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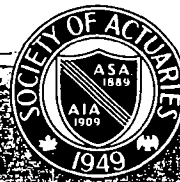

The Newsletter of the Society of Actuaries
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THE Actuary

A new study of life insurance company expenses

by Andrew S. Cherkas and Arnold A. Dicke

Of the major elements in the pricing of insurance products, expenses are perhaps the most accessible to management seeking improvement in their ability to compete. The hopes held by early devotees of junk bonds or other "modern" strategies for investment earnings advantages have proved elusive. The strategies that proved sound are rapidly adopted by competitors, while those with unforeseen risks charge an appropriate premium. Design gimmicks to improve lapse or mortality experience also have proved disappointing in practice. Companies, more and more, have fallen back on the painful but effective expedient of expense control as the best means to improve or maintain competitiveness. This article describes some new attempts at comparing the expenses of companies as a whole and offers some preliminary interpretation of results.

Despite all the effort toward expense analysis and reduction in recent years, a truly focused attack on the problem has been forestalled by lack of a reliable measure of relative expense levels. Simple annual statement ratios have long been of limited value. A denominator made up of unadjusted premium numbers is so dependent on product mix that it carries no meaning as a base for expenses. Functional studies, such as those carried out by LOMA, are vital for the management of certain operating areas but are too dependent

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Alternative minimum tax – The right amount of work

by Ronald M. Wolf

The Alternative Minimum Tax (AMT) has been an issue for the insurance industry since 1987. Significant changes to the AMT are occurring in 1990. Among them is that in determining the new Adjusted Current Earnings (ACE) adjustment, acquisition expenses of life insurance companies are to be capitalized and amortized in accordance with the treatment usually required under GAAP.

AMT will produce additional work for most life companies in 1990. Whether or not additional tax is incurred, the required AMT calculations must be performed. A number of financial actuaries and CFOs are pondering ways to address AMT. They must determine how much and what kind of effort should be expended. A simplified structure for beginning may include the following steps.

- Do a "quick and dirty" rough estimate – Determine whether the new AMT will mean extra taxes for the company.
- Think longer term – If AMT does not affect the company now, it may in the future.
- Gather data/establish approach – Begin now to gather necessary data and establish an approach.

Rough estimate

Not all life companies will incur additional tax in 1990 due to the next AMT; some are more likely than others to be affected. Such affected companies include fast-growing companies (due to acquisition cost or DAC adjustment), small companies (due to the add-back of 75% of the small-company deduction in ACE) and loss carry forward companies (due to the 90% limitation in AMT). A simple formula that may be applied quickly to calculate AMT is as follows:

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AMT cont'd

$AMT = .15\,(A+C) + .29E + .2D - .14B$,

A through E represent estimates as indicated below:

- A = Change in DAC (using a percentage of estimated change in premiums inforce by major line)
- B = Regular taxable income before small-company deduction
- C = Tax-free income
- D = Adjustments and preferences (depreciation, depletion, etc.)
- E = Small-company deduction

In companies for which the change in DAC is the only significant factor (other than B) above, if the increase in DAC is greater than 93.3% of B, the company will be an AMT taxpayer.

There also is the issue of acquisition costs being "double counted" in the DAC adjustment and also in preliminary term tax reserves.

Thinking long term

If a quick analysis indicates that no AMT will be payable in 1990, the natural reaction would be to ignore the AMT for the quarterly tax estimate and expend minimal effort on the 1990 return (due September 15, 1991). At the extreme, deferrable costs could be amortized on a straight-line basis over a chosen period. The DAC "double counting" could be ignored. The opening balance of amortizable DAC at 1/1/90 might even be ignored.

Such an approach is not appropriate for several reasons. It could not be supported as conforming with "generally accepted accounting principles" of life companies, nor would it be in the best interest of the company. It is so clearly adverse to the company that an auditing IRS agent would probably allow it.

Given the fresh start advantage in ACE in 1/1/90, a desirable approach would be to aggressively capitalize a maximum amount of DAC, and amortize it quickly, for business inforce. However, aggressive capitalization has adverse impacts (more AMT) for new business.

The pattern of ACE adjustments is an important factor for the future, as ACE adjustments may not be "cumulatively negative." Consider the example, shown on page 3, of DAC deferral, amortization and ACE adjustment.

In this example, the ACE adjustment in 1991 is limited to the prior cumulative positive ACE adjustment. The remaining $375 minus $150, or $225, may not be carried forward to reduce the $75 ACE in 1992 and is permanently lost as an AMT deduction. The key is to maximize the tax benefit of DAC amortization.

The capability to test variations in DAC deferral, amortization and new business types and volumes is needed. Some companies are divesting themselves of certain lines of business and expanding into others. While AMT may not cost such companies now, it may later.

Most stock companies already calculate GAAP earnings, as do a number of mutual companies, for internal purposes. Can AMT DAC be different from existing DAC? Opportunity for such a difference may exist, via such items as capitalization of DAC for 1941 CSO plans and use of a more aggressive but still appropriate deferral of costs. DAC for stock companies that have gone through purchase GAAP accounting may be different from the GAAP balance sheet.

The Omnibus Budget Reconciliation Act of 1989 says that all AMT amounts may be taken as a credit to regular taxable income in future tax years when regular tax exceeds AMT. A company that is continually in an AMT position will not benefit from this tax credit.

A possibility exists that the percentage factor applied to ACE may increase from 75% to a higher number in later years. GAAP earnings of some kind may be the primary basis for taxation of life companies in the future.

While a company may not be an AMT taxpayer now, establishing the 1/1/90 fresh start DAC balance, along with related amortization, represents one chance – and only one – that the company can minimize the AMT impact, even if such impact will not be felt for several years.

Data approach

Many unanswered questions remain for companies trying to comply with AMT; some may not be answered soon. Nevertheless, companies must move forward and perform the necessary calculations as best they can. To start, companies should begin to gather the necessary data and define an approach.

Various forms of data will be required. Aggregate amounts of defer-

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	1990	1991	1992
DAC Deferral	$1,000	$1,000	$1,000
DAC Amortization	(800)	(1,500)	(900)
Net	$ 200	$ (500)	$ 100
ACE Factor	×.75	×.75	×.75
ACE Adjustment	$ 150	$(150)	$ 75

AMT cont'd

rable cost by issue year and product line will be necessary. Excess commissions probably will be easier to obtain than other acquisition costs. The amount of deferred costs should be reasonably supported under GAAP rules and practices.

Volume statistics, such as production by issue year and amounts inforce, also will be required. These will be necessary to determine unit costs deferred and/or aggregate unamortized amounts.

Actuarial assumptions should be based on appropriateness at the time of issue; therefore, historical pricing or experience assumptions will be needed. Information as to major changes in experience may be necessary for recoverability and loss recognition, but it is not clear that write-offs of unrecoverable DAC will be permitted in the tax return.

The overall calculation or approach will be one of two major methods – model or seriatim. A seriatim factor-based approach using one's normal valuation system (or a parallel one) is a possibility. A dynamic worksheet or schedule approach, using aggregate dollar amounts by issue year, will involve less work and is more flexible for testing alternatives, as previously suggested. The latter approach requires a model office projection facility, which also should be useful for a number of other financial and corporate purposes.

Reserve issue

The Tax Reform Act of 1986 did not cover the issue of DAC "double counting" in both unamortized DAC and reserve expense allowance. The commentary included in the technical corrections to OBRA contains a paragraph addressing this issue, but its exact direction is unclear. Several possibilities exist.

1) Eliminate tax reserves and substitute GAAP natural reserves for them, perhaps recalculated using tax basis interest rates and zero lapse.

2) Maintain existing tax reserves but make some adjustment to DAC to compensate for the double counting.

3) Do nothing – Use DAC and ignore the double counting.

The first option involves considerable work and probably is not consistent with the bill's original intent. The third option could be detrimental to the company. The second option may prevail by default. The mechanics of obtaining the adjustment also may be facilitated by a model office projection.

Summary

The AMT affects different companies in different ways. However, all companies must comply in a reasonable manner by completing the return. Underpayment of the AMT in the quarterly tax estimates will incur the same penalties as underpayment of the regular tax.

The right amount of work to address AMT should be dictated not only by a rough estimate of immediate AMT tax but also by a longer view of potential future company operations and resulting effects on AMT. The approach by a company now in establishing its AMT tax position will be with the company for some time to come.

An optimal approach requires awareness of the various issues, questions, alternatives and effects of these on the company. Options should be explored via a flexible earnings projection system. Although some companies may make a very rough estimate for filing the first quarterly 1990 tax payment, a supportable job ultimately must be done.

Ronald M. Wolf is with Tillinghast/ Towers Perrin.

Company expenses cont'd

on definitions of functions and allocation procedures to provide any indication of the relative position of companies taken as a whole.

The best generally available study of relative expense position is the index-based approach developed by Arthur Pedoe in Canada and brought to the United States by Ardian Gill. This approach applies a formula developed in the 1970s to certain annual statement values (which we call "expense drivers") to provide an index that "works like the CPI." As Gill explains ("Expense Levels of Life Companies [Onward and Downward]," *Best's Insurance Management Reports*, May 15, 1989), "The formula works by 'allowing' a company certain expenses" and developing a ratio of actual to expected. While this approach was reasonably successful in a time of stable product mix, it produced results in the mid-1980s that strained credibility. The formula for allowable expenses had been fixed in the previous decade, and phenomena such as dump-in premium and replacements, not to mention large pension and group lines, caused large swings and a loss of comparability between companies. As a result, current studies of comparative expenses have to allow for these corrupting factors.

For these reasons, we decided to put together a completely new study of life insurance expenses, taking the same global "expense drive" approach as used by Pedoe and Gill, but adjusted to reflect properly the changes that affected the industry in the 1980s.

First, we took a new look at information available from public sources. We applied a combination of regression techniques and pricing factors to undertake a study of comparative expense performance on ordinary life business from published data. Our sample was the top 100 writers of ordinary life business in 1988. Expenses comprised general insurance expenses, direct commissions and taxes, licenses and fees (but not federal income tax).

We overcame inconsistent reporting of dump-ins – many companies include them as first-year premium – by estimating first-year fully commissioned premiums for each company and then treating dump-ins as single premiums. To achieve this we used our 10-year data base of

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