

*Expenses*

- A. What types of expense analyses are being made (i) for the purpose of developing premiums and dividends, and (ii) for the purpose of budgeting and controlling expenses?
- B. What has been the effect of electronic data processing equipment on expense rates? What are the potential savings?

MR. ROLAND F. DORMAN of the Connecticut General, speaking on section A, explained that in determining expense factors for calculating premiums and dividends, his Company first allocates home office and field expenses to various lines of business. Salary allocations by line are used to allocate most other expenses in a home office administrative unit. (There are approximately 120 such units for expense analysis purposes.) General overhead items that cannot be assigned directly to specific administrative units are allocated on the basis of total company salary allocations. Field expenses exclusive of commissions are allocated to line of business on the basis of established production standards.

Expenses allocated to the ordinary line of business are further distributed by functional analysis to the sales, selection, issue and servicing functions. The sales cost exclusive of commissions and agents' security benefits is expressed as a percentage of the first four commissions. Agents' benefits are related to total commissions and service fees. The cost of selection and issue is expressed in terms of dollars per new policy paid for. The servicing expense is translated to a per policy basis using mean policies in force. Suitable adjustments of the expense of collecting premiums and paying dividends are made for fully paid-up and nonparticipating business.

New expense factors are derived each year for comparison with the assumptions used in rate calculations and analyzed for trends.

Expense allocation is not an exact science and different methods of allocation can give equally good results. The most important point, regardless of the allocation method, is to allow for all expenses in the premiums or dividends.

MR. JULIUS VOGEL, of the Prudential, described their system of retrospective analysis into branch of business of expenses incurred during a completed period. In the course of this process, home office and field expenses are analyzed according to the administrative unit in which they were incurred and compared with what the cost would have been of handling the same number and kind of transactions in a past year for which costs per transaction have been determined. The trends in the ratios of such actual to "expected" expenses are reviewed for administrative units varying in size from ten or fifteen people to several thousand people. Cur-

rent unit expense rates for use in ordinary life insurance asset share calculations are derivable from the detailed records kept of the number of transactions of various kinds occurring in a given year.

As to section B, the Prudential could not yet demonstrate any dollar expense savings incurred so far as the result of the introduction of electronic data processing equipment. They believe their substantial investment in such equipment and in planning its use will be repaid in operating economy, particularly as clerical salaries increase over the years. The computer program will be better able to handle increasing volume and complexity of business. There is no doubt that the product turned out by the computer is more accurate, available sooner, and more readily analyzed than the product of the replaced systems.

MR. JAMES R. GILLAN of the Pan-American, speaking on section A, pointed out that expenditures on which an expense analysis is based should be oriented to the typical operating conditions expected in the period during which the results of the study will be used. This may make it desirable to average out fluctuations by observing actual disbursements for several years rather than a single fiscal period. Nonrecurring items which seem to be charges against surplus should be removed from the study.

It is desirable to define standard, medically examined, annual premium paying, ordinary insurance as a basis of reference in the study of ordinary expenses. From the total ordinary expenses are deducted expenses, determined by special studies or estimates, of ordinary business outside the reference, *e.g.*, annuities, paid-up insurance, substandard extras, etc. The remaining total ordinary expenses must be adjusted to what they would have been had all ordinary insurance in fact been standard, annual premium paying, medically examined business. Thus, for example, medical examiners' fees are increased. These adjusted expenses are allocated to acquisition and overhead according to statistical units. Certain acquisition expenses (other than commissions) which are customarily assessed as a percentage of first year premiums produce unsatisfactorily high charges for higher premium forms of insurance. Mr. Gillan suggested a modification, an example of which would be to charge, say, 15% of gross premiums for plans with premiums less than those for 20 Payment Life and 10% of the 20 Payment Life rate plus 5% of the plan rate for plans with premiums higher than 20 Payment Life. This might be equivalent to a flat 13% of all premiums which would be a very high charge on some endowment forms.

Reference unit costs are easy to interpret and provide a good base for

comparison. They enable consistent results to be reached because medically examined mortality and annual premium lapse rates may be used throughout to obtain basic annual premiums and dividends. If nonmedical limits are determined so that expense savings offset higher mortality, and adequate installment premium loadings are applied, the whole system should be in balance.

Unit costs may be used to produce over-all actual to expected expense ratios for successive fiscal periods. This can be used to test the validity of the unit costs. This procedure also makes possible the adoption of a system whereby the budget for a period, as determined by the application of unit costs to number of work units, may be compared with actual expenditures. Such a floating budget continuously adjusting to the number of units of work accomplished is apt to be more appropriate than one determined by projection in advance.

On section B, Mr. Gillan was not persuaded that data processing equipment thus far has generally resulted in any significant reduction in unit costs. We can, however, look forward to substantial savings in the future. New systems with modular design such as the 7070 (to which the Pan-American is currently converting) will permit almost unlimited expansion and will be satisfactory for use over a long period of time. This makes it possible to amortize the cost of such equipment over a number of years. Also, this presents the opportunity to refine procedures and output, thus building toward maximum efficiency.

MR. J. CRAIG DAVIDSON of the Confederation Life Association centered his remarks around the point of how much, if any, account should be taken, in a company's rate making and dividend policy, of potential savings as a result of electronic equipment.

His company, a medium large organization carrying on a complicated business in some 12 different countries, has been operating a consolidated ordinary insurance operation on an IBM 705, Model II, since the beginning of 1959.

After operating this system a little over a year, they attempted to compare savings in staff as a result of change-over to electronics with original estimates of such savings made some four years ago. They have fallen considerably short of the anticipated reduction in personnel. Taking into account further reductions expected from increased operating efficiency, it looks as if savings in personnel will be only about half of the figure envisaged originally. The break-even point as to over-all expense savings is much farther in the future than originally anticipated.

In assessing the over-all economics, recognition must be given to

1. The period over which the cost of the equipment must be written off (5 years for Canadian companies).
2. The cost of investigation and change-over. This has been considerably larger than originally planned, particularly as a result of the multiplicity of errors found in the old records.
3. The duplication of effort in carrying out a parallel operation and the reconciliation of the new and the old systems.
4. The myriad problems which arise during the first year of operation which can never be fully anticipated until operations actually commence.

There are intangible advantages which accrue with an electronic system. The Association has a more flexible system on which they can build reasonably well. It provides better records and more complete information. The company plans to extend the use of the 705 to Group and other activities.

Mr. Davidson felt the savings associated with electronic systems that can be proven on paper are still relatively insignificant as compared with the total company expense which must be reflected in rate making. Electronic computers will increase efficiency and if they do not have a profound immediate downward effect on costs they will certainly help to control any upward trends caused by inflation and other forces. Considering all the forces at work, companies will do well, even with electronic systems, to hold expense rates at their present levels.

The Confederation Life Association is satisfied with the results and the prospects for the future of electronic equipment but recognizes that the benefits do not come suddenly. Consequently, Mr. Davidson did not recommend that expense rates for premium purposes be reduced until such time as savings start to appear in the books of the company. Over the long run, he was optimistic that there will be some significant improvement in operating costs and the efficiency with which business is handled.