

Marketing Research

Method for collecting, analyzing, interpreting, and reporting information on customers, products, and distribution related to a specific marketing problem or opportunity

Has an impact on issues of distributing products to consumers such as:

- Product design
- Sales promotion
- Agency organization
- Training
- Compensation
- Distribution systems
- Target markets

LIMRA text, pg III-1
LOMA marketing text pg 101

Calculation of Accumulation Unit Values

$$AUV_t = AUV_{t-1} \times NIF_t$$

$$NIF_t = 1 + \frac{II_t + UCG_t + RCG_t - EXP_t}{R_{t-1}} - \text{Daily Asset Charges}$$

Where:

- *II* = Investment Income=Dividends plus accrued interest
- *R* = Reserve for annuities in payout phase plus value in units of accounts in accumulation phase
- *EXP* = investment expenses and taxes deducted from II
- *RCG* = realized capital gains or losses
- *UCG* = unrealized capital gains or losses
- *NIF* = net investment factor
- *AV* = accumulation unit value

Ideal Combination Annuity Product Design

- Define product based on target customer need
- Provide product flexibility
- Offer option to access account value in addition to pool defined at issue; the account value part of benefit usually done as reduction in account value surrender charge free
- Limit early claims
- Set indemnity versus expense reimbursement design based on desires of target customers
- Underwriting must be simplified but still rigorous

“Combination Annuities – A Market to Get Into?”
“Annuity/LTCI Combinations: More to Come”

Definition of Stochastic Pricing/Modeling

- Involves projection of outcomes along multiple “scenarios”, rather than according to a single “best estimate” or “conservative” forecast
- An approach that takes into account in a formal way that experience may be unfavorable
- A scenario is defined by the simulation of one or more risk factors whose values evolve according to processes that include random components
- Determines the price such that the target return is earned on average (or with a certain level of confidence) over the distribution range
- Premium based on $\Pr(\text{aggregate loss} < \text{aggregate premium}) > \alpha$ where α is close to 1.

ILA-D114-09 pg 37
62 TS “Stochastic Pricing”
RSA 27 #2 “Stochastic Pricing” pp 2, 4