SOCIETY OF ACTUARIES

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'Jeopardy' cont'd

Under the category "Time":
Answer: A law discovered by Galileo led Christian Huygens to build the first clock regulated by one of these.

Question: What is a pendulum?

Under the category "Languages":
Answer: Most people of this small European nation speak Letzeburgisch, a German dialect.

Question: What is Luxembourg?

Under the category "Ballet":
Answer: This "regal" ballet company was formerly known as the Sadler's Wells Ballet.

Question: What is the Royal Ballet?

Blake missed this, his final question, but was far enough ahead to win the game and set a new record.

Under the category "Literature":
Answer: The next-to-last chapter of this novel is entitled "The Knitting Done."

Question: What is *A Tale of Two Cities?*

Economic statistics booklet available

A limited quantity of "Economic Statistics for Pension Actuaries" booklets are available on a first-come, first-served basis. Each Pension Section member already has received a copy, and a number of the booklets were distributed at the October Society meeting. To order a booklet, contact the Research Department at the Society office. There is a charge for multiple copies.

Review classes for February examinations

The College of Insurance, 101 Murray Street, New York, N.Y. 10007, will offer two-day intensive review classes in January for Course 100 and Course 110 examinations to be given in February. For more information, please contact Srinivasa Ramanujam at 212-962-4111, ext. 381.

Need for reduced paid-up nonforfeiture values in long-term-care insurance policies

by Gordon R. Trapnell

Long-term-care (LTC) insurance presents a huge opportunity for insurers. If fully exploited, the field lends itself to policies with relatively large premiums that need to be accumulated over a lifetime in statutory reserves, requiring fiduciary investment management as well as insurance services. The need to accumulate large reserves to prefund a risk largely concentrated at the end of the life span gives this product most of the desirable characteristics of the level premium life insurance policies that were the staple of the insurance business for many decades.

However, the insurance industry will forfeit the opportunity to exploit this market unless it supports effective regulation that will channel insurers' efforts into constructive paths serving the public interest. Unfortunately, there is fear that the industry will earn the enmity of public-opinion makers and find its freedom to innovate and fill the enormous needs for the prefunding of long-term care severely constrained. Many companies now offering products operate in a manner that will earn only public condemnation and mistrust.

To avoid the consequences of the almost certain public uproar, the industry must support product regulation strong enough to assure that the public interest will be served. Failure of regulation can lead only to more onerous and restrictive restraints on the industry.

The dimensions of the public interest are clear. The cost of LTC exceeds the capacity of the federal government to fund it. The present commitments of the federal government for social insurance benefits equal a third of all wages and salaries that will be paid in 2040. To these obligations must be added the impact of the unfunded civil service and military retirement systems (which are funded in the same illusory fashion as Social Security and the Hospital Insurance Program). Adding an LTC program of even modest dimensions to the social insurance burden will lead only to additional curtailments in the obligations of the other programs, or devaluation of the promises through inflation. (I assume that payroll taxes of 45% to 55% of payrolls are not a practical possibility.)

If one concludes from this financial burden that benefits will be curtailed, the only hope for real benefits for the middle class is through prefunding. A benefit provided from accumulated savings and investment income does not need to be provided at the expense of someone else in the manner of transfer payments. In terms of macroeconomics, the reserves of insurers – invested in productive capital assets – increase real income and hence the capacity of an economy to provide services. In other words, through the investment of insurance reserves, the insured are capitalists who enjoy the return from owning capital.

Increasing the capital in an economy increases the potential consumption. Additional LTC services are possible, as a result of additional production potential. In contrast, social insurance, condemned by political realities to "pay as you go" funding (i.e., not funded at all in real economic terms), must tax Peter to pay Paul, in this case a frail elderly Paul with little effective means to fight for his "rights." As to the potential for intergenerational conflict over resources, those who deny its potential cannot demonstrate what will happen, simply because no society has attempted to manage with the proportion of nonworkers projected for the 21st century. At a minimum, it is a risk for those who will be frail and aged in the 21st century, one that I, as a prospective participant, find to be unacceptable.

For the insurance business to provide an acceptable medium for the prefunding required, the industry must offer products with potential to

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deliver a high proportion of the premiums collected and the accumulation at interest as benefits to insured persons. Further, it must leave no doubt that most of the premiums and investment income pay for LTC services, and that sales and other administrative costs are low. In addition, it must treat policyholders equitably. The criteria that will have to be met in the LTC field are likely to be far more rigorous than have to be met in other products.

Impact of lapses: forfeiture of policyholder equity

The specific aspect of the design and operation of LTC policies that I am concerned with here is the forfeiting of reserves by persons lapsing for nonpayment of premiums. Since the model for LTC policies (and the model NAIC regulations) has been Medicare supplement insurance (the only policy with nursing home coverage), no provision has been made for nonforfeiture values.

But the characteristics of LTC insurance policies are entirely different from those of medical insurance. The incidence of utilization is exponential, in a pattern much more like life insurance, with the acceleration of the curve around age 75 rather than age 50 as in mortality rates. Consequently, large reserves must be accumulated to prefund a risk largely concentrated at the end of the life span. The implied equity accumulated in the product is out of all proportion to Medicare supplement or medical policies, which are an absurd model for the regulation of LTC insurance. Nearly all of the value of an LTC policy occurs in the long run at advanced ages. The implicit equity is that a greater proportion of premiums accumulates with interest than in the case of life insurance.

Yet under the present regulation, policies that ignore this equity are the norm. Specifically, virtually none of the policies provides any nonforfeiture values. The situation is similar to that which existed in the life insurance industry prior to the reforms at the beginning of the 20th century, when similar lack of concern for the public interest marked the life insurance industry.

To see the inequities – and hence the instability of the present situation – consider the reasons why LTC policies are likely to lapse.

- Reduced competence, i.e., elderly persons lose their ability to keep track of their finances and thus fail to make the required payments. Ironically, the process of becoming frail is likely to lead first to failure of competence to do such things as paying bills. (If present, children and other relatives have an incentive to prevent lapse, but they often do not recognize the deterioration until the damage is done.)
- Loss of spouse, other companion, or other person managing their affairs.
- Running out of money, perhaps precipitated by a large expenditure for medical care. (Many elderly persons have substantial assets but lack significant income, making it likely that many purchasers may begin an insurance program that they cannot continue long enough to make it worthwhile, especially if there are substantial premium rate increases.)
- Inability or unwillingness to pay a sharply higher premium after a premium rate increase. Policyholders may decide that at the higher rate the policy could not be worth the price, or they may fear that there will be so many further increases that eventually it would be impossible to pay. These factors are compounded by the decreasing capacity of aging persons to think analytically or with perspective.
- Deciding other needs for the income are more important, such as home repairs, a grandchild in financial difficulties, a sharp salesman, etc. The aging process leaves the elderly vulnerable to poor decisions.
- Diversion of funds needed to pay other premiums, including purchase of another LTC insurance product, described as better and more up to date, but actually providing poorer coverage, sold by an unscrupulous insurance salesman.
- Loss of assets to protect, the desire to leave assets to heirs, or a conclusion that they will become dependent on Medicaid anyway.

When this list is examined, it is not clear why it is ever equitable for insureds to lose equity in the policies on which they have paid premiums for a number of years. This is especially the case when lapse follows a large premium rate increase. If the insurance industry does not take steps to prevent this reserve forfeiture, legislatures are sure to intervene to assure that the equity is preserved.

An additional reality is the increasingly desperate situation of state Medicaid programs. As the population ages, and especially as baby boomers reach their frail years, states will not be able to afford to continue their Medicaid LTC programs at the present level. Unlike the federal government, states do not have the option of having the Federal Reserve Bank buy in their bonds, the U.S. equivalent of printing money.

How reduced paid-up nonforfeiture values would work

A reduced paid-up nonforfeiture value would provide for the continuation of coverage under a policy that would otherwise expire for nonpayment of premiums. The policy continues in force for the life of the insured, but with reduced benefits. The reduction in benefits is calculated to reflect the present value of the premiums that are not paid as a result of the lapse. The policy would include a table showing what the reductions would be if premiums are discontinued at any duration.

The percentages should vary by issue age and duration. At any duration, the appropriate percentage should approximate the benefits that an efficient insurer could provide with the reserves that should have been accumulated. At early durations the cost of selling and issuing the policy may take up all or a large portion of the first year's premium. Unlike medical policies, however, a major portion of the second year's premium should be used to build up reserves. Consequently, an efficient insurer can provide for a paid-up nursing home benefit from the beginning of the third policy anniversary (although a relatively small one).

The reduced paid-up percentage can apply to all benefits in the policy or just to nursing home care. The latter is preferable, since the administrative cost for paying home care benefits is much higher than for paying nursing home benefits. If the reduced paid-up percentage was very low, it could cost more in administrative expenses to pay the home care benefit than the benefit itself is worth. In contrast, payment of nursing home claims requires a tiny percentage of benefit payments because the average claim is so large.

Table 1 shows a sample of reduced paid-up percentages that could be required by legislation. The

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reduced paid-up percentages would be specified by a table of percentages promulgated either in the legislation or by the insurance department. The percentages would vary by issue age and duration, with fractions of years interpolated. The percentages would be calculated from the values of net level premium reserves, or perhaps one-year preliminary term net premium reserves.

Table 1

Paid-up Percentages by Duration for Selected Issue Ages

Duration	Issue Age 35	Issue Age 55	Issue Age 75
3	–	20%	15%
4	–	25	20
5	–	30	25
6	25	35	30
7	30	40	35
8	35	45	38
9	40	50	40
10	45	55	42
11	50	59	45
12	54	64	48
13	58	66	50
14	62	69	52
15	65	71	54
20	77	77	66
25	83	82	100
30	88	85	–
35	90	88	–
40	92	90	–
45	93	100	–
50	95	–	–

Rationale for requiring paid-up nonforfeiture values

There are three principal reasons for requiring nonforfeiture values:

- To preserve the equity built up in an LTC policy by a policyholder who has paid premiums for a number of years, but is now financially unable to continue to pay premiums.
- To be fair to policyholders who have paid premiums for a number of years and are then faced with a large premium rate increase.
- To assure that a substantial portion of all premium payments for LTC policies are actually used to pay benefits to elderly beneficiaries.

a. Unfair to policyholders to lose their equity

Most of the benefits for nursing home and home care for frail elderly persons are not needed until the policyholders reach advanced ages. Under a level premium LTC policy, most early premium payments must be set aside at interest to prefund the large benefit payments that will be needed toward the end of the life span. The entire purpose of LTC insurance is to permit purchasers to prefund these amounts, and since not everyone needs the services (some die before they become frail), the cost is spread over nonusers as well. (According to the health economics literature, about 40% of all persons use nursing homes during their lifetimes. Including those who use home care services but are never admitted to a nursing home, this percentage would be substantially higher.) Only small portions of the premiums in the early years are needed for benefits.

When a policyholder lapses after some years of paying premiums, however, he or she in effect loses all of the value of participation. A level premium policy for which premiums have been paid for a number of years is a valuable asset. Yet if a policyholder fails to pay the premium for any reason, the entire asset is lost. Since many lapses occur for financial reasons beyond the insured's control, this is unfair and inequitable.

b. Unpredictable rate increases

Under present state policies, insurance companies may increase premium rates if they will lose money on the contracts. Rate increases force the insureds to chose between paying the increase (which they may not be able to afford) or forfeiting their equity. This is extremely unfair.

In addition, some companies deliberately count on rate increases to encourage policyholders to withdraw and forfeit their equity. Some consultants advise insurers to use "optimistic assumptions," since premiums can always be raised. Others advise a strategy of requesting annual increases or periodic increases of 95% or more every three to five years. If rates are increased enough, then either there will be enough additional premium income to pay the benefits or there will be enough lapsed policyholders so that insurers do not have to pay the benefits. Some insurance companies are thus abusing the provision that was at best intended to induce insurers to underwrite a benefit that was otherwise too risky. (Under present market conditions, there will be no shortage of insurers willing to guarantee rates, if it is required.)

The freedom to raise rates is an historical accident. LTC policies are treated in the same way as hospital and surgical insurance, where rate increases depend on medical inflation, which is essentially unpredictable. Most LTC policies have fixed maximum benefits, however, such that the actual cost of services will be above the maximum by the time benefits are payable. Thus they are not really subject to inflation. There is really no good reason for insurers to be able to raise rates on LTC insurance policies with fixed-benefit maximums.

Some insurers may argue that LTC is too risky to be issued without the right to raise premiums. An equally forceful argument is that the plight of policyholders faced with paying large premium rate increases or forfeiting their equity in a policy is much worse, and individual aging persons are not in a position to take such risks. It is better not to have LTC insurance than to put aging individuals in this position.

If reduced paid-up benefits were mandated, many insurers following a cynical reserve confiscation strategy would be forced to withdraw from the market. For most of the industry this would be a favorable development, preserving the opportunity to market policies offering a better value to the insured.

c. Public interest requires assuring that substantial portions of premium payments actually pay for long-term care

As the population ages, states will find

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it increasingly difficult to shoulder the burden of paying for the present share of nursing home costs paid by Medicaid. Persons lapsing insurance policies are at direct risk of needing and qualifying for Medicaid. States thus have strong financial interest in preserving the maximum degree of coverage in effect. This can be done only by mandatory reduced paid-up benefits.

Further, lapses may increase among frail individuals for a host of undesirable reasons. In particular, many purchasers, especially those at the advanced ages, will not be able to sustain the premium payments as their assets are used up. Any premium rate increases would accentuate such problems. Apparently, high lapse rates have marked the actual experience of some companies that specialize in marketing insurance products to the elderly, and they count the lapse rates in their marketing and pricing.

The impact of high lapse rates on the number of policyholders that will benefit from the policies is shown in Table 2. With a lapse rate of 10% per year (many insurers are assuming rates at least this high), only 7% of policyholders who buy at age 65 are still in force at age 85 when they really need the coverage.

The other 93% get no benefit from having paid substantial premiums and have no insurance coverage when they need care. Hence, they are more likely to rely on Medicaid.

Cash values are not practical

It is important to explain to legislators why cash values are not practical in an LTC insurance policy unless there is also a death benefit. Most elderly persons do not die suddenly, but after a period of illness. For many, the nearness of the end is apparent. The family and advisors of those dying can be expected to withdraw prior to death. Thus a cash withdrawal benefit becomes a death benefit. Death benefits add a valuable benefit to the policy, thus reducing the proportion of the premiums that can be used to provide LTC benefits.

Extended paid-up term undesirable

Another technically feasible nonforfeiture value is paid-up term insurance. This option would provide full coverage for a limited time. For example, a person aged 75 lapsing after paying premiums for 10 years might qualify for a paid-up term benefit until age 88. The obvious disadvantage is that the coverage will lapse when it is most needed. The situation is the opposite of life insurance, in which the need for the insurance is presumed to be greatest in the near future (when children are young). For the perspective of the public interest, paid-up term is not optimal.

Options for reduced paid-up base

There are several options in the design of a reduced paid-up nonforfeiture value.

a. *Specific legislated percentages or percentages based on statutory reserves*

The simplest, most direct and effective method of assuring that some benefits are available when needed for all policyholders who have paid substantial premiums is to specify, in legislation or regulation, the percentages required and what they apply to. Table 1 shows a sample of nonforfeiture values that could be required.

Following the life insurance model of leaving the reduced paid-up values to the insurance company would be both more complex and less effective. All life insurance policies contain a reduced paid-up nonforfeiture provision. The specific reduction at any duration, however, varies from company to company even for similar policies, since it depends on the relationships among the formal actuarial assumptions. These must also be used to calculate the other types of nonforfeiture values, including paid-up term insurance (the entire policy amount for a limited term), a premium load provision, and the cash value (the most frequently chosen nonforfeiture value).

There are several undesirable aspects of this means of providing nonforfeiture values.

- Unlike life insurance, there are no comprehensive reserve requirements with which nonforfeiture values must be consistent.
- Actuaries have learned to manipulate the level and relationship of nonforfeiture values to achieve specific purposes: e.g., maximize cash values so that the life insurance policy is really a tax-preferred investment vehicle, minimize the cash values to reduce premium rates, etc. In the context of LTC policies it is very likely that insurers will use any degrees of freedom to minimize the level of paid-up actually paid.
- LTC insurance differs from life insurance in that the public has a much stronger interest in assuring the highest level possible of actual benefits paid.

b. *Apply uniformly to all benefit amounts and maximums, or apply nursing home only*

The simplest method of requiring reduced paid-up nonforfeiture values is to specify percentages by issue age and duration that apply to all benefits in the policy. For example, if the policy has a daily maximum for nursing home care of $60, a maximum payment per visit of $40, and a lifetime maximum amount of $100,000, and if the reduced paid-up percentage required at the issue age and duration at lapse is 25%, then the effect is to reduce these amounts to $15, $10, and $25,000, respectively.

Another option would be to require nonforfeiture values only for the nursing home benefit. The rationale for this approach is that a major difficulty with offering reduced paid-ups is the higher claim administrative expense as a percentage of the benefits. This is minimized by requiring them only for nursing home care. If everything works out, they could be extended to home care in the future.

Table 2
Impact of Lapse Rates on the Proportion of Policyholders Benefiting from Long-Term-Care Insurance

Proportions of Policyholders that Persist to Age 85

	Lapses Alone		Death & Lapse	
	Age 65	Age 75	Age 65	Age 75
Basic plan: no lapses:	1.00	1.00	0.52	0.59
Ultimate lapse rate of 2.5%	0.53	0.78	0.28	0.46
Ultimate lapse rate of 5%	0.28	0.60	0.15	0.35
Ultimate lapse rate of 10%	0.07	0.35	0.04	0.20
Ultimate lapse rate of 15%	0.02	0.20	0.01	0.12

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