

SOCIETY OF ACTUARIES

Article from:

Risks and Rewards Newsletter

February 2001 – Issue No. 36

Index Separate Accounts

by Vic Modugno

tarting from the 1970s, the popularity of index investment funds has grown in recent years, especially among pension plans. As fiduciaries, plan sponsors measure equity performance against the S&P 500 Index — so investing in low cost funds that replicate that index was natural. Some pension funds were so large that they felt they had no choice but to "buy the market." The vast majority of investment managers underperformed the index, furthering this trend, which started to spill over into the retail market. As more money poured into S&P 500 funds, this trend became self-reinforcing.

Today 70% to 75% of pension plan assets are indexed. Earlier this year, the Vanguard Index 500 Fund with assets exceeding \$100 billion passed Fidelity Magellan as the largest mutual fund signifying the triumph of indexing over active management in the retail market.

There is a proliferation of indexes currently in use covering broader or special segments of the equity market; there are many fixed income indexes as well as international stock indexes. There are exchange-traded securities that represent indexes. There are a number of investment managers offering enhanced index fund management to institutional investors, designed to provide higher return than the index with only a small risk of underperformance.

While some insurers offered separate accounts for pension clients designed to replicate the S&P 500 Index in the 1970s, the first guaranteed index separate account was introduced in 1987. Under this account, the insurer guaranteed the performance of the Lehman Government/ Corporate Index for funds on deposit for one year. The pension plan could withdraw funds from the separate account and receive the index performance on any contract anniversary with 30 days notice. Any overperformance was to belong to the insurer. However, state regulators required a fee for this account, and so a fee of 3% per annum was deducted (due to the performance guarantee, the actual fee would be less). If the overperformance for the year exceeded 3%, it would belong to the contract holder — but there was little chance of this happening. The Lehman Government/ Corporate Index consists of medium-term U.S. government and very high-quality corporate bonds.

The insurer had developed a proprietary, computer-tested strategy involving longer-term lower quality bonds that should outperform the index 9 years out of 10, with small underperformance in the losing year. The lower quality bonds had higher yields, but were less interestsensitive than the bonds in the index.

A couple of years later, another insurer introduced an S&P 500 Index guaranteed separate account that paid a .15% annual enhancement over the index.

The fee of .85% allowed for participation by the policyholder in overperformance. This was also based upon a proprietary, computer-generated strategy developed by a college professor where 200 of the 500 stocks are selected from the Index. Back testing demonstrated that this strategy is profitable in over 90% of scenarios, with minimal losses in the down scenarios.

Later, other insurers introduced S&P 500 Index guaranteed separate accounts that used S&P 500 futures with LIBORbased investment strategies. These could be debt securities or market neutral strategies such as index arbitrage, convertible bond arbitrage, GNMA rolls, and others that produce returns that benchmark to LIBOR.

Each strategy has different non-correlated risks. The use of futures to replicate the index has roll risk, but over time should be cheaper than using swaps. The contracts usually have three to five year tenures, but may provide for early withdrawal with penalty. The first definition of an Index Separate Account appears in California Insurance Code Section 10506.4(3), which was part of a law enacted in 1994 to give insurers authority to issue guaranteed separate accounts.

The Model Regulation for guaranteed separate accounts, which was drafted a few years later, follows the California definition: "Index Contract means a contract under which contract benefits shall be based upon a publicly available interest rate series or an index of aggregate market value of a group of publicly traded financial instruments, either of which is specified in the contract and that do not provide a guarantee of some or all of the consideration received plus earnings at a fixed rate specified in advance and that does not provide any secondary guarantees on elective benefits or maturity values."

The part about not guaranteeing consideration and interest and secondary guarantees, which is not in the California code, was added to exclude protected equity accounts — where the insurer pays a percentage of upside of the index only and may guarantee principal or some percent of principal plus interest and certain other separate accounts used in the individual annuity market.

The NAIC RBC instructions also define index separate accounts as follows: "Index Separate Accounts are invested to mirror an established securities index that is the basis of the guarantee. Consequently, indexed separate accounts are relatively low risk; the risk-based capital factor is the same as class 1 bonds."

In setting these risked-based capital requirements, the NAIC recognized that the factors for the general account, where principal is guaranteed and assets held at book value, are not appropriate. In an S&P index contract, if the index returns a negative 30%, the policyholder gets his guaranteed value decreased by 30%. So holding stocks to back this guarantee