

**1990 VALUATION ACTUARY  
SYMPOSIUM PROCEEDINGS**

**Sessions 7 and 13**

**Workshop: Asset Segmentation/Measuring Investment  
Results and Interest Margins**

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## **ASSET SEGMENTATION/MEASURING INVESTMENT RESULTS AND INTEREST MARGINS**

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The discussion for both workshops covered three major topics:

1. Asset segmentation
2. Measuring investment results
3. Measuring interest margins

A summary of the key points raised in the course of the discussion for each topic were as follows:

### **Asset Segmentation**

A majority of the companies represented by the people in the audience have set up asset segments in the general account or through a separate account for some or all of their lines of business. A corporate or surplus segment is also frequently set up.

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The reasons cited for segmenting included interest rate determination, better control over results on a line-of-business basis, easier management of the risk associated with new interest sensitive products, facility in cash-flow testing such as Regulation 126 testing.

Asset segmentation through a subsidiary was not a common method of asset segmentation.

For a majority of the companies represented, the asset segments were balanced periodically to the statutory reserves in the segment. A few companies managed their asset segments on a cash-flow basis.

The assets purchased by the companies with asset segments may be split and put into multiple asset segments. One method mentioned was to split coupons and principal payments.

Some companies with multiple segments buy and sell assets within the segments. These assets are bought and sold at market value.

For companies without any asset segments, we discussed methods that could be used to notionally allocate assets when cash-flow testing is required. Methods discussed included taking a proportional share of all assets for the liabilities being tested or sorting all assets

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by maturity date and allocating the shortest assets to lines of business such as deferred annuities and longer assets to immediate annuities.

Those in the audience expressed strong concern about the implications of the changes to the Standard Valuation Law and the perceived requirement in some situations to do cash-flow testing using unconventional assets contained in some of the asset segments. Some companies currently have not had to determine the cash flows on assets such as collateralized mortgage obligations (CMOs) and real estate.

### **Investment Results**

The discussion of measuring investment results concentrated on allocating capital gains and losses to asset segments and providing for the risk of asset default and interest rate fluctuations (C-1 and C-3 risks).

For the most part, the capital gains and losses associated with the assets in an asset segment are typically reflected in the results for that segment.

The expected cost associated with asset defaults and interest rate fluctuations are typically provided for in the spread taken off the earned rate when credited rates are determined.

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One company represented uses its surplus or corporate segment to reinsure the C-1 and C-3 risks and their associated cost out of the line-of-business segments.

In many instances, one individual is responsible for the results for a line-of-business segment. Management reports that show required and realized spreads are used to show on a regular basis investment results for each asset segment.

In Session 13B, it was brought to the audience's attention that sometime during 1991, the Society would be releasing the results of a research study recently done on the default experience of assets other than bonds (e.g., real estate).

### **Interest Margins**

We had a brief discussion about how companies are responding to interest environment changes when setting credited interest rates.

Most people were of the opinion that what is said to be done in theory and what is actually done in practice will be influenced by a number of external factors such as the competitive environment, the surplus strain implications of raising and lowering interest rates, and the credited rate that can be supported by a particular company's assets.

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The companies that have asset segments use the earned rates to a great degree in determining the credited interest rates that they offer to policyholders.

Much of management's emphasis in interest rate determination is on new money interest rates. It was pointed out that Best's Retirement Income Guide is going to start showing the renewal interest rates, as well as the new money rates on certain products.

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The first classification used in defining segments is usually line of business. Within a line of business, consideration may be given to product characteristics, duration, and cash flows in determining whether or not further segmentation is warranted.

The assets chosen to support a segment may be chosen to meet duration targets or expected cash-flow needs. Liquidity requirements may be recognized. The segment's investment policy will define the asset classes permitted and may limit the amount of below investment grade securities. Investment policy restrictions may force the company to assign below investment grade and nontraditional assets (e.g., common stocks) to a corporate segment, or the restrictions may reduce the opportunities for acquiring these assets.

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An alternative approach to segmentation used by some companies is pooled segmentation. Asset portfolios are defined independent of the liability segments. Instead of assigning specific assets to each segment, percentages of each asset portfolio are assigned.

Most companies do not trade assets among segments. An alternative to trading assets is an interest rate swap between segments.

Most New York or participating companies do not transfer emerging surplus out of segments due to equity considerations. Other companies might transfer surplus to a corporate segment. The remaining assets in the segment might be equal to statutory reserves, GAAP reserves, fund value, or accumulated cash flows.

Some companies do not reflect a segment's capital gains and losses immediately, but spread them out over a period of time such as seven years.

Segments may be assessed a specific charge for default risk. The charges might be reset annually. Companies need to reexamine the default expectations in light of the current economic situation.



## ASSET SEGMENTATION

Company practices are highly varied with regard to adjusting interest credits in changing market conditions. Some companies look for the same interest margin in any environment; others increase the renewal margin in a declining rate environment. Practices often differ for New York and non-New York writers.

