

## > an annuity approach to financing long-term care and retirement income



According to estimates by the U.S. government's Health Care Financing Administration, in 1999 Americans spent nearly \$53 billion in non-government funds for nursing home care and home health care. Of this amount, over 62% were out-of-pocket expenditures. Long-term care expenses can result in catastrophic costs for retirees.

The TIAA-CREF Institute recently sponsored a study investigating whether planning for long-term care might be linked to retirement income security. The study, "In Sickness and in Health: An Annuity Approach to Financing Long-term Care and Retirement Income," won the British Institute of Actuaries' Special Prize Competition in August. It was published in *The Journal of Risk and Insurance*, 2001, Vol. 68, No.2. Its authors are: Mark J. Warshawsky, research director, TIAA-CREF Institute; Christopher M. Murtaugh, associate director, Center for Home Care Policy and Research, Visiting Nurse Service of New York; and Brenda C. Spillman, senior research associate, Urban Institute Health Policy Center.

Murtaugh and Spillman in their study "Risky Business" observed that 25% to 33% of applicants for long-term care insurance could not obtain it owing to poor health. Considering this segment of the population,

Warshawsky asked whether an innovation in annuity design might help. His prior research revealed that annuities are purchased by people who are healthier and more long-lived than the general population, and that one of the reasons people give for not buying annuities is fear of losing financial control if faced with long-term care expenses. Attracting a larger group of people with average health to an annuity linked to long-term care insurance might allow more to qualify for long-term care insurance and lower the cost of the annuity.

The study investigates whether combining two insurance products, the income annuity and long-term care insurance, could reduce the cost of the combined coverages, making them available to more people. The lower costs would come from reducing adverse selection for both products (adverse selection means that individuals rationally expecting to incur the risk are more likely to purchase). Combining the two products makes sense because adverse selection among purchasers of annuities and among purchasers of long-term care insurance are somewhat inversely related. Most of the long-term care cost reduction would come from minimizing the need for medical underwriting.

The study simulated persons likely or eligible to purchase annuity and disability products at age 65 or older and 75 or older by using data from the 1986 National Mortality Followback Survey (NMFS), a nationally represen-

tative sample of adults who died in 1986. A survey of next of kin provided information about the decedent's health history and use of nursing homes. This health history was critical to the simulation of prospective purchaser pools, as it provided data on occurrences of limitations in activities of daily living (ADLs) and cognitive impairment that qualify individuals to receive benefits from long-term care insurance. The authors estimated premiums for both the immediate income annuity and for the disability coverage as a lump sum paid at purchase. These premiums were estimated by calculating present discounted benefits from age of purchase to death for each individual and taking the average. The study estimated the basic long-term care benefit received by using a 30-day waiting period followed by 90 days of chronic disability in two or more ADLs or cognitive impairment to calculate when benefits would begin.

According to the study, a larger pool of prospective purchasers can buy a combined product under minimal underwriting, at a price reflecting their mortality and disability experience, than can buy the stand-alone products under current underwriting practices. Minimal underwriting refers to having applicants fill out a form answering health questions, and only excluding from coverage those with pre-existing disabling conditions. This dramatically increases the pool of eligible purchasers from 77% to 98% of persons at age 65, and there is not a significant difference in risk and duration of

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## panacea or pandora's box?

disability between purchaser pools.

According to the simulation, the life annuity premium calculated for the expanded purchaser pool under minimal underwriting is 3.6% lower than under current underwriting practice, because of the expanded pool's lower average survival. The premium for disability benefits is similar for both groups of purchasers, as is the risk and duration of disability. The premium for the combined product is about 3.4% lower than that for an immediate life annuity and equivalent stand-alone long-term care insurance under current underwriting practice.

The simulation does not answer questions about the potential market for such a product. Would a combined product at a lower price attract the expanded group of purchasers on which the lower premium is based? The marketplace would ultimately determine the appeal of such a combined product. Several insurance companies are currently investigating some form of combined long-term care product. Nevertheless, large providers may want to wait until the tax treatment of the integrated product is made clearer, and more favorable, particularly if it is provided through a qualified pension plan. The authors also suggest a public policy solution for the financial risks associated with long-term care: Social Security payments, an income annuity, could be combined with expanded disability coverage.

(See [www.tiaa-crefinstitute.org/Publications/pubarts/pa6-01-01.htm](http://www.tiaa-crefinstitute.org/Publications/pubarts/pa6-01-01.htm).) ■



In recent years, stock options were thought to be a panacea for retaining management and providing incentives for employees. In a rising stock market, employees watched their potential wealth grow by leaps and bounds. With little regard to their hidden costs, public companies doled out stock options — the new currency of compensation.

However, shareholders have plenty to worry about when it comes to paying employees with stock options. With the threat of big wealth transfers from shareholders to employees, and uncertainty surrounding how to measure the value of stock options, how effective is this form of employee compensation? It's an open question, according to Stuart L. Gillan, a research economist at the TIAA-CREF Institute. "It is very difficult to measure the costs and benefits of stock option plans," he says. "The concern of shareholders is that the potential costs exceed the potential benefits."

In a paper titled "Option-based Compensation: Panacea or Pandora's Box," prepared for the Corporate Governance Forum sponsored by the

Institute (see p. 10), Gillan highlights the issues that exacerbate the problem of determining the true cost of stock options. Current accounting and disclosure requirements make pinpointing the expense sketchy at best. Moreover, some companies use exchange and market loopholes to avoid shareholder approval of new option plans. With the recent drop in the stock market, shareholders now have to grapple with the increasing prospect of option "repricing" and the associated costs.

This is not to say stock options are without benefits. The compensation may help align employee interests with those of shareholders, and may also help companies retain employees in a competitive labor market. Options can also serve as a substitute for other forms of compensation, reduce other kinds of labor costs, conserve cash, and act as a form of financing for the company. Yet in exchange for the benefits, shareholders must give up a portion of their wealth, and a portion of their ownership of the company.

The potential value transfer to option holders from shareholders is not insignificant. Among 2,000 companies, stock options—those granted, outstanding and available for grant—averaged 13.93% of shares outstanding at the end of 1999, according to the Investor Responsibility Research Center (IRRC). Among the most liberal users of stock options the figure was 31.41%.

Determining the true cost of option-based compensation is also tricky because employees tend to value options less than their potential cost. Often they cash in their options well before expiration, to the benefit of the