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GAIN AND LOSS ANALYSIS AND RELATED CONCEPTS FOR GROUP INSURANCE

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I N HIS paper entitled "Gain and Loss Analysis for Pension Fund Valuations" presented at the November 1959 meeting of the Society, Mr. William A. Dreher presented a discussion of sources of gain and loss in the operation of a pension fund. Although the specific ingredients and nomenclature used therein are not the same for group insurance, the general concepts are similar, and comparable derivations may be made with respect to group insurance. Sources of gain and loss thereby identified are helpful in tracing the causes of favorable or unfavorable operating results, and determining which aspects of a company's group insurance operation should be reexamined, if such results are not at the desired level.

This paper discusses gain and loss analysis for group insurance under the following headings:

- 1. Nomenclature and General Principles
- 2. Sources of Gain and Loss under Theoretical Conditions
- 3. Gains and Losses Arising in Practice
- 4. Comparison with Annual Statement Results and Effects of Changes in the Company's Dividend Formula.

1. NOMENCLATURE AND GENERAL PRINCIPLES

Although the general concepts of the group insurance dividend formula and financial operation are well known to members of the Society, and are discussed in the Society's Study Notes for the group insurance examination, it seems advisable to set forth herein an abbreviated description of such concepts, which will establish the "ground-rules" and terminology for the rest of the paper. While the description of the operation of the group dividend formula employed herein is based generally on that of one company, the same general principles are common in the dividend formulas of most group-writing companies.

For each group policy, a dividend is calculated at the end of each policy year, equal to its earned premiums, reduced by the sum of the charges levied for its claims (including claim reserves, conversion charges, cash surrender values and increases in policy reserves, where appropriate), its expenses (including commissions and premium taxes), and its riskspread contribution. In general, such charges are determined by class of business, as follows:

a) Claims. If the group policy covers a large enough group of people so that its own claim experience is considered fully credible, the charge against the case for claims would be the claims actually paid on account of the people covered thereunder, plus an appropriate charge for any insurance converted to an individual policy form, plus a charge (or credit) for any increase (or decrease) over the year in reserves for unpaid claims. policy reserves or other similar reserves. If, however, such group policy covers so small an exposure that no credibility is attached to its own claims, the charge for claims would be levied on an average claim basis, such as a percentage of premium or similar measure of average expected claims. The exposure levels for which no credibility is present, or full credibility is present, vary by the type of coverage provided. Thus, recognition should be given to the fact that random fluctuations in experience are more likely on coverages with low claim probabilities (e.g., accidental death and dismemberment coverage) than on coverages with higher claim probabilities (e.g., major medical coverage). The substitution of an average claim charge for the group's actual claims is often referred to as "pooling."

There is a need for some smooth gradation between the claim charges made for fully credible cases and cases with no assumed credibility; a weighted average of actual and expected claims fits this requirement conveniently, with the relative weights applied to actual versus expected claims varying with the extent of the group's credibility.

Similarly, some pooling may be involved on cases with large amounts of life or accidental death and dismemberment insurance in force on individual lives in relation to the case size, in situations where the case is large enough to absorb expected variations in the number of claims each year but not large enough to absorb fluctuations in the size of the claims completely on its own. Pooling of the larger amounts of insurance is quite common, and such practice may also be employed on cases which, in themselves, are subject to small case pooling described above. Pooling of large amounts of insurance is not limited to only the extremely large amounts of insurance. A reasonable amount of insurance, such as \$15,000, may be "large" in relation to the total exposure under a very small case. As long as such amount of insurance meets proper underwriting requirements for the specific characteristics of the group, it is just as logical to make it available on a small group of people as on a large group; the group insurance requirements of a particular person do not arise from the size of his employer's business.

b) Expenses. The charges made for expense-type items are usually determined by a general formula which applies to all group policies. The following general approaches are used in setting charges for these items:

- (i) Commissions would be assessed by a formula which levies a decreasing percentage of premium charge as the premium increases, generally in size brackets. Such charge would follow closely the commission scale in use by the company. Commission scales usually provide considerably larger payments in the first policy year than in renewal years. However, it is not uncommon to charge somewhat less than full first year commissions in determining the first year dividend. The uncharged portion of the first year commission would be charged into dividend calculations in the first few renewal years, along with the regular renewal commission charges for such years. This practice permits more rapid dividend distribution than under a system charging full first year commission rates against the first year dividend potential. In the event of lapse of the group policy, any first year commission remaining uncharged would be assessed in the terminal dividend calculations.
- (ii) Taxes levied by states (and occasionally political subdivisions thereof) are commonly a percentage of premium, or of premium less dividend. Charges made in the dividend formula for such taxes commonly follow the basis on which such tax is levied against the company. It is possible to charge each case for taxes based on its distribution of covered people by state, or using a nationwide average tax, and both methods are in use.
- (iii) Administrative expenses are the costs of maintaining the insurance company's staff, and include direct group department expenses as well as expenses of the other departments of the company allocable thereto. The expense charges levied in the dividend formula for such expenses commonly consist of a flat charge per policy (possibly grading by the number of different kinds of coverages provided under the policy, but recognizing in the main those costs which do not vary appreciably by case size), a charge per life insured (again possibly graded by number of coverages, and recognizing those costs which are likely to be a function of the number of insured people), and a charge computed as a percentage of premium (or a decreasing percentage of premium as case size increases, but recognizing those costs which are not clearly allocable according to the two previously noted bases, and involving a considerable degree of judgment in their allocation). Many of such expenses would commonly be higher for a new case than a renewal case, but expense amortization principles similar to first year commission amortization may be employed.

c) Risk Spread. This is a charge made against the case to hold back a share of its otherwise divisible surplus, the effect being to retain an amount as a permanent contribution to the company's surplus and to help offset losses on cases with unfavorable experience. In effect, this charge is the mechanism by which the total indicated gains (i.e., premiums less claims and expenses) are not paid out in full on the good cases while the company incurs losses on other cases. In many respects, this charge carries out the broad risk-sharing insurance principle and could be called the "insurance charge." Mr. Paul H. Jackson's paper entitled "Experience Rating" and presented at the October 1953 meeting of the Society discusses these charges in considerable detail. Such charges are frequently set as a percentage of premium, varying by size and duration of the case, and should vary by dividend margin presumed available within the rate structure of the class of business involved. The level of such charges is integrally tied into rate levels, underwriting policy, and treatment of recovery of individual cases' losses, and will be further discussed later. It will be noted that the risk charge determines how much of the excess of premiums over claims and expenses is to be distributed as surplus on a particular class of business.

If there is an excess of premiums over charges made for claims, expenses and risk spread, such excess would be paid as a dividend. Where special reserves are held on a particular case, such as group permanent policy reserves, interest credits are often allowed in the dividend calculation, and serve to increase the dividend potential. Similar considerations, but with different nomenclature, are applicable to stock companies, which grant rate credits.

If there is a deficiency when the premium is measured against the total of such charges, the deficiency might be called a deficit. All, or some part, of such deficit would be charged against the dividend potential for the ensuing year; the portion charged, and the number of years over which the charge is spread, are subject to varying company philosophies. Some companies charge all of such deficit in the next dividend calculation, others charge a fraction of it each year until it is completely recouped; in either situation the normal dividend potential of the case may not be able to sustain the charge for deficit recovery in a particular year, and the uncollected portion would be carried forward, with the process repeating itself until the deficit is recouped. Other companies write off (or "forgive") all, or some portion, of such deficits. It will be noted that the company's practice with regard to deficit payment has an important effect upon its operating results, as loss of interest earnings on the company's surplus, and possible loss of "principal" due to policy lapse, are present in varying degrees under the different deficit repayment concepts. As will be noted 416 GAIN AND LOSS ANALYSIS FOR GROUP INSURANCE

later, the company's charge for risk spread is closely related to its deficit recovery philosophy.

When more than one form of group insurance is written on the same lives (such as life insurance, weekly indemnity insurance, hospital insurance, major medical insurance, etc.) it is common to provide contractually that dividends under a good-experience coverage will be offset against emerging deficits on poor-experience coverages. Such a practice justifies a somewhat lower risk-spread charge on the combined-coverage class of cases, to the extent that deficits are created in large measure by chance fluctuations which are not likely to occur on all coverages at the same time. The amount of dividend potential so retained is often called a "transfer" from the good-experience coverage to the poor-experience coverage. It would be logical to record such a transfer only between the group life and group A & H line, and not within either such line, since the effect within a line would be offsetting in the company's annual statement.

It will be recognized that for some groups of cases in the smallest sizes there will be no surplus emerging to be paid; nevertheless a theoretical dividend/deficit calculation is desirable for analysis purposes.

While the above is not intended to be a complete explanation of group dividend formula fundamentals, it lays sufficient groundwork for the purposes of the paper.

2. SOURCES OF GAIN AND LOSS UNDER THEORETICAL CONDITIONS

Let us first make some oversimplified assumptions in analyzing our sources of gain and loss; in Sections 3 and 4 such assumptions will be made more realistic. These assumptions are as follows:

- a) Charges made in the dividend formula for claims are correct for each case.
- b) Charges made in the dividend formula for expenses are correct for each case.
- c) All cases renew at midnight on December 31, and dividends are calculated and paid immediately, so that there is no liability for apportioned dividends, and liabilities for unpaid claims (and other reserves) may be determined for each case and aggregated precisely to determine annual statement entries corresponding thereto. It is assumed that the liability for apportioned dividends which would normally appear in the statement is that portion of next year's dividend which has been earned in the current calendar year; not all companies follow this approach, but this does not materially affect the rationale being developed.

The annual statement Gain and Loss Exhibit appears separately for group life and group A & H and would show

- 1. Premiums plus Net Investment Income allocated to the line, less
- 2. Claims, Expenses and Dividends (including transfers from the line, less transfers to the line), equals
- 3. Operating Gain.

This is, of course, the traditional income less outgo type of operating gain derivation. It tells us the operating gain, but it does not tell us where it came from, other than the obvious conclusion that the group line took in either more or less than it paid out.

It will be noticed that Net Investment Income (defined to be net of federal income tax) is present in the traditional operating gain picture. However, the hypothetical dividend formula did not specifically reflect such interest income, although it was noted that there was a provision for an interest outgo item in the form of a credit allowed on certain reserves. This provides a starting point for gain and loss analysis. Here is a source of income that the dividend formula recognized only to the extent of the interest credits allowed on certain special funds. The interest income is far greater but has not been *specifically* recognized per se. The difference between interest income and interest outgo is, under the assumed conditions, a source of gain.

In what other areas does the dividend formula not pay out all the gains or recoup all the losses? Further consideration indicates that there is built into the dividend formula a gain from risk-spread charges, which intentionally hold dividends below the level of a complete pay-out of all the individual case excesses of premiums over claims and expenses. This charge also develops a source of gain.

There are other areas where the dividend paid does not merely balance out the excess of individual case income over disbursements. Deficits existing at the start of the year may have been partially charged against current year earnings, thereby further reducing dividends below a complete pay-out of the current year excess of income over outgo. On the other hand, where claims, expenses, and risk-spread charges, reduced by interest credits, exceed the premium, there is no dividend to be paid out, and a deficit results. In some situations such deficit may be partially offset by transfers to the line being considered, and such transfers may also help recover prior year deficits being charged in the current year dividend calculation. In effect, then, a gain is made when there is a recovery of prior deficits or current deficits, directly or via a transfer from another line; similarly, a loss is sustained when there is an increase in such deficits.

It will be seen that, in effect, gains or losses come from the extent to which the dividend formula (and resulting dividends) does not achieve a complete balance between income and other outgo items. In summary, gains or losses for a line of coverage must, under the assumptions being used, come from the following:

a) Gains from interest (excess of interest income over interest credits),

- b) Gains from risk-spread charges,
- c) Gains from deficit recovery,
- d) Losses from deficit increases on other cases, and
- e) Gains from transfers to the line.

The results of this derivation for a hypothetical group operation are illustrated in Table 1.

Before proceeding to consider the problem with more realistic assumptions, it is advisable to reflect a moment on the implications of this derivation. The five items shown above are not mutually exclusive; for example (a), or (b), can overlap with (d). In effect, then, interest gains and risk-spread charges may not really be producing the gains they indicate.

	1	1
Group Life		Group A and H
\$1.000	Premiums	\$1 500
50	Net Investment Income	10
\$1,050	Total Income	\$1,510
		A4 300
\$ 680	Claims	\$1,300
100	Expenses	175
200	Dividends	100
50	Transfers from	5
-5	Transfers to	-50
At 005		AL 510
\$1,025	l Iotal Outgo	\$1,530
\$ 25	Operating Gain	\$ -20
	Sources of Gain	
\$ 50	Interest Income	\$ 10
10	Interest Credits	
		\
\$ 40	Interest Gain	\$ 9
\$ 1 5	Risk-Spread Charges	\$ 25
\$ 65	Deficit Recoveries	\$ 06
100	Deficit Increases	200
5	Transfers to	50
J	riansiers to	
\$ - 30	Net Deficit Change	\$ -54
\$ 25	Operating Gain	\$ -20
		1

TABLE 1 MODEL COMPANY

If claims and expenses exceed premiums, then charges for risk spread, and credits for interest, merely serve to increase or decrease deficit buildups. Where premiums exceed claims and expenses, but not by enough to cover in full the excess of risk-spread charges over interest credits, there still would be a deficit buildup. However, in this latter situation one cannot say for certain that all the claims and expenses were collected and only a fraction of risk-spread less interest credit items; nor can one allocate the collections in other proportions with certainty. Consequently, it appears logical to the author to take items (a) and (b) into account on a gross basis rather than only on a "net" or "actually collected" basis. While this understates gains from (a), overstates gains from (b), and overstates losses for (d), the results are still considered meaningful, provided it is understood that (d) represents an inability to collect fully the charges levied against the case for claims, expenses, and risk spread, reduced by interest credits, and thus in part offsets apparent gains from risk charges and apparent losses from interest credits. Other areas of overlap are also possible, depending upon bookkeeping procedures in use by the company.

The five sources of gain and loss bring sharply into focus the relationship between the dividend formula and company philosophy regarding both deficit recovery (mentioned in Section 1) and new and renewal rate levels. Expected gains from interest may be estimated rather simply under most circumstances. Thereafter, the risk charge must be such that, in the aggregate and in conjunction with interest gains, the net increase in deficits [source (d) less source (c) and source (e)] is more than offset; the margin by which the risk charge plus interest gain exceeds such deficit increase is the operating gain. The level of risk charges and company philosophy regarding deficit recovery and buildup must, therefore, be considered together.

There is not complete freedom of choice as to how to stabilize the levels of risk-spread charges and deficit changes. While the relationship of risk charges to deficit increases is determined so as to produce an expected operating gain result, one cannot continue to extremes in moving riskspread charges up to offset increases in deficits. Obviously, as more cases enter a deficit position, increases in risk-spread charges merely serve to further increase deficits, to some extent nullifying the attempt to put the system back in balance. It may be necessary to increase risk charges \$1.50, \$2.00 or even more to get a real increase in operating gain of \$1.00, with the difference merely serving to increase deficits on some cases. Looked at in the traditional operating gain concept of income over outgo, a company can improve operating results only to the extent an increase in risk-spread charges reduces dividend outgo. The more one tries to offset a worsening claim picture, for example, by an increase in risk-spread charges, the smaller the return will be on successive increases in such charges, and the more one will penalize the good-experience cases by reducing their dividends.

It is indeed a difficult task to adhere to both satisfactory risk-spread levels and conservative rating philosophy in a keenly competitive market. On balance it would appear that control of deficit increases through stricter new business and renewal rating procedures is, in general, a more satisfactory method of increasing operating gain than trying to generate such an improvement through larger charges to the good cases. It must also be apparent that neither method of improving operating results is always superior to the other. Of course, it is virtually impossible to eliminate all deficits; chance fluctuations are bound to cause deficits on some cases, while a company is recovering similar deficits on other cases.

3. GAINS AND LOSSES ARISING IN PRACTICE

Section 2 commenced with three admittedly unrealistic assumptions, the first two of which will be discussed in this Section and the last one in Section 4.

As indicated in Section 1, charges for claims often employ a pooling concept, in both small case and large amount of coverage situations. Such charges for claims are based on average expected claims in the coming year, which cannot be predicted with absolute certainty. This uncertainty about claim levels, and possible fluctuations, especially where large amounts of insurance are involved, might dictate setting the pooling charge somewhat higher than the best estimate of expected claim levels. In any event, there will surely be some difference between claim charges and actual incurred claims; the former is used to determine dividends, the latter actually represents the incurred claim disbursements. This difference gives rise to another area where the dividend is not based on premiums less true disbursements, and in practice thereby gives rise to another source of gain or loss.

Also as indicated in Section 1, expense charges, including commissions and taxes, often utilize some first year cost amortization. This situation, coupled with a practical inability to assess expense-type charges with absolute precision a year in advance, gives rise to another course of gain or loss. The amortization effects depend upon the extent to which a company charges less than full first year commission and other expense charges, the number of years over which such amortization is made, and the rate of new business writings. The more the amortization of first year expenses that is built into the formula, the more there will be expense losses from writing new business. As new business levels fluctuate over the years, there may be either gains or losses from expenses. A drop in new business writings would reduce expense losses on such new business, and the amortization of charges being made on account of new business written in earlier years would tend to reduce over-all expense losses, or even turn them into gains if the reduction in new business levels was severe. This is a natural result of the fact that charges for expense amortization from business written in earlier years, plus renewal expense charges on such business, exceed actual renewal expenses. New business causes a loss under this concept, and the over-all effect, therefore, depends on the relationship of new and renewal premiums, in addition to the mechanics of the amortization itself.

Table 2 introduces these two additional sources of gain and loss into the illustrative group line calculations. It is apparent that changes in dividend formula charges for claims and expenses have changed both the dividend and deficit items, reflecting the fact that only a part of any change in dividend formula charges results in a change in operating gain in a particular year.

It will also be seen that charges for risk spread, pooling and expenses might, to some extent, be correspondingly altered upward or downward. Since all are dividend formula charges, offsetting alterations among these charges will not affect the operating gain. To be sure, the incidence of each such charge varies by case size, duration and other circumstances, but there is no real theoretical reason why expense charges or pooling charges must be geared to fit closely their namesakes. This is another way of saying that, in effect, the risk-spread charge is set at a level which, in conjunction with other charges, interest gains and deficit changes, is expected to produce the desired operating gain result. There is, however, considerable value in having expense charges in balance with actual expenses, since the group department then knows how much money is available for expenses involved in obtaining and retaining business, *i.e.*, it has a convenient expense control mechanism and can spend no more than it charges its policyholders, unless it is willing to reduce its anticipated operating gain accordingly or can increase some other charges to the extent necessary. It will be seen that a \$1.00 reduction in expenses increases operating gain by the \$1.00. However, a \$1.00 increase in dividend formula expense charges produces less than a \$1.00 improvement in operating gain, since some of the increase in charges falls on cases which are not in a position to pay it via a reduced dividend.

4. COMPARISON WITH ANNUAL STATEMENT RESULTS AND EFFECTS OF CHANGES IN THE COMPANY'S DIVIDEND FORMULA

Still to be treated is the necessary recognition that all cases do not renew at midnight of December 31. This means that estimated liabilities must be established for apportioned dividends at December 31, even if we could assume that the due and unpaid dividends remained zero at yearend. The net effect of this problem is that operating gains in the annual statement recognize at least one more liability at each end of the calendar

Group Life		Group A and H
\$1,000 50	Premiums Net Investment Income	\$1,500 10
\$1,050	Total Income	\$1,510
\$ 680 100 160 50 -5	Claims Expenses Dividends Transfers from Transfers to	\$1,300 175 125 5 50
\$ 985	Total Outgo	\$1,555
\$ 65	Operating Gain	\$ -45
\$ 50 10	Sources of Gain Interest Income Interest Credits	\$ 10 1
\$ 40	Interest Gain	\$ 9
\$ 15	Risk-Spread Charges	\$ 25
\$ 65 120 5	Deficit Recoveries Deficit Increases Transfers to	\$ 96 180 50
\$ -50	Net Deficit Change	\$ -34
\$ 750 680	Claim Charges Incurred Claims	\$1,250 1,300
\$ 70	Gain from Claims	\$ -50
\$90 100	Expense Charges Incurred Expenses	\$ 180 175
\$ -10	Gain from Expenses	\$ 5
\$ 65	Operating Gain	\$ -45

TABLE 2 MODEL COMPANY

year than the aggregate actual case dividend experience does. The change in annual statement reserves for apportioned dividends affects annual statement operating gain, but does not affect operating gain determined from the dividend formula on a "going" basis. The estimates involved in setting a proper apportioned dividend liability level are such that it is virtually impossible to be precise in its determination. Claim levels are continually changing on individual cases, with varying effects on the dividends, due in part to the fact that claim charges on deficit-position cases do not affect dividends. There are also marginal cases where changes in levels of claim charges cause a shift from dividend to deficit position, or vice versa.

Similar considerations apply to liabilities for unpaid claims, a notable example of which is the group A & H liability in Exhibit 9. Such reserves are approximations, and may, for convenience, be determined by a simplified aggregate formula. Distortions in annual statement operating gains may readily develop. Such distortions can be large in relation to the operating gain, and cause severe fluctuations in operating gain over a period of years. The distortion arises, of course, only to the extent that such reserve changes in the annual statement are not completely consistent with changes made in the incurred claims used to obtain dividends on individual cases.

A useful approach to obtaining meaningful operating gain analyses rests with the determination of sources of gain and loss described in Sections 2 and 3. These sections describe, in effect, the results obtainable under the company's dividend formula. Differences between (a) gains and losses indicated thereby, determined case by case and aggregated, and (b) the annual statement results, are in part caused by our inability to achieve perfection in such analyses, but are chiefly due to the annual statement reserve changes. A reasonable starting point for calendar year analysis is to take annual statement premiums, net investment income, and expenses, coupled with the dividend formula's incurred claims, dividends, and transfers for a convenient period, and then prorated in size to fit the period covered by the statement. By this approach, it is possible to determine true operating results for the year, which may be assessed to the several causal factors noted in Sections 2 and 3. The balance (or deficiency) of any gain appearing in the annual statement may then be assigned to annual statement reserve change effects, and will not cloud the true operating picture. Dividend experience used could be renewals centering around the end of the calendar year, and this would necessitate some delays after the end of the calendar year before such analysis could be made.

The annual statement comparison problem arises particularly when the company changes its dividend formula. Let us assume that on February 1 the company decides that operating results must be improved, and amends its dividend formula to increase expense charges. All renewals for the balance of the year are subject to a higher expense charge, which on good-experience cases means reduced dividends. At the next year-end the liability for apportioned dividends is reduced below the corresponding liability on such cases at the start of the year. In determining annual statement incurred dividends by the usual method of paid dividends, plus vear-end liability, less previous year-end liability, the company obtains a doubling-up effect on operating gain, and its operating results are overly good. This is, in a sense, a spurious gain; the dividend formula is not geared to this favorable a picture. What has happened is that, because of the dividend formula changes, the company was really overreserved at the start of the year, and the drawing down of the overstatement has inflated operating results. The derivation of gain and loss results along the lines described in the previous paragraph will show up this effect. This does not indicate that the annual statement results are incorrect; it does show, however, that other things remaining the same, the results will not be duplicated in the next year.

DISCUSSION OF PRECEDING PAPER

JOSEPH W. MORAN:

In Section 3, Mr. Pike remarks that "a drop in new business writings would reduce expense losses on such new business, and the amortization of charges being made on account of new business written in earlier years would tend to" create gains.

My first observation is that a drop in new business writings does not necessarily reduce expenses; it just reduces the potential realization of expense charges. There is some reduction in expenses, but it is by no means proportional to new business written.

In Mr. Pike's Table 2, he compares total expense charges with total incurred expenses to determine the "gain from expenses."

My second observation is that he might split that comparison into two parts:

a) Compare the expense incurred for maintenance of in-force business with that portion of dividend formula expense charges for current administrative expenses to determine a "gain from administrative expense."

b) Compare the expenses incurred for acquisition of new business with the remainder of the dividend formula expense charges, namely the charges for amortization of previous acquisition expenses to determine a "gain from acquisition expense."

As sales fluctuate, the gain (or loss) from acquisition expenses will fluctuate radically from year to year, while the gain from administrative expenses on in-force business should be reasonably constant.

The analysis might go one step further by introducing the concept of "asset values" of in-force business, in which the asset value is the present value of future gains on that business. (This concept, which is outside the scope of the annual statement, of course, is introduced in my discussion of Mr. Bartlett's paper.)

Using this concept, the "profit" from acquisition of new business would be measured by comparing the asset value of new business produced with the expenses incurred for acquisition of new business. The "profit" from in-force business would be measured by comparing total expense charges with the sum of (a) administrative expenses incurred on in-force business and (b) the reduction in asset values on business previously written. The sum of these "profits" will exceed the "gain from expenses" defined by Mr. Pike by the increase in the total asset value of all in-force business.

(AUTHOR'S REVIEW OF DISCUSSION)

BERTRAM N. PIKE:

Mr. Moran is quite right in pointing out that a reduction in new business writings does not necessarily reduce actual expenses, but does reduce the possibility of obtaining the expected expense charges. The net effect can vary, as follows:

- 1. To the extent that expense-type losses are arising from taxes, there might be some improvement in financial results from writing less new business. This probably would not be a frequent situation.
- 2. To the extent that expense-type losses are being caused by a deferral of some portion of the first year commissions, there is clearly an improvement in financial results in a given year from writing less new business that year. This occurs because the commissions being paid will be reduced by more than the amortized charge for commissions made in the dividend formula.
- 3. For the other usual types of expenses, the reduction in new business writings may or may not reduce expenses, depending upon the cause of such reduction. For example, it would make quite a difference whether a reduction in new business writings is caused by a reduction in the sales field force or by more successful efforts on the part of competitors. In either event, there would be a reduction in expense charges which could be collected.

Splitting the comparison of expenses and expense charges with respect to new versus renewal cases is a useful practice, and provides one measure of the value of the sales efforts. It does, of course, raise some interesting questions regarding the allocation of expenses, especially in the sales areas, as between obtaining new business and properly servicing and retaining in-force business.