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## Session 21PD Performance Management (And Anxiety!)

**Track:** Financial Reporting/Investment  
**Key Words:** Financial Reporting, Investment Products, Investments

**Moderator:** JOHN S. TILLOTSON  
**Panelists:** ALTON COGERT<sup>†</sup>  
MARK A. MILTON  
MICHAEL J. MURPHY  
**Recorder:** JOHN S. TILLOTSON

*Summary: Panelists address the measurement of financial performance in life insurance companies today. Topics include:*

- *The measurement of total financial performance including the relative merits of GAAP, economic value added, balanced scorecard, and other methods*
- *The benchmarking of investment performance*
- *The attribution of total financial performance between the investment function and the product function using transfer pricing and other methods*

*During the panel discussion, presenters explore the pros and cons of the various methods with which companies measure financial performance by line of business, by function, and for the company as a whole. The discussion includes theoretical versus practical considerations, short-term versus long-term time horizons, internal versus external standards, objective versus subjective factors, psychological drivers, risk adjustments, and other problematical aspects of this subject.*

**Mr. John S. Tillotson:** We have an excellent panel of presenters. Our first speaker is Mark Milton. He is an FSA and Academy member, and is vice president and associate actuary at Kansas City Life in Kansas City, Missouri, where he works on product development, profitability analysis, asset/liability management, financial projections, agency compensation, evaluation of marketing organizations, reinsurance, and actuarial appraisals. Mark will focus his presentation on value-added financial analysis.

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<sup>†</sup>Mr. Cogert, not a member of the sponsoring organizations, is President of Strategic Asset Alliance in Spokane, WA.

Our second speaker is Mike Murphy. He is an FSA and member of the American Academy of Actuaries. He also is a senior consultant with the Avon Consulting Group in Avon, Connecticut, where he works on strategic asset/liability management, financial performance measurement analysis, corporate modeling, the design of optimal investment and crediting strategies, product development, and capital planning. Mike will focus his presentation on performance management using transfer pricing.

Our third speaker is Alton Cogert. He is a Chartered Financial Analyst and a CPA, and is the president of Strategic Asset Alliance in Spokane, Washington. His company is an independent consulting firm whose mission is to improve the financial results of its insurance company clients. The services provided include money manager search, selection and evaluation, investment benchmarking performance measurement and attribution, asset allocation analysis, asset/liability management, and assisting companies in their dealings with ratings agencies. Alton will focus his presentation on investment benchmarking.

**Mr. Mark A. Milton:** I will talk today about Kansas City Life's implementation of a value-added financial performance measure and give you an idea of the effect it has had on management anxiety.

This is a relatively new measure for us. Since about 1986, we have had a couple of people who have informally looked at the embedded value of our company. They put in about 2% of the effort and got a pretty good percentage of the results. We have had a new president for the last couple of years, however, and he has been very interested in value-added analysis. He wants value-added analysis to serve as a primary corporate incentive plan for the senior officers of the company.

So for the last two years, we have had a very formalized value-added process with a management incentive plan based on it. I will focus my comments on why we implemented value-added analysis, how it is helping us manage the company and increase shareholder value, and how it can reduce management anxiety.

I would like to tell you something about the Kansas City Life family of companies to start with so that you can see how value-added analysis fits our corporate structure. Kansas City Life is a stock life insurance company. We were founded in 1895, and we have assets of about \$3.6 billion, revenue of about \$500 million, and net income of about \$50 million. We are a closely held company. Management and directors own about 60% of the stock. As a result, our stock is very thinly traded, and I do not think the stock market fully appreciates all the effort that management has put in.

Kansas City Life Company itself offers a broad line of individual life and annuity products including universal life, term, variable universal life, fixed annuities, and variable annuities. We are also growing through acquisition. A significant portion of our future profits will come from companies we have acquired in the past few years.

With respect to direct business, we operate primarily through a career agency system, selling in family markets as well as to small businesses. We also have a subsidiary, Sunset Life in Olympia, Washington, that sells universal life and term insurance through personal producing general agents and operates in more advanced markets. Another subsidiary is Old American Insurance Company in Kansas City, which sells final expense traditional life policies to seniors. Therefore, we have a very diverse group of products and distribution systems, and we are looking for a process to compare results across these different spectrums.

We have had considerable success during recent years, with our sales increasing annually at a rate above 20%, increasing profit margins, and decreasing expenses. Nevertheless, there is some anxiety within Kansas City Life's management today. We see the world changing rapidly in areas that substantially impact several aspects of our business. With all of the changes going on in the marketplace, we need to have a process that more accurately measures our current and future results, and that is why we are excited about introducing a value-added analysis. We believe that GAAP income does not tell the whole story.

I won't tell you that value added is our primary financial measure because it isn't. It is, however, a very important supplementary measure. The main reason we like it is because of its emphasis on the future instead of the past. GAAP-operating income, as well as several other popular measures such as operating revenues, equity per share, and earnings per share, does not really tell the whole story.

As we searched for an ideal financial performance measure, we identified the characteristics that such a measure should have. It should measure progress towards increasing shareholder value, provide feedback on whether corporate strategies are increasing value, and be consistent with pricing. It should also be understandable, flexible, actionable, and cost effective. We believe six out of these seven would not be too bad.

Specifically, we want to know how our company's true economic value is changing, how much value was created in the past year, what our primary value drivers are, and how they are changing. There are a lot of exciting new products being sold today, and some of them have very different characteristics from those of more traditional products. We also want to know where to allocate our capital to

maximize return, and which customers are ultimately more profitable to us. We are just beginning to scratch the surface on this last aspect.

Our value-added analysis process will begin formally in January 2000, when we update our in-force model for each line in each company. We review experience, set assumptions, project and discount earnings, and then analyze the results for both new and in-force business. We are currently in the second year of doing this on a highly formalized basis. We spend a lot of time developing full documentation, which we view as absolutely critical. Our 50-page base report plus appendices goes to the board as well as to senior management. This includes an executive summary of the essential aspects of our efforts.

Our outside auditors, Ernst & Young, review the results, discuss them with us, and help us evaluate our own ideas. Their participation enhances our credibility. We spend between 12 and 18 man-months doing value-added financial analysis each year, given that we already have some of the models built from cash-flow testing and have already done it for a couple of years. We spend a lot of time analyzing the different components of value and communicating this to management. That is why we have been successful with value-added analysis so far.

A primary component of embedded value is adjusted book value. We take the statutory capital and surplus and then adjust for things that mimic surplus, such as asset valuation reserve. We also adjust the book value for non-admitted assets that have real economic value. We then look at the value of the in-force business as of the end of the previous year as well as the value of the new business written during the year. The value added on in-force business is based on projected future earnings or cash flows, taking into account target surplus.

We do not, however, project future sales in this process because that would introduce too much volatility into the measure. That is something we will reconsider in the future. Also, a part of our embedded value reflects the present value of future excess expenses. Our expenses are not yet at the level we would like, so this is a very important item for management to focus on. We have recently introduced strategies to dramatically reduce this value of excess expenses.

Terminology is critical for the success of a value-added financial program. A key concept is embedded value itself. It measures what the company is worth at any point in time. Since we do not look at future sales, however, and our discount rate may be different from what a potential acquirer might use, our embedded value is not necessarily the same as an appraisal value.

We also calculate value-added earnings, which is the value generated for the shareholders during the year. It equals the increase in embedded value during the year plus the shareholder dividends that were paid. Another key item is the value-added in excess of the cost of capital. This equals the value-added earnings minus the hurdle rate or (weighted average cost of capital) times the beginning embedded value. One reason many companies have not implemented value-added analysis is because value-added in excess of the cost of capital is a very tough measure. If you expect to earn a 12% return, and you actually earn 11.9%, this measure will be negative. In addition to these measures, we examine the trend in the embedded value of the company over time.

The real benefit of our value-added process, at least for the actuaries, is the in-depth analysis of actual versus expected experience during the year. For instance, we have just completed the 1998 calculations and are analyzing how actual death claims, persistency, morbidity, and investment return during the year compare to expected. This helps management understand what is going on not only within our company, but also within the industry. For example, many companies have experienced higher lapse rates on fixed annuities during the past few years. With traditional accounting measures, these higher lapses do not show the loss in future values that they do with the value added measurement system.

Another measure we analyze is the ratio of actual-to-expected value added for the new business written during the year that just ended. We take the year-end value of the in-force business that was written during the year. We tie this to the ledger to get premiums, expenses, death claims, and reserve increases as well. As a former pricing actuary, I think it is helpful to have pricing results validated on such a short-term basis. It also helps in explaining what is going on to others in the company.

Finally, the most useful aspect of our analysis to Kansas City Life has been studying the variance in the value, as of the end of the year, of the business that was in force at the beginning of the year. For example, was persistency different? Did the investment yield curve change and cause lower investment earnings?

I will now discuss value-based management, which is how we use value-added analysis to increase company value. This analysis has been very helpful in the strategic planning area and in ensuring that business plans add to our value. For example, we have introduced variable products within the past few years even though we are a relatively small company to be offering them. We knew how much production it would require and we knew what we could spend on the development, so that has turned out very well for us. The value-added analyses helped us decide which product lines to offer and to evaluate different distribution systems. In addition, we decided to sell a small A&H line because our value-added

analysis indicates that we could not manage it as well as someone else could. This freed up a lot of time to focus on areas where we could add value.

Value added also helps us define a business unit's role. For example, we have discovered product lines that are not going to grow. It is important to let management know that this source of profit, which has been good the past few years, will be declining going forward.

We would like to grow through acquisitions. A significant portion of our future profits are due to acquisitions made in the last five or six years. Therefore, value added is a great tool for buying a closed block of business. You can compare the value-added analysis with the appraisal and share the results with the rest of your management team.

Value-added analysis within the business lines has helped the actuaries communicate with line managers in the evaluation of product performance. For several years, we have done GAAP analysis by product line. For example, high surrenders on deferred annuities were actually increasing GAAP profits during some years because of the surrender charges. Now we have a more realistic measure of the real economic effect of these surrenders. These types of analyses have helped us focus on what is driving the value in the lines. We can then manage these drivers to increase value in a major way.

Value added has also helped us with company strategy. For example, we have introduced a program for exchanging a fixed annuity policy for a variable annuity policy. One objective is to make sure both the policyholders and the shareholders come out whole, as well as to see if anything is left over to compensate the agents for making the exchange. We have had a lot of success with that.

We have an incentive plan for our senior officers based on value-added earnings. This has helped to align their incentives with the owners' interests and to establish appropriate performance targets. That is one reason we have been so successful in a short period of time. We are also using value-added analysis to improve our investment and crediting strategies.

Although everything has been very positive so far on value-added analysis, there are challenges facing us that have created some anxiety. The foremost is to guard against the use of assumption changes to achieve desired results. In addition to our actuaries, our accountants and our chief financial officer are extremely sensitive to that concern. That may explain why we went a little overboard on our documentation of results and had our independent auditor review everything.

Nevertheless, we believe both of these activities are very valuable in and of themselves, as well as to help alleviate any concerns.

A second challenge is the fact that value added is not our primary performance measure, yet it requires substantial efforts and resources. Although the market and the board look primarily at GAAP, and we are not going to change that overnight, we believe the efforts are well justified because value added adds so much value.

The ongoing cost in time is certainly an issue, but we hope to become more efficient and effective as we go along. We are doing a very good job now, and we will be able to do it with less effort going forward because of the time and effort already invested.

Another concern is that value added might indicate that the return on new business is less than the hurdle rate. As a pricing actuary, however, I believe value added is a very effective tool for communicating this to others to enable the problems to be resolved.

One of the biggest challenges is setting the discount rate. In theory, this should equal the weighted average cost of capital based on an optimal capital structure. We have not changed our discount rate through the years, even though interest rates have declined, so that is something we need to examine going forward.

To get the interest yield, we project the actual assets. We have an interest scenario that starts on January 1, based on current interest rates, and then we grade it over a one-year period to a longer term historic rate for say 10- and 30-year bonds. That is constant throughout the years, however, so it is something we are also looking at.

Perhaps our biggest challenge has been dealing with the restatement of values. This can occur when there is a change in assumptions or an improvement in the model. We decided to not restate values unless we absolutely have to. In the details of our report, however, we discuss variance analysis, and this includes the effects of possible restatements. Personally, I prefer to have our president or CFO request a restatement rather than have the actuaries initiate it. This then creates the right climate of management control, although the actuaries might be perceived as being parental if they only implement the restatements they approve of.

In summary, we believe that value-added analysis has been very beneficial to Kansas City Life by aligning goals throughout the organization with the concept of value creation. It has helped the actuaries understand, within a fairly complex organization, where the value is and where it is being created.

The value-added process also allows us to communicate better with line managers. Our customer services director loves the process because it shows how much value he adds in retaining the business by helping with persistency programs.

Our key to success will be to continue to communicate and enhance the value-added process and to do it in operational terms. We will incorporate what is actually happening in the lines of business, which will enable people to see this in the financial statements.

Has the value-added process reduced management anxiety? I believe it has for our company. It helps me to know that we are headed in the right direction with a state-of-the-art tool.

**Mr. Michael J. Murphy:** We can hardly go through a day now without picking up a paper and seeing either a mutual company restructuring, a life insurance company consolidation, or a demand for increased growth from owners and shareholders. So it is certainly not surprising that we have this session dealing with performance management and anxiety.

How many of you can answer the question, what is the value of your company or the value of a particular block of business? Mark gave an interesting view of how they measure value at Kansas City Life, that being the embedded value or source of earnings approach. In fact, I agree with him, and I will discuss why later in my talk.

A second question is, how can value actually be added? A third question is, are our products adequately priced? So these are the three issues that I want talk about in the context of transfer pricing.

A critical component of running any business is having a clear understanding of the business, being able to evaluate the performance of the business, and measuring the performance of the key managers. Unfortunately, our current reporting methods, statutory, GAAP, and tax, are very bottom-line oriented. They combine the product and investment performance as well as combine the performance of individual managers. This confuses the ability to measure where value is being created.

Therefore, although I agree that the success of the firm hinges on the joint effort of the product, risk, and asset managers, I think we need better ways of evaluating and breaking apart these components in order to fully understand where value is really being derived.

So how do we go about this? I would suggest that transfer pricing is an alternative asset/liability management process that facilitates the analysis of risk and performance measurement.

Here is a simple explanation of transfer pricing. A depositor buys a CD and the bank guarantees him a certain rate of interest. The bank gives the deposited money to its mortgage department, which then lends it out as a variable mortgage. So on the CD side you have short-term fixed income, but on the mortgage side you have a long-term variable income. Together you have a duration mismatch and the need to measure various performances.

What transfer pricing tries to do is to split things apart. In its purest form it is an assignment of a price for the use of funds that are transferred within a company. In the banking example, the department selling the CD lends the money to the mortgage department for a fixed rate. The CD department might credit the CD with 6% while lending the money to the mortgage department at 7%. This immunizes the CD department while allowing the mortgage department to charge whatever it needs to on the mortgage to pay back that loan.

This process allows the profit centers to become somewhat independent; now the performance of the mortgages are separated from how the credited rate is set for the CD.

We can then apply this concept to life insurance companies by separating the responsibilities of various managers, and by separating what is in their control from what is not in their control. We separate, rather than commingle, the elements of bottom line performance so that the sum of the pieces will equal the whole.

Transfer pricing can be used as a process for better managing interest rate risk and for improving product pricing. It can also strengthen the financial management infrastructure by separating the drivers of financial performance. This leads to a better articulation and measurement of the roles and responsibilities of the managers who are put in control of these value drivers.

In order to evaluate management performance in an insurance company, we need to disaggregate the three key drivers: liability performance (product development and in-force management), investment portfolio performance, and interest rate risk management performance. One approach is to put the interest rate risk management team or a corporate team at the top to serve as an intermediary between the liability and asset teams.

This approach allows each of the three teams to do what it does best—relieving the product and investment experts from unfamiliar responsibility for coordination in the management of interest rate risk.

Price behavior curves can be used to disaggregate the key drivers. These curves map the option-adjusted value of the liability and asset cash flows against shifts in the yield curve. This is a very powerful tool for evaluating interest rate risk and exposure.

The asset curve is typically derived by taking a pro rata share of the total asset portfolio and assigning it to a liability block. With single-premium deferred annuities (SPDAs), we often find that assets are arbitrarily allocated to a block of business and that the asset duration exceeds the liability duration, creating a duration mismatch.

Even the elimination of this mismatch does not mean the block is immunized. Many actuaries, investment managers, and ratings agencies think their job is complete once durations are matched. Price behavior curves can illustrate this lack of immunization on duration-matched assets and liabilities. Rating agencies often look for duration matched within 0.5.

You may frequently find that the liability curve is positively convex while the asset curve is negatively convex. Whether the company has taken on this interest rate risk implicitly or explicitly, they do in fact have interest rate risk and if rates move either up or down, their economic surplus will be depleted.

Although a price behavior curve is a very powerful tool for quantifying interest rate risk, it does not tell us whether the liability, asset, and risk managers are individually doing good jobs. Again, we have commingled the results, with some drivers being out of the control or responsibility set for various managers.

At this point I will focus primarily on liability performance. Assume we have a product manager in charge of an SPDA block who is concerned with his liabilities, not with asset performance, stock selection, or interest rate risk. How do we strip away these other components?

First we need to get rid of the assignment of actual assets. This is usually a notional segmentation that is not under the control of the liability manager. So rather than use the actual asset portfolio, we replace it with a synthetic asset portfolio that exactly replicates the liability price behavior curve. This gets rid of both interest rate risk exposure and specific asset performance.

The synthetic asset portfolio consists of non-callable bonds and interest rate derivatives, primarily caps and floors. The bonds are very high grade and are non-callable in order to remove any option, quality, and credit risk. Using generic assets that are readily available in the market provides a market return. But we strip away asset specific performance because the investment manager is responsible for that.

In addition, the pool of assets we choose will serve as the investment strategy for the liability manager to run his business by. The investment strategy will be used to project earnings and to serve as a basis for setting the credited rate. So the asset portfolio is now within his control. He knows that the asset portfolio has to be built to match his liabilities, and these assets will be of certain types and have certain qualities.

The synthetic asset portfolio also forms a minimum threshold for evaluating the asset performance of the investment manager. Since anyone can buy these readily available, high quality, non-callable bonds with low transaction costs, it is fair to evaluate the investment manager on his ability to exceed the performance of this benchmark.

So how do we put this portfolio together? There are a lot of tools available today, such as linear programming mathematics, Excel, and Solver. The price behavior of the in-force liability curve is the input. We know what the curve looks like at various points in time, and we have the expected market-value duration and convexity. By going through the linear map with our universe of synthetic assets, we can then construct a synthetic asset portfolio that exactly replicates our liability price behavior.

Most of the portfolio will consist of non-callable bonds. However, the SPDA has positive convexity. Since a non-callable bond price behavior curve is essentially straight line, we need to hedge the risk by adding both caps and floors. These will “bend” the edges to match our liability curve.

This is a straightforward process that creates a synthetic asset portfolio that exactly replicates the price behavior curve of the liabilities. We have stripped away both interest-rate risk and asset-specific performance. We are now in a position to evaluate liability performance, and the product manager is in a better position to manage his block of business. Everything on which he is being measured is within his control.

The synthetic asset portfolio will now be treated as real assets for putting together the liability-only financials. Earnings projections are made using the synthetic-asset portfolio and the synthetic-investment strategy, and these earnings will serve as

goals for the liability manager. He is immunized from interest rate risk and can no longer blame any failure to achieve his goals on the stock market or on the investment manager's mistakes.

Thus transfer pricing allows managers to own their own risks, provides a platform to better quantify these risks, and supports the direct recognition of writing options, which I will discuss next.

The options embedded in the products we sell are often overlooked in pricing. We keep adding more options to products without effectively pricing for the cost of these features. For example, suppose a product manager is deciding between a 3% and a 4% interest guarantee on a new product. Under typical pricing, the cost of that benefit is frequently ignored with the pricing done in a static environment. Today's yield curve is assumed to remain constant through time and therefore always greater than either guarantee. This results in a zero cost for either guarantee.

With transfer pricing, we have a more dynamic pricing platform that can examine shifts in the yield curve. Using a price behavior curve, it becomes obvious that a 4% policy guarantee provides more value to the policy owner, and therefore costs the insurance company more if interest rates should fall below 4%.

Since the liability manager is responsible for the guarantee, he must estimate its cost and decide whether or not to include it in the product design. The transfer pricing process must assign the cost of the guarantee to the liability manager. It does this by adding optionality to the synthetic asset portfolio. He will no longer assume a constant yield on his portfolio. So once again, his liabilities are matched with a synthetic asset portfolio that exactly replicates the price behavior curve.

If he chooses the 4% guarantee, that adds convexity to the liability curve. This in turn requires adding convexity to the asset curve. Since the assets are primarily composed of non-callable bonds, adding convexity means buying derivatives. To cover a drop in rates this means swapping non-callable bonds for interest-rate floors.

This triggers an explicit cost because he is swapping fixed-income securities for an out of the money floor. This causes the synthetic asset portfolio yield to drop, and it is easy to quantify the cost of that drop. For example, by going from 1% floors to 2% floors to back the 4% guarantee, the expected yield of the portfolio may fall ten basis points. Now he is in a position to make the decision on whether or not the additional guarantee is worth ten basis points of the yield on which he will be evaluated.

He could pass the yield decrease through to the policyholder by means of a lower credited rate and thereby maintain his spread. Or he could decide to eat that spread, by maintaining competitive credited rates, create greater sales volume and hopefully greater total earnings. Again, everything is within the product manager's control, allowing him to make good decisions and be properly evaluated on them.

Managers need a clear understanding of how the value of their business changes under different interest scenarios and strategies. Transfer pricing sets up a framework for actionable information to manage and measure the performance.

We have implemented transfer pricing at a couple of companies and have seen it used to evaluate alternative crediting strategies and the cost of embedded options. The offering of free partial withdrawals and guaranteed rates can either increase or decrease value, depending on the relationship between the cost of the options and the reduction in risk or the increase in volume. Or the product manager might reduce the risk by putting in market-value adjustments. There are lots of ways to evaluate these choices, but many actuaries still ignore them.

Recall that the three "profit centers" are (1) product development with in-force management, (2) investment management, and (3) risk management. We can continue to evaluate performance of these three profit centers using measures that we currently use today. These measures are return on investment, total return, value added, and return attribution. By using transfer pricing, however, these measures become more meaningful and consistent from period to period.

With transfer pricing, the line of business managers will have a clearer understanding of what the benchmarks are, and the bottom line drivers will be much more in their control. Like Mark, I also believe in the value-added approach. The bottom-line contribution of line managers can be evaluated by combining value added with transfer pricing. Value-added analysis tells you how much value is being created, and transfer pricing ensures that you know which drivers in which lines of business are responsible for that.

Transfer pricing combined with value added helps us identify the activities we are performing well and enables us to enhance them. These combined concepts also help us discover the activities that need to be improved or outsourced.

Transfer pricing is a very effective platform for separating the components of financial success for managers. The crux of transfer pricing is breaking down the responsibilities of the people in control of managing business units, separating out the items that are not in their control, and providing them with improved control of the items they will be evaluated on.

Transfer pricing also provides an infrastructure that facilitates risk and return analysis. By using price behavior curves, doing earnings projections, and stripping off interest rate risk, managers are in a better position to estimate and have more consistent earnings from period to period, and to use this information to better manage their business. Transfer pricing also provides a framework for establishing more meaningful benchmarks for insurance company management.

The bottom line is that transfer pricing is a very effective platform. Minnesota Life has recently instituted a transfer pricing paradigm through Nancy Bennett and Corporate Actuarial, and it has been moved into the eleven or so business units, including the investment department as well as the lines of business.

The key concept of transfer pricing is that the policyholders deposit money while the insurance company serves as an intermediary that borrows this money and tries to earn a higher return. We want to split apart the cost centers and evaluate the performance of our liability products. Are we really adding value on the liability side or are we making money only in the spread management? What business are we in and where do we add value? Can we do more of the things that add value and less of the things that do not, or can we improve upon the things that are not currently adding value? These are the questions that transfer pricing enables us to answer.

**Mr. Alton Cogert:** I will discuss investment benchmarking. We have all probably seen the movie "2001, A Space Odyssey." Using the letters of HAL, the computer in the movie, there are three important aspects to this subject. First, "HOW do we achieve improved results?" This is more important than any benchmarking effort. Any time we sit down with a company, the number one topic is, how is this going to improve our bottom line? Second, "ASK and ye shall receive." The third aspect is, "LONGING for the perfect solution."

How do we achieve improved results? I believe that the strategic asset allocation you choose for your company will determine 80% or more of your returns. Where does this come from? The seminal article on this, which is on our Web site, [www.saai.com](http://www.saai.com), was written in 1983 by Gary Brinson, a Washington State University graduate who is well known within investment circles and is worth hundreds of millions of dollars. His work shows that more than 80% of the returns in a non-taxable pension plan environment depend on asset allocation, such as how much is put in stocks and how much in bonds. An updated study in 1991 published in the *Financial Analyst Journal* provided the same conclusion. There was also another article that concluded that once you have chosen your asset allocation, you can no longer add any additional value with tactical asset allocation.

We define strategic asset allocation as an overall decision for the long haul, at least for a year, on where the assets should be allocated for the company. Our insurance specialists break things down into standard valuation office categories such as corporate bonds that are securities, mortgages, mortgage-backed securities, etc.

Once you have done that and picked your duration, you are more than 80% done. Then the tactical asset allocations are done by your internal or external investment manager. But how much value can they really add? Many companies, both large and small, are starting to separate their decisions between strategic and tactical and are asking this question. You also need to choose the right model for strategic allocation but that is a large topic I won't get into today.

Under "Ask and Ye Shall Receive," the first question is, "what are we trying to measure here?" Is it absolute performance or relative performance? If it is relative performance, is it relative to peers, other managers, the "market," or a passive alternative? Do you measure yield or total return? Is it before-tax or after-tax return? The most important concept here is that your benchmark molds your investment destiny, just as a budget molds expense decisions.

There are two major goals for every investment manager. Many believe that the primary goal is to beat, or at least not underperform, the benchmark. That is on the right track, but is not what we have found. Actually, the two major goals of every investment manager are to get the business—although this is not a big problem in a large company where the source is internal—and to keep the business.

Investment managers will accomplish the latter goal any way they can. That is why the whole issue of benchmarking has been obfuscated by a lot of external managers for some time. They believe it is better to have a portfolio manager who is a scratch golfer that lets the president win than to have somebody who beats a realistic benchmark.

A magazine called *Fast Company* had an article back in May by Tom Peters about "Project Wow." The idea is that everything you do internally or externally with the company is a series of projects. For each project, you have to develop a team of smart people and build support not just from the president but throughout the organization to get things done.

He has seven rules, one of which is, "It is not worth doing if nobody gets mad." One good measure of a "Wow" project, therefore, is the number of people who get mad about it. We are finding that if you shine a light on investment performance and announce that the investment managers are only in it to win the account and

keep the account, then you will have succeeded in getting them mad, which is a good thing according to Peters.

With respect to absolute performance, you would be surprised by how many smaller companies seriously use it as a valid performance measure. Relative performance is superior, but how do you choose the relevant benchmark? We have seen numerous efforts to compare performance with peer companies. The A.M. Best version is interesting because it assumes away trading activity, which is basically what you are trying analyze in the first place.

Another problem is figuring out who your peers are. We have an approach that analyzes peers through blue book numbers, but if you are a niche player, for example, you may not have any valid peers for this analysis.

Some will compare themselves to a generic index such as the Shearson Lehman aggregate. An index, however, has nothing to do with the type of liabilities or the capitalization structure of your company. That is why a strategic asset allocation has to take the liability structure and the capitalization of the company into account.

Because there are so many incorrect comparisons to be made, it should not come as a surprise that everyone ends up in the top quartile; it is sort of a mathematical black hole.

Another comparison is to "the market." But what is the market? Two difficulties are the problem of using generic indices, as we have already discussed, and whether or not the market is a viable alternative for you. Unless you are Metropolitan or Prudential, you cannot hold all of the securities in the Shearson Lehman aggregate index. And if you are Metropolitan or Prudential, you do not want to because you would be holding one million dollar pieces when it is a lot more efficient to buy \$25 million or \$50 million pieces.

Some managers advocate a combination of indices, but we believe you cannot magically get rid of the disadvantages of each individual index by combining them in some fashion, which we call the "Rocket Chef" approach.

Through reliable sources we have heard that one of the top 10 asset managers in the country said, "I wouldn't choose a benchmark I knew I couldn't beat." This supports our belief that the true focus is on getting and keeping the business.

The CFA<sup>®</sup> literature describes six characteristics of an effective benchmark. The first is to specify the benchmark before investing begins. Second, you must have understandable construction. Obviously, you have to know what is in it. Third, can

you invest in it? It has to be a realistic size. Fourth, it must be measurable and possible to track. Fifth and sixth, it must be relevant (tied to your strategy) and contain realistic constraints, such as loss constraints. Although standard benchmark indices can do some of these, they fail miserably on being relevant, tied to a strategy, and containing realistic constraints. That is why we advocate a truly customized benchmark, which I will describe soon.

We think you should take a look at our website at [www.saai.com](http://www.saai.com), in particular, [performa1.htm](#) and [tcb.htm](#). (TCB stands for truly customized benchmark.) [Tcb.htm](#) does a comparison of the different benchmarks—the generic benchmark versus the truly customized benchmark. It covers each in terms of the six characteristics I mentioned a minute ago.

To get a TCB, you need a strategic-asset allocation. People ask us, can you set up a TCB for us? Yes. Do you have a strategic asset allocation for us? No. The question is, do you want your manager or do you want us to develop your strategic asset allocation?

The TCB must have the same duration and credit characteristics as your strategic asset allocation and must be subject to the same constraints (e.g., loss constraints) as the investment department. It is designed to be a dart-board portfolio just like the *Wall Street Journal* dart-board guys have. It answers the passive versus active management question because it is a randomly selected list of securities that the company could buy tomorrow with the specified credit and duration characteristics. The company could take a list, call up three major brokers, have the security, and not have to pay the fee to the manager.

So that is a relevant passive alternative. We have found that it typically sets a higher hurdle for the manager. It will focus the manager on achieving your goals on beating a generic index, and you can adapt it based upon changing company conditions. We have one client that every single year is buying a little block of business here and there, and we have to decide whether or not it is worthwhile to tweak the benchmark. We use judgment here depending upon the effort required and the effect on the results.

We know our approach is by no means perfect, but we believe it is the best alternative out there. If someone comes up with something better, we will adopt that. Our TCB directs the manager to act in accordance with the company's goals and objectives. It is an objective standard that reduces the risk of false signals, the kind that might come through on a generic benchmark.

We do not develop this in a vacuum; it is done with the manager. For example, when we randomly choose securities that the manager indicates that he would never buy (such as a particular security that might come up), we go back and select another one. We want to make sure that the random selection makes sense.

We look at performance after tax and fees. Thirty-four percent of income and capital gains is a lot of money, and many investment managers do not consider that. There are Association for Investment Management and Research standards on after-tax calculations. The bottom line is, you tax the yield (the accrued income), and you tax the realized capital gains. The TCB, however, is not going to have a lot of tax effects because it is very passive.

We do not want to compare yields because the highest yield is a mistake waiting to happen. The next thing to do, after we do after-tax, is do an after-fees comparison. The next step is to look at performance attribution, which involves understanding risk versus return. We need to find out where the manager is adding value and why.

Now we know this approach is not perfect, and when something better comes along, we will adopt it. But performance attribution does address the critical question of luck versus skill, and it addresses A.M. Best's question, "how did you add value?"

In a typical but simplified attribution report, we show the yield, duration, yield curve characteristics, sector or security effect, and trading cost components of total yield in the rows, with a column each for the manager, the TCB, and the difference between the two. Our actual reports, of course, are much more complex than this.

TCB is not perfect, but it focuses on the insurer's goals and objectives, it controls and measures risk versus return, and hopefully it serves as a bridge between words and deeds.

We have had managers who say that they add value on sector and security. In fact, they are adding value on interest-rate guesses and it drives them nuts. When we write that up we say it cannot continue. Shape up now while you have a chance because that positive number is going to become negative. Over time, you are not going to add much value on interest rate guesses. So it serves as a bridge between words and deeds, and it certainly can improve insurer profitability.

**From the Floor:** Can you explain what you mean by after-tax? Do you mean municipal bonds? We can't buy them if we are life insurance companies? Also, what did you mean by fees? What is a reasonable fee for an investment manager?

**Mr. Cogert:** The answer to the second question depends on how large your company is, the size of your portfolio, and what kind of assets are being managed. For example, are they core bonds or specific? Are they high yield or foreign bonds? For over \$500 million of core-fixed income bonds, the fee should be in single digits in terms of basis points.

There has been a general trend downward in that area. Some corporate parents have asked the managers to bring the fees down to be in line with pension investment fees.

In answer to your first question on taxes, there can be differential tax rates if your company cannot buy municipals or if you own preferreds affected by the dividend received deduction. So you must tax affect the accrued income and realized capital gain and not touch the unrealized gain.

**Mr. Steven H. Mahan:** I am concerned that actual implementation may be a lot nastier than you can reveal in this short session. If you had 10 teams of actuaries go into a room to implement all three of these ideas, value added, transfer pricing, and customized benchmarking, wouldn't you get 10 materially different answers?

**Mr. Milton:** Many people have that concern with respect to value added. Our focus is on the change in value during the year and what management has accomplished. Our primary driver is management compensation and aligning management's work with corporate desires. I think that emphasis alleviates your concern to a certain degree, but that is still something we are sensitive to and working on.

**Mr. Murphy:** My most recent experience is implementing transfer pricing at Minnesota Life. It has been a year-long process of putting not only actuaries in the room, but also the business unit heads. We then get a lot of feedback on how to do it this way or that way and a lot of "what ifs". Fortunately, that particular example is very top-down oriented, and we had the support of the vice president, the CFO, and the appointed actuary. So it is top-down, with specific instructions to run parallel systems for the next two years until we work out the bugs, rather than just dictating the entire process from the start.

I have gotten a lot of comments from different line heads and everybody has their own pet peeves. Some lines love the gains from stock-price increases, but others do not because these do not add to their ability to credit interest rates. So no matter where you go, you will hear complaints or issues raised. I think in total, however, things will work out quite well.

**Mr. Cogert:** As Tom Peters said, one good measure of the project is how many people you anger. We find that companies using external managers are fine with our approach or they would not have brought us in. We get friction, however, from the manager who says, "We haven't done it this way before," although some managers are easy to win over. I also know some large companies that have reorganized before implementation in order to get around these issues, but they see a lot of controversy anyway. One such area of trouble is where to draw the line between strategic and tactical asset allocation.

**Mr. Tillotson:** I have a hypothetical question for Mike Murphy. Suppose a company has transfer pricing and a really good investment shop. The product people, however, figure they will look better selling term instead of asset-based products. How should this situation be managed to ensure the best result for the company as a whole instead of having each segment maximizing only its own value added?

**Mr. Murphy:** That needs to be addressed at the top of the company. If they believe the company can add more value by selling asset-accumulation products, then that needs to be superimposed as a strategic constraint. We have found very big egos in investment companies, or in the investment departments of insurance companies, who live in their own world and do not realize that the assets they are buying are there to support the liabilities.

One of the things a transfer pricing with value-added process will show top management is the relative desirability of an asset accumulation strategy versus a term insurance strategy within a company as well as the value of the risk management function.

**Mr. Cogert:** As far as investment egos are concerned, these people should be humbled by the market one way or another every single day.