Article From:

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## Ruin Probabilities

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appear to perform reasonably without benefit of detailed probability models; they simply promulgate rules that appear to promote a desired result, i.e., orderly markets. Individuals and firms may base their own decisions on subjective probability estimates if they wish, but like action by government as a matter of public policy should be avoided if reasonable more direct methods of achieving the purpose are available.

*James E. Jeffery* expressed his views thus: It seems to me of little consequential difference to a life company whether it faces a stock market collapse or a catastrophic epidemic. In either case, acceptance of the risk of ruin is reasonable provided (1) prudent measures are taken to make the likelihood very small, (2) the risk takers are aware of the risk, and (3) they are reasonably compensated.

Although specific arrangements of maturity guarantees on equity products may be improper in terms of these tests, the making of such guarantees by life companies is not in itself improper.

Our thanks to these two contributors for their thought-provoking expressions.

*E.J.M.*

## INDEXED-LINKED SECURITIES IN THE U.K.

*by Alistair Neill*

Should prices of index-linked securities move with interest rates, with common stock prices, a combination of these, or neither? Perhaps there will be a contra-movement compared with fixed interest securities; if interest rates come down, this will probably be at a time of lower inflation—the attractions of the index-link as an inflation hedge would then be reduced—and thus the price will fall.

For much of the time since my last report (May 1982 issue), the expectation of lower inflation seems to have been pulling the price down, i.e., increasing the yield. The 2½% yield which was mentioned increased to about 3%, and there had been relatively little change in the position despite a considerable fall in interest rates in the last few months to about the 10% level and a decline in our price index into single figures. But suddenly, last October, interest in the index-linked stocks revived; prices rose so that they yielded less than 2½%, where they have since hovered.

Why this quick change occurred isn't clear. It may be because government securities and common stock have both had significant increases, the index-linked securities being pulled along as an investors' afterthought; or perhaps investors don't believe that single-digit inflation will be with us for long, so let's buy the index-linked securities before everybody else does; or, it may be something else entirely. □

## TAX SITUATIONS UNDER TEFRA

*by James P. A. Knight*

Passage of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) has further complicated the analysis of a life insurance company's tax situation. In conveying the conceptual impact of the tax law changes to company people already familiar with the principles of the 1959 Act, it is useful to develop a new classification system, based on the amount of Special Deductions allowed under Section 809(f) of the Tax Code.

For brevity, use the following notation:

T = Taxable Investment Income
G' = Gain From Operations Before Special Deductions
Q = Qualified Pension Plan Policyholder Dividends
P = Policyholder Dividends on Non-Qualified Plans
N = Non-Participating Contract Deductions
H = Group Life and A&H Deductions
S = Q + P + N + H = Maximum Special Deductions
S* = Allowable Special Deductions Under Section 809(f)
G = G' − S* = Taxable Gain From Operations
I = Taxable Income

First, note that the calculation of life company taxable income remains unchanged by TEFRA and can be written as:

$$I = \text{the smaller of } T \text{ or } G, \text{ plus } [\tfrac{1}{2}(G - T), \text{ if positive}]$$

However, TEFRA affects the calculation of both T and G. Because all companies are taxed in whole (if $G < T$), or in part (if $G > T$), on Gain From Operations, this note focuses on $G = G' - S^*$.

Before TEFRA, the effect of Section 809(f) was to set $G = T - \$250{,}000$ for many companies. This led directly to the classification system of identifying a company's tax position: a Phase I or Situation B tax was on $G = T - \$250{,}000$; a Phase II− or Situation A tax was on $G < T - \$250{,}000$; a Phase II+ or Situation D tax was on $G > T$.

Section 809(f) places a limit on certain Special Deductions (S) used to calculate the Gain From Operations (G). Shown below are pre-TEFRA and current formulations of the allowable Special Deductions (S*) under Section 809(f).

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## GOLDEN ANNIVERSARIES

Congratulations to 12 Fellows and 2 Associates who qualified for those categories in 1933:

*Fellows*

| | |
|---|---|
| J. Finlay Allen | Leland J. Kalmbach |
| John C. Archibald | Harold R. Lawson |
| Lachlan Campbell | A. Earl Loadman |
| Thomas E. Gill | Leonard H. McVity |
| Russell O. Hooker | Frederick P. Sloat |
| James Hunter | Andrew C. Webster |

*Associates*

Gerald M. Grassby    Leona Kuntz

The 1983 cohort of 50-year Fellows has proved itself a relatively hardy group, in that 63% of its 19 originals

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**Death**

Ruth Helen Peck, A.S.A. 1979