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DIGEST OF SMALLER COMPANY FORUM
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COMBINATION COMPANY PROBLEMS

A. Have the withdrawal of one major company and the possible withdrawal of others from the industrial insurance market created any particular problems or opportunities for the smaller combination companies? What are the considerations in deciding whether to continue in the industrial market? If companies decide to withdraw, would it be desirable or necessary to market ordinary policies for less than $1,000 face amount? Would monthly industrial policies provide a means of marketing smaller policies on an economical basis?

B. What impact will the change to the new mortality table have on industrial plans, policy forms, and the format of rate books? Are there any advantages or disadvantages in making a change prior to January 1, 1968?

C. Is the development of specialty products, such as self-employed individual's pension plans and joint life policies, justified for combination field forces in terms of volume of sales or as an accommodation to the better agents? How responsive should the actuary of the smaller combination companies be to the occasional request for such products?

D. Has the shift of a part of the traditional insurance market into ordinary resulted in a significant increase in the mortality levels on ordinary insurance? If so, to what extent have the higher levels of mortality been reflected in ordinary insurance premium rates? Are industrial underwriting standards being used on small ordinary policies?

MR. DAVID T. BUNIN: The first part of the question asks whether the withdrawal of one or more of the giants from the weekly premium market will create problems or opportunities, or both, for the smaller combination companies.

The problems, it seems to me, which are faced by the smaller companies are basically the result of the same economic factors that have caused the giants to decide to withdraw or to be about to withdraw. The fact that one or more of the large companies have actually ended their weekly premium operations certainly has given the other companies reason to pause and plan for the future.

Very possibly, many smaller combination companies have admitted to themselves that at some unannounced future date they will no longer be in the weekly premium business, but I personally doubt whether the decision will be made by many to drop out of the weekly premium business in the very near future.

I also doubt if the withdrawal of the giants creates any particular opportunities, at least in the homes where these companies already do business. However, if we agree that there is a sizable market in the weekly premium business and that these larger companies will no longer be doing a new business of this nature, there will still be a market available for the smaller companies.

What considerations are faced in deciding whether to continue? It seems to me that the available market for weekly premium business may be determined geographically. The areas that some companies service will support and need a weekly premium business for a longer period than others. The size of the MDO debits and the amount of ordinary insurance that the weekly premium agents write will also have a bearing on whether the company could or should discontinue its weekly premium operations.

The company must know that for its own and for the public's welfare the agent must be trained to sell the best policy to fit the insurance needs of the insured and his ability to pay. The agent must never sell a weekly premium policy when an MDO or even a regular ordinary policy can be sold. Agency compensation must be in tune with these objectives.

The question goes on to ask, "Is it necessary to have policies for less than $1,000, if the company withdraws from industrial?" I think that perhaps in the area of juvenile and one or two endowment plans it might be necessary but, in general, because of the size of the rates for whole life plans, $1,000 policies on an MDO basis are not too large.

The final part of the question is, "Would you feel that a monthly industrial policy provides a means of marketing smaller policies on an economical basis?" I would say that the future of industrial insurance lies in either monthly industrial insurance or monthly debit ordinary.

MR. JOHN M. BRAGG: Topic A asks the question, "What are the considerations in deciding whether to continue in the industrial market?" For any individual company, these considerations seem to revolve around (*a*) the type of market in which the company operates, (*b*) the geographical area in which the company operates, and (*c*) the amount of industrial business now being written by the company.

It is a well-known fact that industrial business in force in the United States has remained just about level for almost ten years. However, there are some areas in the country in which industrial business in force is still growing. In the eleven southeastern states, for example, industrial business in force grew by almost 3 per cent in 1964. The number of policies in force also increased, contrary to the national trend. It seems very likely that combination companies operating in the Southeast would be very interested in continuing to write very large numbers of industrial policies. In 1965, for example, Life Insurance Company of Georgia issued 537,000 of such policies. The many combination companies of this type will undoubtedly decide to continue issuing industrial business.

With regard to topic B, the change to the 1961 CSI Table will undoubtedly have an impact on industrial plans, policy forms, and the format of rate books. This impact will be quite similar to the impact of the 1958 CSO Mortality Table. Companies will generally take the opportunity to modernize plans, policy forms, and the format of rate books.

Monetary Value Tables, based on the 1961 CSI and 1961 CIET Mortality Tables, are available from the Life Insurers' Conference. The committee in charge of constructing these tables, which consisted of six Fellows of the Society, anticipated certain developments, and these are reflected in the published monetary values. For one thing, provision is made for the use of continuous functions. For another thing, provision is made for the use of age last birthday. It is expected that many companies will adopt the age-last-birthday basis in place of the traditional age-next-birthday basis.

You will recall that the old mortality table (1941 SI) had a substandard companion table (1941 SSI). The new mortality table has no such substandard companion. Any company wishing to continue the use of a substandard table can theoretically produce such a table and obtain the permission of insurance departments for its use; it is not expected, however, that this will be done in many cases. Companies wishing to issue industrial business on a substandard basis will probably follow the practice which is so widespread in the ordinary market—the charging of substandard extra premiums even though the values and reserves are based on the Standard Mortality Table.

This procedure is associated with the use of an underwriting procedure called "socioeconomic underwriting," which seems to be coming into quite widespread use.

In connection with the change to the 1961 CSI Mortality Table, some changes are likely to occur in the "frills" normally included in industrial plans. For example, there seems to be a trend toward increasing the amounts payable under "specific losses" benefits.

MR. FRANKLIN B. DANA: Regarding topic A, I believe that the withdrawal of one major company and the possible withdrawal of others from the industrial insurance market create both problems and opportunities for the smaller combination companies.

The main problem, as I see it, is to decide whether or not to continue in the industrial market. Perhaps the words "continue in the industrial market" need clarification. I have interpreted them to mean "continue to offer industrial insurance," that is, insurance for small amounts, say, $1,000 or less, with premiums collected at home by the agent. A company faced with the problem will want to answer a very basic question: Is there a real need for industrial insurance?

When industrial insurance was first introduced, and for many years thereafter, it undoubtedly *did* fill a real need. But conditions have changed to such an extent that the need is diminishing steadily—faster in some parts of the country than in others—and seems about to disappear entirely. Evidence of the lesser role played by industrial insurance is found in the *Life Insurance Fact Book* for 1965, page 30, where it is stated that at the end of 1964 industrial insurance represented about 5 per cent of all legal reserve life insurance in force, compared with 18 per cent two decades ago. Among the factors contributing to this decline, we list the following:

1. The development of group insurance—much of it employer-pay-all. Referring again to the *Fact Book*, we find that there were some 54.5 million group life certificates in force at the end of 1964. In a number of instances, group insurance covers not only workers but dependents as well. Furthermore, group insurance formerly terminated on retirement, but now there is a trend toward continuing at least a part of it (and in some situations a substantial part) thereafter. Hence it has to a great extent replaced industrial insurance in many families as the primary form of protection against death.
2. The availability of survivors' benefits under social security.
3. The development of family policies.
4. Loss to ordinary of a large number of sales to women and children. In years gone by, there were legal restrictions on the amount of insurance which could be written on children. Also, ordinary, if available at all to women, was subject to an extra premium. Now ordinary is available to both women and children and, instead of an extra premium, women generally are charged a lower premium than men.
5. Inflation has diminished the effectiveness of small amounts of insurance.
6. The economic condition of the worker has improved to the extent where most families can now make the larger payments required by ordinary insurance.
7. The increased use of checking accounts is making it unnecessary for an agent to call and collect premiums.
8. Improved working conditions have resulted in fewer occupational ratings. More workers can now qualify for standard ordinary.
9. The withdrawal of one or more companies from the sale of industrial insurance does not create a vacuum into which other companies can move. The withdrawing companies can be expected to offer other, more attractive forms of insurance to the former buyers of industrial insurance.

Along with an evaluation of the need for industrial insurance, there are practical problems to consider:

1. That part of the low-income group, who have been the traditional buyers of industrial insurance, is becoming a smaller portion of the total population. Hence, it would seem desirable for a combination company to plan more activity among higher-income groups where the potential market is expanding.
2. The extra personal service in collecting premiums at home is expensive. With rising wages the pattern in other industries, it will be more and more difficult to compete for men unless combination companies can afford to pay adequately. But to improve the compensation of combination agents might lead to higher industrial premiums, enhancing an already rather poor competitive position.
3. Improved collection procedures seem to offer a good chance of reducing expenses. However, there seems to be no great opportunity to improve collection procedures so long as the agent continues to call at the home. Consolidating debits may be a solution, yet there is a limit to the size of debit which an agent can handle efficiently.

The opportunity, it seems to me, for a combination company lies not in trying to carry on a merchandising system which may be outmoded but in the development and sale of other forms of insurance which better fit the needs and circumstances of the former industrial market. Combination companies, through their prior experience with this market, should have some comparative advantages over a strictly ordinary company.

MR. LAWRENCE J. FINNEGAN: My comments will be directed to parts A and D of the question.

At the Boston Mutual, we operate only in the six New England states, which is an important characteristic in this discussion. Ten years ago industrial represented 52 per cent of our insurance in force of $244 million; today it represents 10 per cent of our total in force of $1.2 billion. Ten years ago industrial represented 68 per cent of our new business; today it represents 9 per cent of our new business. Most of this change is due to a genuine industrial decline and growth of MDO and regular ordinary.

The significance of these statistics is magnified by the fact that we have not taken any tangible steps in this period to diminish the importance of industrial or to prepare for withdrawal. We have established a state of mind in the company that we must let industrial follow a natural course—letting the market place determine its importance—and look to a future in other lines. Our introduction of MDO in 1958 was not to suppress industrial but to put us in a market that we belonged in anyway.

During this recent past, we have also learned that we can easily increase the sale of industrial, but the new premium thus gained is offset nearly dollar for dollar by decreases in other lines. We cannot say that the converse is true.

Thus, the withdrawals or planned withdrawals of the major companies from industrial can have little effect on our corporate growth or goals; we think that the market place has seen to that. The situation may present a short-term marketing opportunity. It will probably increase the rate at which we are leaving the industrial market, or it is leaving us, by directing the thinking of our sales organization to look to other lines more vigorously. It increases the probability that we could be legislated or regulated out of the market. We could well be the only industrial writer in our territory in the near future.

What are the important factors in deciding whether to continue the line in our shop?

We think that there are strong social considerations—pro and con. How much of an industrial market is left in our states? We are selling 26,000 industrial policies a year—50 per cent on children, 83 per cent on women and children. How many of them could not be sold monthly or better, or for $1,000 or more? How much real need exists? Should someone else fill the need, for example, the government? Or is it possible to fill the need through group insurance forms?

We are attempting, and will continue to attempt, to convert those buyers to more economical forms of insurance, MDO or regular ordinary. The influence of the major companies after their withdrawal will make this easier. But how many of *our* 26,000 buyers will we effectively abandon if we get out now?

What responsibility do we have to our own agents in this area? Our major field organization is our combination or debit operation. Ten years ago, 80 per cent of their compensation flowed from industrial; today the figure is 55 per cent. If we stopped selling industrial and the same amount of premium were sold in MDO, compensation would drop about 10 per cent. To maintain the same income to the agent, the premium sold must be transferred at a 125 per cent rate to MDO.

Those companies withdrawing from the market will leave some customers available to an industrial writer. We could attract as customers a number of those lives and subsequently convert them to more economical forms. Meanwhile, we can lose some existing customers to our competitors, recognizing that industrial will become even more vulnerable to replacement and the reputation of a company writing it may suffer.

If we elect to withdraw, how should we go about it? We can begin a process of issue limitation or portfolio reduction that gradually squeezes our field force out of the industrial business and in that way lessen the impact of the final blow. We can pull industrial out and replace it with a form of MDO below $1,000 and at the same time begin a gradual process of issue limitation that pushes us back over $1,000. In either case—I prefer the latter—we would introduce compensation bias, product recognition bias in contests, and the like.

So much for the considerations and implications. Where does my company stand today? We are committed to leaving the industrial line. When? We do not know. We have taken specific steps to influence our field thinking to face the day when we will leave the industrial line. We have started a specific, positive program, somewhat experimental in nature, to convert many of our industrial policyholders to higher lines without compensation loss to our agents. The program hopes to increase agent productivity in the ordinary lines. The results of that and other factors outside our control will bear heavily on our subsequent steps.

CHAIRMAN DWIGHT K. BARTLETT III: I wonder if there is going to be any stigma attached to being among the last of the companies remaining in industrial? I have heard it said among our own field force that they are running into other agents now who are carrying around various newspaper articles and similar things criticizing industrial insurance and that this creates a kind of blot on them as representatives of a company that is still marketing industrial insurance.

MR. PAUL D. YEARY: My company, Western and Southern, was one of the companies that was mentioned in a *Wall Street Journal* article. There was an implication in this article that the industrial insurance market is a southern market, but I would hazard a guess that more than 75 per cent of our industrial premium comes from north of the Mason-Dixon Line.

It is difficult to ignore the 10,000 applications a week that we are getting from our industrial business, when we compare this to the number of applications that we get on ordinary and MDO business.

Perhaps part of the answer to the future is to make the "profit" margin per $1,000 of insurance a little more commensurate with our other lines of business. I think that now, with the advent of computers, we do have the facility to reprice the industrial product and perhaps make our industrial rate-making a little more scientific.

Actually, our number of policyholders has been on the decrease, but the average size of new policies is rapidly approaching the $1,000 maximum. The question of whether we should be selling MDO policies is very valid, but we cannot ignore the agent-compensation aspect of the combination business. A large percentage of our agents' earnings is coming from the commission for the extra services provided to policyholders.

MR. L. JEFFERSON STULCE: By most accounts the prognosis for industrial business is bleak. Surprisingly, conservative insurance spokesmen have donned rose-colored glasses and seen visions of a Great Society with no poor. Mr. Johnson's influence is all-pervasive; perchance the Spell of Capitol Hill has bewitched our industry's crystal ball.

To my tea leaves, the World of 1980 appears *not* one of universal affluence, abundance, sophistication, and plenty; they show instead many people just as poor, and just as undiscerning in budgeting and buying habits, as if the War on Poverty, and on ignorance, had never been waged. Many appear, as in 1966, still living from hand to mouth, having virtually no savings except in insurance policies, needing an insurance agent to sell them the relatively small policy that they will buy, and needing that agent to sell it all over again every couple of weeks and urge that it be kept in force—to give it a higher priority than cigarettes, a new TV, and the like. My own feeling is that the Prophet of 2,000 years ago who said, "Ye have the poor always with you," might be better relied on—at least in forecasting the future—than the prophet on Capitol Hill.

We do need to be aware that any great de-emphasizing of industrial sales, or upgrading of our sales efforts so as to significantly reduce our services in the industrial market, could create future problems. The industrial market will be with us for a very long while, and, while we can choose to direct our sales efforts away from it, this could carry far-reaching social and political implications that we ought not to ignore.

I regret that someone earlier today referred to the "high profits" in the industrial line. While industrial profits do appear relatively high in contrast to the diminishing profits in ordinary business, these profits are not unconscionably high when all factors are considered. Comparatively, industrial business does profit from being typically more "mature" than ordinary, with much less first-year-surplus drain. If a company decided to really push industrial sales, to build a rapidly expanding industrial sales force, and to produce the accelerating sales volume in industrial that we now find in the ordinary business, it would find its industrial profits trending toward a much lower level.

It should also be recognized that there is a special vulnerability in some segments of the industrial market and that profits should be commensurate with the additional risk.

I believe that the withdrawal of major companies from the industrial market creates additional opportunities for combination companies willing to expose themselves to certain risks and problems and that these opportunities are not so short-range as some would have us believe.

MR. RALPH E. EDWARDS: As to topic B, inquiries that I have made suggest that it is still rather early to know what industry-wide impact the new mortality table will have on industrial plans, policy forms, and rate-book format. Under the new table, required cash values will be virtually the same on endowments and slightly reduced on other plans. Extended insurance periods are generally longer. I see nothing in these policy elements that will have any significant effect on premium rates.

Regarding plans of insurance, my own company, Baltimore Life, has not yet developed anything different. We have had an industrial family policy and are considering dropping it because of exceptionally poor persistency.

A review of the *Handy Guide* indicates that one by one, as the years go by, companies are dropping the "paid-up" option. The year 1968 may see a few more companies joining that procession. Other changes in policy form may be tied in with methods for processing the variable data information. I can think of no other significant changes likely to develop.

I suspect that most other companies will switch to the new table at the last minute, as we expect to do. The obvious reason is that, if you have not thought of anything original to introduce, you wait for the other fellow in case he has an original idea. In addition, with a major company or two out of the industrial market, most of us will want to see the effect of their withdrawal as much as we can before deciding our own plans.

In regard to industrial profits, I think that, if a line of business is decreasing, our form of annual statement is such that one can expect profits from that line to seem abnormally large.

MR. HARWOOD ROSSER: The actuary of the Florida Insurance Department has approved our using multiple table substandard reserves, if we so choose, such as 200 per cent of the 1961 CSI.

CHAIRMAN BARTLETT: My motivation for putting topic C on the program was the couple of hundred man-hours that we spent in the company preparing prototype H.R.-10 plans, and I think that we have a total of about half a dozen plans in force.

MR. ROBERT J. BOLIN: At Southland Life, the product philosophy underlying our combination agency division can be summarized in one word—"simplicity." Our weekly premium and monthly debit ordinary portfolios consist of five and nine plans, respectively. It was not until 1951 that the combination agency was introduced to a more sophisticated portfolio consisting of some thirty-five ordinary plans.

A review of our sales for the past several years shows that 82 per cent of our business is being written on those very same plans that were being issued prior to 1951. The most significant developments in plan distribution have been the following:

1. The family plan has developed a substantial volume. This does not, however, represent a true change in plan distribution when it is remembered that the family plan is nothing other than a whole life contract with term insurance protection for the remainder of the family.

2. Retirement income at 65 has replaced 20 pay endowment at 60 as the volume leader in the endowment-at-retirement-age market. Likewise, this is not a true change in plan distribution since our sales philosophy since 1951 has been geared to the more sophisticated retirement income at 65 contract in lieu of the 20 pay endowment at 60 contract.

3. A greater percentage of term insurance has been the most significant development since 1951. At first this might be viewed with alarm; however, it will be remembered that an increasing proportion of term insurance has been an industry-wide sales trend in the post–World War II period.

When health insurance was introduced to our combination field force in 1963, no special emphasis was placed thereon since our purpose was to give the agent a better-rounded portfolio and to prevent his embarrassment by not having health insurance available. No special incentives were offered the agent since we did not wish to disturb our existing life business or materially affect the earnings of our combination agents. In the past three years, health insurance policies by number have represented 9 per cent, 7 per cent, and 5 per cent, respectively, of the total number of policies sold by combination agents on a nondebit basis. We expect fewer health insurance policies to be sold in 1966 than in 1965. During 1965, the number of health insurance policies sold represented less than one health insurance sale per agent.

In early 1964, a complete Self-employed Individual's Pension Plan Kit (H.R.-10) was introduced to our agents. This kit included a sample pension plan document for self-employed individuals, various Internal Revenue Service forms, as well as such other information as is necessary to assist the agent in installing these plans. Our experience to date reveals that only a handful of such plans has been written.

The foregoing is proof that specialty products cannot be justified in terms of sales or volume. They are offered only to accommodate those agents who wish to specialize in such markets and to prevent embarrassment to those agents who find themselves in situations calling for such products. When an occasional request for a specialty product not offered in the rate book is received, the actuary should (*a*) determine whether some combination of existing products would satisfy the request; (*b*) analyze the need for such products and, together with the agency department, determine whether the market exists for such products in view of company objectives; and (*c*) determine whether such plan could be actuarially sound while competitive at the same time.

Our experience has been that a majority of such requests can be effectively taken care of by a combination of existing products and that the need for the new product was not nearly so great as the agent had anticipated.

MR. JOHN S. MOYSE: First, I would like to take exception to the wording of this topic. It gives the impression that the job of the actuary is to discourage requests from the field. I do not mean that the actuary should agree every time but that he should look at each request with an open mind.

With respect to joint life policies, our combination field force has taken to them very strongly on a husband-wife basis, on both direct ordinary and monthly debit ordinary. The sales have certainly justified putting out this special product.

MR. ROBERT C. BAILEY: With regard to topic D, there is a definite trend among combination companies toward equating smaller ordinary policies with the business formerly written on an industrial basis. In effect, in our company we now have industrial-type business written up to $5,000, but it is called ordinary business because the policy contract and valuation factors are based on ordinary mortality tables and the premiums are not collected weekly. Premiums are collected on a monthly debit basis or on one of our regular ordinary premium modes.

Typically, however, the policies contain accidental-death benefits, premium-waiver disability, travel accident, and loss-of-eyesight benefits that traditionally are characteristic of industrial insurance. These policies are typically offered in two or three broad underwriting classes based on socioeconomic considerations rather than having a series of extra premiums based on table ratings. In some respects, you can think of these policies as those we used to call intermediate policies.

Certainly, on these policies, underwriting standards and procedures tend toward industrial principles rather than ordinary. At the Equitable

Life we have always been quite selective in underwriting industrial business, and the extension of the same principles to these smaller ordinary policies is no great departure. We feel that the extra premiums built into these classes adequately cover any extra mortality that we might expect from the less-favored socioeconomic classes.

We have not been able to detect any significant change in ordinary mortality that might be ascribed to the shift of formerly industrial business into the ordinary category. We think that we get more than our share of automobile accidents among our death claims, but these seem to be concentrated more in our series of larger, regular ordinary policies.

Actually, the mortality in our monthly debit business so far this year has improved substantially, this being the category that would include a substantial amount of business formerly written on the industrial basis. This is, undoubtedly, just a temporary fluctuation, but it certainly does not support any feeling that the switch of business from the industrial classes to the smaller ordinary class is causing any mortality problems.

MR. FINNEGAN: Concerning topic D, we experienced unfavorable mortality in our ordinary line in 1963, 1965, and the first quarter of 1966. We also had generally unfavorable experience in all individual lines in the same periods. We cannot identify this as caused by a shift of markets by lines.

On the other hand, we see considerable evidence of a shift of former debit business buyers into the ordinary line, both by watching our average premium per $1,000 and the use of term riders and by an increase of underwriting problems on small-amount ordinary applications. We are seriously contemplating modified underwriting techniques coupled with greater distinction in our dividend structure to accommodate these buyers more readily. We have already introduced ordinary policies for the under-$5,000 buyers, offering multiple protection contracts at proportionately higher premium rates.

We hope and think that these acts reflect a market-conscious attitude, that an ethical and willing market of somewhat recent origin exists, that we helped create the market, and that we should vary our techniques to service that market.

PRODUCT DESIGN

A. Have the new rate books and products prepared at the time of the change to the 1958 CSO Mortality Table been well received (*a*) by the agency force and (*b*) by the public? Have the companies who elected to remain on an age-nearest-birthday basis for insurance age found the competitive disadvantages more serious than they had anticipated? Are there other decisions made at the time of the original change that companies have found necessary or desirable to change?

B. What have been recent developments in specialized products or methods of marketing? Are mass-marketing methods being used in an increasing extent by smaller companies? What role have computers played in marketing?

MR. B. FRANKLIN BLAIR: With regard to the last two questions under topic A, we have not been aware at Provident Mutual of any competitive disadvantages from staying on the age-nearest-birthday basis. When we made the decision to stay on that basis, we expected that there might be some reaction, but apparently our field force is not having any competitive problems with companies on the age-last-birthday basis.

On the question about revisions of decisions made at the time of the original change to the 1958 CSO basis, a number of companies seem to have found it desirable to reduce their term insurance rates. This is the only real trend that I have noticed.

MR. CURTIS D. GREENE: In a word, the new product and rate book have been very well received. We are delighted with our new business. There is a great deal of it, and the agency force is very happy with the new product and the rate book.

We did not stay on age nearest birthday but moved to age last birthday and have had only one problem. There has not been any of the possible confusion that we expected with our home-office employees or our agents. They have adapted to this change very nicely. The problem has turned up in attempting to add policies to existing pension plans in cases in which there was a trust funded through individual policies.

We have had one source, a consultant for a brokerage firm, who has asked how to use these policies when the trust already says retirement will occur at age nearest birthday 65 and our age-last-birthday policies for these people will not be ready to mature at that time.

Tentatively, we are going to rate the ages for the half of the participants who would otherwise not have the proper maturity value in their policies. This will be done with the full knowledge of everyone and with the proper endorsement on the application, so that the reason for the age-rating will be identified.

MR. ELMER BILLMAN, JR.: With regard to topic B, we have recently come out with one of the college plans for college seniors. It will allow a senior to borrow the entire first-year premium, and a fourth-year endowment is available which will exactly, if the policy lasts that long, pay off the debt. Of course, this also reduces the cash value of the policy at the end of the fourth year.

This policy is designed for a specialized market, and we hope that the general agents will be able to recruit some special agents of college age or from among recent college graduates to work in this market who may later develop into good producing agents in other markets.

At Pilot Life, we offer a plan which will be sold in conjunction with our regular group term policies or, perhaps, group term policies that are already in force. This plan will be installed on top of the term plan, and the employee is given the privilege of taking any amount of his term insurance in a permanent type of insurance.

The premium for the permanent insurance will be paid partly by the employee and partly by the employer. The insurance may be thought of as a combination of increasing paid-up insurance paid for by the employee and the reducing term insurance paid for by the employer.

What role have computers played in marketing? We have a 1410 IBM installation in our electronic data-processing division, and we make a programmatic service available to our agents by using this machine. This has been popular with the agents. We make no charge for it. We have a rather attractive brochure prepared for the prospect on the basis of a card which he fills in giving some of the pertinent data. In 1965, we had about 2,000 requests from agents for this programmatic service.

In the actuarial department, we have a 1620 IBM machine separate from the data-processing division. We share this with the group department. It is used to produce four essentially different types of ledger illustrations. We have a business ledger, a regular ledger, a financed-premium illustration, and a split-dollar illustration. In 1965 we had another 2,000 requests for illustrations of this type, fairly equally divided among these four basic types of illustrations which we provide. Both these services were very popular and very well received by the agency force.

MR. CHARLES F. B. RICHARDSON: With regard to topic B, Berkshire Life does not engage in mass-marketing methods except that we are active in the pension trust field.

We have been providing computer illustrations to our agents for a couple of years, and the service has proved to be extremely popular. These take the form of ledger statements, split-dollar plans in two different forms, and financed-insurance illustrations. Nine different plans are available, together with six forms of riders and five different dividend options. It has been computed that for any one age and any one amount there are over 25,000 possible variations in the illustrations available. The first two illustrations for any one client are furnished free, but, if more than two are requested, there is a charge of $1.50 for each illustration. We are providing daily service and are sending out about 120 illustrations a week.

We are aware that some companies are producing complete insurance programs by computer, but it is our feeling that programming is much better done by the agent himself than by a mechanical system, because there are so many possible variations in the individual circumstances of the case and particularly in the client's ability to pay. Under some of these systems, I think that it is possible for a person making a modest income to wind up with a program that calls for a fantastic amount of insurance which he obviously cannot afford.

CHAIRMAN DWIGHT K. BARTLETT III: One of our field men suggested that, in connection with these electronic programs, the information is really thrown away from the computer's point of view after it has been used. Typically, when a needs analysis is done, as Mr. Richardson was just indicating, it shows more insurance than the client is capable of buying, at least for the present. This field man suggested that we keep the information in a memory bank and then, say, a year later, simply print out another needs analysis based on the fact that the man is a year older. Maybe we would have an automatic recall system for resoliciting the policyholder.

MR. MAURICE H. LEVITA: A client company suggested that we design a special contract for the sophisticated purchaser of life insurance. The new contract was to be prepared with coverage that would take into account the possibility of increase in the cost of living as well as in the standard of living.

The particular product designed is known as the Escalator 10 policy.

It is a whole life policy with premium payable throughout lifetime. The amount of insurance automatically increases annually at the rate of 3 per cent effective. The increase goes on for a period of ten years, and then the amount levels out. At the end of ten years, there is an option that permits the insured, with the payment of an additional annual premium, to have the policy continue to escalate for a successive period of ten years and then remain constant.

The policy is issued on two bases. For people whose salaries or wage earnings do not change as quickly as needed with the increased cost of living, we issue the policy on a level-premium basis. For most professional people, we issue the policy on an escalating-premium basis, with the premium escalating in the same manner as the insurance.

In connection with that policy, we felt that we ought to introduce the escalator principle to the settlement options. Therefore, we offer settlement options which provide for relatively smaller initial amounts of monthly payment. The amount of payment escalates for a period of ten years and remains level thereafter or for a period of twenty years and then remains level.

We carried the escalator principle into the area of the family-income benefit and offered that plan on an escalating basis. The monthly payment escalates monthly at the rate of 3 per cent effective from the date of issue with the result that, if we assume the increase in cost of living is 3 per cent annually, the monthly payments to the beneficiary would not change in purchasing power.

The escalator family-income benefit has been offered for some time. It was originally introduced about five years ago, and I would assume that there are about $10 or $12 million in force on that plan. I must confess that in many cases the escalator family income was selected because of the relatively higher commuted amounts as compared with those under the regular family income.

MR. ABRAHAM HAZELCORN: I would like to address myself to the second half of the first sentence in topic B.

We have had occasion to develop and play a role in the joint sale of life insurance and mutual funds and, while this specialized method of marketing is mainly at the agency level in most companies that use it and not at the home-office level, we have had some unique problems.

For example, on the ten-year program, after many discussions and a review of the experience which we were able to obtain, we used for lapses 150 per cent of Linton A for the first ten years and 75 per cent lapsing in the eleventh policy year. The basic problem from the sales standpoint is choosing the market properly. There are outstanding instances of the joint sale of life insurance and mutual funds directed to the wrong market, with no hope of helping the policyholder and really little hope of persistency.

Another point in this regard is that in our conversations we discovered that the protection of the licensing requirement for the sale of life insurance is not adequate when the man is primarily a securities salesman. He will pass the test, but, unless there is a professional life insurance man in the office training the salesman on the sale of life insurance, the sale of securities will come first, with life insurance far down the line.

We feel, however, that if these problems are met realistically a joint sale can be designed with reasonable persistency.

REINSURANCE

A. Do the smaller companies find that the traditional forms of reinsurance fully meet their needs? What are the purposes of seeking reinsurance? Would other forms of reinsurance, such as stop loss or catastrophe reinsurance, better meet their needs? Have companies actually purchased reinsurance along these lines? Can mortality fluctuation reserves be used by companies as a substitute for stop loss reinsurance?

B. What are considered practical methods of determining retention limits?

MR. JOHN S. MOYSE: Recently I conducted a survey of fifteen combination companies with respect to retention limits and catastrophe reinsurance coverage. The replies revealed that six of the fifteen carry some form of catastrophe reinsurance.

In my opinion, mortality-fluctuation reserves are not a substitute for stop loss reinsurance; they are relatively meaningless unless there is a definite formula for these reserves. If there is no definite formula, mortality-fluctuation reserves are merely an arbitrary division of the company's surplus.

MR. CHARLES F. B. RICHARDSON: At Berkshire Life, we have reinsurance treaties with two reinsurance companies.

We also have set up a mortality-fluctuation reserve which we have not yet used. This reserve is designed to protect our earnings from abnormal fluctuations in mortality and morbidity.

In addition to that, a couple of years ago we purchased stop loss reinsurance from Lloyd's to protect us from extreme fluctuation in mortality, which my company actually did experience in two years of the last fifteen years.

MR. FRANCIS X. CODY: There is no doubt in my mind that reinsurers are not meeting the needs of the ceding companies today in that they are not providing stop loss coverage. At the present time, the only place that it can be obtained is in England, so far as I know, and that has the severe limitation that it is only on a three-year basis.

I think that, for a new company particularly, there is a need for this product, and I would like to point out that it also would have the advantage of eliminating much of the paper work and administrative cost that go with reinsurance.

MR. RALPH E. EDWARDS: A situation recently came to my attention in which a company wished to be reimbursed by a reinsurer only to the extent that its total claims exceeded its expected claims by more than $2 million. The company's premium for this, based on statistical theory, should have been $54. Lloyd's quoted $10,000. They compromised on $5,000.

My own company had a somewhat similar experience, but, instead of the compromise, an American company provided coverage for $500.

MR. MOYSE: The following items contribute to the determination of a company's retention limits:

1. Surplus position of the company.
2. Amount of ordinary insurance in force.
3. Level of the company's profits.
4. Proportion of large-amount cases.
5. Existence of reciprocal reinsurance agreements.
6. Desire for underwriting and other assistance from the reinsurers.
7. Experience of the underwriting and medical staff.
8. Existence of catastrophe reinsurance coverage.

Combination companies generally have smaller retention limits than ordinary companies of comparable surplus position, ordinary insurance in force, and level of profits. This may be due to a smaller proportion of large-amount cases.

The survey to which I referred earlier showed that all fifteen companies graded retention limits by age and substandard class, presumably to obtain the underwriting assistance of their reinsurers.

MR. COURTLAND C. SMITH: On a purely theoretical level, the matter of determining retention limits appears quite simple. The pure mortality element in life company reserves is usually more than adequate to pay claims. However, claims vary in annual volume, and it is conceivable that a severe fluctuation could wipe out a company's capital and surplus. The higher the maximum amount retained on a single life, the greater this variation can be and the smaller would be the number of maximum claims needed to ruin the company.

Retention-limit questions are therefore problems in ruin theory. Ruin theory has been developed by students of classical probability theory and individual- and collective-risk theory. All the theoreticians concur in one pessimistic proposition: The possibility of ruin can never be eliminated. However, they optimistically agree that the probability of ruin can be kept very small under certain conditions. The most important variables involved in these conditions are the surplus and capital available as a risk reserve, the contingency margin available in premiums, and the maximum retention limit. In general, the maximum retention limit can be said to vary directly with the risk reserve, the contingency margin in premiums, and the risk of ruin that is considered tolerable.

Surplus and capital are held for many purposes, of which protection against adverse-claims fluctuations is only one. Fairly continuous demands on surplus are made to finance new business, particularly by a young company. Surplus is precious, and in a young company especially expenses are continually eating away at it. If retention limits are too conservative, too great a share of the business may be reinsured. Furthermore, the schedule of retention limits should be kept elastic in order to avoid bearing the expense of ceding trivial amounts to the reinsurer. An over-retention of a thousand dollars is not unusual for a new or small company today.

Variation in annual-claims volume is not purely or even primarily a matter of statistical fluctuation. There are a number of nonrandom sources of claims variation, including long-range trends, catastrophic events, cyclical phenomena, and underwriting ineptness.[1] The existence of these nonrandom elements has a number of important consequences:

1. If adverse-claims fluctuations should be a problem, the solution may not necessarily be to adjust retention limits alone. For example, certain health and automobile insurance coverages have exhibited increasingly poor claims ratios. To reduce retentions on these coverages would serve to cut losses, but it would not resolve the basic difficulty, which is inadequacy in premiums received for the benefits provided. In certain other instances, the basic difficulty may lie in the area of underwriting or claims administration.

2. If it seems advisable to adjust retention limits, mechanical use of a theoretical formula may lead to misleading results.

Most of the theoretical work on retention limits appears implicitly to assume independence between events involving insured lives. In actuality, a company faces a number of catastrophe hazards that vitiate the independence assumption. A company with a few good agents is usually exposed to a geographic concentration in its in force, which may become apparent only during an epidemic or catastrophic accident. Furthermore, a sizable increase in retention limits tends to bring into the retained portfolio additional business on wealthier lives. Wealthier people can afford

[1] The various sources of variation are discussed at length in I. Rosenthal, "Limits of Retention for Ordinary Life Insurance," *Record of the American Institute of Actuaries, 1947*, p. 6, and in the discussion, p. 265.

better-than-average care and protection during epidemic periods, but they seem to be subject to an above-average catastrophe accident hazard, particularly in connection with auto and air travel. During the recent (winter-spring of 1966) flu epidemic, many Californians were reported by the newspapers to be flying to Hawaii to escape the epidemic.

Some work has been done on the catastrophe accident hazard in collective risk theory, but it is of limited value in the present context. When using a theoretical formula to determine retention limits, I believe that we can provide in some measure against the catastrophe hazard, however, by limiting the risk of ruin that we consider tolerable, and by limiting the portions of capital and surplus and of premium-loading that are considered available to absorb adverse fluctuations in claims volume.

From the viewpoint of classical probability theory, an insurance company is considered a gambler with limited funds playing a series of games against an infinitely rich adversary, the public. Each game favors the insurance company to the extent that the risk portions of the premiums charged the public exceed average annual claims. Although the games are mathematically unfair to the public, it does not, of course, follow that they are also unreasonable, since each insured secures protection against the financial effects of certain catastrophic losses at a relatively small annual cost.

Classical probability theory has produced one conclusion of interest. In general, a gambler with a relatively large initial capital has a reasonable chance to win a small amount before being ruined. Suppose that a company should unknowingly insure a class of risks which has so many antiselective elements that the game has become unfair to the company. The company nevertheless remains unlikely to lose its risk reserve if it has kept its amounts at risk small. Even more important, however, if the game favors the company in the long run, the company can make its chances of ruin arbitrarily small by minimizing its ratio-of-risk amount to total capital.[2]

In repeated betting of this type, a ratio-of-risk amount to total capital of 1 to 10 could be excessive, while a ratio of 1 to 100 could be considered sufficiently small. This line of reasoning may provide a rationale for the oft-repeated rule that retention limits should generally be 1 per cent of capital and surplus. Our own studies and a published study by another reinsurer indicate that many companies consciously or unconsciously follow the 1 per cent rule. There is a distinct tendency, however, for some companies with $4,000,000 or less in capital and surplus funds to use a 2

[2] See W. Feller, *An Introduction to Probability Theory and Its Applications*, I (2d ed.; New York: John Wiley & Sons, Inc., 1957), 313–18.

per cent ratio and for some companies with over $100,000,000 in capital and surplus to use a ratio of 0.2 per cent or less. It would appear that managerial conservatism or prudence as well as maximum retention limits tends to vary with surplus size in well-managed companies.

Some theoretically appealing approaches for obtaining retention limits can be found in H. Seal's discussion in the *1949 Record of the American Institute of Actuaries* (p. 141) and in the analyses by I. Rosenthal and T. Pentikäinen which are referred to in John Wooddy's *Study Note on Risk Theory* for the Society of Actuaries (pp. 16 and 42, respectively). In my opinion, all these formulas require adjustment if they are to be used in practice, and none of them gets you much further than a modified 1 per cent rule, at least for current conditions in the United States and Canada.

Grading of retention limits at the extreme ages and at the substandard ratings varies in pattern from company to company. The life retention-limit schedules of this group of fifteen companies were reviewed and the patterns shown in the accompanying tabulation were found.

Type of Grading	Retention Limits Grade Down at Juvenile Ages	Retention Limits Grade Down at Retirement Ages	Retention Limits Grade Down for Substandard	No. Companies
Complete	Yes	Yes	Yes	5
High mortality	No	Yes	Yes	5
Extreme ages	Yes	Yes	No	1
Rating only	No	No	Yes	3
High age only	No	Yes	No	1
Flat schedule	No	No	No	0
Other	....	....	....	0

The relative numbers of companies in each class are not necessarily representative of the life business generally; however, they are suggestive of the relative popularity of each type of schedule.

Most of the companies retain smaller amounts than they do for life on accidental-death benefits, and some quote lower limits for aviation, military, and other special classes of risks.

The principal motivation for grading retention limits would appear to be a rational fear of underwriting too great a risk on cases presenting numerous unknown elements.

MR. SCHUYLER W. THOMPSON, JR.: I have a brief outline of what I consider would be a possible and extremely practical method of determining a company's retention limit.

I would first determine an issue limit, geared to the requirements and characteristics of the risks, surplus position, and other pertinent information. As a second step, I would determine the cost of reinsuring to the principal company. I would determine the cost of reinsuring certain amounts of insurance—say, run off calculations for $5,000, $10,000, $15,000, and so forth, depending upon how much time and money I had available. My third and final step would be to pick the cost that I liked best. I would then subtract the amount of insurance which went along with that cost from my issue limit, and I would call that my retention limit.

MR. RICHARDSON: It has always seemed to me that, in this matter of retention limits, one can get led astray very far with pure theory.

Now, theoretically, I do not think that there is much doubt that there is no justification for grading retention limits according to the degree of substandard mortality or by age because, in fact, the chance of fluctuation becomes less as the rate of mortality goes up. This is obvious to everybody, and yet everybody grades retention limits down by age and by substandard class, which, as a practical matter, makes sense to me.

The reason that it makes sense is that the older the age and the higher the mortality, the less sure you are of whether you are right in your rating on the case or your underwriting judgment of the case.

MR. GEORGE A. MACLEAN: The following remarks are personal opinions and not necessarily those of my company. I do appreciate many of the services provided by reinsurers but feel that for young, small companies much is provided that should be done by the consulting actuary. (If as much legal work was performed as actuarial, the Bar Association would object.) Do small companies pay the full cost of such services?

1. The present method of calculating premiums for each policy based on amount of risk and attained age seems cumbersome and expensive. Where there is sufficient volume, the use of group insurance techniques should enable the use of average premium for face amount, say, which would reduce expense for all concerned.

2. Refund rates:

a) I would prefer nonrefund or nonpar rates, but any such rates that I have seen are too high, since they are almost certain to produce much higher costs than refund rates with refund. The refund-rate system is really based on each account's standing on its own feet and almost consistently paying more in premiums than it receives in claims. I feel, for the type of risk covered, that there should be more frequent losses to the reinsurers than 10 per cent of the accounts, as was quoted by one reinsurance actuary.

b) Requirement for a certain amount of new business to qualify for refund means that the ceding company is tied to the reinsurer in the future and at terms set by the reinsurer. In the past, when there was not too much variation between companies, this may not have been too important, but with so many new ideas it may become very important. It would seem reasonable to waive requirement for new business if the account is a certain size, either in insurance or premiums.

c) The usual formula for refunds provides that, after deducting expenses and claims, 50 per cent of the amount remaining is the refund. This means that, if there is a refund, each claim decreases the amount the ceding companies receive as a refund by 50 per cent of the amount of the claim. This tends to create an impression that the reinsurer is only paying 50 per cent of the claim.

d) Every refund formula that I have seen provides that if claims exceed premiums this deficit is a charge against future years' premiums in the refund formula. It would seem that if an account has been profitable in the past, some account of this should be given in the refund formula. It may be that this is done in practice, but, if so, I think that it should be spelled out.

3. With regard to the fee system, fees not considered premiums for purposes of refund formula can mean higher net costs but lower premiums. A $5 fee seems excessive when compared with the $7 to $10 charged the policyholder, although it may be more realistic.

Certain criticisms of stop loss and spread loss given by reinsurance actuaries also apply to conventional reinsurance. Two examples are: (1) War claims are excluded from stop loss coverage, which would provide protection against heavy war claims. In the past, most war claims have been for amounts within the companies' retention, so conventional reinsurance gives little protection here. (2) Under spread loss, the ceding company ends up paying its own claims. The refund system has the same effect.

MISCELLANEOUS

A. What are the considerations involved in deciding whether to participate (1) in SEGLI and (2) in the conversion pool? What are the arguments for and against paying commissions on the conversion policies? Is the distortion of annual statement figures by the inclusion of SEGLI and FEGLI figures considered a serious problem?

B. Do smaller stock companies find that adjusting statement earnings for "value of increase" in force serves a useful internal purpose? Should the value be related to the unrecouped excess first-year expenses, or the present value of future profits, or some other concept? Are the various rules of thumb used by stock brokerage firms sufficiently accurate for management's purposes?

MR. WILLIAM SIMPSON: At Acacia Mutual, we do a relatively large amount of military business. After looking at the conversion pool and reinsurance on SEGLI, it was unthinkable to us that, for prestige and other reasons, we would not join it.

I believe that all companies want to pay commissions to their agents. We want to pay full commissions, if we can. Unfortunately, in this case, most of the commission is pre-empted by the payment to the conversion pool. So I believe that for most companies it will be out of the question to pay full commissions on converted policies.

Can we then pay partial commissions? This is where asset shares come in, and we have made some studies. At the young ages, we do have small margins. At the older ages, we have no margins.

Where are the conversions coming from? We have made quite a few, and they are nearly all at the older ages, so we are not paying any commissions.

MR. PATRICK L. HUMPHREY: We are giving serious consideration to payment of commissions provided a nonmedical is submitted and a nonmedical application with it.

One of the reasons for this is that our agents do not do group. Our agents are not used to no-commission conversions, as the group company people are. Also, we want to give them every opportunity to be paid for their efforts in trying to write this business on a nonmedical basis.

MR. CLAYTON L. JACKSON: We are participating in both conversion pool and in SEGLI, and we do plan to pay a limited amount of commission to our agents on cases that are converted. We feel that we have to do this in order to have our agents give the service that we promise to give in order to participate in the conversion pool.

We will limit the amount of commission only on the policies that we put in the pool. If a full application is submitted for any reason, such as to add benefits which were not in the original policy and the policy is underwritten as standard, we will not put the policy in the pool and we will pay full commission.

MR. GEORGE A. MACLEAN: On any conversions that are handled by the home office, no commission is paid. In a few cases, when our agents brought the conversions in, we paid 50 per cent the first year and regular renewals.

MR. CHARLES T. P. GALLOWAY: Our company is a small stock life insurance company, and most of the stock is owned by a larger casualty company. The casualty company has required detailed explanations of our statements because of its large investment.

Unless there is some adjustment to the figures for the variations in new business and earnings from year to year, the explanation that earnings are low because new business is up and vice versa becomes a sort of double talk.

For three reasons I favor making the adjustment on the basis of unrecouped excess first-year expenses rather than on the present value of future profits: (1) This is the minimum adjustment which will take the impact of new business out of the figures. (2) It is more likely that you will be able to live from year to year with an adjustment based on unrecouped excess first-year expenses than one based on future profits. (3) The management and actuarial staffs have an obligation to provide meaningful figures to the board of directors. I feel that they should limit themselves to performing an analysis of the figures and should not engage in guessing games regarding future profits. If the owners are interested in assigning a value to their stock, they can do so by applying a multiplier to the adjusted earnings as they are accustomed to doing with other businesses.

MR. MEL STEIN: At Bowles, Andrews, and Towne, we feel that reports to company management and stockholders should definitely be modified to value the company's insurance in force on a realistic gross premium basis.

This is necessary if management and the stockholders are to be provided with accurate quantitative and qualitative measures of performance, such as (1) the change in the company's value as a going concern, (2) the company's performance over the calendar year, (3) the performance of its agency plant during the calendar year, and (4) the company's relative progress over the past several years.

Thus, the annual statement of a small new company with rapidly increasing sales of life insurance policies will show a very misleading statement of operations. If this is supplemented by a realistic gross premium valuation, a much truer picture of the company's value and performance will be presented to management and the stockholders.

At Bowles, Andrews, and Towne, we use a calendar- as well as a policy-year approach in our gross premium valuation of insurance in force. The calendar-year approach often produces significantly more accurate results and, despite its additional complications, can, with the use of a modern computer, be used to perform a gross premium valuation with little, if any, additional time or expense.

Another valuable use of the calendar-year gross premium valuation is in forecasting a company's net gain from operations in the annual statement.

A realistic gross premium valuation is necessary not only to value a company's business in force and to gauge its true performance but also to place a realistic value on its agency force.

A gross premium valuation should be performed whenever the sale of a company or the merger of two companies is being considered.

The value of life insurance in force must be based on the present value of the future profits that it is expected to produce. The various rules of thumb used by stock brokerage firms and others are definitely too inaccurate and arbitrary to be relied upon by the management of an insurance company.

At Bowles, Andrews, and Towne, we have found that the values produced by a realistic gross premium calculation are shockingly different from those obtained by applying crude arbitrary rules of thumb, such as \$20 per \$1,000 of permanent insurance, or \$6 per \$1,000 of term insurance, or one year's premium income. The value of insurance in force varies substantially by plan, issue age, and duration, even when variables such as premium level, withdrawal and death rates, average policy size, reserve basis, and expenses are equivalent.

With the advent of the modern computer as an actuarial tool, the use of gross premium valuations to provide management with an accurate picture of a company's value and performance has become a necessity.

MR. FREDERICK S. TOWNSEND: At Conning and Company, we believe that adjusted earnings should be based upon a "value of increase" related to the unrecouped excess first-year expenses. If one is going to apply a price-earnings ratio to adjusted earnings to obtain a market value, it would be incorrect to apply a multiplier times the present value of future profits. The best use of the present value of future profits is in determining adjusted book value and not adjusted earnings.

The rules of thumb used by stock brokerage firms are not sufficient for management's purposes. In fact, my confidence in the management of any particular company is weakened if I find the company publicly stating its adjusted-earnings figures based upon a rule of thumb rather than upon its own internal analysis. Brokerage houses must use rules of thumb because they do not have access to a company's internal statistics. Management, on the other hand, not only can calculate a more exact adjusted-earnings figure from its own internal records, but it should calculate such a figure. Without this type of analysis, management has no concept of the relationship between its renewal earnings and the new-business drain on surplus.

On the other hand, when a company takes its income account and breaks it down between the first-year and renewal accounts and then reports this breakdown to both stockholders and investment houses, I must have respect and confidence in the reports presented by the company's management.