Investment Actuary Symposium

Investment Strategy Development for a Life Insurance Company

by David N. Ingram

Investment strategy development is fundamentally a communications exercise. If the investment and actuarial functions operate together as a team, the strategy development discussions can be the beginning of the long, ongoing dialog and can form the basis for that working relationship.

If the investment and actuarial functions work as separate teams, then the strategy development discussion will be a large part of the total discourse between the two areas and is therefore even more important. Investment strategy discussions should always begin with the question of risk tolerance. That is what every textbook says. However, risk tolerance is rarely known. It is sometimes hinted at. The best that can often be done is to look at various types of tea leaves to try to draw a picture of what risk tolerance may look like.

If you look at what any brokerage firm or mutual fund company uses to determine risk tolerance for individual investors, you will see that they ask about income and net worth; knowledge of investments; experience with investments; investment objectives; risk – return expectations; expected cash flow needs and investment horizon.

These are the same questions that need to be asked about an insurance company. Direct answers will be more difficult to get from an insurance company management than from an individual investor, where the answers are usually fuzzy at best.

Risk tolerance will often have to be determined largely by inference. There are two methods for indirectly determining risk tolerance: looking back and looking ahead. To look backwards, examine the past investment choices of the company. For example, take the portfolio details from the recent past and look at the C1 risk characteristics (under the current RBC rules) of the purchases compared to the portfolio at that time and compared to the current portfolio. Were the acquisitions significantly different in risk than the current portfolio?

What types of investments were chosen that have higher risk characteristics? What types of investments does the company seem to favor and avoid? From looking back like this, you can determine the answers to the questions in the preceding paragraph even if you failed with direct questioning.

Looking ahead to determine risk tolerance means taking the current choices and stating the risk characteristics of each. What is chosen then reveals the marginal risk tolerance under direct observation. There are two problems with this. The first is that to form an investment strategy, you do not want to work with just marginal risk tolerance.

The second problem is that such observed decisions sometimes reveal different and possibly significantly more conservative or more aggressive than the actual risk tolerance. One way to avoid that problem is to combine looking back with looking ahead to get a full perspective on actual risk tolerance.

There are four key questions to answer in the investment strategy discussion:

1. How are you going to make money?
2. How are you going to control earnings fluctuations?
3. How are you going to prevent catastrophic losses?
4. How are you going to choose when a new investment idea comes along?

How Are You Going to Make Money?

How you make money relates to the value that will be added in your investment selection process to do better than simply buying a basket of securities at the market. Some examples include sector rotation, credit selection, non-standard weightings in riskier investments such as junk bonds, real estate, or common stocks. This answer should be the same as the answer to the question: what are you good at?

Whatever the answer, try turning it inside out. Can this strength be applied on the sell side as well as on the buy side? Even with all of the gains in investment technology over the past 10 to 15 years, many, many insurance companies will still describe themselves as buy and hold investors.

Fifty years ago, buy and hold was a moral choice. Trading securities was thought to be improper speculation. Fifteen years ago, I encountered a situation where the portfolio managers told me that they could not trade securities because they had been told that the investment year method used to set interest rates could not handle trading. I told them that it was my job to make it work if they had a way of making more money through trading. If, for example, your investment strategy is driven by sector selection, why, if you think that you should buy the sector that has the wider spreads, do you not want to sell the sector with the narrower spreads?

When you are talking about making money, make sure that your strategy discussion includes talking about your standards for putting money to work. That may be through a maximum cash position or a time limit for purchases. Simple strategies exist for locking in a particular yield curve situation to match the time of the cashflow. If these standards are not set, then there may sometimes be a tendency to wait to find the perfect investment, losing yield or spread until perfection is found or until time runs out.

How Are You Going to Control Earnings Fluctuations?

Controlling earnings fluctuations can be a long discussion. This is where the

actuary needs to bring the investment manager into the liability side of the game. All the possible liability side sources of earnings fluctuations need to be reviewed with the portfolio manager. The actuary needs to be forthcoming in discussing the strengths and weaknesses of the liability model used to set prices and test for volatility sensitivities. Possible shortcomings in the liability model as well as possible effects of variations in economics should be reviewed. To act as a team, the portfolio manager needs to stay awake for this discussion.

A highly trained investment professional who knows little about the inner workings of insurance liabilities can be a big help in formulating the most effective strategy if they fully understand the nature of the drivers of the liabilities. On the other hand, the actuary should stay awake when the investment manager is describing the details of what can create earnings fluctuations from the asset side. It is too easy to just hear the words, write them down and want to skip to the amount without understanding why the loss occurs. Only if the actuary and investment manager understand each other's side of the business can they really form a fully effective team.

One area of caution for the control of earnings fluctuations is that diversification is the first and most important tool in moderating earnings fluctuations. Diversification is usually accomplished through constraints on maximum exposure to a "name," sector diversification, regional diversification, and instrument diversification. Make sure that your diversification constraints are meaningful in today's economy. With the globalization of most things, it is hard to be really diversified. The most recent lesson learnt in 1998 after the Russian bond crisis led to ripples throughout the global financial system. When things went wrong, everything converged. There were no inverse correlations to save things for those with too little liquidity.

How Are You Going to Prevent Catastrophic Losses?

Catastrophic losses have received much attention. In discussions of company failures, the question comes up as to whether the crisis was precipitated by a shortage of liquidity or of capital. The answer in my opinion is actually that there is little difference between the two when crunch time comes. In your investment strategy discussion about preventing catastrophic losses, take some time and talk through a simulation of one or more crisis situations. Where will you get the cash to meet the run on the company? The first instinct is to sell the highest quality, most marketable securities. In your simulation, see then what the company balance sheet looks like. What will be the market perception of your company with the balance sheet that remains? If, on the other hand, you have plans to use a line of credit in time of need, think again.

A bank may balk at extending even a fully guaranteed line of credit to a company that they perceive is in trouble. They will be weighing the expected cost of a lawsuit against the possible loss of the money extended through the line of credit. For a hair-raising story of the daily events in a failure situation, read the two books published last year about the long-term capital situation in 1998 (*Inventing Money: The Story of Long-Term Capital Management and the legends behind it* by Nicholas Dunbar and *When Genius Failed: The Rise and Fall of Long-Term Capital Management* by Roger Lowenstein).

To complete your discussion of earnings fluctuations and catastrophic losses within your investment strategy development discussion, talk about how these issues are reflected in your everyday choices in investment decision-making. Are decisions based on mean or even maximum returns? Note that for a bond, maximum return is the yield to maturity. Do you look at risk- adjusted returns? Is the impact of RBC or Target Surplus on the returns of investments a part of the evaluation process?

How Are You Going to Choose When A New Investment Idea Comes Along?

Any time that I have been involved in an asset liability team, I have noticed that investment ideas wear out. Whatever worked well last year does not work as well this year. At the same time, there are a group of investment bankers who make their living selling the "new best thing" to institutional investors like insurance companies. Every year, decisions need to be made to choose in or out of these new opportunities. The pressures are great, especially since it usually looks like it will be difficult to meet goals with the investment strategy that you used last year. What is needed is a decision-making framework for evaluating these new opportunities, or some way to stretch the existing strategy to either embrace or reject the new ideas.

The "traditional" approach is to look at the expected return on these new choices compared to the current investments. Other important considerations are "who else is doing this?" and "has anyone on the investment committee ever had a problem with this?" Tax and accounting issues are paramount, and most important, the projected impact on sales.

The "modern" approach is to compare the risk and return of the new opportunity to the appropriate class of bonds, that is, the bonds with similar risk characteristics. The most popular new investments are ones that fall between the cracks of statutory, RBC, or GAAP rules. Investments have to be matched with liabilities also.

The "New Economy" approach is that investment opportunities no longer have to fit with liabilities. Companies can trade away any aspects of either assets or liabilities that do not fit well.

In the end, almost as important as the approach you choose is that you have the discussion as a part of your investment strategy formation discussion. This part of the discussion will be especially useful in promoting rational decision making when the choices seem the most urgent.

Having the conversations, asking the questions, and honestly trying to come to agreement on answers is what the investment strategy formation discussion is all about.

David N. Ingram, FSA, MAAA, is a consulting actuary at Milliman & Robertson, Inc. in New York, NY, and a member of the Investment Section Council. He can be reached at david.ingram@milliman.com.