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VLI—THE ANSWER TO A MARKETING DILEMMA?

Richard Johns (with consultation by Richard Stillinger), *"The Life Insurance Industry's Marketing Dilemma,"* pp. 40; Argus Research Corporation, New York, N.Y. 10005.

by Walter N. Miller

Remember the early days of variable life? To anyone who was involved with this product (and there were many, many such people in those days), it was really exciting. Our paper stimulated a massive outpouring, unmatched in recent memory, of truly high-level comment and discussion. No Society meeting seemed complete without a concurrent session and a workshop on some aspect of VLI. Other meetings and seminars proliferated. Hotshot representatives of (supposedly) hotshot brokerage firms set up lunches and other entertainments to get a leg up on handling the projected billion dollar separate accounts. Reporters called all the time, then wrote wildly inaccurate stories in which the only real truths were quotes from top insurance executives about what a revolution was in store for the industry as the fantastic new VLI product gathered momentum.

And now, only eight years later, now what? One (and only one) of our major competitors has VLI on the market. I get five letters a year (at most) from our agents asking when we might also. I answer them by saying we would like to have a good deal more indication of real interest on the part of agents and the public before we make the large commitments needed.

What happened?

A lucid, interesting recounting of VLI's history and outlook, replete with thought-provoking opinions of many insurance industry people as well as author Richard Johns and the Argus Re-

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Calling All Part 4 Authors

The Society of Actuaries is seeking an author for a new textbook in contingencies for Part 4 students. Although several very able persons have already expressed an interest in writing the book, the Society wishes to make this opportunity generally available to all qualified persons. A formal proposal will be required of each prospective author. Information and specifications may be obtained by calling or writing to: Warren R. Adams, Director of Education, Society of Actuaries, 208 South LaSalle Street, Chicago, Illinois 60604, Telephone (312) 236-3833.

ICA

ZURICH LAUSANNE

21st INTERNATIONAL CONGRESS OF ACTUARIES

From June 19 to June 26, 1980, there will be an International Congress of Actuaries in Switzerland. The first three days, Thursday to Saturday, will be in Zurich with a special celebration on Saturday in honor of the 75th anniversary of the Association of Swiss Actuaries.

Sunday and Monday will be spent on excursions and travel from Zurich to Lausanne, where the Congress sessions will resume on Tuesday. The farewell party will take place in Lausanne on Thursday evening.

Reports will be requested from all national actuarial organizations represented at the Congress on the subject of "The Training of the Actuary." There

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ON THEORIES ON GAAP CONVERSION

by Clayton A. Cardinal

To begin the discussion, consider this question: Does GAAP have the sustaining power to survive the current attacks against it? Some readers may have seen the March 15, 1977, issue of *Forbes*. The cover byline reads:

Accountants' Report

To the directors and stockholders:

We have examined the Consolidated Balance Sheet of the company and consolidated subsidiaries as of December 31, 1976 and 1975. In our opinion, these financial statements present fairly the financial position of the companies, in conformity with generally accepted accounting principles consistently applied.

On the other hand, there is a growing body of opinion that holds that our opinion is not worth a damn.

Such captions cause one to wonder why any company, except under legal compulsion, would want to convert to GAAP, at least not until after the *current* controversy on objectives of financial reporting is resolved.

Conversion to GAAP is an expensive undertaking which cannot be justified without some associated derivative and meaningful value to a company. The circulation drafts of the Financial Accounting Standards Board on objectives of financial statements have been described as advancing asset and liability accounting with present value measurement. If GAAP, as currently applied with its inherent revenue and expense matching principle, were to be abandoned in favor of asset and liability accounting, then any company which would now convert to GAAP might very well have to convert subsequently to

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About VLI

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search Corporation, can be found in "The Life Insurance Industry's Marketing Dilemma." Most probably, only the forewarned would guess that a report so titled would be about VLI. This is another of TLIIMD's strengths, for it offers an interesting viewpoint as to how VLI may fit in context, from the standpoint of not only the industry but also the public.

The dilemma, as stated in the first chapter of the report, is that there are serious doubts as to the future of permanent life insurance in general and non-par permanent life insurance in particular, while the industry continues to lose its share of the savings dollar. At the same time, agents' earnings have flattened out and now barely keep pace with inflation. And policyowners continue to have problems of underinsurance and keeping the coverage they have current with inflation. I would agree that this is a rational summary of today's situation; the real question is whether (as this report suggests) VLI does indeed offer a solution to the industry and policyowners alike.

With this thesis established, the next two chapters of TLIIMD concisely and (for the most part) accurately summarize the regulatory scene, past, present, and future outlook. My one reservation is that the SEC's final rules are characterized as "a qualified victory" for the mutual fund industry. This is akin to saying Muhammed Ali's bloody Manila knockout of Joe Frazier was "a qualified victory" for Ali because his opponent remained alive. It is also interesting to see Mr. Johns state that "most knowledgeable observers" believe the eventual outcome of VLI tax treatment at the company level is an approach under which there would be "virtual tax neutrality between variable and fixed policies." I would agree (thus making me a knowledgeable observer) but legislation is almost certainly involved if this goal is to be truly reached. It is with sadness that I note a history like this can (properly, in context) describe what happened without ever mentioning the people who made it happen. Thus, there is no mention at all of Charlie Sternhell and John Fraser, and only an inconsequential reference later in the report to Harry Walker.

The next chapter describes Equitable's VLI product, markets and experience up to the mid-1977 date when the report was published. The material describing the product itself and how it works is generally clear. The only portion where the reader may run into trouble because of tangled language is the section describing the mechanics of how the death benefit changes. This section is quoted verbatim from the prospectus.

There are two interesting observations in this chapter: (a) that, with gross investment returns of 8% or less (as illus-

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Joint Life Annuity Formulations

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For monthly payments and i = .05, for example, we can expect distorted values of joint and last survivor annuities with 12 payments certain if the issue ages x and y are such that $p_{\overline{xy}} = p_x + p_y - p_{xy}$ exceeds 0.999628. This occurs in the 1971 Individual Annuity Mortality table for ages as high as x = y = 65. Moreover, the right hand side of the inequality is a decreasing function of i; so we can expect more distortions at higher values of i. Mr. Mereu indicates that these anomalies can be avoided by using the uniform distribution of deaths assumption. This is easy to prove. Starting with the approximation

$$a^{(m)}_{xy:\overline{n}|} = \frac{id}{i^{(m)}d^{(m)}}\, a_{xy:\overline{n}|} + \frac{d^{(m)}-d}{i^{(m)}d^{(m)}}\,(1 - {}_nE_{xy})$$

and successively using

$$a_{xy:\overline{n}|} = a_{xy:\overline{n-1}|} + {}_nE_{xy} \le a_{\overline{n-1}|} + {}_nE_{xy}$$

and

$${}_np_{xy} \le 1$$

we obtain

$$a^{(m)}_{xy:\overline{n}|} \le \frac{id}{i^{(m)}d^{(m)}}\,(a_{\overline{n-1}|} + {}_nE_{xy}) + \frac{d^{(m)}-d}{i^{(m)}d^{(m)}}\,(1 - {}_nE_{xy})$$

$$a^{(m)}_{xy:\overline{n}|} \le \frac{d - dv^{n-1} + d^{(m)} - d}{i^{(m)}d^{(m)}} - \frac{d^{(m)} - d - id}{i^{(m)}d^{(m)}}\, v^n\, {}_np_{xy}$$

$$a^{(m)}_{xy:\overline{n}|} \le \frac{1}{i^{(m)}d^{(m)}}\left(d^{(m)} - iv^n + (i - d^{(m)})v^n\, {}_np_{xy}\right)$$

$$a^{(m)}_{xy:\overline{n}|} \le \frac{1}{i^{(m)}d^{(m)}}\left(d^{(m)} - v^n d^{(m)}\right) = a^{(m)}_{\overline{n}|}$$

Therefore, like Mr. Mereu's suggestion, the linearity of $k + t p_{xy}$ produces values which never lead to the anomalies reported earlier in *The Actuary*. □

About VLI

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trated in the prospectus), it takes many years for the death benefit to catch up with that under a fixed policy bought for the same premium, and (b) the same (40% first year, somewhat spread) commission scale Equitable uses for VLI is also used for an important range of their fixed products. As stated later on, few other companies may have the advantage of having their agents already accustomed to this pattern. This chapter also includes a discussion of Equitable's pricing assumptions and surplus objectives for their VLI product.

The next chapter, "Some Inside Views," chronicles the results of an intensive series of interviews on the outlook for VLI which Mr. Johns conducted with a wide range of industry people, including many actuaries. With only a few exceptions, the atmosphere presented here is gloomy indeed: regulatory problems, commission restrictions, unfavorable common stock performance and outlook, the high cost of developing the product, etc. Either this is a realistic assessment, or Mr. Johns has uncovered a great number of people with little foresight. We shall see.

In the final chapter, "An Outside View," Mr. Johns and Argus present their rather optimistic thoughts as to the future of VLI. The most interesting section deals with VLI's appeal to buyers. It is keyed to a number of tables comparing results under VLI with those under alternative products, assuming gross investment yields of 9½% and 13%. The former figure reflects the 9.3% result obtained by Fisher and Lorie in their well publicized study of common stock performance over the period 1926-65. The 13% is the Argus outlook for the future, assuming that inflation continues at about a 5% annual rate and that (as they contend) the market will adjust to inflation over the long term. These assumptions, S&P price/earnings ratios and dividend payout figures, some more assumptions, and some analysis are then stirred into the pot and 13% comes out. I leave it to others to judge where this falls on the scale that runs between brilliant economic analysis on one end and the satisfying sound of a well-thrown hatpin hitting its intended target on the other.

All of the tables include figures for Equitable's policy and a hypothetical non-par VLI policy of the New York Life design. Proponents of the Equitable design may be unhappy that while the tables document that design's practical disadvantage from the standpoint of death benefits (e.g., lower than those under the New York Life design for 37 or 38 years at issue age 30, under the assumptions used here), its cash value advantage is mentioned but never illustrated. In any event, the tables show both VLI policies outperforming (a) a "major mutual company's" par fixed benefit policy using the paid-up addition dividend option and (b) a non-par fixed policy with premium differences invested in a no-load mutual fund.

The report cautions that under conditions which produce 9½% or 13% stock market performance, the participating fixed policy's dividends could well turn out to be higher than currently illustrated. I would add that the par policy chosen seems to be a relatively high premium one, and that anyhow, in this kind of analysis, it will be roundly outperformed by the type of par policy many companies seem to be developing now—one with lower premiums, low cash value buildup and high dividends translating into very large amounts of paid-up additions on the 3½% or 4% reserve bases used for these policies.

In the final tables, the Equitable policy (at all durations) and the New York Life design policy (at later durations) run aground from a death benefit standpoint vs. a buy term and invest the difference in a no-load mutual fund scheme. A sophisticated and commendable approach is used to evaluate the after-tax results under the fund, but a "low cost" par term policy, most probably more expensive than many non-par term policies, is used. It is pointed out that the low tax bracket assumption (30%) favors the term/fund approach. I wish the report showed cash values as well as death benefits; there, figures might well have made VLI look better.

In any event, Mr. Johns and Argus conclude that VLI can appeal to the public, to agents and to companies as a solution to the aforementioned dilemma. There is, of course, the old story about the company that developed from innovative scientific principles the perfect, most nutritious dog food, only to lose a bundle after building new production facilities when it discovered that the dogs didn't like it. Maybe our analytical efforts should start from the (discouraging) figures as to trends in individual investor participation in the stock market. But let's also remember that it's easy to be bearish about products that will cost us a lot if we develop them and they don't sell. Our managements won't give us too many chances to do that sort of thing, so why should we take chances in the first place? For example, many of the arguments I have heard against the adjustable life concept are similar in nature to those against VLI. If we end up turning down all these options, we will surely be in bad shape 10 or 20 years from now.

So, really, you should read "The Life Insurance Industry's Marketing Dilemma." Proceed as quickly as you can to borrow a copy from a friend of yours who has it. Be sure to do this before you buy it yourself. It costs $95. ☐

Letters

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Par *vs.* Non-Par

Sir:

A few actuaries are advocating that stock companies — in light of the inflationary interest rates being experienced currently — should adjust premiums and/or benefits in order to maintain equity among their various classes of policyholders.

It is significant that these advocates refer to the current inflationary interest rates, but fail to refer simultaneously to the current inflationary *expense* rates; possibly because the latter, as compared with the former, convey a negative connotation. We didn't need the economists to remind us — we've learned this the hard way — that inflation means increases in *both* interest rates and expense rates; that accelerated rates of inflation mean *both* accelerated interest rates and accelerated expense rates. They go hand-in-hand.

I have taken the position consistently that — in the computation of premium

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