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# Session 70OF Pricing Challenges Today

Track: Long-Term Care

Moderator:	ALLEN J. SCHMITZ
Panelists:	DANIEL BRET CATHCART
	GREGORY A. GURLIK
	ALLEN J. SCHMITZ

Summary: Long-term-care (LTC) insurance may present more pricing challenges than any other insurance product. This session explores a number of these issues and suggests opportunities to minimize the risk or maximize the profits. The expert panel discusses topics such as the appropriate assumptions for claim costs, mortality, interest and lapse rates; regulatory issues and the ability to obtain and implement rate increases; risk-based-capital requirements and the cost of capital with LTC insurance; and the challenges of obtaining reasonable ROE and ROI targets.

**MR. ALLEN SCHMITZ:** Welcome to Session 70, Pricing Challenges Today. You'll notice that there is no mention of long-term care (LTC) in the title of this session, but I can assure you that it will be the sole focus of what we talk about. I'd like to start by introducing Greg Gurlik and Dan Cathcart. Greg has been a director of LTC product development at Northwestern Mutual for the past three years. Prior to that he spent 16 years at Fortis, the last 11 building its LTC block.

Dan is the pricing leader at ERC and has been pricing LTC for the past 12 years. He has been assisting companies getting into the business and providing reinsurance solutions.

I'm a consulting actuary at Milliman USA in Milwaukee. I've been there for the past five years.

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

This session is an open forum, which means we're going to present some information, but we also want to get as much feedback and input as possible from the audience as we go through the presentation. We're going to a little role playing today. Greg and Dan are going to be LTC pricing actuaries, and myself, as well as the rest of you in the audience, are going to be the chief actuaries of a company that thinks it has significant potential in the LTC market.

We don't have any marketers in this meeting because we want to talk about specific actuarial issues, but I think we can represent their point of view. You can assume that our company is beyond the decision of whether or not to be in the market. We've had a couple of years of sales experience but not enough to form any amount of credible experience or obtain critical mass.

The focus of Dan and Greg's presentation is going to be on assumptions and sensitivities, not necessarily the final premiums. They're going to show you some assumptions used in specific calculations. While they are realistic assumptions, based on actual companies' filings, they're not intended to represent any one particular company, nor do we intend to discuss the assumptions of any particular company. We're not in any way recommending or endorsing any of the assumptions presented here today.

The NAIC LTC model regulation now requires that "the initial premium rate schedule is sufficient to cover anticipated costs under moderately adverse experience and that the premium rate schedule is reasonably expected to be sustainable over the life of the form with no future premium increases anticipated."

The Academy Practice Note also suggests that the actuary understand the company's product line management strategy and under what scenarios or situations the company would seek a rate increase. You can view this meeting that we're having as the start of this process. As part of the team, you're invited to give your input and suggestions as we go through.

**MR. DANIEL CATHCART:** Good morning Allen. Good morning team. What Greg and I would like to do today is present some pricing implications as we move forward with our new product generation. What we've done to date is basically researched the industry. We gathered actuarial memos from 15 of the top LTC companies and we documented the ranges of the actuarial assumptions for those companies. After looking at those ranges, we then picked best estimates that we believe are reasonable and added a margin for adverse deviation to get to what we're going to call our original pricing assumptions. Those original pricing assumptions obviously lead to premiums. But as the final step, we're going to look at the sensitivities surrounding what other margins we could use and the effect on those premiums.

In the end, we have a platform for a decision on what our comfort level of pricing is compared to the competitiveness of the premiums. In terms of the pricing

assumptions, we're going to review investment income, persistency, claim costs, morbidity selection factors, expenses, surplus requirements, risk-based capital and various profit objectives.

Given the high-level view of what we're going to go through, I want to know if there are any other issues that you think we might want to address as we do this pricing conversation.

**MR. SCHMITZ:** I would like to have some discussion of the expenses and the level of critical mass. I'd also like to talk more about those margins for moderately adverse experience. What happens if we don't have enough margins in our pricing? What are regulators are going to say if we need a rate increase? What level of rate increase might be necessary in order to maintain some reasonable level of profitability?

**MR. GREGORY GURLIK:** I think we can cover all that this morning. We'll start by talking about the margins for adverse experience because we needed to make a decision as we put this information together for the presentation this morning.

There's still discussion on whether we should be looking at these margins on each assumption or looking in aggregate. How do we do that? For our work, we have taken a look at building it into each assumption, as opposed to the aggregate.

**MR. SCHMITZ:** If we do that, does that overstate the case to the extent that any items are maybe negatively correlated, such as lapse and morbidity, or to the extent that just the pure probability of hitting each item at one time? Does that imply a more significant margin than what moderately adverse might mean in the aggregate?

**MR. GURLIK:** It could. We'll take a look at that. After we go through all the assumptions, we're going to take a look at what the end result is, take a look at our margin, see if we do think that it overstates and what the alternatives are when we get to that point.

As we go through these charts, be aware that we've labeled some things as "best estimate." That's what we really think. That is our best estimate without any margin at all. Then we've made an initial pricing assumption that does include the margin. We can take a look at investment income as a relatively clean assumption that we can start with. Remember, we have 15 actuarial memorandums from other companies that include their filings of the last year to year and a half. It's not today's news necessarily; it's what was filed fairly recently, which is work those companies did some time before that. Keep in mind it could be a little bit dated, but we've been able to put together some charts that show the range of the assumptions actually being used out there.

For investment income, you can see in Chart 1 that some companies started at 7.5

percent and there's some grading down by duration. Other companies used the level assumption, the lowest assumption being 5 percent. That's how we've set up the information in order to get our best estimate and to validate what we're using for our initial pricing assumptions. When you look at the investment income assumption, keep in mind that this is something that does impact the lower ages and the inflation protection coverages more than some of the other assumptions.

When we looked at this information and talked to the folks over on the investment team, we said 6.5 percent might be a best estimate of a long-term pricing assumption, not necessarily reflecting today's rates, taking into consideration what's been in these actuarial memos for other companies. For an initial pricing assumption we would then have a 50 basis point margin and use an initial pricing of 6 percent.

We've also said that by putting that margin in of 50 basis points is going to lead to premiums that are about 4 percent to 5 percent higher then, varying by age a little bit.

FROM THE FLOOR: Why is 6.5 percent being considered?

**MR. GURLIK:** Is 6.5 percent too aggressive given today's interest rate environment? Perhaps it is. I think we'll have to take that into consideration. Remember that our objective in putting the presentation together this morning was to provide some information on what the industry was filing. You'll find that our initial assumptions are tied very closely to the midpoints on these different assumptions, relative to what was filed out there. We're not making a case to advocate any particular assumption at any point in time. But yes, as a company, we have to carefully consider whether or not 6.5 percent is overly aggressive with today's environment. Just be aware that 6 percent is what we used for the initial pricing assumption.

**MR. SCHMITZ:** Greg, I think that 6 percent may be somewhat aggressive. Given how sensitive our profit level is to that investment income assumption, should we be looking at a different profit target in this kind of an interest rate environment? Or should we be pricing that into the premiums because there are still significant risks inherent in this product?

**MR. GURLIK:** That's something to consider. Companies, to some extent, tie their profit objectives to the interest rate environment. They look at an interest-free or risk-free rate, and add on to that to ask, "What do we need as a company?" Anecdotally, we would say that there are some companies that have reduced their profit objectives over the last year or two, given the current environment. We haven't done that yet for our exercise.

**FROM THE FLOOR:** Did you assume a certain bond rating? **MR. GURLIK:** No. We assumed that other companies were filing between 5

percent and 7.5 percent, and we're right in the middle for our initial pricing exercises. If we were doing this exercise within a company, we probably would *not* go to the marketplace, but look to see what other companies were filing and pick a rate in the middle. If you get my drift here, we're looking at information that companies filed over the last year to year and a half, based on information they were developing a year prior to that. These were the assumptions they used. We're in the middle.

**MR. CATHCART:** We're mainly focused on the process and the considerations during this process, not the final numbers that we used.

**MR. GURLIK:** There would be a risk, to some extent, if we picked a different assumption in that all of a sudden we would be advocating, saying that here's what we think is the right assumption. That's not what we are trying to do here. We're trying to come up with a process and show you some sensitivities. We'll see how it works.

**MR. CATHCART:** Over time, voluntary lapse rates have really trended downward and are a lot lower than we originally anticipated (Chart 2) It was good to see that the range at the highest was 3 percent, so companies across the board are recognizing that lower lapse rate.

There are various considerations. You do have to think about your company specifically. Strength is one aspect, but the way you market the product and the type of insured that you have is critical to that loyalty and the persistency on the product.

I did list some other considerations, including inflation, rating classes, gender and marital status. I'll defer more to the SOA Long-Term Care Intercompany Study if you want to look at specifics on that. Again, there are a lot of considerations that we, as this company, want to look at in terms of picking what lapse rates to use.

One consideration that I will comment more on is the later-year upward trend that was shown in the SOA study. There are two ways to look at that. You could, from a pricing standpoint, have your lapse rate trickle upward a little bit in the later years—call it 10+ years. We decided not to, and I'll get into our assumptions soon. Arguably you could say that that's an additional margin for adverse deviation.

In terms of the assumptions that we did use, again, you can see that we really focused just on the ultimate rate the first few years. We don't have too much of a sensitivity.

Again, we fell in the midpoint there. For our best estimate, we went with the 2.5 percent ultimate. We added the 1 percent, or 100 basis point margin, to our initial pricing effort. That difference results in premiums that range between the 6 percent and the 9 percent sensitivity. Generally, the higher sensitivity is due to younger

ages and inflation protection products.

**MR. SCHMITZ:** Yes, that's a pretty sensitive assumption. I notice you have some other things listed there, like gender, marital status and rating classes. Are they significant determinants in the level of lapse rates that we can expect to see on this business?

**MR. CATHCART:** I think they can be. You have to look at your distribution and the type of insured that you end up with. I think all those elements can make a difference.

MR. SCHMITZ: Are there other items, such as premium mode?

**MR. CATHCART:** Yes. Certainly one that I should include is "group versus individual." That has a big impact. As you just said, premium mode has an impact. Generally, the more the insured sees the bill, the more they lapse. An automatic payment would have a lower lapse rate and annual payment is usually a lower lapse rate. The other aspect is limited pay. Certainly limited pay would have a lower lapse rate as well.

The other piece of persistency is mortality. We documented for the tables that we found in the actuarial memos. Generally, the mortality is trending downward over time (Chart 3). Because the sensitivity was just over 1 percent when we compared the highest and the lowest mortality tables (at the most it got up to 2 percent sensitivity), for this presentation it wasn't an assumption that we dove into too hard. We went with the 94 Group Annuity Mortality (GAM) table. It is the most recent and the most conservative.

**MR. SCHMITZ:** One thing I hear when I talk to others is that LTC pricing actuaries just blew it on termination rates in the past, whether it be mortality or lapse. How do we know that we are now finding where that ultimate level is? Is it that it just can't go too much lower?

**MR. CATHCART:** I think that as trained actuaries, we know that we're not going to get it right. But in terms of being as accurate as possible, I think yes, the mortality is trending lower. But certainly there's a limit to how low it is going from the lapse rate side, which has hit us the hardest for long-term care. Now that we're pricing down at the 1.5 percent to 2.5 percent range, I think we've finally balanced the upside and low-side potential of being wrong. As more and more experience comes through, we have more of a comfort that our assumptions are more on target than in the past.

Let's talk about morbidity. I want to start with showing how variable could be. What's represented in Chart 4 is first uninsured survey studies (the nursing home study, the home care study) and also the SOA experience study. You can see there's a huge differential between the uninsured environment and the experience

environment. I did make adjustments to the survey studies based on the selection factors of the SOA study, so they were fairly apples to apples. I wanted to show how dramatic the variation can be on morbidity and how much of a range there is for coming up with reasonable claim cost.

Chart 5 shows what we found with the actuarial memos. There were five companies included in that group of 15 that showed claim cost. We looked at the 100 percent comprehensive claim cost. In the upper right, you can see that I documented those five claim cost streams. In the lower corner, you can see for this pricing exercise we used the average of those five companies, and as a best estimate we used that pricing average. The other two lines I just pulled from Chart 4—of the wide range that can be found depending on how you do your studies.

We used the pricing average for our best estimate. For initial pricing we added 10 percent, and in terms of the sensitivity on that, basically we're talking 99.5 percent of that having to do with how much expenses you use in the product. But generally, it's up near 10 percent if you increase the claim cost by 10 percent. Then again, there are many considerations that affect morbidity. To be honest, you need a whole separate presentation if you really want to dive into morbidity implications. But as I listed in Chart 5, you have gender, marital status, rating classes, underwriting and future morbidity, which is obviously a hot topic, because the benefit limits and inflation can have a significant effect on morbidity.

**MR. SCHMITZ:** I think we should get that meeting scheduled to discuss more in depth the impact of underwriting in claims and potential morbidity improvements. As I look at your charts and at how variable the morbidity assumption can be, I think we should also explore what kind of reinsurance options are available to us to the extent that we're not too comfortable with taking some of this morbidity risk.

**MR. CATHCART:** The selection factors, again, for this exercise, wasn't one that we dove into too much. We did document the various selection factors that we found in the actuarial memos. As shown in Chart 6, the key considerations are the underwriting criteria, the issue age that you're mainly selling to and the sales and the product focus. In terms of what we did, you can see the ranges of the industry. We used the average. In terms of a margin, the margin is in the rest of the morbidity, so we didn't make any adjustment to the average selection that we used.

To give you an idea of the sensitivity, if you eliminate selection factors completely, the premiums were 10 percent to 12 percent higher. That's the largest sensitivity that you can have.

**MR. GURLIK:** The next assumption we looked at was expenses. It's very difficult to go to the industry and figure out what it's using because everybody's expense assumption structures are different. We did the best that we could. We wanted to get to an assumption that had a long-term appropriate expense level, including

some margin in there for development costs for our expenses today and also for projects that we'll be doing down the road. Chart 7 shows the assumptions. The best estimates for the most part were pegging them in the middle of the ranges. We're adding some margins. There are a lot of detailed numbers here. These are combinations of some fixed cost per policy and percent of premium. When we looked across the board we tried to come up with something that was reasonable in aggregate. As the first year assumption, we thought \$120 plus 10 percent of premium, which we translated into an assumption of about \$300 as a best estimate. As the initial pricing assumption we're suggesting \$360, which is about a 20 percent margin.

If you go down the rest of the assumptions, we've done the exercise the same way. The margins that we're building into these things range from 15 percent up to 25 percent, give or take. I think the most interesting thing here about the expenses is that the sensitivities run contrary to some of the others. The greater impact is on the lower cost plans. When you look at the shorter benefit periods and that sort of thing, the fixed costs are a greater proportion of that premium.

MR. SCHMITZ: Are we operating anywhere within these expense levels?

**MR. GURLIK:** No. If you take a look at companies developing in the marketplace, it could very well be another five years or so before we're operating within these expense allowables. When we put this together, we have to take a long-term view. Based on these recommendations, we're saying that as a company we have to be prepared to accept lower returns for the early years of our program in an effort to build a long-term care business that will be able to give us the appropriate returns, the returns that we want down the road when we have a little larger business.

**MR. SCHMITZ:** But I think it is going to be important for us to be able to sell a product where we can achieve our expected returns. The strategy of selling at lower premium levels in order to get the sales we need to cover our expenses is not going to be a good strategy for long-term expense management. You need to update our expense recovery plan as we go through the pricing of this product.

MR. GURLIK: We will put that on the list.

**FROM THE FLOOR:** I have a quick question on the claim expenses in Chart 7. Is that 2 percent? I know it says "High" and "Low," but was that a single outlier?

**MR. GURLIK:** That was a single outlier. Only one company was using the 2 percent. Other than that, I think it jumped up to the 3 percent being the minimum. It was pretty crowded right in the middle of the range.

We just want to mention valuation at this point. We did not do a lot of work in the valuation side for our presentation here. It's being reviewed. Right now we're basing the valuation standards on the pricing assumptions rather than on some morbidity table that the industry has.

Al, we thought maybe you'd be able to update Dan and me on some of the discussions that you've had with your industry folks.

**MR. SCHMITZ:** The NAIC and the Academy are looking at long-term care reserves. The Academy has a committee that is going to be looking at all of the various assumptions including persistency, credibility issues and the loss reporting forms. The SOA has a committee looking at developing a morbidity assumption that can be used for long-term care reserves. The Academy also has a long-term group looking at reserves for an asset adequacy type basis, taking into account capital requirements. None of this is set in stone yet, but we need to stay on top of it as we do this pricing exercise.

**MR. GURLIK:** You can see in Chart 8 that the sensitivity on the expense assumptions was relatively low compared to some of the other assumptions. Keep in mind that we had margins of 15 percent to 25 percent on the different pieces. But the expenses did not hit as dramatically as some of the others.

The surplus requirements are in a state of flux. We've used the current standards for all of our work here, which are 200 percent of risk-based capital (RBC), 25 percent of premium for the first \$50 million of business (we're still in that area), 15 percent for the amounts over \$50 million and 5 percent of claim reserves. There were proposals in the works. They had all kinds of different bases being considered. Maybe you have an update there too, Al.

**MR. SCHMITZ:** The Academy recently submitted a report to the NAIC. There are a couple of items that we need to take into account or be aware of for pricing. The marginal basis, the difference between the marginal and the base rate in that report suggests a much greater variation than the 25/15 that you have. Instead of the 25/15, that report is suggesting closer to 35 percent for the first X million and probably less than 5 percent for amounts over that. With your proposals, the potential base is also suggested to change in that a portion of that is a percentage of premium, perhaps half of it. Instead of 35 percent of premium, maybe 15 percent or 20 percent will be based on premium. The others will be based on incurred claims. I believe the claim reserve piece that you have of 5 percent will be unchanged.

**MR. GURLIK:** Since you had leaked the one number to me, we did some runs that just said if we use the 35.6 percent instead of the 25 percent of premium, our premiums would increase about 5 percent to 6 percent.

**MR. CATHCART:** In terms of the profit objectives for our pricing, our company was focused, for this exercise, on return on investment, which is basically the internal rate of return (IRR) of the stat after-tax surplus stream or the stat gain less the change in RBC. This is also thought of as the distributable earnings. One important thing is that not only do all the other actuarial assumptions make a big difference in

the pricing, even the profit objective can make a very significant impact, both in terms of the level as well as each pricing cell.

As we are looking at how our rates compare to the rest of the industry, we do want to consider what they use for various margins. The other profitability measures include profit margin, which is the more basic older method of just using a percentage of premium, usually from a present value standpoint; return on capital (ROC) which is my favorite and, of course, return on equity (ROE), where you have GAAP after-tax gain compared to the equity. I did list the way that I look at the equity elements, both individually and an equivalent recursive method.

Again, for this presentation, we went with the internal rate of return methodology, focused on 15 percent. Just changing that from 15 percent to 12 percent increased premiums 6 percent to 7 percent, so it's definitely significant.

**MR. SCHMITZ:** What would be the implications or the sensitivities if we use some of those other profit measures, instead of focusing on an IRR?

**MR. CATHCART:** The IRR is, in theory, a levelized view of your return on equity streams; return on equity is more of an annual measure. With regards to the other various measures, it's a movement from not really considering the capital or the assets that support the product to totally looking at the assets and risk-based capital that support the product. In answering that question from a cell-by-cell standpoint, the cells that require the most capital and statutory reserves are the ones where you're going to see the greatest difference among these various profitability measures. Something like younger ages and high inflation plans would be significantly different if you look at it from a profit margin standpoint versus an ROE or IRR standpoint.

**MR. SCHMITZ:** If we look at a profit margin, can we get a more competitive premium at the younger ages?

**MR. CATHCART:** Fifteen percent profit margin would be significantly lower premium than 15 percent ROE or 15 percent IRR.

**MR. SCHMITZ:** You will definitely want to look at those GAAP earnings patterns when we get a little further along in this process.

#### MR. CATHCART: Definitely.

**MR. GURLIK:** A little earlier, AI, you asked about our ability to effectively manage the business if experience does not turn out to be as favorable as we'd hoped. In Chart 9 we've summarized our various assumptions, our best estimates and what we're using for initial pricing in order to give us an idea of where our margins are. If you look at any one of these assumptions you'd say it looks like the margins are reasonable. It's subjective and intuitive? you put a little in there and it has an

impact on premium. Then when you look at the total, our base premium under best estimate might have been \$990 and our initial pricing assumptions are coming up about 28 percent higher. We have to take a look at whether or not that feels right and where it's putting us relative to the industry.

On the inflation protection plan, the premiums are about 31 percent higher with our initial pricing assumptions relative to the best estimates. We're finding that these initial pricing premiums are going to put us toward the upper end of the industry right now. They may be more consistent with some of the companies that have filed more recently. But there are companies out there that have not filed very recently and we're going to be quite a bit above those companies with these premiums.

Of course, our ability to even hit these assumptions (you asked about the economies of scale and getting critical mass on the expense side) relies on us being able to hit our sales objectives too. Being positioned that way in the industry might make it more difficult to get our sales.

**MR. SCHMITZ:** I think I mentioned earlier that including a margin on each assumption might overstate the case in terms of moderately adverse. What kind of changes in assumptions could you suggest that would give us some premiums more in line with the market?

**MR. CATHCART:** That was our original pricing effort. As you said, we did want to look at some alternatives and look at some sensitivities. We basically took the midpoint. Originally we had the best estimate and came up with our largest margin of the original pricing. We took the midpoint and redid the various calculations. As shown in Chart 9, the premium margins ended up half the original pricing model results, and in terms of the base premium, dropped down to only 14 percent higher than our best estimate scenario. From an inflation standpoint, the premium margin dropped down to 16 percent. Certainly we do have to take a look at balancing whatever margin we think provides comfort from a pricing standpoint with what we feel is a competitive premium.

**MR. GURLIK:** Given these premiums, we'd still feel comfortable signing certifications for the states. We still have 14 percent, 15 percent and 16 percent margins out there on the premium that I think we could present as being reasonable margins for adverse experience.

**MR. SCHMITZ:** Are regulators expecting a margin in aggregate like that? Do they want a margin on each assumption?

**MR. GURLIK:** It's still a little uncertain how regulators are going to look at some of this stuff. The bottom line is, whether it is in each assumption or whether it's aggregate, we're going to want to define very well in our filing exactly what we consider to be the margin and make sure that we answer the questions up front rather than waiting for the back end.

**MR. SCHMITZ:** Can you talk a little bit more about the implications of using assumptions that might have fewer margins?

**MR. GURLIK:** We will want to clearly document the margins that we have in there for adverse deviations. We're not required to do it in most states. But if we don't do it up front and we have to go back to the states and talk about a rate increase later, it should be easier for us at that time to show how our actual experience is comparing to the margins that we put into the product. If we don't document it in the initial filing, the concern is that the regulator is going to come back on the back end and say that what we had for a margin was not appropriate for moderately adverse experience. That's a question we don't want to be arguing with the regulator at the time we're filing for a rate increase.

Of course, if we file for a rate increase, there are some consequences that we should talk about before we get too far into the process. With the new regulations that have been passed, at least in some states, in the NAIC model there's a loss ratio of 58 percent on the initial premium, and then 85 percent on any increases in premium. Even though we don't have a loss ratio requirement we have to meet with the initial filing, we do have to meet one with the rate increase.

We can expect a lot of additional scrutiny on the assumptions if we file for a rate increase. There are requirements for additional experience reporting that we'll have to follow up within the states. The personal worksheets have statements in there regarding disclosures about our rate history. If we file for a rate increase, we'd have to start showing that on the disclosure forms. Finally, if our rate increases are large enough, cumulatively all kinds of other things start to happen. There's a contingent benefit on lapse. The commissioner has the authority to review all the processes we're using and that includes the claim administration processes. We do have to make a mandatory offer to replace coverage to in force policy owners to give them the latest and greatest product that we're out there marketing. If it gets bad enough and if they think we're abusing the system, they could impose a death penalty, which is essentially a five-year period where we would not be able to market any long-term care products.

**MR. SCHMITZ:** Are you saying that it's going to be tougher under this new model reg to get rate increases than in the current environment, based on all these consequences? Or is it only if we're abusing the system and we get to these large rate increases that they are going to really look at our business and maybe give us the death penalty? How sensitive is this issue?

**MR. GURLIK:** I think we are going to get more scrutiny on any rate increases. But if we get to the large increases where they think we've been abusing people, we'll probably get abused back by the regulators. It will be more difficult.

MR. CATHCART: There are certainly financial implications as well. We've talked

about a few different pricing assumptions. We've talked about best estimates and we talked about our original pricing. Again, original pricing was the largest margin and then we had the alternative pricing, which was the middle margin. In terms of the pricing implications, if the experience comes out with what we called our "worse-case scenario" with the largest margins, the first line in Chart 10 is saying that, at issue, if instead of doing the alternative pricing we had gone with the original pricing, which were 12 percent and 13 percent higher, we would have gotten that 15 percent original target for profitability. However, since we're thinking about going with the alternative pricing, that's the second line, with 0 percent increase, what we're looking at is a 5 percent loss in the IRR or a 10 percent return.

**MR. SCHMITZ:** So that 5 percent loss in IRR is because the experience is going to come in based on your original pricing levels, which was the average of all these companies loaded up 10 percent or so? If the experience comes in at that level, but we go in with these somewhat more aggressive rates, we would only get a 10 percent rate of return?

#### MR. CATHCART: Correct.

**MR. SCHMITZ:** We aren't sure that our profit target is going to be that flexible, so what happens if we do need a rate increase?

**MR. CATHCART:** There are at least two alternatives for filing for rate increases. One is looking at it from a future loss ratio standpoint. Basically what that means is going back to your original projections of anticipated loss ratios and realigning your assumptions to get back to those loss ratios. If you were to do that, after five years you'd be able to increase your rates by 10 percent or 12 percent and get back to a 12 percent IRR versus the 10 percent. After 10 years, you'd increase rates by 9 percent or 10 percent and get back to an 11 percent IRR.

**MR. SCHMITZ:** Why can't we get all the way back to the 15 percent, if that's our target?

**MR. CATHCART:** For this you're only looking at your future loss ratios. You do have to absorb the losses for the time period up to when you do the rate increases. Another thing that I felt was odd was that after 10 years the increase available was actually less than after five years. This adjustment is adjusting for your future predicted variation. On the morbidity side, we had a 10 percent difference or maybe 5 percent difference, in morbidity between the alternative method and the original method. Basically, it doesn't matter. After five years or 10 years, your adjustments are pretty much the same for morbidity. However, the later you wait, the less opportunity you have to change for the persistency difference going forward. In other words, the earlier you change the rate, the more you're also adjusting for the persistency variation that you missed.

MR. GURLIK: Some of the return you aren't getting back is associated with the

expenses and the investment return as well.

We can't go in there and ask for a rate increase because we aren't getting our investment return assumption because the loss ratios haven't changed.

**MR. CATHCART:** That comes through even more clearly with the second methodology. If you do go back to your lifetime loss ratio, you would assume if you were able to re-rate based on your original loss ratio that you'd get everything back. But as Greg mentioned, no matter what, this is based on the statutory interest rate, so any investment income variation you are not going to be able to recoup. Also, on the expenses you wouldn't be able to recoup. If you go with the lifetime loss ratio recalculation rate increase based on the NAIC modeling, (again, this isn't proven to be able to get through) basically you are recouping those losses. The rate increase after five years would be the 17 percent or the 22 percent and would get you back to that 14 percent, as opposed to 15 percent because of the investment income and expense loss. After 10 years you would be able to support a 29 percent to 35 percent rate increase and get back up to the 13 percent IRR.

**MR. SCHMITZ:** The only difference is how you calculate the rate increase you can get. As I look at 35 percent versus 10 percent, and 29 percent versus 9 percent, those are big differences. As you said, that's essentially under the lifetime loss ratio where we're kind of recouping some of those past losses. What are regulators going to say about that? Is that an accepted practice?

**MR. GURLIK:** We actually surveyed a couple of regulators and we talked to some regulators who were involved in the development of the model regulations. We talked to a few that aren't as active in the LTC marketplace and got some different perspectives. On that difference in particular though, we didn't get input. It was addressed a little bit in Jim Robinson's meeting yesterday. Even if your experience comes in as expected according to the model, you can justify rate increases. Here we're talking about experience coming in not as expected and how big of a rate increase would you want to justify.

**MR. CATHCART:** Certainly what we've all seen in the industry is that even if a rate increase can be justified, you're not necessarily going to get it throughout all the states. There certainly is a risk, no matter what view you take, if you're thinking you're going to get a rate increase.

**MR. GURLIK:** We can give you a little bit of the information from the regulators that we talked to. We broke this into two discussions. We'll talk now about the initial review of filings and then we'll talk about rate increase filings.

On the initial premium reviews, we're finding that some are asking more questions, especially if the rates appear to be on the low side. We got feedback that the regulators might directly ask if the gross premiums are sufficient and what cells

may not be sufficient when you look at the gross to net kind of comparisons. They'll ask very specifically what the margins are for moderately adverse experience. How are they defined? What are the magnitudes of those margins? We've even had one regulator who said she'd go back and compare to the NAIC experience exhibits. If you're talking about having developed experience from your prior products and your experience doesn't look so good there, why aren't your claim assumptions showing up higher in the new products? There's going to be a lot of scrutiny, especially if they perceive the premiums to be on the low side. We've had others, maybe those who don't have quite the expertise in the LTC side, say that they are asking fewer questions, especially regarding the loss ratios, and that they are very much relying on the actuarial certifications that the rates that are being filed are appropriate.

I quote, "The 'hang the actuary' clause is powerful and has them on the hook."

One quote that sums it up very well is, "The biggest challenge for a pricing actuary is coming up with rates that are adequate in a competitive environment." There are people out there who recognize the dilemma we face when we try to set assumptions, and then based on those assumptions, the premium comes up relatively high. We're trying to be more competitive, yet at the same time we need to make sure we have margins in there. When we set the assumptions, we need to make sure that these assumptions are new and relevant for today and that we aren't just looking at stuff that was done two to three years ago.

**MR. SCHMITZ:** If they understand your plight, are they going to be understanding when they look at that filing?

**MR. GURLIK:** I think they'll understand our plight, but not at time of rate increase. I heard a little bit of empathy, which might surprise some, but I don't think there's going to be any slack given to a company. If they perceive you to be aggressive, they're going to be very questioning about how you came to your assumptions and what margins you have in there.

When we talked about rate increase filings, we got quite a variety of answers. There were regulators who felt strongly that we should know what we're doing, and they were going to grill us intensely if we're coming back for rate increases. A direct quote is, "There's enough experience for companies to know what this stuff costs now." There's a perception out there from some of the regulators that we should know. When we looked at the rate increase filings, they haven't thought about what they're going to do with rate increase filings under the new model. Most of them, frankly, don't have to worry about it yet. The rate increases that they're seeing are in business that was filed before the new regs went into effect. So it's business as usual. They haven't had the time to think about what they are going to do.

One of the regulators we talked to said there was only one company that defined "moderately adverse." We asked about if we defining moderately adverse with each

assumption, and if we have variations in a number of assumptions, none of which meet the criteria, but in aggregate we feel we need a rate increase. They haven't thought about that yet. It's not on radar. But if a rate increase is needed, "It would be an insurance department management issue as to the minimum acceptable definition" of margins for moderately adverse experience. That scares me, because I don't want to be having that discussion at the time of the rate increase. We need to be having that discussion when we file up front. That's why I think it's very important for us to define what margins we have and get some buy-in up front with the filing.

**MR. SCHMITZ:** I would agree. It sounds like the best opportunity for us to manage this product is right now when we're doing some of this initial pricing. I'd suggest for your next steps that we get that meeting to further discuss the morbidity, that you try to validate all of your assumptions as best you can, that you evaluate the total margins so an informed decision can made and document our corporate position on acceptable deviations before we would need a rate increase.

MR. CATHCART: That's the end of our role play.

**MR. BARRY EAGLE:** You said you used the actuarial memorandums of 15 companies. If you had taken only those that had been filed in the last year, do you have any sense as to how different this role play would have been?

MR. CATHCART: They all were in the past couple of years.

MR. GURLIK: These are fairly recent filings.

**MR. CATHCART:** But realize that the whole development time takes awhile. Plus, getting the approval takes time.

**MR. EAGLE:** You see marketers say that we're competing against product X, whereas, many of us know that the company they're talking about is already developing a new product with different assumptions. You do a disservice when you look at the older ones.

**MR. GURLIK:** There were companies that just fairly recently came out with new products, but the information we used reflected the filings for the products that are currently being sold. Yes, some of those products are a little bit older than others, but they are all current product assumptions. If you're asking whether we should exclude the companies that haven't filed a product lately, we didn't do that.

**MR. BRAD LEONARD:** In the relationship between underwriting expenses that you've seen versus the claim expenses, what did the underwriting expenses buy me? Did it buy me "loose-as-a-goose" underwriting or did it buy me tight underwriting? Hence, what is the effect on the claim side, or management expenses? Is there any sense that you got from those 15 companies as to what

that bought me?

**MR. GURLIK:** I'm not sure I would say anybody is out there doing loose-as-agoose underwriting. There is quite a variety, though. There are companies that are getting medical records on everyone, which is going to be more expensive. The standard practice for a lot of companies right now, particularly at the younger ages, is a phone interview. There is a range. Whether you want to say one's looser than the other though, I think companies would probably beg to differ.

**MR. SCHMITZ:** The ones that we looked at on average are probably closer to more moderate or tight.

**MR. DARRELL SPELL:** When you were looking through the actuarial memorandums, did you see any reference at all to what companies might do if there were a rate increase? For example, did they make reference to limiting or eliminating commissions on the increased premium, or anything at all addressing what might happen down the road?

**MR. CATHCART:** We weren't specifically looking for that information, but I don't recall seeing anything like that.

**MR. GURLIK:** Most of these filings were not filed with the certifications under the new NAIC model necessarily. We were not trying to study what they said was their margin for adverse deviation. In fact, in our survey one regulator said that out of the 15 or so filings that the regulator had seen, there was only one company that had defined margins for moderately adverse experience.

**MR. JIM ROBINSON:** When you presented the margins that were available and the premiums that you calculated, I noticed they were basically an aggregation of the explicit margins you had on each of the separate assumptions. I'm wondering what your thoughts are in terms of the implications of the risk-based capital effect on premiums, and whether in presenting your total margin you should discuss at all the fact that the pricing target objective incorporates a risk-based capital on top of the presumably conservative statutory reserve. Would you consider calculating a base premium without a risk-based capital component just to identify what part of the premium is associated with that and characterize that as available margin under certain situations?

**MR. CATHCART:** We didn't take that approach. The risk-based capital was inherent in the IRR that we calculated. I suppose it is one approach that we could have taken where we backed out that risk-based capital, saw what the impact of premiums was and considered that some of the additional margin. I think that might be going a little bit against the spirit of what that risk-based capital is intended for in concert with the moderately adverse regs.

MR. GURLIK: The basic question though is, is it again a margin on top of margin

on top of margin kind of thing? I think yes, we need to look in aggregate and know where our business is, know what we think the true underlying results are going to be, monitor that closely, be aware of what we have in there for aggregate margin and communicate it.

**MR. SCHMITZ:** When the Academy takes that long-term view and looks at all of the margins that are in reserves, together with the margins in risk-based capital, and looks at the total capital picture, that will help us get a better handle on what margins are in for reserves versus what margins are in for pricing.

**MS. KIM TILLMANN:** This seems like a whole new world for insurance company management. You're saying, "Here's our pricing target. We have to figure out when and if we would ever raise rates and make promises based on that now, even though you as management might not be around when that actually happens." What steps are you taking within your companies to educate your management about this new world and how are they taking it?

**MR. CATHCART:** We're definitely in a position that we're not on the aggressive side. I think my upper management knows the situation and realizes that this is the direction we have to go.

**MR. SCHMITZ:** I have a comment on this. Clients that we used to work through issues of pricing, reserving, and so on, are now are calling with questions and asking for input as to how do they sell their company management that they should be in this line of business. I think company management in general has taken a more concerned role about this line of business, and they are trying to understand the risks better. Unfortunately, it seems that companies are trying to justify why they should be in this business more than they may have in the past.

Chart 1



Chart 2













Chart 5





Chart 7



#### Chart 8

Summary of Assumption Sensitivities						
E	Best Estimate	Initial Premium Pricing Margin				
Ultimate Inv Inc Rate Ultimate Lapse Rate Avg. Morbidity Expenses	6.5% 2.5% Avg. Varied -	6.0% 1.5% +10% +10/20%	4-5% 6-9% 9-9.5% 3-1.5%			
Base Premium ABI Premium	\$   990 \$2,690	\$1,265 \$3,520	28% 31% <sup>15</sup>			

Chart 9
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Alternative Pricing Margins						
E	Best	Revised	Premium			
	Estimate	Pricing	Margin			
Ultimate Inv Inc Rate	6.5%	6.25%	2-2.5%			
Ultimate Lapse Rate	2.5%	2.0%	3-4.5%			
Avg. Morbidity	Avg.	+5%	4.5%			
Expenses	Varied	+5/10%	1.5-1%			
Base Premium	\$   990	\$1,130	14%			
ABI Premium	\$2,690	\$3,115	16%			

Chart 10

Pricing Implications							
<ul> <li>Pricing with revised assumptions, but experience at initial pricing levels:</li> </ul>							
ncrease A	Applied	Resulting IRR					
Base	ABI	Base	ABI				
12%	13%	15%	15%				
0%	0%	10%	10%				
Solving for Future LR							
10%	12%	12%	12%				
9%	10%	11%	11%				
Solvina for Lifetime LR							
17%	22%	14%	14%				
29%	35%	13%	13%	18			
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