

**1997 VALUATION ACTUARY  
SYMPOSIUM PROCEEDINGS**

**SESSION 14**

**Sources of Profits**

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## SOURCES OF PROFITS

**MR. CHRISTOPHER M. STROM:** This is our session on sources of profits. I'm an Actuary at PolySystems in Chicago. I've worked with sources of profits with both my current and prior employers. Each panelist will describe what he means by sources of profits with regard to his presentation. Our first speaker is Dan Rubin. Dan is an actuary with Nationwide Financial Services in Columbus, Ohio, working in the corporate actuarial department with annuities and cash-flow testing. Dan will discuss sources of profits for the annuity line of business, taking into account not only the liabilities, but also the assets for that line of business. After Dan is Neil Lund. Neil is vice president and chief actuary at Montgomery Ward Life Insurance Company in Schaumburg, Illinois. Neil's experience with sources of profits is in generating and analyzing management information -- understand that to be reporting -- on the liability side of mass marketed life and health products. Our final speaker is Bill Morrow. Bill has recently retired as corporate actuary and is now senior advisor to the Liberty Corporation in Greenville, South Carolina. I had the pleasure of working with Bill at Liberty Life as he developed some techniques for analyzing acquisition opportunities, using the sources of profits approach. Bill will discuss these techniques with us at this session.

**MR. DANIEL E. RUBIN:** The text from a 1996 Valuation Actuary Symposium session on sources of profits is a very good description of what sources of profit is, and how sources of profit really is identical to an income statement approach, but just from a different perspective. That's important to remember; it's just a different perspective. I think sources of profit analysis helps you better understand what's driving the results of the business.

This can be very helpful during reserve adequacy testing, or New York 126 crunch time, when you're trying to understand each line's behavior, each line's results in the New York "Base 7" Scenarios, any sensitivity test that you performed, and possibly 50, 100 or even 200 or more stochastic scenarios. So I tend to break down our sources of profit analysis into two main segments: line operations and surplus effects. The main component of line operations is the pretax gain. We break this down into spread, which is the difference between the net investment income and the

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interest credited on the fixed fund; risk free, which is essentially the same concept, only applied to the variable fund; and charges, which we break down into surrender charges, administrative charges, and mortality charges. Then we subtract off benefits, typically the mortality charges less the mortality costs, and then we subtract off expenses and commissions. Then we have another line called the increase in miscellaneous reserves. This is the difference between the change in fund and the change in statutory reserve. So as your Commissioner's Annuity Reserve Valuation Method (CARVM) reserve runs off or you have some excess interest reserves, these reserve changes can be reflected through this line. Then moving on to the surplus effect section, the main categories are taxes, the investment income on the surplus, and then the capital gains. To the extent that taxes impact both the line operations and the surplus fund, we do split those apart, but in general I tend to include them in surplus effects.

Now before I address how sources of profit statements can be used in asset adequacy analysis, I want to talk about the building blocks of our analysis. I'm sure you've all heard the old adage, garbage in, garbage out. Well for the umpteenth time, it's true. Our analysis can only be as good as the output that comes out of our projection model. We can have the best analysis tools and the best analysis skills, and their effectiveness is dramatically reduced if the projection output is garbage.

The output can be garbage for two main reasons. First the input can be garbage; second the projection tool itself can be garbage. And even if you had the best projection tool, it can only be as good as the data that go into it. So clearly the input data are a key ingredient to performing successful analysis, and we need to take the time to understand what is going into our model. This means we need to understand the risk characteristics of the line we intend to model and what data are available to use in our modeling of those risk characteristics. If for example, you know that free partial withdrawals are very important risk characteristics of your annuities, then you need to take the time to find out what information is available for those free partial withdrawals, on a cell by cell basis. Then this is a limit to your model imposed by a lack of data availability, if you simply do not have that data. Similarly, if you feel that exchanges between the fixed and variable annuity accounts are a cash-flow risk, but exchanges are recorded as withdrawals from one account and deposits into

the other, the quality of the data is going to make it very difficult to model and measure the financial risk from exchanges.

Once the data has been collected, we often face the difficult decision about how detailed we want the model to be. In my opinion, the granularity of the model is a key to being able to use the model to give management actionable information. For example, if management is worried about how the business is going to behave at the end of the surrender charge period, then the model should be built so that each cell represents an issue quarter or issue year of business. A one-celled model with a weighted average surrender charge is going to be much less volatile in its result than a two-celled model that has the same weighted average. For example, a one-celled model with a 3% surrender charge versus a two-celled model where one cell has 6% and the other cell has 0% are going to have very different end results.

Speaking of interest-sensitive lapses, another area where understating the input can influence the analysis is what I refer to as model parameters. The variables that determine the interest-sensitive lapses or exchanges between fixed and variable accounts, for example, have a great influence on the volatility of results. A conclusion that high lapses cause a negative scenario can only be as strong as the understanding of how those high lapses are calculated. In general, I recommend building a very detailed model of the line of business. Only then can you take the time to figure out through sensitivity testing and compression of your model what tradeoffs you're making in terms of run time, the complexity of the model, the sensitivity of the results, and the accuracy of those results. I also guarantee that you will learn something about your model that you didn't already know.

As I mentioned, the projection systems can also limit your analysis. Let's start with an obvious one. In order to do sources of profits analysis you need to have sources of profits output. In other words, if my system does not provide sources of profit output variables, then it doesn't matter how much overtime I put in for New York 126. I'm not going to be able to do a good job.

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I mentioned before that we need to understand the risk characteristics of the products. Much of the risk lies in the options we've created for our policyholders, and our projection system needs to recognize these options. For example, I've seen many sets of projections that do not reflect the policyholder's option to exchange funds between the fixed and variable accounts. So as we study the tail of the distribution of the results over many scenarios, i.e., the worst scenarios, how can we be sure we're even looking at the risky scenarios if we don't even model the risks that are in our products? Similarly we need to reflect how the company might respond to various scenarios in order to help determine the strategy with the best risk-return tradeoff. Again, the input data and the projection system are the foundations, the building blocks to your being able to analyze your line of business. The output, and just as importantly, how these data are managed, can impact your analysis as well. The projection results need to be stored and recorded at meaningful levels.

Think back to our example of the management question about how the line responds at the end of the surrender charge period. I made the observation that a one-cell model with a 3% surrender charge is less volatile than a two-celled model with a 0% and 6% surrender charge. The real benefit from this model is being able to see the results of each cell differently. They're going to react differently. They're going to behave differently, and unless you can see them separately, that information is lost. Certainly this process will create massive amounts of data and present the challenge of how to manage this information.

The method my department has used to address this very problem has been very successful. We store output in database format, where each record contains a different output variable value for the entire projection horizon. Each record is indexed by line of business, by scenario, and by the output variable itself. We also index on each release, and a release can be for a code change, a year-end, or a different project. For example, our value added analysis will be a separate release. Each release or database is archived for historical purposes.

We have a homegrown analysis tool that allows us to graphically view our output. Simply select the output database or databases if you're trying to compare two sets of results. Select the line of

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business, the scenario, and the variable itself, and then the two automatically create a graph. We can also adjust the values on the graph to gain further insights. For example, adjusting spread on a per fixed fund basis shows us the product spread in basis points and how that changes over the scenario. This can be very insightful to show how the product mix or the product design can influence our profitability over various scenarios. A recent update to our graphing tool has the capability of putting ten graphs in one screen. Now this is not a graph with ten variables on it. It is ten graphs on one screen. Imagine ten graphs on one piece of paper. What that enables you to do is select the ten variables you want to study, and they are on the screen at one time, so your ten major components or sources of profit can be viewed at one time. Often we can toggle back and forth from a base run to a sensitivity run to see how all of these components for sources of profit change through the scenario.

Now that I've covered my modeling philosophy and described tools and techniques I use to do sources of profits analysis, let me illustrate a few ways that this approach has improved our cash-flow testing and our understanding of our lines of business. My first subject is error detection. Much of the errors that we find are fairly subtle. Now an advantage of our graphing tools is that some errors just jump right out at you. One particular error we found was from a bug in our asset cash flows; it impacted a couple of our smaller lines of business, and that's important to remember, too. If you're doing a traditional analysis, you might just focus on some of the bigger and more important lines of business for your company. This graphing tool that we have and the way we manage our data have enabled us to look at many of our lines of business until we found that we catch a lot more errors than we would otherwise because of this methodology.

Another topic is threat analysis. As we study the scenarios that are in the tail of our results distribution, we can gain some understanding of what makes the bad scenarios bad. In one sample we did a fixed annuity and an up interest rate scenario. Now the gain is severely negatively impacted and a quick look at our sources of profit show that spread is the culprit. The pattern of gain and spread are very highly correlated. High interest-sensitive lapses lead to disintermediation, and the assets are unable to support the credited rate for this line of business. Again, you might find that

75% of the patterns have this result. You can then study various combinations of crediting strategies and investment strategies to see how the sources of profit in these scenarios change. You might also find in your analysis in the other 25% of the scenarios some patterns that you didn't expect.

Noise reduction is another topic. Speaking of patterns that you don't expect or you don't understand, sources of profit analysis can help explain the nonintuitive results of some scenarios. Another sample we did is a variable annuity, very similar in assumptions to the fixed annuity. Since they are so similar, the first inclination is the results will be very similar. However, the dip is not as severe and there is actually a fairly strong recovery. In reviewing the sources of profit, we know that the different spreads still exist. The risk fee or spread on the variable funds dropped somewhat through year seven, but shows a dramatic increase in years nine through eleven. Exchanges from the fixed account to the variable account are strong enough to cause the line to remain profitable, even though the high interest rate scenario has led to some interest-sensitive lapses. We certainly would expect some insulation from the variable accounts, but a boost such as this, in all likelihood, is a result you would not expect.

When it comes to results that you do expect, sources of profit analysis can help quantify how your business reacts under various scenarios or sensitivity testing. Take a variable account line of business and perform a variable return sensitivity test. Now the way we define a variable return sensitivity test is that it's exactly like the base scenario except that in year one the normal variable return is replaced with a minus 33%. So the variable asset base is reduced by a factor of a third. Certainly it's not a surprise to see a significant drop in gain for this variable annuity in this scenario, but the extent can be enlightening.

My last example not only describes how sources of profit analysis can be enlightening, but may also point to areas of further study. This same sensitivity test was performed on a fairly similar variable annuity, and here the gain actually is increased in this sensitivity test. As you would expect, after a one-third drop in your variable account assets, the risk-fee income drops dramatically. The surprise here is that the spread income increased, and it increased enough to make the total gain



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increase. The model predicts significant amounts of exchanges from the variable account to the fixed account in the first couple years of the scenario. For this line, the margin on the fixed account is much larger than the margins on the variable account, and this is the reason that the total gain in this scenario is increased.

Now in the other variable annuity that I described, the margins on the variable account were actually very similar to the margins on the fixed account. So even though the money has moved from one account to the other, the total profitability was dramatically lower because of the drop in the asset base, and the margins were essentially the same. Now I am somewhat uneasy with our model's transfer logic for this scenario. I continue to gather as much data as I can on this subject and to test various sets of transfer modeling parameters and logic. This is a great illustration of why one needs to understand the inner workings of the projection system. Unless we understand our models, how can we know how the weaknesses impact our results and just as importantly, how can we make suggestions to management to address those projected results?

The corporate actuarial department at Nationwide has made an investment in the understanding of the model projection system and data input on a very detailed level. We've invested in the development of our analysis tools. Even though every year-end, when every projection release has its own challenges, I am still amazed at the amount of information we process. Our database viewer allows us to study the results of over 50 lines of business, over a dozen sensitivity tests and over 200 stochastic scenarios. I think the sources of profits framework has a more intuitive appeal than the traditional income statement approach. I know that our emphasis on sources of profits in our analysis, in general, and our asset adequacy analysis, in particular, has led to a better understanding of our business.

**MR. H. NEIL LUND:** My perspective is a little different. For 15 years I've been a senior officer of various insurance organizations and I serve on the Board of Directors of my company. My perspective is going to be that of senior management. It's going to be very much a top down look. I will present the essence of how you communicate with senior management. As far as sources of

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profits, and what's critical for your senior management, there are only a couple of things that are important. Unfortunately it's for each company to figure out what's important because, for each company, what is important is quite different. With that, I think it's time to start at the beginning.

The beginning is looking at your mission statement. Now we often fool around with mission statements, but they are important. Your companies are in business to sell something to somebody at a profit. This statement tells us an awful lot. We want to know how we are selling business. Are we using agents, direct mail, telemarketing, brokers or are we a reinsurer? The something is the product or services we sell. The somebody is to whom we're selling. The profits are how we measure if we've been successful. This gives us the basics for our management report.

Now moving into management reports, you have to understand what's important about them. We have only two objectives in management reporting. The first is keeping score. That is, how are we doing? The second is attention to direction. Where do I need to go? What do I need to do to change things? As such, it's very helpful in both these areas if you have something to measure against. The bare profit number doesn't tell me anything. A bare sales figure doesn't tell me anything. I want to have something to compare it to. As such, there are three different types of reports that you need to keep in mind in what you're doing. The first is routine and it's pretty obvious: that's the annual, quarterly, monthly, weekly, daily cycle of reports that you see all the time. I get daily reports. I'd feel lost without my daily reports. I'd feel lost without my monthly reports and my quarterly reports. They're different from one another. They serve different purposes, but those are routine reports.

A second very important type of report that can be used very effectively are exception reports. This is where something falls outside the parameters that you normally expect, and at that point, it triggers a report. You don't see it unless something is wrong. Finally, we have demand reports. Demand reports are very effective if, for example, the National Association of Insurance Commissioners (NAIC) changes something, or the Internal Revenue Code changes. On demand reports are the questions I ask my staff. I want what's happening in this area. So on demand reports are very important.

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Interestingly as you work with reports, you may be able to use the same report format in all three settings without having to change how it looks. This is very important for the Board of Directors because you don't want to have to be retraining us all the time. The basic management reports then that we want to look at basically answer these three questions: What are we selling? Who is buying? How are we performing? Since we're looking at sources of profits in this session, I'm going to concentrate on the latter.

There are all sorts of different sources where profits can come from. In fact, they'll probably come from multiple sources. Basic sources include marketing, benefits, persistency, investments, expenses, and selection. You may have other categories. You may consider reinsurance as a potential source of profit, if your company utilizes reinsurance.

So now we can ask the question, what is critical? I want you each to think of your company and what is critical to your company, because you probably don't make money in every one of these areas. One area that we're involved in is Monthly Outstanding Balance (MOB) Credit Business. There is no investment income component in MOB business, none whatsoever. On the other hand, for the annuity area that Dan just talked about, investment income is critical. Selection for Dan is probably much less important.

So with that in mind, I want to move into a few examples of some different lines of business that I've been involved in. I want to caution you that you want to concentrate on keeping all of your comments, all of your reporting to senior management and to the board, brief, simple and very clean. One individual I know who runs a very successful insurance organization gets a one page report. That is all that he gets as chairman of the company. One page and yet this individual has a greater understanding of how his organization is working than almost anyone else that I've met. There's kind of a parallel to that. I will say that what's important to me when we put together the cash-flow statement and what goes on to the senior managements and the Board of Directors of our company is not the report. It is the executive summary to that report.

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As I mentioned, we have some credit business. And in credit insurance, there are only two things that are important. First is the penetration rate. That is, how many people are purchasing credit insurance out of the potential purchasers in a given account? That is a critical indicator of how that account is doing. Second is the loss ratio for that account. I really don't need to know anything else to know how we're performing other than these two simple pieces. This is a great area for exception reporting in that the only accounts that I need to look at are the accounts that are falling outside the preset parameters. With this information on accounts that are not making the grade, we can then go back and decide what remedial action is needed. Does the account need to be cancelled because it's a lost cause? Do we need to go in and do some training? Do we have to retaylor the products? It's directing the attention to the problem at hand.

Moving on to another example, when I talk about profits from our telemarketed activity, there are only three things that are important. One is the orders per hour, which is the rate at which we're selling business. My costs are fixed in a telemarketed operation. I am paying essentially a flat fee for those services, so I want to be able to maximize the opportunities of that service. That means how many orders we are getting per hour. The second piece is how many of those orders convert. The difference between orders and conversions tells me certain types of remedial action that I will take if needed. The third piece is the lapse rate. These three pieces of information are critical to how the business is performing. I do not need to look at loss ratios or investment income, it's simply these three pieces.

Direct mail actually looks a little different than telemarketing does. You may think in your mind that these are very similar businesses. They really aren't. Our costs are not fixed up-front in direct mail, so we look at the cost per 1,000 pieces that we mail. This is a critical piece of information for us. We look at the response rate. We again look at the conversion rate and at persistency. Those are the drivers of that business. I don't really need to clutter my mind with a lot of other things unless an exception pops up somewhere.

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I have also worked with a major medical organization where the two critical pieces were loss ratio and trend; trend being very critical in the medical business.

In the companion HMO to that organization, we looked at the per member/per month cost on a component basis. The difference for the HMO is that we're trying to control the referral patterns from the primary care physicians to specialists and into hospitals. So, for the HMO, you needed to break the data down a little finer. At the beginning of this session, I talked about selling. In this particular HMO, 75% of the business came in during one open enrollment period lasting approximately six weeks. Fifteen percent of the business came in during a second open enrollment period roughly six months later, and the remaining business came in spread throughout the year. From a management report perspective, we monitored sales very closely during those two critical open enrollment periods and essentially dispensed with it during the rest of the year when we weren't selling anything. Why waste my time with the report?

In summary, for your organization or line of business, there are probably only two to three key profit factors. You must figure out what they are for your company. The variables are how you market, how you distribute, whom you're selling to, and the types of products. But also don't overlook the culture of your company. But there are really only a few key factors; you have to find them out.

Look for information so that you can take some form of action to correct what's going on. The information needs to be presented simply. Most of us on boards are too dumb to understand the business anyhow, right? Actually the most successful individuals that I know present ideas very simply and communicate them effectively.

I want to pick up on one thing that Dan said: "Graph it!" Graphing is very powerful. Dan's graphs were excellent illustrations and very powerful. Communication is not a 600-page report. It's presenting the information to us very simply. Tailor your communication in your reports to your situation, but most of all, communicate only what is critical for your company.

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**MR. WILLIAM P. MORROW, JR.:** In the early 1990s my company did a number of acquisitions. For some of these acquisitions, there was an appraisal available and the potential company provided us with a lot of information. For one of the other acquisitions, the company had not fully decided to sell. They were thinking about it, but were not to the point of really going out and employing some actuarial firm to do an appraisal for them. As the actuary of the acquiring company, I was asked to come up with a range of values to determine what this company, without an appraisal, would be worth. In doing so, I struggled with a lot of different methods and techniques and found that the idea of developing sources of profits could be a very helpful way of doing this. I would like to share with you some of the ways that I did this. First, I would just like to talk about how sources of profit can be used for acquisitions and how I got some of my sources of data.

I'm going to limit my remarks to nonparticipating business. Many of the principles I will discuss can be applied to almost any type of business, but I usually divided up the sources of profit for a traditional block of nonparticipating business between profits from the investment income, profits from mortality, profits from expenses, and profits from lapses. In addition, it seems there was always some other element that would be involved.

Just to give you an idea as to what I am talking about here, I made up an example of the total value of a company where the purpose is to show the relativity and not an absolute amount; these are more or less percentages of the different pieces. Investment income was almost always the largest number, as you might expect. Mortality was usually next. Profits from lapses (or surrender charges) would be next. As you know, surrender charges represent the difference between the reserve and cash values that would be paid out. The expense element is often negative because, in statutory accounting, the difference between the gross and tabular net premium is usually negative, or at least that was true in the situations I was looking at.

I like to break down profits by source even if I have an appraisal. If you have an appraisal, you are at least going to have a statutory gain and loss for each duration. I always liked to take the statutory gain and divide it up into the pieces of profit that I mentioned earlier, such as the investment income,

mortality, etc. Sometimes you can use the deviations in an appraisal to develop profits by source. This can be accomplished by taking the deviations that show the impact of, say, 1% of interest rate or 10% deviation of mortality and expand it to include the total spreads resulting from interest, mortality, and so on.

I want to concentrate the rest of my time on those situations when an appraisal is not available and all you have are statutory annual statements for several years back. The statutory annual statement would include, of course, a gain and loss and an analysis of increase in reserves. I think many actuaries have often viewed the analysis of increase in reserves as a nuisance, something you had to do and maybe haven't spent a lot of time to make it accurate. For this discussion, I am going to assume that one cannot rely on the analysis of increase in reserves in the company's annual statement.

Now I would like to describe how I would produce the various components of the analysis of increase in reserves. The first thing I would do is develop a model of the in-force business by number, amount, and premium. I would do this by applying what I believe to be representative lapse and death rates to the issues for several years back. After that, I would estimate the tabular net premium to be a percentage of the gross premiums. What I am doing now is producing the pieces of the analysis of increasing reserves. For the death benefits I would take what I thought would be a representative mortality table and apply it to the model of the in-force business described above to reproduce the death benefits that would be included in a profit-and-loss statement. Then I would take the reserve released by death as a percentage of those death benefits. Next I would reproduce the reserve released for other terminations by taking a percentage of the beginning reserve. Then I would define surrender benefits as a percentage of the reserve released for each duration.

The next step would be to calculate tabular interest from the *Statutory Annual Statement* or the blue book by calculating a composite interest rate applicable to Exhibit 8. If there were many health reserves, I would look at Exhibit 9 and calculate a composite rate for the guaranteed renewable

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reserves. Then I would express the amount of tabular interest as being equal to the composite tabular interest rate times the total reserves.

For the investment income, I would develop a model of the assets that the company had and then apply an interest rate to these assets year by year. For future years, I would make a forecast as to what new money rates would be and then arrive at a composite interest rate applicable to future years. Expenses and premium taxes would be expressed as a function of a number, amount, or premium from the model of the in-force business developed. The general expenses would be those that we would expect to incur once we bought the block of business. The commissions would be equal to the commissions shown in the *Statutory Annual Statement* separated between first year and renewal years.

Premium taxes would be expressed as a percentage of the premiums. Then I would get federal taxes as a percentage of the statutory earnings. I would make a separate calculation for the deferred acquisition costs tax. I would use the same formula that we used in our company for the required surplus and the risk-based capital that would be required to support that block of business.

With all of that information, I would have an analysis of increase in reserves for each duration to the end of the mortality table and ultimately a profit-and-loss statement for each duration. In getting the mortality rate that I would use in the table, I would base the mortality rate on the age and the mortality table that would reproduce the actual mortality. Then I would project the profit and loss to the end of the mortality table, say age 95 or 100. One of the key tests is to verify that the reserves will approach zero at the end of the mortality table.

I would then get my earnings by source by substituting the analysis of increase in reserve components for the reserve entry in the profit-and-loss statement. Then I could get the portion of earnings from investment income, mortality, surrender charges, expenses and any other component that might be considered for that particular company. Armed with this information, I would get the



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present value of each of these components based on the risk interest rate assumed for that particular acquisition.

A big part of the validity of this, I thought, comes from the entire process that I went through to develop these profit-and-loss statements by duration. This would tell me whether the assumptions relative to the components which make up the source of profits were reasonable in relation to a similar block of business.

As I said earlier, I used only blocks of business where we had a similar block of business in my company. I had some feel for what the reasonable assumptions should be. I did all of this on a computer spreadsheet. I later expanded the spreadsheet to do GAAP, although I didn't go through this at the session. By reproducing reasonable GAAP reserves, one can get additional confidence in this procedure.

As I said, it has been several years since we made these acquisitions. Some of these acquisitions have worked out the way we expected them to and some have not. But this approach seemed to give a reasonable representation of the source of earnings. One of the big advantages of it to me was, once we did due diligence, I had a better idea of what to look for. I knew which assumptions seemed to be out of line and which assumptions seemed to be more in line. Another advantage is that once I defined the largest contribution to the earnings, I would spend more time doing due diligence on this item than on those items that did not contribute very much to earnings.

This concludes a rather detailed analysis of something we did that we thought was helpful. It was certainly a way of using source of earnings, whether you are trying to do it in such an estimated way as I am talking about or whether you really have accurate information. I would recommend that you divide the earnings for your company by source to see where they come from. As the other two speakers have mentioned, it can be extremely helpful, whether you are talking about an acquisition or your own block of business, to analyze the business so you will know where you may have potential problems and know where the profits are coming from.

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Because I am retired, I have been around for a while, and I remember when the interest rates started creeping up in the 1970s and 1980s. As they got higher and higher, the people in my company were saying, "Boy, we are making a lot of money, this is great. Let's do more of this, let's sell as much insurance as we can." It took us a while to realize how much of the increased earnings were coming from the increases in interest rates. This increased the earnings from the interest spread for a while (the difference between the earnings rate that was increasing and the required interest in the statutory reserves), but later on resulted in significant lapses as our customers rolled over these policies to interest-sensitive products. Things were important to know, and it is important to know as soon as you can, because what may seem like a bonanza can end up being a thorn in the side.

**MR. STROM:** At this time we'll entertain any questions that you have.

**FROM THE FLOOR:** Bill, I noticed you referred to the analysis of increase in reserves. I don't know if you did much in the way of health acquisitions ever, but it would appear to me that Schedule H would be your corresponding part for health acquisitions.

**MR. MORROW:** That's true, all of the acquisitions I was involved with were life, involved just minimal amounts of health, but the same thing could be said for Schedule H and the loss ratios and so forth.

**MR. LUND:** With regard to Schedule H, essentially you follow the same process that Bill outlined. There's an additional step right up towards the beginning, and that's getting comfortable with claim reserves on whatever you're acquiring. You may have to restate all of their historical claim costs, based on whether their reserves are redundant (rare if the business is being sold) or inadequate (more likely in the acquisition).

**MR. MORROW:** Of course, the same thing applies to life in the incurred but not reported (IBNR) reserve, but not of the same magnitude usually in relation to all the other numbers.

**MR. STROM:** Bill, you went through a traditional life situation. What would be different if your company were purchasing a universal life block of business?

**MR. MORROW:** Well, you would have to really think about all the same components. Many of the same principles would apply. Instead of investment income, you would think about spread. When it came to expenses you would think about loads versus expenses, I guess, versus the expenses that you would expect. Mortality could be similar. Surrender charges would be a source of income, so surrender charges and the lapse rates will become important there.

**MR. CHARLES S. LINN:** Regarding participating traditional line, what would the impact be and how would you bring in the dividends to the analysis?

**MR. MORROW:** I guess in a way you would have to really project some dividends in some way, decide whether the dividends that were being paid were representative. Would they have to be changed? Would your assumptions in the future be assumptions that would require a change in dividend and ultimately would that become another benefit? But you would have to make sure that it was consistent with your other assumptions and your desires as to the level of dividends that would be reasonable to pay.

**MR. STROM:** Adding to that, if dividends go to purchase paid up additions, then you have just another block of revenues that you want to look at as far as the interest earnings on that, and the mortality experience that you might expect on that as well.

