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ORDINARY PRICING, PRODUCT, AND MARKETING ADAPTATIONS TO AN INFLATIONARY ECONOMY

1. What effect does continued inflation have upon the pricing process?
   a. Expense assumptions
   b. Interest assumptions
   c. Return on investment in new business
   d. Policy loan utilization
   e. Policy fees and band differentials
   f. Lapse rates

2. Should "current" dividend scales be hedged for future inflationary impact?

3. Is there a change in product demand or sales as a result of inflation? What products are appropriate?

CHAIRMAN WALTER N. MILLER: Next week, our Company has its annual meeting with our Agents' Advisory Council, at which we will be analyzing and considering a great number of suggestions as to product and procedural changes which have been submitted by our field force. One of the suggestions reads, in part, "inflation is making a mockery of the Whole Life policy, and ... the least we can do is offer the more perceptive of our clients an alternative route. This would involve Whole Life policies with cash value and face amount payable in Swiss francs or some other gold or silver backed currency".

I think our panel has some interesting thoughts to offer, but we very frankly find ourselves unequipped to deal with the situation where a suggestion like this might be a clearly indicated course of action. Thus, we are not going to engage in any "thinking about the unthinkable", but will limit our efforts to the question of dealing with inflation at a level no worse than that we have been experiencing recently.

MR. WILBUR H. ODELL: This is an extremely broad and important topic. The phenomenon of inflation has become a significant and pervasive force. The experts unanimously tell us inflation is here to stay. We are also told the rate of inflation has slowed, but the precise extent of the slowdown and the amount of comfort we are entitled to take from it are less than clear. Our topic carries with it the implicit assumption that we are attempting to predict future events. The perils of this undertaking are well illustrated by the fact that, as late as December 1973, the econometric forecast of a major bank indicated "by 1975 the rate of growth in constant dollar Gross National Product is expected to increase to 4.1%". The same forecast further said "the consumer price index is expected to rise 4% in 1974". To lend appropriate perspective to our topic we must ask what are the possible major effects of inflation. Historically, inflation has shown the capacity to completely devastate a monetary system and can do the same, although thankfully with less frequency, to an entire social structure.

Against this apocalyptic background, a consideration of such relatively confined subjects as lapse rates and policy fees seems almost trivial. However, one can do only so much in the time available today. Hence, the subjects as outlined on the program are discussed below with the caution that they are only minute manifestations of a pervasive and significant social and economic phenomenon.

First, let us examine some data. Table 1 below shows something about changes in premium rates from 1967 to 1970 and from 1970 to 1974. It is based on the model office assumptions shown below in Table 2.

TABLE 1

DISTRIBUTION OF NUMBER OF 18 LARGE STOCK LIFE COMPANIES BY RATIO OF 1970 TO 1967 AND 1974 TO 1970 NON-PARTICIPATING TOTAL PREMIUMS AND POLICY FEES BASED ON MODEL-OFFICE ASSUMPTIONS SHOWN IN TABLE 2.

Ratio x 100	Total Premium	
	1970-67	1974-70
91.0 - 91.9	-0-	1
96.0 - 96.9	2	1
97.0 - 97.9	-0-	-0-
98.0 - 98.9	4	1
99.0 - 99.9	2	3
100.0 - 100.9	10	8
101.0 - 101.9	-0-	2
102.0 - 102.9	-0-	2
Average:	99.30	99.62
Ratio x 100	**Policy Fee Only**	
100	14	8
120	1	-0-
125	1	2
133	1	-0-
138	-0-	1
150	1	4
167	-0-	1
200	-0-	2
Average:	107.12	130.79

TABLE 2

MODEL-OFFICE ASSUMPTIONS
(Issue Age 35)

Plan	Average Policy Size	Percent of Total by Volume
Endowment at 65	$10,000	25%
Ordinary life	25,000	25
5-year renewable and convertible term	25,000	25
20-pay life	5,000	25

The above Table 1 is similar to, and Table 2 is identical to, the material presented by Dwight K. Bartlett, III, during a panel on "Profit Squeeze for Individual Insurance" at the New York spring regional meeting just four years ago. Anyone interested in this subject will find the discussion of that panel in TSA XXIII helpful. Table 3 shows information about the consumer price index and interest yields.

TABLE 3

CONSUMER PRICE INDEX AND INTEREST RATES

Year	Consumer Price Index	Yield on Long-Term U.S. Bonds	Yield on Moody's Aaa Corporate Bonds
1941	44.1	2.05%	2.77%
1945	53.9	2.37	2.62
1950	72.1	2.32	2.62
1955	80.2	2.84	3.06
1960	88.7	4.01	4.41
1965	94.5	4.21	4.49
1970	116.3	6.59	8.04
1971	121.3	5.74	7.39
1972	125.3	5.64	7.21
1973	138.5	6.31	7.44
1974	147.7	6.98	8.57

Sources: Consumer Price Index - Survey of Current Business (Jan. 1975) and 1973 Business Statistics.
Yield on long-term bonds - 1941 through 1970, Transactions of the Society of Actuaries, Volume XXIII, (p. D134); 1971 through 1974, Treasury Bulletin (March 1975).
Yield on Moody's Aaa Corporate Bonds - Moody's Industrial Manual and Moody's Bond Record (March 1975).

Table 4 below shows information about average size policy, Table 5 shows information about per-man sales, and Table 6 shows information about the level of expense rates for individual life insurance.

TABLE 4

AVERAGE SIZE OF POLICIES PURCHASED

Year	Ord.	Indust.	Ord. & Indust.
1940	$ 1,740	$240	$ 560
1945	2,270	290	820
1950	3,280	360	1,120
1955	4,070	440	1,700
1960	6,050	560	2,840
1965	8,400	700	4,440
1970	11,200	870	6,980
1971	11,710	870	7,110
1972	12,280	910	7,660
1973	13,310	960	8,440

Source: Life Insurance Fact Book.

TABLE 5

INDIVIDUAL INSURANCE SOLD PER MAN

Year	Amount of Ind. Insurance Sold (millions)	Estimated No. of Life Sales People	Insurance Sold Per Man
1945	$ 13,289	100,763	$131,884
1950	22,728	134,351	169,169
1955	37,169	151,145	245,916
1960	59,763	185,572	322,048
1965	90,781	205,725	441,274
1970	129,432	245,191	527,882
1971	139,404	250,229	557,106
1972	152,873	256,947	594,959
1973	170,404	264,504	644,240

Source: Life Insurance Fact Book.

TABLE 6

RATIO OF OPERATING EXPENSE TO TOTAL INCOME AND PREMIUM INCOME

Year	Ratio x 100 to: Total Income	Prem. Income
1940	13.9	20.23
1945	13.7	20.38
1950	16.8	23.26
1955	16.7	22.02
1960	17.7	23.45
1965	16.9	22.78
1969	17.0	22.82
1970	17.3	23.08
1971	17.0	22.62
1972	17.0	22.48
1973	16.9	22.48

Source: Life Insurance Fact Book.

The presentation of the data shown in the last four tables was suggested by the discussion of Mr. Harvey H. Conklin in the panel just referred to.

Table 6 seems to indicate that the insurance industry has shown the ability to cope with inflation. However, all these figures are gross averages and can conceal many outstanding successes and many dismal failures.

A complete treatment of this subject would require determining the effect of inflation on each particular type of expense. Inflation affects different types of expenses differently. Time does not permit this examination here. However, three items are mentioned because of their importance or special nature:

1. Taxes - Taxes are one of the most rapidly-increasing costs. For individual taxpayers they may indeed be the most rapidly-increasing cost. For the insurance industry, increases in taxes are certainly not insignificant. Social security taxes, premium taxes, federal income taxes, state and local taxes - all are making a significant contribution to the pattern of cost increases.

2. Employee Benefit Programs - Insurance programs, especially those connected with retirement, are generally being upgraded as to benefit formulas, vesting provisions, and the like. This upgrading is compounded with higher wage bases to produce another significant increase in cost.

3. Selling Methods - The extent to which marketing is used as a means to achieve the end of sales, the type of market being served, the characteristics of the agency force, if any, all have a significant bearing not only on cost patterns but on the effect of inflation upon the cost actually incurred.

A complete treatment of this subject would also include a thorough investigation of the relationship which most authorities say exists between interest rates and the rate of inflation. For the present, we will assume authorities are correct in stating there is a long-term relation but also adopt the view that a short-term relation may not exist.

In approaching our pricing calculations, we will have to determine what effect inflation may have on each cost element. Before doing so, however, another decision must be made.

The pricing philosophy must be determined. The approaches using game theory concepts are one option. As set forth in one paper*, this involves separate treatment of fixed and variable costs. Marginal pricing concepts are an option. The approach of explicitly assigning each cost element to a policy year and taking all of the resulting cost elements into the pricing calculation is another option. The phenomenon of inflation may make this decision more important than it has been in the past. For present purposes the last approach is adopted, not because it is inherently superior to the others, but because as of this date it is the approach most of you are probably using in your pricing operations.

The results of some specimen calculations are presented below. In these calculations, no inflation factor was necessary in connection with first policy year costs since presumably during any 12-month period only one price would be charged. No inflation factor was introduced with respect to commission costs which presumably are set by contract. In the example, the remaining unit costs would have been level by policy year in the absence of an inflation factor. This type of cost is usually referred to as maintenance cost. With respect to these costs, the percentage of premium costs are made up almost entirely of tax items and no inflation factor was included with respect to them. This takes the point of view that, even though future tax increases may be extremely difficult to avoid, their effects should be charged to future generations of policyholders, dividends to the policyholders whose merchandise we are pricing, or profits of future periods, depending upon the particular circumstances and management decisions. Inflation factors were introduced with respect

* Bragg, John M., "Prices and Profits", TSA XX.

to the per thousand and per policy maintenance costs. A rate of inflation which is significant but not representative of runaway inflation was desired. The rate selected was 4%. A modification of this rate was also used. The calculations were not refined to reflect competitive considerations and other factors which might enter into actual ratebook premiums.

The following Table 7A summarizes the test calculations. It shows for each calculation the value of the inflation factor and the interest assumptions. Table 7B shows the other assumptions entering the calculations.

TABLE 7A

SUMMARY OF SPECIMEN CALCULATIONS

Calculation Number	Inflation Factor	Interest Assumption	Annual Premium per 1000 Whole Life	Annual Premium per 1000 20 Yr. Term
1	-0-	7½% for 5 yrs.graded to 3½% in the 25th year	$17.52	$6.25
2	4%	7½% for 5 yrs.graded to 3½% in the 25th year	17.83	6.45
3	Interest Rate less 3½%	7½% for 5 yrs.graded to 3½% in the 25th year	17.76	6.42
4	4%	7½% Level	15.97	6.32

TABLE 7B

ASSUMPTIONS COMMON TO ALL CALCULATIONS CITED IN TABLE 7A

Calculation Unit:	$1,000 Amount of Insurance
Age at Issue:	35
Premium Payment Frequency:	Annual
Lapse:	Linton BA Rates
Mortality:	55-60 Select and Ultimate Table (Male)

Expenses:

(1) Commissions: Percent of Premium

Policy Year	Plan: Whole Life	Plan: 20 Year Term
1	75	70
2	12	7
3 - 10	7	7
11 & later	3	3

(2) General Expenses, Taxes, Licenses, and Fees:

Policy Year	% Premium	Per $1,000 Insurance	Per Policy
1	20%	$2.80	$60.00
2 and later	2	.30	7.00*

* $6.40 plus $.60 per billing

Reserves:	1958 CSO 3½% Commissioners' Reserve Valuation Method curtate
Cash Values:	1958 CSO 3½% minimum
Rate of Return on Invested Surplus:	12½%
Average Size:	Whole Life - $15,000 20 Year Term - $25,000
Profit:	10% of Gross Premium

The above indicates that even this relatively modest provision for inflation does have some effect. The effect based on these assumptions is perhaps not too disturbing. The effect on 20 Year Term is greater than on Whole Life. The interest rate dominates the Whole Life calculation.

On the other hand, there certainly must be conditions under which inflation would have a very serious impact on premium rates. For example, a calculation exactly similar to Calculation Number 2 above except using a 10% inflation factor in place of 4% produces a gross annual premium of $18.74 compared to the no-inflation premium of $17.52. Obviously, the effects on the term plan would be even more pronounced.

It appears that a significant but not runaway rate of inflation will have an effect but not a serious one under certain circumstances such as those illustrated here, i.e., only per policy and per thousand maintenance costs are affected and such things as taxes are not affected. Also, there is some point at which inflation becomes a critical pricing problem.

This, in turn, suggests that each company may desire to determine the approximate rate of inflation which can be withstood by its present pricing practices. The danger point may be different for different companies.

Also, some companies may want to separate each unit expense assumption used in the calculation into a portion representing expenses which are mainly variable and a portion representing expenses which are overhead. The effect of inflation might be accounted for differently with respect to each portion. Indeed, it is probably because of considerations such as these that more attention is being given to the game theory and similar approaches to pricing. These figures also suggest that each company should carefully consider its own expense structure, analyzing each source of expense in terms of its susceptibility to inflation. For example, the unit cost of some of the policy issue functions performed by modern company-owned computer facilities operating at less than capacity might be relatively inflation-proof for the near future as would certain maintenance functions performed on the same system. At the other end of the spectrum, policyholder inquiries handled on a manual basis can be expected to be very sensitive to the effects of inflation. The same is probably true of the cost of expanding agency plant.

Indeed, it appears that increased productivity through computer technology and other means, increases in policy size and changes in marketing methods have all counteracted to a considerable extent the

effects of inflation upon insurance company operating costs. Expectations concerning these matters are implicit in any inflation factor utilized in the premium calculation.

The preceding examples did not touch upon the effects of inflation on first policy year cost. Presumably such effects would be reflected in periodic revisions of premium rates.

The effects of inflation on policies with premiums payable more frequently than annually might be expected to be more severe than on annual premium policies. For these calculations, only the Whole Life policy is examined. Calculations were made using the same rate of inflation for the premium billing function as for other maintenance functions and also using a higher inflation factor for the premium billing function than for other functions.

TABLE 8

ADDITIONAL SPECIMEN CALCULATIONS
MONTHLY PREMIUM PAYMENT FREQUENCY
WHOLE LIFE

Calculation Number	Inflation Factor for Premium Billing	Premium		Ratio of Monthly to Annual Premium
		Monthly	Annual	
1	-0-	$1.36	$17.52	7.8%
2	Interest Rate less 3½%	1.46	17.76	8.2
3	2½% plus Interest Rate less 3½%	1.47	17.77	8.3

Inflation factor for other per policy and per $1,000 maintenance costs: 0% for calculation number 1; Interest Rate less 3½% for calculations number 2 and 3.

Interest Assumption: 7½% for 5 years graded to 3½% at the end of 25 years.

Other Assumptions: Same as Table 7B

At least for this set of assumptions, the results do not appear startling. But again, the effect of a given level of inflation will vary from company to company and higher rates of inflation will create somewhat more of a problem for monthly than for annual business.

The new company faces a particularly serious set of problems. To the extent that small size means underutilization of resources, inflation magnifies the cost effect of the unused portion of the companies' plant. To the extent the new company expands, especially in the agency area, it bears the full brunt of buying services and talent at current high prices (as opposed to utilizing existing resources assembled at least in part during prior periods of relatively lower prices). It is denied the economies of volume which are especially important in inflationary times. Certain overhead items that vary little with company size (such as a portion of executive salaries and the cost of financial statement preparation) fall most heavily upon it.

The above by no means exhausts the matters that must be considered in connection with interest and expense assumptions in allowing for the impact of inflation. Only some of the major considerations have been touched upon.

To summarize, each company will want to address itself to the following questions: Is its pricing philosophy (game theory, marginal, "traditional") still appropriate in an inflationary economy? Which of its costs are subject to inflation and to what extent? How should these effects be reflected in inflation factors to be utilized in pricing calculations? What is the maximum rate of inflation which it can tolerate within the general framework of its pricing structure?

The return required or desired by stockholders investing in new business will naturally reflect their appraisal of alternative uses of their money and the risk being borne. With respect to a mutual form of organization, one viewpoint is that the current generation of policyholders, if required to invest "their" funds in new business and/or open up new areas of endeavor, should receive an appropriate return on "their" funds. The appraisal of the effect of inflation on the rate of return on investment in new business is somewhat clouded by the fact that this particular measure is not always entirely satisfactory by itself in determining the profit element of a gross premium structure. However, to the extent we are using this tool in the pricing process, inflation might affect the calculations two different ways: (1) To the extent that interest rates do vary with the rate of inflation, then presumably the higher the rate of inflation the higher the prevailing interest rates and the higher the rate of return required on investment in new business, and (2) to the extent inflation poses a risk for stockholders or existing policyholders, then a higher rate of return should be required to the extent the rate of return is intended to compensate for risk.

CHAIRMAN MILLER: Bill, your remarks seem to suggest that companies whose business involves a high proportion of term insurance are relatively more affected by inflation than companies whose business is more heavily concentrated in permanent life insurance and/or investment-related products.

MR. BENNIE W. BAUCOM: I think it would be desirable to comment briefly as to what we mean when we talk about inflation. We only have to go back about three years to recall that we were concerned about a 5% inflation level. Now we are hearing discussion of the possibility of double-digit inflation. We had an economist visit our Company several months ago who predicted that the United States would experience inflation of 16% by the mid-1980's.

I just want you to know that my comments don't relate to a 16% inflation rate. The implications of that level of inflation on our country as a whole and on our private enterprise system in particular is mind-boggling as far as I am concerned. When I'm talking about inflation, I'm talking about 5% if we are lucky and 10% under extreme conditions. I can't defend those rates; it's just that when I start thinking about anything above 10%, it becomes difficult for me to see the implications of all the interacting factors.

By way of background, I represent a stock life insurance company with $4.6 billion of ordinary life insurance in force. We are not licensed in New York. We write only guaranteed cost insurance, and we express our earnings in terms of Generally Accepted Accounting Principles.

In an attempt to prepare for a discussion of the effect of inflation upon expense assumptions used in the pricing process, I resorted to my company's expense analysis for the past ten years as a source of information. Of course, we had been through these numbers many times in the past, applying them in our own pricing process. This review, however, gave me an opportunity to take a fresh look at these figures with an emphasis on the subject of inflation.

I chose to concentrate on the renewal year expenses for two reasons:

(1) New Business (and the related first-year expenses) tends to fluctuate significantly from year to year thus distorting the pattern of growth of total expenses.

(2) If first-year unit expense factors increase beyond the levels assumed in the calculation of the premium rates, it's easy enough to adjust these factors by introducing a new rate book priced to reflect the increased costs.

Before discussing the conclusions of this review, I should comment briefly on the process used to allocate expenses for the purpose of calculating unit expense factors. In our Company, all renewal expenses except general overhead are expressed as an amount per policy. General overhead is expressed as a percent of premium income.

In any case, our review of expenses covering the period 1964-1973 (we have not completed our expense analysis for 1974 as yet) revealed the following facts:

(1) Our total expenses allocated to the renewal side have increased at an equivalent compound rate of interest of 11.3% over the ten year period.

(2) During this same period of time, the equivalent compound rate of growth of the ordinary life premium income was 12.9%.

(3) For this same ten year period, the number of policies in force increased at a compound rate of 4.5% and the amount of insurance in force increased at a compound rate of 15.6%.

(4) The resulting per-policy renewal expense factor has increased dramatically, particularly in the last few years.

(5) The renewal percentage of premium expense factor for our Company has decreased over the last few years and is lower now than it was ten years ago.

I believe these results provide us with a key to the solution to the problem of controlling the rate of growth of our renewal unit expense factors. That is, if our renewal unit expense factors are growing at an unacceptable rate, we are more likely to find the cause of the problem to be a lack of growth of the denominator than an excessive rate of growth of the numerator. I am not saying that we should ignore the actual expenses themselves. I think improvement can be made in terms of making sure that our budgeting programs and other expense control methods are working satisfactorily. We need to make sure that money spent in the area of maintenance costs is consistent with our objectives. But, in my opinion, the expenses themselves will tend to be heavily influenced by

the rate of inflation. This is because so many of the expenses that relate to the maintenance of contracts are salary-related, and these will tend to follow the cost of living. Improved productivity of people would certainly help in this regard but I think there is a limit to the improvement we can achieve in productivity. Improved mechanization would help hold the salary-related costs in line but, on the other hand, electronic data processing costs are becoming somewhat prohibitive in and of themselves. Thus, my conclusion is that the actual expense amounts will be directly influenced by the rate of inflation.

With respect to the denominators used in the calculation of the unit expense factors, the question becomes quite complicated, with many interrelated considerations. In general, our past results seem to indicate that the amount of insurance would increase dramatically with the rate of inflation. Inflation creates a need for additional insurance and that need gives the agent the opportunity to revisit an existing client and discuss his entire insurance program with him.

With respect to the number of policies, however, we have been unable to maintain an acceptable level of growth in the number of new contracts being issued. Our increases in insurance in force and premium income have come primarily from increases in the average size contract. I think this is probably a result of two things:

(1) Inflation itself generates a need for a larger contract in a given sale today as compared with that same sale several years ago.

(2) Our agents are selling larger-size policies than they were several years ago in order to protect themselves from the problems of inflation. We have to remember that the price of insurance is one of the few things that has decreased over the last few years and, if an agent today finds himself selling the same number of policies for the same amount of coverage to the same age group as he was several years ago, he is making less money than he used to make.

Another complicating factor as far as the company is concerned is that the problem is, in a sense, self-perpetuating. If a company is experiencing a slow rate of growth of its policy base, this has the effect of increasing the per-policy unit expense factors at a rapid rate. If these factors then are applied literally in the pricing process, it has the effect of generating a proportionately larger effect on the smaller policies than it does on the larger policies. This, in turn, means that it will become more and more difficult to sell the small policies and companies will find themselves attempting to obtain the additional premium income growth by increasing their average-size sale.

We are finding it more and more difficult to maintain a satisfactory rate of growth in premium income. To a large extent, this is being caused by an increasing proportion of term insurance sales. Even with that difficulty though, general overhead costs allocated to this line of business have increased at a slower rate over the last few years, causing a reduction in our renewal percent-of-premium expense factor.

CHAIRMAN MILLER: I think it's interesting to note that each of our first two speakers has indicated that, over recent years, they have observed relatively little inflationary impact from a unit cost standpoint on the types of expenses which are normally expressed as renewal percent-of-premium expenses.

MR. WILLIAM K. KRISHER: To discuss the impact of inflation on ordinary product pricing, I'd like to set the stage by reviewing, in very general terms, what I think we are trying to accomplish financially in a mutual life insurance company. Then we can zero in on the program topics by relating to the model we use to test our pricing against those financial objectives.

Simply stated, I think we're trying to do three things:

(1) Make sure (or nearly so) that we have enough money to pay our obligations.

(2) Achieve reasonable equity among the various blocks of business we write.

(3) Deliver our services at a favorable cost to the consumer.

What, then, is the impact of inflation on our ability to accomplish these objectives? The answer is that it depends, not on what any one factor does, but on what their combined financial impact is and on what we do about it as financial managers.

Turning to the specific factors listed in the program, I'll comment briefly on each, but not dwell on any:

(1) Barring complete runaway inflation (when the value of any future dollar approaches zero), I'm inclined to follow the classical theory that investment returns will climb with and remain above the long-term rate of inflation.

(2) Many categories of expenses have risen dramatically in the past two years but the increase in unit costs is much less in those situations where revenues have also grown. Also, to a point, our unit costs are protected to the extent they are related directly to premiums, e.g., commissions and many expense allowances.

(3) Lapse rates could go either way since, theoretically at least, continued inflation will bring both an increase in the need for insurance and a reduction in the ability to pay for it. My best guess is that lapse rates won't deteriorate and may even improve a bit during an extended period of inflation.

(4) Policy loans could hurt, since any fixed ceiling diminishes the value of rising investment returns as a hedge against increasing unit expenses. But the current move toward relief at the 8% level is well established and could conceivably be repeated in the future if rates rise significantly above current levels.

The future direction of these factors is largely beyond our control, but we do have the ability and the responsibility to test their combined impact in our pricing models.

CHAIRMAN MILLER: Our studies have indicated that there seems to be a trend among a number of companies to either (a) redesign their cash value structures so as to provide for relatively lower cash values in the early years, or (b) move from a net level premium reserve method to some sort of modified method.

MR. DWIGHT K. BARTLETT: At Monumental Life we have noted that the trend in unit expense factors under home-service business during this inflationary period is particularly unfavorable due to the low average size of this business generally, combined with sharp increases in per-policy costs. Also, as a result of the current recession, we expect an upsurge in lapses under home-service business.

CHAIRMAN MILLER: Our company's business is much more concentrated in the middle and higher income ranges than that of Dwight's company. Nevertheless, we're starting to see some unfavorable effects of the current recession. One thing that concerns us is a potential increase in lapse rates. This hasn't appeared in our persistency data as yet, perhaps because of the lag time built into our regular administrative systems. However, one thing we have noticed recently is a decline in the number of checks we are preparing in connection with policies with premiums payable under our preauthorized check plan. We believe that this probably indicates some persistency problems which will surface quite soon.

Let me ask for a show of hands among the audience as to how many of you have noticed an increase in lapse rates in your company in recent months. (The show of hands indicated that about 40% of those present had noticed such an increase.)

MR. THOMAS F. EASON: The level of policy fees is an important consideration in the pricing process. In my opinion, there is no substitute for a policy fee of an amount sufficient to: (1) amortize current initial per-policy expenses, and (2) reimburse the company for at least the current per-policy renewal expenses. In this connection my company has recently introduced a $24 policy fee. (There are limited exceptions for multiple policies under pension trust and small juvenile issues, both of which have lower unit expenses.)

If properly determined, the policy fee itself can be adjusted easily from year to year in response to inflation, or deflation, without extensive rate manual revisions. A salutary side effect for participating insurance is that a single dividend scale then provides satisfactory equity between policies of different amounts. It might be further observed that an extension of "band differentials" is, in reality, nothing more than a technique to present an increased policy fee in a disguised form.

CHAIRMAN MILLER: I'd like to point out one area which generally receives a relatively small amount of attention but is one where, if changes are not made, companies can start experiencing substantial losses pretty quickly at a time such as this characterized by both high interest rates and rising expenses. This is the area of fractional premium loadings.

MR. RICHARD E. OSTUW: I would appreciate Mr. Baucom's thoughts on the future impact of rising levels of expenses allocated on a per-policy and per-thousand basis on term insurance premium rates, particularly at the younger issue and attained ages.

MR. BAUCOM: I have completed a study of the differing effects of inflation on permanent and term insurance. Before stating the conclusions, I would like to describe the assumptions I made.

Our approach to the interest rate assumptions at Provident Life and Accident is based on discussions with and involvement of the Investment Department. The rates themselves are a combination of a real rate of return plus the rate of inflation. We have followed what we consider to

be the rather traditional approach of starting out with rates that approach current interest rates and assuming that these decrease over the life of the contract. We found that over the last few years the "traditional approach" has resulted in higher and higher interest assumptions with the overall scale being flatter and flatter.

We have had some preliminary correspondence within the Home Office recently that reflects what we consider to be the strong likelihood that inflation at the 8% to 10% level is with us to stay. If that is the case, it is our feeling that the interest assumptions we are currently using are significantly understated. In an effort to determine the effect of this on new issues of both permanent and term insurance, we have made some asset share and gross premium calculations using a level 10% interest assumption combined with some rather arbitrary assumptions as to the effect of an 8% to 10% inflation rate on other factors in the pricing process such as return on investment in new business, policy loan utilization, lapse rates, and expense assumptions.

For expenses I have assumed first-year expense factors at current levels, a constant renewal percent-of-premium expense and a renewal per-policy expense factor which increases at the rate of 7½% per year.

With respect to the return on investment in new business, our profit formula for permanent contracts is expressed in such a way as to provide for a combination of two elements:

(1) A risk charge varying with issue age and with the degree of risk involved in the contract, and

(2) A return on investment in the contract.

We define investment in the contract as being the negative cash flow in the first year. This is as contrasted with the Anderson method in which the investment in the contract is defined as the first-year statutory loss. When our formula was developed in the late sixties, we were dealing with new money interest rates of between 5% and 6%. At that time, we concluded that, because of the degree of risk involved in this type of investment, we should permit ourselves a 10% yield on money invested in the acquisition of new business. Since that time, our approach to pricing has remained the same but, because of competitive pressures, we have been unable to increase our rate of return on money invested in new business above the 10% level. In these inflation runs, I included a return on investment in new business of 15% as well as 10%.

With respect to policy loans, we have made the calculation based on two different assumptions. In the first place, we assumed that the policy loan interest rate would remain at 6% and that 70% of the cash value would be borrowed. That may sound extreme for today but I'm not sure that it will continue to be. In another calculation, we assumed that the policy loan interest rate would be 8% and that the amount borrowed would be 30% of the cash value.

I have assumed that lapses of permanent insurance would increase by 50% over the rates assumed in our current rate book. With respect to term persistency, I used the same lapses as those in our current rate book on the presumption that term persistency should not deteriorate as a result of inflation.

All other assumptions used in this calculation were the same as those used in our current rate book for the same products. I should point out that this involves a rather large average size assumption ($45,000 for permanent and $76,000 for term) since that reflects our actual experience

on these two plans. The conclusions would undoubtedly be significantly different with a lower average size assumption.

The results of our study were most interesting because they indicated that our current gross premium level for a typical whole life contract would support all but the most extreme set of assumptions. In the situation with 70% of the cash value borrowed at 6% interest, 150% of our current lapse rates, per-policy expenses increasing annually at 7½% and anticipation of a 15% return on investment, I found that our existing rates were very slightly (29¢ per thousand at age 35) below the amount needed to support benefits, expenses and an adequate profit level.

Obviously, everyone will have his own idea as to what set of assumptions are, in fact, extreme under inflationary conditions such as those we are talking about here. One potential problem with my work is that I have taken an unsophisticated approach to Federal Income Taxes. It is likely that higher Phase I taxes resulting from the higher investment income will offset to some extent the beneficial effect of the increased interest rates. However, I am convinced now that the interest return on a permanent life insurance contract really does offset almost all of the problems created by inflation. The one step that does need to be taken to ensure the solution is to reduce the impact of the policy loan utilization problem by changing to a variable policy loan interest rate.

With respect to term insurance, however, the conclusion is dramatically different. I used a 30-year Decreasing Term plan and the results indicated that, under my inflationary assumptions, our current gross premium rate would not support the benefits, expenses, and profit margin. As a matter of fact, at the young ages, our current gross premiums would be just barely sufficient to support the benefits and expenses. My conclusion is that those of us who are aggressively seeking nonparticipating term insurance business really need to watch our steps or we are going to find ourselves with a real "tiger by the tail" unless we can continue to grow fast enough to keep the premium income increasing as fast as the expenses.

CHAIRMAN MILLER: Bennie, in the calculations you outlined, were your assumed lapse rates for term policies significantly different from those for permanent policies?

MR. BAUCOM: Yes, they were significantly higher at all durations.

CHAIRMAN MILLER: To set the stage for our discussion of the next topic on our agenda, let me summarize some material contained in the recent Munson Committee report on Philosophies in the Computation and Dissemination of Dividend Illustrations. This report was largely based on responses the committee obtained to a detailed questionnaire.

As regards assumptions used in illustrative dividend scales for current issues, the Munson Committee received responses from 88 companies currently writing participating business. The responses indicated that the current scales of 41 of these 88 companies are based on current experience, generally unaltered for possible or probable future changes; the scales of 43 companies are based on different assumptions and 4 companies did not respond to this question.

Among the 43 companies not using current experience, there were some which used expected future experience, and others which used such experience with a safety margin. Only a few of these companies reported any adjustments from their current mortality experience. The most common deviation from current experience was the use of expected improvements in persistency. Many of the companies using this basis mentioned that

their agents were using new techniques and new markets which would hopefully allow them to write more-persistent business. Deviation from current expense experience was in the use of anticipated future expense rates, with a fairly even spread as to whether these expenses were higher or lower than those experienced currently. In general, larger companies following this route assumed a higher than current expense rate because of inflationary trends, while smaller companies assumed lower than current rates, keyed to anticipated savings due to automation, larger sized policies and a larger base over which to spread fixed expenses. As to adjustments in interest assumptions, a number of companies reported use of the current rate graded down, frequently accompanied by a comment that the conservatism was intended to offset future expense increases.

One other interesting item was that several respondents felt that, if current illustrative scales were based on current conditions but that adverse changes were expected in the scale, special disclosure of that fact should be made in the disclaimer accompanying illustrative dividends.

MR. KRISHER: In a mutual company, we do have a "hedge", so to speak, against deterioration in future experience by regulating the flow of dividends paid to any block of business as the experience actually emerges.

Therefore, in our pricing process, we are more in the position of allowing for the contingency of continued inflation than of predicting whether it will or will not occur.

What this boils down to in terms of pricing, i.e., setting specific scales of premiums, cash values and dividends, is a need to introduce "sensitivity testing" into our pricing process. This is where we deal with a fourth objective that is unique to the pricing of participating insurance - namely, the probability that any given set of dividends that has been given to the buyer as an illustration will, in fact, be paid in the future.

While I don't want to get into specific numbers in this session, there are a few general observations I can make based on our work thus far in this area.

Most of our policy forms generate substantial positive cash flow after the initial selling expenses are paid. This means that our margins are much more sensitive to rates of future investment return than they are to changes in unit renewal expense rates. So there is a built-in "hedge" if we believe the classical relationship between interest and inflation rates will hold in the future and if we are conservative in our assumptions about future rates of return.

We should, as actuaries, be active participants in the measurement and control of unit expenses within our companies. To the extent that our cost control programs do not counter the pressure on unit expenses, especially acquisition costs, we will have to change the pricing structure more frequently than in the past to maintain the balance we desire. This is especially evident as we consider equity between large and small policies (through the policy fee and/or banding structure) and between early terminators and those who keep their policies in force for a long time.

The margins on term policies are more vulnerable to deterioration in persistency and unit expenses and do not have the protection afforded by the cash build-up. We feel it's necessary to be much more conservative, therefore, in setting premiums and dividends for term business.

On annuity products, which are by nature very sensitive to investment performance, we feel it's necessary to be very cautious about the long-term results that are either guaranteed in the contract or implied in the sales process.

MR. JAMES F. REISKYTL: Although both Mr. Krisher and I desire to meet the needs of the consumer, we do not agree on the best way to do so. I believe that, if the buyer is to be able to compare costs between companies, dividend scales must be on a consistent basis, and the best basis for these comparisons is current experience. If dividend scales were to be based on best estimates or most-likely assumptions, the buyer would need an index as to the degree of optimism or pessimism that was built into the scale as well as more sophisticated cost measures that are being required to make his comparisons. No one, including the actuary, will know how accurate the scale will be. Actuaries would be put under increasing pressure to improve their scales--who or what would discipline their outlook? Granted, eventually, as the actual dividend histories unfold, we will know; but of what use is this to the buyer? There is no assurance that the current underlying philosophy for the scale is consistent with that used in the past. Nor will he know whether future experience will match the current projections as well as prior ones did. Perhaps the actuary could report annually to the policyowner explaining the difference between his original projected scale and the actual results.

Current experience provides a disciplined basis for dividend scales and a good basis for cost comparisons. It isn't perfect, but it has a lot fewer problems than projections. Furthermore, many states require that dividends must be based on current experience.

One way the regulatory authorities could enforce the use of current experience, without getting unnecessarily mired in the details of the dividend calculations, would be to require the actuary who is responsible for the scale to professionally certify that the dividend scale is based on current experience. I believe the states could implement this relatively simply and it would put the responsibility where it belongs--on us, as professionals.

MR. ODELL: Under insurance contracts issued in the United States today (with possibly a few exceptions) dividends are a benefit and are not a contractual liability; hence no liability is established on the balance sheet on account of possible future dividend payments beyond the coming year. Accordingly, the point of view is usually taken that a dividend scale presents dividends currently being paid on policies currently in force and is neither an estimate nor a guarantee for the future. This point of view is usually stated by the insurance company, usually in writing, as a portion of the dividend scale. Following this point of view, the answer to question #2 is "no". It is not clear why the word "current" appears in quotation marks in the topic heading.

CHAIRMAN MILLER: To the extent that it might be felt there is a need to "hedge" current illustrative scales, this need is probably least in connection with permanent policies written in the larger amount ranges. The need might be greatest in connection with illustrative dividend scales on term coverages, but it also seems that there might be such a need in connection with permanent policies written for smaller amounts. This is an area where it does not appear that increases in portfolio interest rates are offsetting the effects of inflationary expense increases.

MR. F. ALLEN SPOONER: My company's philosophy of dividend illustration is that our illustrations are based on what we are paying under current conditions, but that we may make our illustrations less favorable if we doubt we will be able to maintain them in the near future.

We introduced a high early cash value plan several years ago at a time when the yield on policy loans was greater than our portfolio rate. Because we anticipated considerable loan activity on this plan, we could have illustrated a dividend scale, the interest portion of which was higher than that used for other policies. However, we instead illustrated a rate lower than that used for other policies. Our portfolio rate was increasing fast enough to offset increasing unit expenses on other plans, but on this plan increasing unit expenses might have required a reduction in scale in the near future if we had not illustrated conservatively from the outset.

MR. BAUCOM: I feel very strongly that our industry's ability to deal adequately with the problems created by inflation is linked closely to its ability to sell permanent life insurance. I'm not knocking term insurance. I think it has a place in every company's rate book and in most individuals' personal insurance program. But if that is all we are going to sell, then I think we have a problem. Compounding the problem is the fact that inflation is making it more and more difficult to sell an ordinary life contract to the man on the street as protection for his family. He is going to need more money to feed his family first and then, if he feels he needs additional insurance over and above what the government is providing him, he is more likely to provide it with term coverage than with permanent.

I think there is at least a partial solution though, and it lies in our ability to sell insurance programs which permit deferral of taxes in one form or another. The Employees Retirement Income Security Act provides the insurance industry with an excellent opportunity to become aggressive again in competition for the savings dollar. The qualified pension market, tax-deferred annuities, Keogh plans, and Individual Retirement Accounts provide actuaries the opportunity for innovative thinking in the development of new products for these markets. In addition to developing the products that are suited to capture the markets, we need to train our agency forces to compete against other savings media as effectively as they compete against other insurance companies.

In addition to retirement savings plans, there are also opportunities for tax-related sales with respect to deferred compensation, Section 79, and estate tax markets.

All of these areas, in my opinion, offer the insurance industry an opportunity for development of new products designed to re-emphasize the savings element and as an industry, I really don't think we can deal with the problem adequately unless we meet the challenge.

MR. KRISHER: As to the impact of inflation on product demand and sales, I do believe there will be changes in sales mix, but that not all of them can be attributed to inflation, per se.

The obvious response is the trend we see toward more risk leverage per premium dollar. But to conclude that we will end up selling only term insurance as the pat solution to all consumer needs is, to me, both simplistic and fatalistic.

As long as a future dollar retains some value greater than zero, people will want to accumulate dollars for future use and we, as an industry, must play a role in offering that service. The recent pension

legislation is an example of an expansion of our market for accumulation dollars.

What I do think we will see in the future is a trend toward greater flexibility in responding to the needs of people for risk pooling, investment management, and financial counselling services. This means, among other things, that we should respond to those needs as they are perceived by the consumer at any given point in time even though this forces us to change some of our traditional concepts about how we package and market life insurance products.

Specifically, I believe we will see a move toward life cycle or account-based products and that those products will be flexible enough to meet the needs of different people in different financial circumstances at different points in time. In this sense, then, I would say that all products are, by definition, "appropriate" for somebody and that inflation won't lead to product standardization.

MR. ODELL: Analysis of which came first in the demand/sales cycle is somewhat like trying to determine which came first - the chicken or the egg. Various commentators have concluded that we are experiencing relatively lower premiums per thousand of insurance sold than formerly and that there has been a shift from permanent to term insurance, and then conclude that one of the essential forces behind the movements is inflation. The "risk" to the insurance buyer of future inflation eroding the value of his policy is cited with much concern.

Another point of view is that life insurance death benefits, cash value benefits, and other guaranteed benefits during the last three years have not gone down one single cent. The same cannot be said of a typical mutual fund portfolio. A recent article, "Buy Term and Invest the Difference -- Where Are You Now?", by Trieschmann and Leverett, Best's Review, February 1975, examining the risk-return characteristics of cash value life insurance (taking into account the inflation "risk"), came to the conclusion that cash value life insurance is indeed an attractive investment opportunity. This viewpoint continues with the thought that, if indeed there is to be inflation in the future, then the insurance-buying public needs sufficient face amount of insurance to provide appropriate purchasing power to the widow and children (or other beneficiary) at the time of death and needs to build up cash values to assist in providing needed purchasing power in the form of retirement income. An attempt will be made to more clearly define this need.

However, first it may be noted that from the vast amount of rhetoric it is possible to identify two common themes which crop up in most discussions of the subject:

1. The inflation phenomena has indeed changed the environment of the insurance buyer and has changed his needs from one of needing protection in terms of today's dollars to one of needing protection in terms of tomorrow's dollars.

2. The expenses of the marketing systems traditionally used to reach the portions of the buying public at the middle and lower end of the economic spectrum are becoming more and more a cause of concern.

Considering the first of these themes, the implication is not necessarily that the buyer should switch from guaranteed benefit insurance to equity investment. Indeed, if the risk of losing purchasing power through inflation is a significant concern to the buyer then the possibility of

losing purchasing power through capital losses should also be a concern to him. Hence, assuming that commentators on the subject have correctly diagnosed the demands and needs of the buying public (something which is always open to question), we seem to have a need for insurance providing guaranteed benefits expressed in terms of units of purchasing power. Some products are currently on the market and others are being developed which come very close to fulfilling this need. Difficulties include compliance with regulatory practices, definition of the phrase "purchasing power", etc. However, considerable progress has been made. The products our industry has developed in response to consumer needs related to inflation may be classified as follows:

1. Products which contain the traditional guarantees but in addition will pay additional benefits which are based directly on the Consumer Price Index (CPI). Those espousing this type of product may point to the fact that the CPI is probably tied at least as closely to the effects of inflation upon the consumer as any other measure which is easy to use, well publicized, and fairly well understood. However, there is not unanimous agreement on this point. (Critics indicate that the CPI may have too much lag time, that perhaps the prime interest rate would be a better indicator, or that some other index should be used.)

2. Products which contain the traditional guarantees but will pay additional benefits based upon the investment experience of a particular fund or account which may be an equity portfolio.* To the extent that the results of the equity fund are responsive to the effect of inflation, these products achieve results very similar to those mentioned in Item 1.

3. Products which do not provide the traditional guaranteed benefits and values but rather have their benefits and/or values expressed in terms of the CPI or some similar index. These products do not appear to have made any inroads in this country.

4. Products which do not contain the traditional guarantees as to benefits and/or values but rather have benefits and values based upon a particular fund or account. To the extent that the results of the equity portfolio are responsive to the effect of inflation, then these products achieve results very similar to those mentioned in Item 3. Further, particularly because the type of products outlined in Items 1 and 2 usually contain various limits with respect to their responsiveness to inflation and because of other reasons, those who feel that the results of an equity portfolio in the long run closely match the effects of inflation upon the consumer conclude these products are the best means of meeting consumer needs vis-a-vis the phenomenon of inflation. On the other hand, if the view is taken that the results of an equity portfolio do not necessarily match the needs of the buyer in connection with inflation, then it may be argued that this type of product simply substitutes the risk of capital loss for the risk of erosion of purchasing power of the dollar, or even adds the first risk to the second.

* This type of product is discussed here in terms of its responsiveness to inflation-related needs. It meets other needs not discussed here.

While there may be a difference of opinion as to the type of product which best assists the consumer in a time of inflation, there is fairly widespread agreement that the insurance industry should provide a product to meet this need.

A largely unanswered question, however, is whether or not there is a demand corresponding to this need. The insurance industry does not seem to be overwhelmed at this point with purchases of these types of products. Of course, some products of this nature have yet to be introduced on a widespread basis for the first time.

One question implicit in this discussion is whether or not our present public image and selling procedures have convinced the public that the insurance industry is a source of products to protect them against some of the results of inflation. This is an understandable question since there have been some doubts in the past as to whether this was a legitimate function of the industry.

These observations bring us full circle. What changes, if any, should be made in our selling procedure to convey to the public our ability and desire to provide a measure of protection against inflation and do so at a cost which is bearable in an inflationary economy? The answers will vary from one product to the next and from one company to the next and from one market to the next. The concepts of sales facilities at shopping centers, banks, etc., either with or without advertising will see more attention as will the concepts of the insurance consultant whose clients visit his office. The costs of a selling organization both in terms of start-up and development on the one hand and on-going efforts on the other must be measured and examined more closely in an inflationary economy than ever before.

CHAIRMAN MILLER: It seems to me that companies which market their individual products under the traditional agency system must become more and more seriously concerned about whether the resulting overall cost picture will enable them to operate effectively in the small amount, lower income markets. Another area where the costs of the traditional agency system lead to competitive problems is that of heavily investment oriented plans, such as deferred annuities, which are often sold in direct competition with products of other financial institutions. The problem here is that, even if you can compete with these other institutions from the standpoint of underlying investment return, the loading necessary to provide a reasonable level of agents' compensation can lead to competitive disadvantages which are not offset by the insurance companies' ability to provide guarantees (such as settlement option guarantees) which can't be offered by the other institutions. I think that recent developments in the Canadian Registered Retirement Savings Plan market are a good illustration of this.

As to the question of developing products with benefits linked to some index or the results of some underlying investment medium, experience in the U.S. so far has shown that a product with CPI-indexed benefits but funded through traditional fixed-dollar investments is almost certainly too high-priced to be really attractive in the marketplace. The stock market experiences of recent years have also made it absolutely clear that there is little likelihood that a policy whose benefits are linked to the results of an underlying equity investment fund can be offered primarily as an inflation hedge. One type of product which is sold with considerable success in some European countries is that under which benefits are linked to a specified index, but the company makes the underlying investments in media of its own choosing. However, I believe that few, if any, of the insurance regulatory authorities in the U.S. would presently

approve such a product because of the substantially increased element of risk for the insurance company.

MR. WALLACE R. JOYCE: The inflationary environment in the last few years has produced an unprecendented differential between the "new money" investment rate and the average yield on company portfolios which has traditionally governed their rates and dividends. This has produced new types of competition for the investment dollar in the market place and has led to some important product changes.

In Canada, where Retirement Annuities have been an important source of premium income to life insurance companies, particularly in the area of the Pension Trust and Registered Retirement Savings Plans, consumer cirticism of the poor return on annual premium plans has also had some influence. There has been a distinct trend away from annual premium retirement annuities to single premium plans. Many companies have tried to produce better returns on their annual premium plans at the expense of lower commissions. In the past year a number of companies have developed "Flexible Premium" retirement annuity plans which essentially are single premium plans capable of accepting additional payments at any time, each payment carrying its own underlying guarantee and/or accumulation rate corresponding to the new money investment yield at the time of payment.

CHAIRMAN MILLER: At our counterpart panel session in Los Angeles a few weeks ago, Bob Hunstad of Minnesota Mutual described a version of the life cycle policy which his company has developed and is marketing with considerable success. Part of their concept involves expanded use of the guaranteed insurability option, and I think that this is an area where we will see considerable activity in the future as we seek to design products that will be attractive in an inflationary climate.

MR. JAMES J. KNUTSON: At Minnesota Mutual we introduced a product in late 1971 which is very responsive to inflation. The product is called Adjustable Life and it has a Cost of Living provision for the face amount. The insured has an option every three years to increase his face amount by the same percentage as the Cost of Living Index has increased over the same period. The current increase offered is 27%, the index being recalculated monthly. The acceptance rate of this option is about 80%.

Two months before the policy anniversary, we send a letter to the policyholder notifying him that his option can be exercised. If we receive a positive response or no response, we automatically increase the face amount. Only when a definite negative answer is received do we cancel the option.

MR. REISKYTL: Mr. Baucom stated earlier that he felt life insurance was protected against continued inflation since interest rates and new sales were increasing faster than renewal expenses and other adverse factors, and premiums could be raised to cover increasing acquisition expenses. This favorable balance is from one viewpoint--that of the insurance company's pricing. Equally important is whether the values we provide to the policyowner are protected. Clearly, the nonparticipating permanent insurance buyer's values will only be protected if the inflation rates were correctly anticipated and reflected at issue. The participating purchaser has fared fairly well to date as most of the impact of inflation has been offset by increased dividends. He too may find that future dividend scale increases won't be able to keep up with the effect of continued inflation at the current levels.

This value-to-policyowner problem may be compounded in the future as agents find it difficult to increase sales rapidly enough to keep up with inflation. Many seasoned agents will find renewal commissions provide less buying power than anticipated. We could be faced with policies that provide declining real values to our policyowners at the same time that our agents' real income is declining. We can't solve the agents' problem by increasing compensation rates, since this only aggravates the value problem.

Escalating federal income taxes also place permanent life insurance at a relative competitive disadvantage in inflationary times. As taxes continue to mount, insurance becomes less and less attractive to the public. Tax reform deserves serious consideration. Most Phase I companies will find that their maximum after-tax rate is less than 8%.

MR. RALPH E. EDWARDS: Two aspects of dividend forecasting need to be distinguished. A smaller company changing its dividend scale less frequently than annually must forecast what it will be paying until the scale is again changed. One of the factors taken into consideration is the effect of inflation on divisible surplus. This becomes the "current" dividend scale.

Applying any inflation estimate to this scale for the purpose of dividend illustrations, in order to be conservative, might turn out to be the reverse. For example, suppose the company's president, economist, or investment executive is convinced that the safety factor for inflation is consistent with an increase in the dividend accumulation rate and requires this to be included in the dividend illustration. This could increase the amount used by the agent for his illustrations. To obtain an example of this effect, I decreased the illustrated dividends of my company for a certain policy by 50 cents and increased the dividend accumulation rate by 2%. It had the effect of increasing the dividend accumulations at the end of 20 years by 7%.