortions before our economic system and social order disintegrate.

Implementing a broad set of incentives to attack inflation will require a sharing of responsibility and also, for those sectors of society that today have an unfair advantage, a period of financial adjustment and discomfort. In addition, it will require a comprehensive program of public education to achieve an effective national consensus.

We cannot change course without confronting four politically powerful groups: retired people, the medical care community, the federal civil service establishment, and the veterans' lobby. This will not be an easy task, as regularly demonstrated by our President and our politicians, few of whom, for fear of political retaliation, are willing to state publicly that excesses in the entitlement programs must be corrected.

The actuarial profession and other informed groups must make it politically acceptable to confront these issues and bring about change. Our voices must be heard and they must be persistent.

Our task is formidable, as historian Barbara Tuchman noted in her essay, "Why Policymakers Do Not Listen." She observed that those who make policy "will not believe what does not fit in with their plans or suit their pre-arrangements." Her analysis, supported by many persuasive examples, concludes that "policy is formed by preconceptions, by long implanted biases. When information is relayed to policymakers, they respond in terms of what is already inside their heads and consequently make policy less to fit the facts than to fit the notions and intentions formed out

of the mental baggage that has accumulated in their minds since childhood." She adds, "Foreign policy obeys Newton's law of inertia: It keeps on doing what it is doing unless acted on by an irresistible force." The same might well be said of social and legislative policy.

Does Tuchman's counsel compel despair? I think not. The hour is late, but the distressed condition in which we currently find ourselves may be the dramatic event that can focus attention on fundamentals and direct the efforts of private citizens and legislators toward a sounder course. We do know, however, nothing will happen unless we try, and the actuarial profession has an important role in the drama.

There are some indications that a consensus on the necessity of change may be emerging. It was encouraging to read, only a few weeks ago, that leaders of three groups representing retired people have suggested a willingness to accept an adjustment in Social Security benefits.

A New Philosophy

In my view, we need to define a new philosophy or, more correctly, to revive an older philosophy, to provide the beacon that will illuminate the issues and guide the necessary public debate.

What, you ask, should be the central thesis of that philosophy? To test my own instincts, I found it helpful to examine the political traditions that have most influenced our social and economic system.

Those who address social insurance issues in North America and Europe have usually advocated one of four political philosophies: democracy, liberalism, socialism, and conservatism. The American Heritage Dictionary tells us that democracy is concerned with "promoting the interests of the people" and "practical social equality." Liberalism favors "non-revolutionary progress or reform" and policies that "encourage the freedom of individuals to act in a manner of their own choosing." Socialism is a system in which "the producers possess both political power and a means of producing and distributing goods." Conservatism favors an active effort to increase the self-reliance of individual citizens and to reduce the role of government in the commercial sphere. Each of these political philosophies has at its roots the commendable objective of improving the health of society and the economic well-being of individual citizens.

The social insurance and other public programs emerging from the political interaction of these four competing philosophies have, I believe, undermined their sponsors' basic intentions and contributed materially to the growth and destructive power of inflation. I say so because most social insurance programs deal only with the symptoms of inflation and use mechanical solutions to compensate for its consequences. In doing so, they reduce the incentive for individual recipients to curb the impact of inflation on their lives and, in the aggregate, to restrain the impact of inflation on society as a whole. (The same defect is evident in many private sector programs, including employee benefit programs, collective bargaining agreements, and the health care delivery system.)

In this respect, somewhat ironically, our social insurance programs are fundamentally elitist, because they fail to recognize and trust the inventiveness and resourcefulness of individual human beings. Our social insurance programs, however well-intended, are displaying contempt for one of our most important natural assets.

We need to reexamine both our social insurance programs and our corporate compensation and benefit programs in the light of another standard: humanism. Humanism seeks to understand the qualities of man and to build a good society by strengthening and refining the better side of human nature. It recognizes and appreciates the altruistic, cooperative, caring and even sacrificing side of man. It also recognizes the power of our appetite for life and our resiliency and resourcefulness in coping with adversity and protecting ourselves and our families. Humanism is not a one-sided or myopic view of mankind. It knows and understands the reality of fear, greed, and anxiety, and seeks to turn them into constructive channels that can cope with the uncertainties of the social and economic order.

The late Rene Dubos, in one of his last books, Beast or Angel? Choices That Make Us Human, spoke from a profound understanding of human nature, including both its dark and bright sides. His awareness of the stability of man as a species and our remarkable skill at adapting to the challenges of a harsh environment is balanced by an awareness of human failings, of which he cited only three: our propensity to kill and our tendencies toward wastefulness and carelessness. Dubos recognized that human beings, unlike other animals, have the kind of freedom that comes from possessing free will and moral judgment, including the capacity to temper the bad aspects of our animality by applying creativity in pursuit of order and form. I cite these tenets to emphasize that a humanistic approach to the structure of our social and economic system must acknowledge all sides of man. If we do not actively enlist our natural instinct to protect individual or family interests, our tendencies toward carelessness and wastefulness will offset the commendable altruism and the search for social order and equity that underly our social insurance and other programs for protecting the economically weak and disadvantaged.

I submit that, when we provide retirement benefits with 100 percent cost-of-living adjustments or remove the economic incentives that encourage individuals to control the use and cost of medical benefits, we show lack of respect for man as a thinking human being.

The Japanese Model

Recently, I found, to my considerable surprise, a confirmation of the humanist thesis in an unexpected area, the Japanese economy.

Many students of the American economy, seeking to understand our low and irregular productivity gains, have looked to the Japanese experience since World War II. The Japanese economy grew at an average annual real rate of 7.6 percent from 1960 through 1980. During these two decades Japan's inflation averaged 7.0 percent. By comparison, the real growth of the U.S. economy for these 20 years was 3.4 percent, and our inflation rate was 5 percent. Observers of the Japanese scene often note that personal savings by workers average more than 20 percent of disposable income. By contrast, our American savings rate is between 5 and 6 percent, in some

years reaching to about 7 percent. They also comment on the high level of job security in major Japanese companies, and note their relative freedom from labor strife and the great emphasis the Japanese place on team work. The implication is that Americans would enjoy high productivity, more rapid capital formation, and stable employment if we had more industrial peace, less emphasis on competitive individual behavior, and a higher national savings rate.

The lesson to be learned from the Japanese is quite different, as documented by William Ouchi, a California psychologist and university professor. The high rate of savings in the Japanese economy is directly traceable to two factors: a meager system of social insurance benefits and a practice of paying high rates of bonus, typically five or six months' salary in good years. But these bonuses are totally dependent upon short-term profits and are paid only if the company's profit goals have been met.

The concept of lifetime employment is confined to major companies. It does not apply to the 75 percent of the labor force employed by smaller concerns or by the subsidiaries that supply components and technical services to the giants. Employment in these smaller companies depends upon the economic health of the business; layoffs or other trimming of the work force are the typical corporate response to fluctuating business conditions. Furthermore, even in the giant companies, employment guarantees extend only to the male work force. Although women are employed in substantial numbers, they are not permanent workers, and they come and go in direct response to the economic cycle. I draw from these facts a conclusion that the Japanese culture reflects to a high degree, no doubt to a degree unacceptable in our North American culture, the importance of the humanistic approach to controlling inflation and stimulating economic growth.

Every participant in the Japanese system has a powerful incentive to support corporate goals that promote profit objectives. Variable bonuses cannot be spent in advance, since they are not assured. Even if they were predictable, common sense would require their accumulation in anticipation of economic needs after retirement, because publicly provided benefits are not adequate. Our American system has many more benign attributes: compensation varies less with profits, the "safety net" for the economically disadvantaged is larger, and retirees have greater income security.

We do not need, and we should not seek, to move all the way toward the Japanese position, which, Ouchi notes, is both sexist and racist and tends to become inbred and smug; but we should recognize that the key to that system is the incentive for individual performance in pursuit of collective goals. In the final analysis, Japanese workers are not responding to skillful management techniques or unique attributes of their culture, but to the fundamental laws of human nature and a clear and powerful message that linked performance with rewards and failure with penalties.

A Larger Role for Actuaries

The actuarial profession has a special opportunity and responsibility to play a major role in identifying the causes of inflation and developing sensible solutions that will benefit all citizens and contribute to a healthier and more prosperous future. The importance of the actuarial profession in our economic society was splendidly expressed by George Bernard Shaw in a charming essay entitled, "The Vice of Gambling and the

Virtue of Insurance." Shaw presents, persuasively and in lay terms, the fundamental principles of insurance with which we are all familiar, explaining how a person can convert uncertainty about the risk of economic loss into affordable certainty by paying a premium to an insurance pool, which pays the claims of those who suffer a loss. Shaw overstates his case by imputing perfect knowledge to the insurance company of the risks it assumes. As we know from experience, the insurance underwriter often lacks full knowledge of the risk distribution and, therefore, may err in setting the premium structure. The economic cycle can have a profound impact on the distribution of claims, and losses in some years may offset profits in others. Also, variations in the investment return on the assets underlying claim reserves may materially change the profitability of a block of business. There is another major omission in Shaw's analysis. He failed to note that the insured should be an active participant in the effort to control the risk and avoid the loss. Otherwise, claims experience will suffer and the fundamental balance between the premium structure and the claims distribution will be unsettled.

Despite these technical and practical flaws, Shaw's analysis is a vivid example of persuasive argument from which all of us can gain inspiration. He concludes with a comment on the national insurance plan then being considered by the British parliament: "If the schooling of our legislators had included a grounding in the principles of insurance, the Beveridge scheme would pass into law and be set in operation within a month." He went on to add, "It is clear that nobody who does not understand insurance is qualified to meddle in national business. And nobody can get that far without at least an acquaintance with the mathematics of probability, not to the extent of making its calculations, ... but enough to know when they can be trusted, and when they are cooked."

The Past is a Poor Model

To call the actuarial profession leadership in the fight against inflation does not guarantee a successful response to the challenge. A look into the past, always a sound practice for an actuary or business planner, reveals several discouraging examples of well-meaning but ineffective efforts to cope with inflation. Actuaries have been either active participants or silent witnesses to these defective solutions. A few that come quickly to mind are:

- The 1972 Social Security Amendments, which abandoned the pragmatic wisdom of the political process and introduced automatic cost-of-living adjustments.

- The variable annuity, a mechanical solution to purchasing-power maintenance which ignored clear evidence that equity prices, at least in the short run, have little, if any, correlation with the inflation rate, and encouraged rigid investment policies that increased portfolio volatility and damaged pension fund investment returns.

- Health care benefit plans and group insurance policies with low or no deductible and limited coinsurance, which have encouraged an indifferent and careless attitude toward medical care cost control by both service providers and patients.

- Pension plan funding assumptions that exaggerate the need for conservatism in forecasting the future and introduce "silent COLAs" by using unnecessarily conservative actuarial assumptions, often without the knowledge or understanding of the plan sponsor.

What do these failures have in common, besides the proximity of the actuarial profession? They all seek to mitigate the consequences of inflation by formulas that dilute or remove any continuing incentive for plan sponsors or beneficiaries to participate, through cost sharing, resource allocation, or other economic decisions, in the struggle to limit the inflation rate.

A Strategy for Leadership

Fortunately, past is not inevitably prologue, either in selecting the economic assumptions for pension plans or predicting the future behavior of actuaries.

As a profession, what can we do to carry out our leadership role in the fight against inflation? An easy answer is to build on the present foundation of practices and programs, as illustrated by this meeting. Open-minded inquiry, a thirst for knowledge, and the search for creative and innovative responses to the problem must motivate our behavior.

I would add to this prescription by strong personal belief that we must continue to build our awareness of the importance of interprofessional cooperation. A multidisciplinary approach is essential, and will present a variety of challenges. We must avoid the "guild" mentality, become better communicators to the publics who are or should be looking to us, and broaden the scope of our professional education and experience to become competent laymen in several other professions that also have important roles.

Our syllabus already recognizes the need for understanding and appreciation of the philosophy and guiding principles of law, economics, accounting, medicine, and finance. To this list I would add history and psychology. They offer avenues to truth that recognize the human dimensions of our economic and social system and, I am convinced, provide insights that can be integrated with our profession's esthetic appreciation of abstraction and logic and lead us to better professional judgments and sounder advice to our clients.

It is even possible that the actuarial profession can set an example that will diminish the attention devoted to territorial imperatives, or what we more often call "turf" questions, when professional practitioners or the representatives of professional organizations meet.

I found in Rene Dubos' work a line of thought that suggests how the evolution of interprofessional cooperation might proceed. Describing man's creativity in responding to his environment, Dubos identifies two opposite trends: one toward diversification and the other toward unification. He says, "Human beings have become progressively differentiated into a multiplicity of biological races and social groups in the course of their migrations, but they have always been involved in exchanges which have enabled them to create lasting associations and to move slowly toward some form of social unification."

Dubos' thesis can be extended from nations and social structures to professions. Too many professions, in their weaker moments, display either or both of two unattractive qualities, sometimes simultaneously. One is the exaggerated fear that their unique role will be preempted or subordinated to another profession; the other is an exaggerated claim of importance and the boldness with which their self-sufficiency is asserted.

We should protect the integrity of our professional territory, and also reach creatively beyond a narrow, traditional, and technical view of our profession. It would be encouraging to see these good qualities expressed with somewhat better balance and a greater sense of quiet self-confidence that is less easily disturbed or threatened by external developments. At the same time, we must constantly seek to integrate our unique contribution with the parallel pursuits of other professions. In time, our collective efforts may bring about a functional unity among professions, while retaining their diversity in much the same way that the parts of the human body interact.

This does not imply that the professional world of the future will be completely uniform. To paraphrase Dubos, each particular profession will continue to search in its own way for certain forms of truth and for a quality of life compatible with its traditional genius.

One final quotation from Dubos' work offers us encouragement to seek energetically for solutions to the dilemma of inflation and the other evils that afflict our social and economic order: "Crises are practically always a source of enrichment and of renewal because they encourage the search for new solutions."

Encouraging Evidence of Enlightenment

This meeting demonstrates that the actuarial profession recognizes its opportunity and responsibility to take leadership in the fight against inflation. It is also a credit to the Society and to our profession that the planners of this meeting recognized the importance of involving all sectors of the professional and business community and have invited representatives of the investment and academic communities as well as corporate executives, government officials, and researchers from trade associations and private institutions to present their ideas and experiences.

An Immediate Need

One area that requires prompt and resolute action is the indexing system used to adjust Social Security benefits. It is not enough merely to adopt a revised index that recognizes the differences between the budgets of an

active worker and a retired person. We must build into the system incentives to control inflation. One obvious way is to adjust Social Security benefits by less than 100 percent of the change in the Consumer Price Index. This idea has been proposed by a variety of thoughtful analysts and several responsible research organizations, including the Committee for Economic Development.

I would go farther and provide an incentive that allowed retired people to share in productivity gains, while recognizing that the percentage increase in their pension income should be less than the average increase in the wages of the workers whose labors produce those productivity gains.

Let me illustrate this idea with an example, at the risk of accusations of rejecting my own advice about the danger of formulas for dealing with inflation:

The cost-of-living adjustment for Social Security benefits could be defined as the sum of two components. The first would be two-thirds of the lesser of the increase in a wage index and the increase in the Consumer Price Index. The second component would be 100 percent of the amount by which the change in the wage index exceeds the Consumer Price Index. The chart below illustrates the cost-of-living adjustment produced by various combinations of change in the wage index and the Consumer Price Index.

Increase in Social Security Benefits

Increase in Wage Index	Increase in Consumer Price Index		
	4%	6%	8%
6%	4-2/3%	4%	4%
8	6-2/3	6	5-1/3
10	8-2/3	8	7-1/3

As we can see, the cost-of-living adjustment would increase as inflation declined. It would also increase as the gap between the wage index and the Consumer Price Index widened. The next table illustrates how the cost-of-living adjustment would relate to changes in the wage index:

Cost-of-Living Adjustment, as Percentage of Wage Index Change

Wage Index Change	Consumer Price Index Change		
	4%	6%	8%
6%	78%	67%	67%
8	83	75	67
10	87	80	73

The working population would always receive a greater increase than the retired population, but retirees would benefit if inflation dropped or

productivity grew. The impact of this formulation on the disposable income of retirees is illustrated by the following table:

Cost-of-Living Adjustment, as Percentage of CPI Change

Wage Index Change	Consumer Price Index Change		
	4%	6%	8%
6%	117%	67%	50%
8	167	100	67
10	217	133	92

If the gap between the wage index and the Consumer Price Index were about 2 percent, retirees would receive a cost-of-living adjustment that closely matched the change in the Consumer Price Index. Productivity gains above the 2 percent level would increase the real retirement income of Social Security beneficiaries.

Conclusion

There are no final solutions to inflation, and all attempts to find a panacea are bound to fail. As circumstances change over time, the pressures creating surges of inflation also shift. Only by actively involving people and giving them an incentive to minimize the impact of inflation on their individual lives can we produce the aggregate response needed to keep the disease within manageable proportions.