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Social Security's uncertain future

by A. Haeworth Robertson

The present institution of Social Security will not be viable 20 years from now when the first group of baby boomers expects to retire. Social Security has promised more benefits to the baby boomers than their children will be willing and able to pay for.

Social Security, including Medicare, now costs about 16% of the participant's covered, taxable payroll. Projections by the Social Security Administration and the Health Care Financing Administration indicate that these costs will rise by the middle of the next century to 34% of such payroll based on the intermediate set of demographic and economic assumptions and 52% of payroll based on the so-called pessimistic assumptions, which I consider to be the prudent assumptions to use in evaluating long-range benefit promises.

The projected cost of these benefit promises exceeds by far the Social Security income projected to result from the taxation promises. Social Security payroll tax rates of 15.3% of payroll (shared approximately equally by employees and employers) are not scheduled to increase in the future. General revenue earmarked for the Old-Age, Survivors, and Disability Insurance part of Social Security is projected to be about 1% of payroll. Most of the cost of the Supplementary Medical Insurance part of Medicare is financed by general revenue, although long-range projections of the need for such general revenue are not published.

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Insurance: From the Victorian age into the future

by James C. Hickman

Great fleas have little fleas
upon their backs to bit'm.
And little fleas have lesser fleas
and so ad infinitum.

This piece of doggerel, with the embedded lesson on limits stated in entomological terms, is by Augustus De Morgan (1806-1871). De Morgan was one of those remarkable Victorian scholars who generated ideas on almost every topic. He probably is best known to contemporary students for his contributions to formal logic, but he also was an articulate spokesperson for the subjective interpretation of probability. It is more important to us that he was a member of the Institute of Actuaries.

De Morgan was a frequent contributor to the first 14 volumes of the *Assurance Magazine* and later the *Journal, Institute of Actuaries.* He had unbounded enthusiasm for the idea of insurance solving human problems. He called insurance "the most enlightened and benevolent form which the projects of self-interest ever took. It is, in fact, in a limited sense and practicable method, the agreement of a community to consider the goals of its individual members as common."

Friendly societies and their potential for managing society's problems especially impressed De Morgan. He said these societies could "raise working men to an unknown degree of independence as the poor laws are removed."

Augustus De Morgan, we need you. Gallons of ink have been used in actuarial publications and hours of conversations have been spent on The Actuary of the Future/The Future of

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Insurance cont'd

the Actuary. Part of this flood of words has described how some of the institutions that actuaries serve are stagnating. Another part has developed the idea that the role of actuaries can and should be increased in existing institutions that manage risk. The institutions mentioned include banks, government financial guarantee programs, and thrifts. Both points are valid and deserve the attention they have received. But do these points exhaust the subject?

How would De Morgan approach these issues? With his strong belief in insurance, encyclopedic knowledge, and passion for improving society, he might organize his response differently. We will try to emulate De Morgan and list some of the forces shaping our future, identify risk problems associated with these forces, and speculate about risk management plans that actuaries might develop to handle these problems. We will do product development in a futuristic mode. We will leave behind repackaging income tax deferment plans. We will acknowledge that because of the smaller variance of time until death and multiple incomes in families, premature death is not seen as a dominant threat to family plans.

Several big forces appear as we look into the future.

Insurance...can be used to solve the problems of the next century.

Aging population

The median age of the U.S. population in 1970 was 27.9. Today it is more than 33, and it is heading north to about 40 in 2020. Measured by any yardstick, this is a profound change, and it generates a host of problems and associated opportunities.

How do we reorganize work assignments, employee compensation, and benefits to produce a seamless program? For social and economic reasons, older workers must be used more effectively in the future. Phased retirement will be a national necessity to maintain the work force that produces the goods and services we need.

The initial response to the increasing need for long-term care has been to develop new special purpose insurance policies and to modify standard life insurance contracts to permit accelerated payments. How about modifying pension benefits? Income needs advance with age as more services must be purchased. Initial benefits could be lower, in accordance with the need for phased retirement, with increases tied to losses in the ability to perform the activities of daily living. Such a pension plan would have a greater insurance element than current plans, but can we afford to finance long-term care as a new, uncoordinated benefit?

Technology

No longer can a person spend a working lifetime applying skills acquired before age 25. The rate of technological change is such that most workers will require significant re-education at one or more times during their longer working lifetimes. Will this re-education and time away from regular employment be paid for by government, employers, or individuals? Perhaps we should develop deferred temporary life annuities to help individuals save for the necessary re-education. In a downsized corporate world and a reduced public sector, it may be good policy to expect individuals to save for this purpose.

Ideas and computers

Precisely defined plans of insurance may have been a product for an earlier age. Did they result from the inability to handle administratively a multitude of miscellaneous transactions plus the perception that premature death was the main threat?

In the future, is it possible that insurance companies will manage accounts for individuals from which payments will be made for one year term life insurance, long-term care benefits, retirement income, and re-education? The bundle of options that would be the heart of the only life insurance contract a person would ever need would be revalued periodically using modern option theory.

Productivity

Between 1959-1973, the average annual percentage change in labor productivity in the United States was 2.79%. The corresponding number for 1974-1984 was 0.89%, and for 1985-1990, it was a worrisome 0.80%. Can employee benefits be modified to put some zing in these numbers?

Do pension and health care benefits prevent the most productive use of our most valuable resource — the people? Would increased portability be in the national interest?

Is total compensation tied to productivity? Many actuaries survey total compensation and help clients design their compensation systems. Perhaps the next step is to study the measurement of productivity and to help clients link compensation to the ultimate determinant of wealth — productivity.

Environment

The recent Rio summit affirms worldwide concern about our earth. Chances are the air quality you see when glancing out your window will support this concern. Until now, insurance's involvement in environmental issues centered on mitigating the financial consequences of liability for clean-up imposed by the courts or administrative agencies.

Formal long-term financial systems could be designed to accumulate assets during a mine's or a plant's production period to pay for needed toxic disposal.

Single premium life insurance contracts could be built into the purchase of durable products. The benefit would pay for the durable product's final disposal. Products with a long lifetime and lower disposal cost would have smaller premiums.

Futuristic ideas need new structures

The initial response to these futuristic insurance product development ideas is that the current tax laws and regulatory structures do not encourage these developments. Of course not. New problems require new structures for their solutions. Industrial accidents caused a major change in tort liability law to create worker's compensation insurance. Institutions can and will be changed to accommodate insurance responses to the real problems of the next generation.

De Morgan was correct. Insurance is an "enlightened and benevolent" idea that can be used to solve the problems of the next century. The problems will be different, but we know the basic building blocks of the solutions.

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