RECORD, Volume 30, No. 2

Spring Meeting, San Antonio, TX
June 14–15, 2004

Session 15PD
Actuarial Appraisals—Process and Issues

Track: Financial Reporting

Moderator: R. THOMAS HERGET

Panelists: RICHARD D. FARRELL
JAMES S. HAWKE
R. THOMAS HERGET

Summary: This panel discussion provides an introduction to actuarial appraisals. Panelists discuss the reasons to perform an actuarial appraisal, the process involved in doing an actuarial appraisal, issues that should be addressed and assumption development. The discussion promotes an understanding of the issues that can be applied to many different products and lines of business.

MR. R. THOMAS HERGET: Our topic today is actuarial appraisals. I'd like to introduce the panelists. Rick Farrell is a senior manager with Ernst & Young in Chicago. Prior to that, he was an independent consultant. Rick's experience is in mergers and acquisitions (M&A), product, financial reporting, audits, litigation support, asset/liability management (ALM), projections and modeling. Rick works on all kinds of assignments here and in South America. Rick received his B.S. in mathematics from the State University of New York in Binghamton. He's a Fellow of the Society of Actuaries (FSA), a Member of the American Academy of Actuaries (MAAA), a CLU and a CFCU. He'll be talking about the elements of an appraisal.

Jim Hawke has 30 years' experience in the life company valuation area. He is a graduate of the University of Texas. He worked with several life companies in the Dallas-Ft. Worth area during the 1970s and 1980s. He currently serves as appointed actuary for the life and annuity companies of the Conseco Group, which recently undertook an actuarial appraisal for the purposes of bankruptcy emergence.

Note: The chart(s) referred to in the text can be found at the end of the manuscript.

Rick will speak on being the appraiser; Jim will speak on being the appraisee, offering a unique perspective in this presentation.

I'm an FSA and MAAA. I work as a vice president for PolySystems in Chicago, a software and consulting firm in the life insurance business. I'm a former chairman of the Financial Reporting Section. I'm currently serving on the SOA Board of Governors. I'm working with another actuary named Jim Toole on *Mergers & Acquisitions*, an SOA textbook coming out in October. I would like to show you what this textbook is about, since M&A is the reason for 99.9 percent of appraisals.

First, I'll walk you through the highlights of our textbook. Then Rick will talk about the fundamentals of the appraisal, and Jim will talk about what it's like to be appraised. Then I'll wrap up with a few sections of the book, and we'll finish with questions and answers.

The new textbook, *Insurance Industry Mergers & Acquisitions*, was created by seasoned practitioners. The contributors include life actuaries, employee benefits actuaries, a property and casualty (P&C) actuary, an investment banker, two accountants and an attorney.

There are chapters on process, financing, valuation, due diligence, other corporate issues, taxes, accounting and integration. Also, there is a section we call "Tales from the Crypt." In the introduction, we talk about the rationale for M&A. Why do we have M&A? One reason is earnings growth. You can achieve earnings that you wouldn't otherwise be able to grow organically. You can achieve economies of scale. Diversification—if you are too dependent on one line of business, you probably want to be in others. There are tax reasons. Research and development (R&D)—maybe your target has product expertise that you don't have. Getting into new markets, you can achieve revenue growth. Stock analysts admire revenue growth as much as earnings growth.

In Chapter 2 we talk about the process of M&A. How many people have been through an M&A here? It looks like a lot. Eventually, all of us will be through one, but it seems like we're going through one every seven years or so. I know you are here to learn, so maybe you'll learn what other M&A processes have been like or what other appraisals have been like. Part of the process in this chapter is the role of the professionals.

We also talk about how the process of M&A. Typically, the Board of Director reviews alternatives: either stay with the status quo, make internal adjustments or put the company up for sale. If the company does go up for sale, a transaction team is created. The lead professional is usually an investment banker who, in turn, hires talent from the legal, actuarial and accounting professions. At that point, you could have either a public auction or a private placement of the life insurance company. The investment banker will generally market the company to a list of potential buyers. This list will be filtered for entities with access to capital, entities that are a strategic fit and entities whose acquisition wouldn't cause a downgrade.

Once candidates are identified, we have the buy-side evaluation. Interested parties respond to a letter of intent, perform due diligence and present preliminary bids. At execution, final negotiations, along with regulatory approval, occur. The closing steps include integration, employment agreements, possible relocation, etc.

Chapter 3 addresses financing sources. From where is the needed capital acquired? Where does the capital come from in order to do an acquisition? Venture capital, initial public offering (IPO), private equity, private placement, banks, public securities issues and reinsurers all provide capital. The proportion of debt and equity and the use of cash are addressed.

One of the most important elements in an M&A is the actuarial appraisal itself. This is a report containing a description and evaluation of the business. It's art and science. To provide background on how that's performed and prepared, I'll turn to Rick.

MR. RICHARD D. FARRELL: Thanks, Tom. I'm going to talk about appraisals from the appraiser standpoint, and Jim is going to act as the appraisee. In addition, I'm going to talk from a generic standpoint, whereas Jim will give some specific practical examples.

I heard an interesting story last week when I was talking to one of my clients that has several international subsidiaries. They said whenever an appraisal is done, that's a clear sign that the company's up for sale. Something's in play when people with nice suits come into a conference room, huddle and go off secretly. But basically the comment used for an appraisal is "merger and acquisition related." Not always, but that's typically the case.

At Ernst & Young, we've seen the volume of the M&A start to go up. It's not necessarily the bull market it was several years ago, but we're definitely back on the rise. A couple of years ago we could have said the volume of M&A was trailing off. The environment now, with lower interest rates, makes it more advantageous to do a deal. Valuations are looking better. Companies are healthier. Consequently, the volume of appraisals has been going up from our standpoint, and speaking with other players in the industry, it's across the board.

In a deal, the buyer might have at least one appraisal. It's not uncommon to have two. The seller also might have one or two. Since there might be more than one buyer, one deal might spin off several appraisals from different parties.

Put simply, an appraisal is a present value (PV) of profits projection. Most of you in this room have already done lots of PV of profits, so I'm not going to go into a lot of detail on that. Instead, I'm going to talk about those particular nuances to an actuarial appraisal for an M&A-type transaction that differs a little bit from your garden variety of PV profits.

With any project, the tendency is to jump in: let's get started and do it. But with an appraisal, it's important to stand back at the beginning, take a look, see what you have, what you have to do, and understand the scope of what the appraisal is going to be all about because no two are the same. There are differences from one to the next. First, what is the basis of the underlying income statement going to be? Typically, you're going to have statutory, but that's not always the case. I've worked on some appraisals that have been GAAP-based. Usually, you want to get down to the amounts that can be distributed by dividend, and that is the statutory basis. So, most appraisals have been statutory, but not always. Will the results of the appraisal be used for purchase GAAP (PGAAP) later on? Is your model going to be the PGAAP opening balance sheet and maybe even the amortization of value of business acquired (VOBA) going forward? If that's the case, you might want to make some special accommodations up front, rather than do it on the back end, because it's easier to do it at the beginning.

Depending on the types of products, you can make some simplifications in certain areas. For other areas, you might have to become a little bit more robust, a little bit more complex. For example, if you have a block of traditional life business or a block of individual health, you might be able to get by with just the liability-only model, which is not particularly sensitive to the assets. But if you have a block of deferred annuities or universal life (UL), you're going to want to build a pretty robust asset-liability model.

It should be evident if you're the buyer or the seller, in other words, whose side you're on. It makes a difference. Sellers are going to look very hard for pockets of value. The appraisal will be rosier from the seller's viewpoint. The buyer, as you'd expect, is going to be a bit more negative, inclined to discount items on the appraisal and to say no value or it's not worth as much as you think it is. It's going to give you some sort of a perspective on how you go about the appraisal.

Transactions can have far-reaching implications. Even if it's an appraisal not done for a transaction purpose, if it's more innocent than that, people see that it's an appraisal. So we have to be careful whom we talk to. For a publicly traded company, of course, if news gets out that there's an appraisal in the mix, that can have implications on the stock price. Also, leakage of information is not a good thing. And as far as employees of the company go, people generally start to panic when they hear there's a transaction going on. Even if it might be advantageous, even if they're on the good side, the first reaction in many cases is: What does that mean about my particular job, my particular situation? For these reasons and others, an appraisal is often done on a need-to-know-basis, including only that small circle of people who need to know and need to be involved. So, when gathering information, it's not carte blanche. You can't talk to anybody in the actuarial department or the accounting area to get what you need. Instead, you work through certain contact people, and they, in turn, will filter through and get the data and information you need.

Finally, and this is going to be my theme throughout: Be aware of the deadlines. With an appraisal, there's typically not enough time to do all the work you want to do. You can't build that perfect model. You can't build the most robust model. Instead, you have to prioritize, do what's most important, and let the rest fall by the wayside. Often there is not a lot of cushion in extending due dates. If you find you can get maybe another day out of a due date, you're extremely lucky. It's something that you need to really watch.

FROM THE FLOOR: Why is timing so important? If a deal is going to go on, why do you have to have it done so quickly? What's the rush?

MR. FARRELL: Typically they're just internal deadlines and commitments that say they want it done by this point. It's not necessarily a hard and fast deadline on this particular date, but internally the dealmakers would like the information and would like your work done at this point in time. Also, the actuarial appraisal is often just part of the process. It's not the end-all. So, there are other things on the back end that are going to be going on, too.

Let's talk a little bit about the background information. Data. I've heard it too many times, but I'll use it again: garbage in, garbage out. It applies just as well to appraisals as to other types of work. Despite the lack of a lot of time to perform the appraisal, this is not the place to cut corners as far as looking at the data and making sure it's good. The most important thing in my experience has been to make sure it all hangs together and that it's consistent. Inconsistency usually is a sign that there might be problems in a particular area. If one thing goes in one direction, but another source of data goes in a completely opposite way that is not along the same lines as the first, that is usually the sign that something is amiss. You need to dig and probe a little bit deeper.

I also base a lot on feel. Mentally, it may make sense. Logically, the arithmetic all works out. But something subconsciously doesn't make sense. Usually that's where I'll find, if I dig a little bit, a problem. I don't know if that's common. I've heard some studies that the subconscious actually has a lot of good information. I'll share a technique. Looking at the data applies to all the different forms. The most obvious is going to be that big inforce file that you get from the administrative system. That's the most obvious place to look for flaws or problems. But also extend that. Look at the experience studies. Look at other pieces of information that you may be able to get from the client. For electronic data, one technique is to go column by column, look at the minimums, look at the maximums, and check what doesn't seem to match up with the rest of the column. You can also look at simple ratios from one column to another, where it should bear a certain relationship. To the extent those ratios look like they're out of whack, dig a little deeper to find out what's going on.

Once you come up with the error, what's the best way to deal with it? It depends. If it's not likely to result in a material distortion, if it's just a couple of records on some small inconsequential plan, maybe it doesn't matter. Maybe you can go without it. If you're doing an appraisal where everyone's going to look at the billion dollar figures, you can round off everything else from that point forward. Some records are going to be closer to a hundred dollars, maybe a thousand dollars, so you can worry less about those. But you need to be careful. It is easy to say it's close enough; that one's okay; we don't need to worry about it and move on. If it's material and repairable, there might be some ways to put a Band-Aid on and smooth over some problems. But once again, you need to be careful. You need to be sensitive to how this could impact results and err on the side of conservatism. It's not good to necessarily try to strive for too much rigor, but if you think it's going to potentially have a swing in an overall result, it's better to be more precise than not.

You can map smaller plans with issues to a larger, clean plan. That sometimes will work. Overall, though, major data problems can be a headache. They can be very time-consuming. If you find early on, when you're getting into the data, that it's fraught with errors across the board, it's better to push back and see if you can get things fixed, maybe get a rerun of the data. Perhaps you can also go to other places, maybe look at the valuation file prepared for the valuation system, rather than rely on the administration system extract. There are other places you can get data, but data problems up front are not a good thing.

Let's talk a little bit about setting assumptions. Once again, I think most people in this room have set assumptions from time to time, so it's not anything new. But the time constraints on an appraisal will tend to make you do things a bit differently than you might in other applications. Experience studies are probably one of the best places to go look for data. But sometimes the experience studies are old and outdated. A five-year-old experience study may not be much use to you, or will be less use than if it were something current.

Also, the experience study may not ever have been taken to the next step of converting that into model-ready assumptions. You may not have time to read an extensive experience study and determine what exactly that means to your lapse rates or what exactly that means to your mortality rates. Consequently, it may be necessary to borrow assumptions from other sources. One approach is to start with the pricing assumption and to make changes where there are known variations with those pricing assumptions. If you know the pricing is fairly recent, and there have been no experience studies indicating that there's anything wrong or something has changed since that pricing work was done, that might be a good place to start. For something that was priced many, many years ago, those pricing assumptions are probably worthless by now.

Another possible source of pricing assumptions is financial statements. One of my favorite places to look at the five-year history is the Blue Book. That gives good indications of trends. You can get decent analytics by doing ratios from the Blue Book five-year history. Interviews with company personnel can also give some good information, but remember the bias of the seller or the buyer. From the seller's standpoint, they're going to probably give you a rosier picture than may be the case. Be sure you take what they say with a grain of salt and back it up with other data.

A company plan is also good. Unfortunately, though, most company plans are fairly limited. It might go out five or 10 years, but typically it's only a couple of years. Even with a longer-term plan, the company might only focus on those first couple of years, and the rest they just do to fill in the spreadsheet that they're using. A cash-flow testing report is also good, but keep in mind that cash-flow testing is conservative because it's for the statutory reserves. Therefore, you need to back off a bit from the conservative element in the cash-flow testing to get something that you'd want to use for appraisal purposes. Once again, when multiple sources of assumptions are available, it's worthwhile to compare them against one another. If you can't reconcile differences easily, that is something you need and want to take a look at.

Typically, you will be building a model office. Seriatim valuation does not make sense, except for the very smallest blocks of business, primarily due to runtime. In most cases, you're going to compress a larger file, whether it is seriatim or at a granular level, into the cells you want to use in the model. The key is to increase speed without sacrificing too much accuracy. Of course, we could spend hours talking about this particular aspect; I can't really do it justice in this format. So, we'll just take that as a given and move on.

If you're assuming new business will continue to be sold, also called an "open block appraisal," there are a few key assumptions. First, how many years into the future are you assuming that business is going to be sold? Five or 10 years are typical assumptions in that regard. You also need to assume the volume of new business to be sold in future years. Changes in this assumption can cause large swings in the appraisal value. In fact, I'd put this at the top of my list as far as what is most sensitive to changes in the appraisal value. Crank up your growth rate and new business premium, and there you go. Too much optimism on the new business assumption is probably the top of my list for losing credibility in the appraisal. It's an easy one to look at and dissect from a buyer's standpoint. If they see the appraisal has an enormous growth rate going forward, they may easily question the rest of these assumptions. How good can they be? So be careful if you're on the seller's side.

Will the discount rate be a market rate? Market rate for appraisals is often looked upon as the rate at which other similar appraisals have recently been discounted. Similar insurance company blocks and insurance company total entity appraisals will be looked at to determine a market rate. Will it be based on a theoretical approach? A theoretical approach would basically start with a risk-free rate and then add the elements of a block of business that are not really risk free.

How much premium income is going to be anticipated from the inforce block? This one also can be pretty dicey. Traditional life is pretty much a given, but with some flexible deferred annuities and some UL, you can get good value if you crank up the premiums on the inforce block. Once again, that's something that an astute buyer will look at to see if your assumptions are good. Lapse and mortality obviously are also key. You should also consider if a transaction is involved, if this is going to be a sale, will the transaction itself have a shock lapse at the point of sale?

Will future expenses and inflation be based on expenses for the "typical" buyer? A typical buyer might be a big consolidator that, if you're looking at a small company, could have much lower expense structures than what the seller has. Alternatively, are you going to base the appraisal expense assumptions on that experience for the seller? If you go that route, then you need to worry about a couple of particular things. One is overhead. Are you going to allocate overhead and, if so, how? Transaction-related expenses can also be an issue. Typically, transaction-related expenses are not included as part of the appraisal, but it's easy for some to sneak in when you're not paying close attention.

Cost of capital consists of the opportunity cost for the surplus that's needed to back the block of business. Will the capital requirements be based on that for the typical buyer, or will they be based on that for the company? In other words, are you going to use 200 percent risk-based capital (RBC) or 250 percent RBC or some similar multiples? To make key assumptions on taxes, the easy way to do it, though not necessarily the recommended approach, is to take 35 percent of pre-tax statutory income. It becomes more work when you start considering proxy deferred acquisition cost (DAC) and difference between tax reserves and stat reserves, but you will get a better answer.

One approach to building a model is to start with an existing model that was created for another purpose. You could start with a cash-flow testing model and make modifications to convert it to an appraisal-type model. It will probably give you a shorter timeframe, but it's not necessarily going to be instantaneous; it's going to take some work. For example, for the cash-flow testing model, you might have to reflect changes in the inforce liabilities or assets if your cash-flow testing model is as of last September and the current appraisal is being done as of the March 31 results. You need to bring in the new assets and liabilities or at least make some accommodation for changes in the last six months. If you're using cash-flow testing, you'll want to take the conservatism out of the assumptions and convert them from a statutory basis to a more realistic best-estimate basis. A cash-flow testing model has no new business. Consequently, if you're doing an open block appraisal, you'll need to do something to factor in new business.

Once the model is ready to go, the next step is to validate the model. Model validation often does not get done. Sometimes it gets overlooked; sometimes it doesn't get the proper focus. First of all, insure the key starting values, the policy counts, the face amounts and the reserves tie fairly well with what you're starting off with. If you're doing a March 31 valuation, those values that the model says at time zero should match up fairly closely with what the actual March 31 values are. Sometimes it sounds obvious that it should happen. It doesn't. Sometimes things happen. That's called a static validation.

There is also a dynamic validation, which calls for running the model for two to three years into the future. Compare that trend with what actually happened historically over the previous two to three years. See that it has a fairly reasonable progression, or something you can explain. For example, if you're not doing an open block appraisal, if it's a closed block appraisal, your reserve pattern won't match up well with what's historically been the case. Historically, the reserves have grown while you put on new business. Once you suspend the new business, reserves are going to start to decrease instead of increase year over year. So you need to take that into account when looking at a dynamic validation. But, in any event, dynamic validation is as important as a static validation. If you can look at static validations and/or dynamic validations on a more granular basis, so much the better. If you can look at things on a product basis, for example, instead of on a line-of-business basis, you'll get a better read on how well your model's doing.

A typical appraisal is a deterministic appraisal. More often than not, it's the current level interest scenario going forward, the New York Seven, Scenario One in cash flow testing, if you will. However, that doesn't work very well for guaranteed minimum benefits (GMBs). Instead, one technique is to run a stochastic model for your GMB, come up with a value and say the price tag is 10 basis points per year, 25 basis points per year, or something along those lines. Then, use that as the cost for the guaranteed minimum benefits in the otherwise deterministic level scenario model.

Typically, the main use for sensitivity tests is to put them in the report for when the reader says, "Well, I don't believe this lapse assumption. I think it's too high. I think it should be changed by 3 percent." Then they'll take a look at the sensitivity test, which says for every 1 percent there's x million dollar cost. They'll say, "Okay, 3 percent means 3x." But what is more valuable is that sensitivity tests can point to problems in the model. If a sensitivity test doesn't make sense, or even goes in the wrong direction, that may point to a problem in the model that you might want to take a closer look at. It's common to leave sensitivity tests for one of the later stages of the process as something you need to do to fill up your report. Instead, I find it better to do them early on and use them as a check and balance.

When presenting an appraisal report, it needs to conform to Actuarial Standard of Practice (ASOP) #19, from the Academy. ASOP #19 contains what items should be addressed in the report. It's been my experience, and I think the experiences of others, that it will take longer to write the report than you planned up front. Waiting till the last minute is not a good idea to start when you want to write the report. It's going to look rushed. The reader is going to know it's rushed, and there is going to be more opportunity for errors to filter in.

My personal preference is to start writing the report on day one. You can't do the whole thing on day one; obviously, there are going to be some numbers from the appraisal model that you'll need to enter later. But you can do an awful lot early on. Some sections of the report can be completed very early: company background, descriptions of the lines of business, etc. Those are not going to change depending on the outcome of your appraisal. So, instead, those can be done early on. Then when you get some of the other pieces, those can be filled in as you go along. Writing a report is also a reminder of things that you need to cover in the modeling process. There may be more minute details or something you might not think of ahead of time when you're putting your project plan together. But if you're borrowing another report to copy its format and structure, you might find a good idea—something that they did in that report or appraisal before. So, it is a good checklist as well.

Appraisal reports are often used by non-actuaries. Keep that in mind when writing the report. If you can avoid being overly technical, so much the better. It'll probably save you a lot of time on the back end rather than have lengthy explanations and meetings with non-actuarial brethren, especially if the readers are likely not to have seen a lot of reports in the past. Particularly then, you want to err on the side of simplicity rather than go into a lot of detail.

Chart 1 shows a sample appraisal value rollup. While they are not all identical, this shows the typical structure of what one might look like. There are three major components: adjusted net worth, the value of existing business and the value of future business.

Adjusted net worth starts with statutory capital and surplus and then makes certain adjustments to make it more indicative of what the appraisal is trying to capture beyond just the Blue Book. For example, there is often an adjustment for the asset valuation reserve. Here, we're taking the home office building and converting it from the book value, which is inherent in the statutory capital and surplus, into a market value. Of course, the seller is probably going to have an optimistic value on the home office building. The buyer is going to dramatically slash that. You take the value of non-admitted assets from the statutory blank and convert it to something more indicative of the market value. There may be some value of state licenses, particularly if you're licensed in some states that are hard to become licensed in, plus the value of tax loss carry-forward. All those components rolled up would give you an adjusted net worth.

For the value of existing business, I assumed there would be three lines of business and present valued the after-tax profits using three discount rates, X, Y and Z. There's also a cost of capital adjustment, calculated as the PV of target surplus multiplied by the difference between the discount rate and the net after-tax yield on investments for each year into the future, then discounted at X, Y or Z. So, once again, it's the opportunity cost of the surplus used to back the business. Inherently what we're saying here is it could be earning the net after-tax yield on investments versus X, Y or Z. The value of future business parallels the same calculations we just described on existing business, calculating PV of after-tax profit and calculating the cost of capital associated with that block.

You also see expense shortfalls pop up in some appraisals. To the extent that expense assumptions, when applied to the projected units, produce less than what the company expects the dollars of expenses to be forecast, then that would pop up an expense shortfall. Typically, this would be a smaller company. It's still growing, has not yet reached critical mass. They will more often come up with an expense shortfall because they're anticipating they'll be able to pay for their infrastructure once they get big enough, but they're not quite there yet. So this represents that difference and takes a little bit off the appraisal.

For tax benefits from a coinsurance structure, it's common to present appraisals in the format that assumes it's an outright sale of the entire company. That would be a different tax treatment than if it were transacted through a coinsurance structure. This represents that delta between the taxes on a coinsurance basis versus the taxes on an outright sale. This is more to the buyer's benefit. The buyer might not want to participate in this and it's not anything the seller has. So, it often becomes a negotiation piece on this particular item; the final value may reflect part of this tax benefit, but you won't see 100 cents on the dollar. So, as I said before, time is key. Prioritize. Leave time for the unexpected. My time is up, so I will pass it over to Jim.

MR. JAMES S. HAWKE: In 2002, Conseco was drifting into bankruptcy as a result of extensive debt in the company. We had $4.9 billion of direct liability subject to compromise—a phase that you find in bankruptcy. That doesn't count the interest of the preferred shareholders or the common stockholders. The company had insurance holdings and a finance company, but the finance side was divested by auction under supervision by the bankruptcy court. The appraisal in our case was an appraisal of the insurance side; it was to determine the reorganization value of the corporation, the value that would inure to the creditors at emergence, and we ended up right at $3.8 billion.

The issue of tax losses did not find its way into the appraisal report. But it consumed a lot of energy and effort during the work because we had had massive losses in this finance company. That was probably the thing that took the corporation down. As that company was divested and moved off our books, there were potentially huge federal income tax net operating losses (NOLs). A thoughtful tax advisor who was working with creditor groups advanced the notion that you ought to be able to retain those NOLs on your insurance company side and still get the benefit of those tax savings.

So the non-insurance holding company, which had owned the finance company, was merged with the insurance holding company in the wee hours before we emerged, and so those NOLs did move onto the books of the insurance company. The outside advisors working on our appraisal were immediately asked to factor those savings into the appraisal report. We were trying to do all the right things with projecting tax reserves and the proxy DAC tax and making sure we had the best representation of the actual taxation we could get in there. But the actuaries just didn't want to bring these non-insurance NOLs into the projection. In fact, that's the way it ended up, but it's an example of some of the twists and turns that the process can take and things that you have to deal with.

One of the interesting things was how can it be an operating loss? It looks like a capital loss. We owned some stock. We sold it. We took a beating on it. How is that an operating loss? I don't know. But the tax experts are working on that. My understanding is that if those savings do emerge, that somehow in the workings of PGAAP we couldn't even put up a deferred tax asset for it. What's going to happen if those savings emerge is that they will be used to write down goodwill as we go. If you think about it in simplistic terms, had we booked those NOLs, the benefit of them, goodwill would have been lower. Ergo, as we get the benefit up, we write down goodwill.

In our case, as I said, the purpose of the appraisal was to determine the emergence value of the corporation. It ended up being $3.8 billion. We did use the typical actuarial appraisal report format. In fact, Chart 1 could be a template for what appeared in our appraisal report. The value was the value of inforce business, plus the value of adjusted net worth, plus the value of future sales, plus an adjustment for corporate level expenses, exactly as Rick laid it out. Of course, in our case, the difficulty was that the value wasn't big enough. There wasn't enough to go around.

The bank creditors, of course, had the first claim against the assets. Had they been obstinate, they could have caused us to be broken up and liquidated. Their ideal solution would be to have their amount of recovery in full as new bank debt. When we set the appraisal value against the amount of the bank debt, we looked at what our debt-to-equity ratio was going to be if we emerged that way. It didn't look good.

All the creditors had to look at this in terms of what do we do to get this company to emerge as a company that has a shot at getting its ratings back? In the end, the banks received far less than their original claim in new direct debt, and the rest in a new preferred stock issue that we put out. Interestingly, just a matter of weeks ago, we issued new common stock, raised new equity money and retired that preferred stock. So it was a stopgap measure. We're almost a year out from emergence, but initially the banks had to settle for that.

The bondholders received the lion's share of the new company's common stock, almost all of it. All of their bond recovery was in common stock. The creditor group that was on the bubble was a set of trust-preferred shareholders who were next in the creditor line. They ended up receiving only a small amount of common stock, an interesting kind of a compromise solution for them. During all the negotiations, they would advance ideas for improving the value—lower the discount rate, get those tax NOLs in there, do this, do that—trying to get their recovery up. In the end, they got a set of warrants to go along with this amount of common stock. If, in fact, any of those ideas materialize, and the future profits are there, it will pay off for them. They'll have a recovery on those warrants.

Lastly, at emergence a new phrase popped into my vocabulary: "fresh start." There is a type of accounting called "fresh start accounting." Appropriately, that's what you do when you emerge from bankruptcy. It's governed by SOP 90-7 if anybody wants to look it up. I never did, because I had enough faith in our accounting advisors at the company. They kept telling me to think PGAAP. From your point of view, it's just PGAAP, that's all. In the end, that's what it boiled down to with the reorganization value of the company in place of the purchase price. So, anything you read on PGAAP, if you're thinking about a bankruptcy case, just substitute that reorganization value for the purchase price, and you have it taken care of.

One other curiosity happened with our fresh start. SOP 90-7 has this provision, which may exist in other PGAAP applications as well, that any accounting pronouncements that are to become effective in the coming 12 months have to be adopted coincident with fresh start. We emerged at the end of August 2003. Unfortunately, SOP 03-1 was adopted in July. That's the non-traditional life SOP that they are still trying to work out the interpretation. What does it mean? How do you do it? We had to report using it at the end of September. When we published our third quarter 10Q, we had to include new numbers according to 03-1, and we pretty well butchered it, I'll tell you. Looking back, I'd say we did the best job we could, but we're still putting together the pieces of it and trying to work that out.

My real mission today is to talk about things from the appraisee's point of view, what it's like to the in-house staff. Maybe I can shed some light on it at least from the company point of view. One evening last February, I was sitting down in the bowling alley as I was about to bowl in the company bowling league. A young guy from the IT department flopped down next to me with a big sigh. He asked, what's the worst day of the year? Of course, I'm an appointed actuary. It was about February 20. And in my mind the worst day is February 28. No question about it. But I knew that wasn't what he had on his mind. So I said I don't know, what? He said, appraisal day.

I'd have to admit, looking around my department as we started into this appraisal process, it looked like the worst day of the year considering what we were up against. But in this guy's experience, he was talking about annual performance appraisals, which Conseco does at the end of the year in February, all at once. His cubicle was right outside the conference room where the supervisor was doing the appraisals. So all day long, he watched his friends trudging into the room and trudging back out, and it was just a heck of a day for him. Being the company actuary, it can be a little bit like that.

There's an overwhelming need for data, and the actuarial department seems to be in prime position to provide that. Particularly at an acquisition company like Conseco, often we're the only ones that have anything from the original company location as to original marketing material and rate sheets and even policy forms. The demand for data can be a bit overwhelming. One of the guys who works for me said I just feel like they're crawling in one ear, and they're looking out my nose, and they're trying to see everything I have in my head. It can feel like your knowledge of the company and the judgments you've made in the past and all the work that you've done are being put under a microscope, and the truth is they are.

That's what happens in this kind of a situation. If you can, prepare for it. I would echo Rick on the time limitations and the need for planning. No other project I've ever been involved in has such an overwhelming need for planning and tracking as you go along, especially when you think of all the files and all of the information that you need to get to your advisor so he can do his job. You need a timeline, and you need to keep rigorous track of it.

Data quality is of utmost importance. My career goes back to the early 1970s, when a lot of this kind of information came on paper, but nowadays it's all going to be electronic. So it's best to think about it in those terms. You'll learn acronyms like FTP, which I think stands for file transfer protocol. You manage to ship out huge data files, admin system inforce files, reserve answer files, all types of information to your consultant in that manner.

In the case of Conseco, we definitely saved a lot of ground by eliminating some minor blocks. In fact, when you think about it, our primary job was to determine that $3.8 billion. So we were working in hundreds of millions of dollars. We had whole companies that were immaterial at the hundred-million-dollar level. You needed to be able to show that something is a very small company. The earnings are very predictable. They're very small. They're not material. We can set them aside. These were companies that had hundreds of policy forms, thousands of premium rates and cash values and reserves, significant modeling efforts that just weren't material to the end result.

There can be built-in problems with these little blocks sometimes. That's probably one of my bigger contributions to the effort. If I'm the appointed actuary for these companies, I ought to be able to advise on whether there are such things lurking. It's a different challenge to a consultant from the outside, whether he wants to take my word for it and how much due diligence he needs to do. That's where the intuitional effort comes in. He wants to look at those five-year histories of the Blue Books and decide if what I'm telling him is really true and if the earnings are that stable. But in the end, if you can spend a few hours and take a block or a company off the project chart, it's well worth it.

For product information and experience studies, the need for information is simply crushing—the policy forms, the rate files. Even this last time, I noticed something that was very useful to the consultants: our illustration software on UL business. If we could just give them disks so they could run illustrations, then they could use that to check the policy values that were being generated by their system independently without having to go back and forth with us on it. Ideally, you need to have a due diligence data room at your fingertips or, if you don't have one, think about what it's going to take to get one.

I thought I'd take a minute to talk about discount rate, mostly because it's something that always fascinated me. I've always been on the valuation side and, until this most recent appraisal, never got much of a view into the choice of discount rate. I finally saw one as it came together, so I thought I'd tell you about it. It always seemed a bit of a mystery to me before. With Conseco, going back to early 2002, we had done a goodwill recoverability project because of Financial Accounting Standard (FAS) 142. People familiar with Conseco would know that, prior to bankruptcy, we carried a bunch of goodwill on the books. That was one of the hallmarks of the founding fathers of the company. They were not afraid of goodwill. And we knew going into the FAS 142 demonstration that we ought to have an outside advisor work on that for us, because we would need a seal of approval no matter what the findings were. In fact, the findings were pretty hard to take, and were probably one of the dominoes that started our drift toward bankruptcy.

Our advisors on that project came up with a 12 percent rate. It was a weighted average cost of capital type of rate, the weighted average being an average of two rates. One is what you would likely incur for debt financing, and the other what you would likely incur for equity financing. In our case in early 2002, prior to bankruptcy, the debt rate was taken at 7.9 percent. That was a BAA grade corporate bond rate as of year-end 2001. The equity rate was developed using the capital asset pricing model approach where you take a risk-free rate. Our advisors were using a 20-year Treasury, which on 12/31/01 was 5.7 percent. You can add in an equity risk premium, which they picked as a long-term average, like a 30-year average, which was 7.8 percent at that time. Then they applied a company beta to it, a 75 percent beta for Conseco, being that our price movements might be 75 percent of the stock market as a whole. And then they added in an additional 1 percent risk premium for the size of the company and our competitive positioning.

Those components got them to the equity rate of 12.6 percent, and our debt and equity makeup at that point in time gave them the weighted average rate of 12 percent. So, 12 percent was used in this goodwill recoverability study for all of the assets that were deemed to have a risk profile similar to the insurance business unit. At that time, we had the finance unit as well, and the insurance units, and this was all on the insurance side: the discounted cash flows for the business, the value of the agency force, the state licenses and the insurance proprietary software. There were just a couple of intangibles—trademarks and trade names—for which they bumped the rate up and valued those at 14 percent, thinking that those are even riskier than the insurance business that we were in.

That was for goodwill recoverability purposes, and shortly into 2002, as we headed into bankruptcy, we began to look at it in a new light. Amazingly, the 12 percent survived. That was the appraisal rate that the $3.8 billion was calculated upon. But how we got there became really interesting, because all those pieces of the formula that I just mentioned became moving pieces during bankruptcy. The whole process took almost a year. During that year, the BAA rate dropped a hundred basis points, and, of course, we were no longer BAA. That was the whole point of bankruptcy, to figure out just what we were going to be. We hoped to be BAA. The Treasury rates fell, for the purposes of the second piece of the equation. Our competitive posture certainly changed. If a 1 percent risk premium was appropriate then, what was appropriate now? And, again, the debt-to-equity mix was what was being debated.

It became a circular argument as to what this discount rate was going to be. I think the best way to summarize it is that two things were at work. One was that the creditors were looking ahead to see what they were willing to do, what the company would look like at emergence, and what the weighted average cost of capital ought to be for that company. At the same time, given that it took us a year to get through bankruptcy, there were a number of insurance industry acquisitions going on, most all of which were at discount rates higher than 12 percent. So, there was a natural kind of incredulity, if you will, to going below 12 percent at the same time that groups like the preferred stockholders were pressing the issue. Going to 11 percent would have made an incredible difference in their recovery, and going to 10 percent might have given them a full recovery. So, it was a very dicey issue, and in our case, it was a compromise in the end.

In our case, it was the company that had to advance what the rate was going to be. I think you'll find in almost any appraisal report that a consulting actuarial firm is not going to opine on that. Typically, an appraisal is put together for a seller, and maybe looked at by a number of buyers, and they're going to illustrate multiple discount rates like that. In our appraisal, the consulting firm stated outright that these were the discount rates that the company asked us to illustrate. At the same time, the issue was contentious enough during bankruptcy that both the investment banker who advised us and the consulting actuary provided expert testimony in support of the 12 percent. In our case, they were drawn into making an explicit statement about what the discount rate ought to be, but it was the company that had to advance it to the credit holders for their review, and then the argument began, and ultimately it was the judge's call. The judge that closed the bankruptcy hearings decided that the testimony was relevant and acceptable and that 12 percent was meaningful, and that was the rate that it would be.

There was another interesting assumption that had to be dealt with in this appraisal, something that I've never seen in an appraisal or cash-flow testing before. In Conseco, we have a pretty significant block of UL business comprising a variety of plans of insurance. Some of it had pretty aggressive cost of insurance (COI) structures in it. For some of the plans, we had begun to increase COIs. Others we knew we were going to increase and some others were still a gleam in somebody's eye. But as we began to do that, credited rates were falling and fixed rates that were being credited to the UL business were getting pretty low. Distribution actually came to our sales force and said they thought that a significant number of these insureds would exchange their policies for our new equity-indexed UL.

Equity-indexed UL was the product that we were primarily selling at the time we were going through bankruptcy. Their idea was that the insureds would forego a favorable COI structure—possibly favorable now, but we don't know how long it's going to remain favorable—and move to this equity-indexed contract that might give them a promise of a better yield. It's a difficult issue. Several parties have objections to that. Nevertheless, the company went with it, and the distribution had great success with it. So the consultants, when they came in, had this program with a very meaningful impact on future profits. They had to make assumptions as to what the COI increases in the future were going to be and how much of the remaining business was going to be exchanged.

We had to come up with data on how many of these policies had already received an offer and had not responded to it. How many had recently received an offer and still had time running? How many were yet to receive an offer? We needed to know what the acceptance rates looked like. All of that was pretty straightforward. The hard part was coming to the mortality assumption on those that remained. Any of you who have dealt with exchange blocks know that it tends to be the insurable lives that flee the group and those who are unable to leave are the ones who stay behind.

We also had some big issues in our long-term-care block. I'm a life and annuity actuary. I don't know any of the details of long-term care other than we pulled out of our long-term-care block. We had high losses. As we were going into bankruptcy, we were in negotiations with a couple of state insurance departments on how we were going to remediate this. Were we going to be able to increase rates? Were we going to be able to reduce benefits? Were we going to be able to terminate the whole thing if we wanted to? That was a wild and woolly playing field to try to set an assumption in, and the consultants did a good job. They had to come up with a reasonable set of assumptions. They might not know exactly what the solution is going to be, but they could propose that we should be able to achieve something like this, that the value of this business should end up looking something like this.

In mark to market, we ran into complex issues. They are always there in any PGAAP exercise, more so in PGAAP than appraisals because in an appraisal you usually look at a statutory projection. You don't get into mark-to-market complexities except as to the assets that back surplus that need to be adjusted. But when you get to PGAAP, and you get to doing your VOBA calculations, you're going to have mark to market on the entire investment portfolio. We did ours at a point in time when yield rates were very low, so the value of the assets was greatly inflated.

It was also a time when the yield curve was extremely steep. We learned after the fact that though getting that mark to market was pretty straightforward, since we knew what the new portfolio earned rate was going to be, it wasn't going to emerge as a level portfolio rate at all. The securities that were going to mature early on in the near-term period following emergence had been valued at the very, very low rates at the short end of that steep yield curve. So they were going to mature and give way to the higher yielding securities that were longer and had been valued at a higher rate. That's always there in any kind of a PGAAP exercise. But in this case, the curve was so steep that it threw off our expectations as to how earnings were going to emerge after the fact. I would recommend that as you get into a PGAAP exercise following an appraisal, if at all possible go ahead and take a look at a projection of your assets under the GAAP mark to market and see what it will look like.

For expenses, with the creditor groups trying to get as good a value as they could out of the appraisal, we ended up with our actuarial projection using unit costs that were deemed to be industry level costs. Company management was charged with the mission of getting there. Initially, we had current expenses well in excess of these industry level costs. The project headed down parallel paths. The actuaries could work on their projections using these unit costs and so forth. At the same time, others were working on the excess costs, trying to pin down what it was we were going to do to reduce cost, what the timing of that was going to be, and come up with a schedule for the reduction of these excess costs. They came back into the appraisal at the back end. When the in-house actuaries got the benefit of all these projections and we had to do VOBA, we had to find a way to get those excess expenses back into the VOBA calculation. It's very important that they are there and that you have those kinds of interactions with actual expenses versus expected.

The effort in reviewing the report is something you need to be prepared for as well. I'm speaking from experience here, because I didn't do nearly as good a job as I wish I had on reviewing the report. When you're trying to build buy-in in a company, some of your colleagues in investments or legal or accounting will view these consulting actuaries as being omniscient. Whatever they say, that has to be right. They don't need any feedback from me. But nothing could be further from the truth. Others will be at the other end of the spectrum and will resent these outside folks opining on the value of their work and whether they've had the right investment strategies.

As the in-house actuary, you find yourself at the hub of all this. You'd like to play the role of trying to build collaboration and buy-in on everyone's part, because if the appraisal does turn into your business plan, you're going to need that buy-in. You're going to need that kind of collaboration and everybody getting comfortable with it and providing everything that they can. At the same time, the timeframe really scrunches down, and the electronic data transfer really comes into play. In the last week as we were finalizing the report, people at the consulting firm were zipping up these notebook-size reports and e-mailing a zip file to 10 or 15 people. You'd be expected to read it and comment on it by the next day and somehow at their end they'd have to put all these comments together and try to get the edits into the report. It was wild.

A word about incidence: In our case in particular, as the report came to fruition, you most focus on items other than Job One, which was the PV. The bankruptcy proceedings couldn't begin until we had a number, and so that PV, that $3.8 billion, that was Job One. But after that, by the time we get to the report, we had statutory projections and GAAP (and PGAAP) projections in there that turned into our business plan. It was time to pay attention to incidence questions like the mark to market on assets and the excess expenses and how they were going to run off right down to the quarter. You come out of this with a three-year quarterly GAAP business plan. You'd like to have those items right when you're done.

In addition, I found that when reviewing the report, it was a good time to take stock of all the things that you were queasy or uncomfortable about and the things that generated a lot of debate during the work. Be sure that there is something on sensitivity tests about those assumptions in that final report.

I just want to put in a plug for this new textbook. I had the opportunity to read one of the chapters. It's the accounting chapter, but don't let that put you off. It turns out it's all about VOBA formulas. Many times as I was reading it I thought, oh, gosh, if I'd had this book 20 years ago, it would have saved me so much time. So I highly recommend it to you in terms of learning the details and mastering your craft. If your career hasn't been touched by an appraisal yet, it will be before it's over. Unfortunately, it's becoming a way of life. I can't even count how many appraisals have touched my career. Read it as soon as you can; take advantage of that.

As you learn these VOBA formulas and the appraisal formulas, and you're deep down in the algebra of all that, it's easy to come away with the idea that goodwill is the value of future new business. It's interesting; it's the way it seems to be. A number of actuaries at Conseco, the in-house people, walked away with that idea. But when the auditors showed up, we learned to our chagrin that, oh, no, that upsets them mightily. You never want to claim to a calculated goodwill, because goodwill has a formal definition: "that part of the purchase price or reorganization value that could not be attributed to specific and tangible or identified intangible assets." It's the balancing item, and the accountants want to figure out what that is. You don't want to lay any claim to have had any advance knowledge of what goodwill was going to be. Stick to your VOBA and you'll be fine.

Lastly, the in-house actuary also has a role between the appraiser and the auditor.

Usually the appraiser's work is gone by the time the auditor shows up. But the auditor who works with your PGAAP is going to want to look at that appraisal report. It's going to help you out if you've built the story of how you got from A to B. What were the considerations that got from our historic GAAP assumptions to our new PGAAP assumptions and where did the appraisal fit in there? How did that all work? That will smooth things out greatly if you do that. So, that's it for me, and I'm going to hand it back to Tom to finish up with comments on the book.

MR. HERGET: Thank you, Jim. In the M&A textbook, chapter 4 addresses the issues and concerns that Jim and Rick just talked about. We've compressed their speeches into about 60 pages of good information.

Chapter 5 discusses due diligence, which is the next step in the process for M&A. During due diligence, you affirm everything. You confirm the value that you are going to realize, the strategic values, the market share, the synergies and the unit cost reductions. You confirm the financial gains. You look for reserve inadequacies, missing liabilities and overvalued assets. You look at operational issues. You look for weaknesses. You identify culture issues. You confirm key staff retention. You look at systems. You look at agency. You also start to develop your PGAAP assumptions during the due diligence. As a result of due diligence, you construct an appropriate bid and you prepare for the successful integration.

Chapter 6 talks about how actuaries can be used in other corporate items, particularly the valuation of employee benefit programs and existing risk management practices. Chapter 7 discusses the tax aspects of an acquisition, which are multitude. Chapter 8 is almost 100 pages on PGAAP. One of the reasons it's so challenging is that there isn't any particularly authoritative information on how to do PGAAP. We have FAS 141 and 142. They talk about using the purchase method. They talk about goodwill. They talk about intangible assets. But they don't really specify, other than saying fair value for the valuation of insurance liabilities. The only authoritative literature from an accounting perspective is Concept Statement 7 which was written for all types of industry. So, there's a wide variety of practice in PGAAP, and the book spends a lot of time talking about the various ways of implementing and maintaining actuarially derived balance sheet items. It talks about liabilities, VOBA, goodwill, intangible assets and impairment testing.

Chapter 9 talks about integration, its success stories and failure stories. Chapter 10, the last one, contains "Tales from the Crypt." These are M&A stories similar to those Jim has talked about here. There are some things you wouldn't have expected, some disappointments, some happy moments. We've compiled about 50 different stories and you'll enjoy certainly reading them. All of them have a lesson learned.

FROM THE FLOOR: You spend a lot of time talking about the Blue Books and statutory accounting. How important is GAAP accounting to the valuation process that you go through? And from somebody who only has an outsider's perspective, who doesn't have the ability to get the big downloads of data files, where do you think GAAP is the most important to the valuation process?

MR. HERGET: GAAP is often a source for assumptions. Your current FAS 97 GAAP will have current assumptions, and recoverability or loss recognition on FAS 60 blocks should have assumptions there. Existing GAAP is good for that. Most likely the shareholders on the buy side will be looking at likely PGAAP profit emergence. They want to know how earnings are going to emerge. So it's very important that you study the alternatives for PGAAP, the VOBA calculation and the options for establishing benefit reserves. I think GAAP is almost as important as the appraisal value, which is always, of course, based on statutory.

MR. FARRELL: One other check you could use on the GAAP, too, is once you go through the PGAAP process, DAC vanishes from the balance sheet. Now it's replaced by VOBA. Typically, the two should be reasonably similar. If you see a big discontinuity between the DAC you're taking off and the VOBA you're putting on, then something may be amiss.

MR. HERGET: You need to establish GAAP assumptions and methods for business issued after the purchase. During the appraisal, this may have been done pretty quickly. Under the historical GAAP (HGAAP), you should be able to look at the emergence of earnings and see level results, earning either as a function of estimated gross profits (EGPs) or earnings as a function of premiums, depending if you're FAS 97 or FAS 60. (Of course, with due regard for PADs). Review of earnings emergence is a good check for reasonableness of results. You've probably gone through 200,000 keystrokes to get this job done and there may have been one typo. Doing a GAAP projection might spot the problems.

Chart 1

Sample Appraisal Value Calculation

		Discount Rate X%	Discount Rate Y%	Discount Rate Z%
Adjusted Net Worth				
	Statutory Capital and Surplus	xxxxxx	xxxxxx	xxxxxx
	Asset Valuation Reserve	xxxxxx	xxxxxx	xxxxxx
	Market Value Adjustment for H.O. Building	xxxxxx	xxxxxx	xxxxxx
	Market Value of non-admitted assets	xxxxxx	xxxxxx	xxxxxx
	Value of state licenses	xxxxxx	xxxxxx	xxxxxx
	Tax loss carryforwards	xxxxxx	xxxxxx	xxxxxx
Value of Existing Business				
	LOB 1 (PV after-tax profits)	xxxxxx	xxxxxx	xxxxxx
	LOB 2 (PV after-tax profits)	xxxxxx	xxxxxx	xxxxxx
	LOB 3 (PV after-tax profits)	xxxxxx	xxxxxx	xxxxxx
	Cost of Capital Adjustment	xxxxxx	xxxxxx	xxxxxx
Value of Future Business				
	LOB 1 (PV after-tax profits)	xxxxxx	xxxxxx	xxxxxx
	LOB 2 (PV after-tax profits)	xxxxxx	xxxxxx	xxxxxx
	LOB 3 (PV after-tax profits)	xxxxxx	xxxxxx	xxxxxx
	Cost of Capital Adjustment	xxxxxx	xxxxxx	xxxxxx
Expense Shortfall		xxxxxx	xxxxxx	xxxxxx
Tax Benefit from Coinsurance Structure		xxxxxx	xxxxxx	xxxxxx
TOTAL		xxxxxx	xxxxxx	xxxxxx