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Session 17D
Should Smaller Insurance Companies Do Cash-Flow Testing?

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Moderator: ROBERT H. DREYER
Debaters: LARRY D. BABER
NORMAN E. HILL

Summary: Are there important benefits that small companies miss if they fail to do cash-flow testing? Or is cash-flow testing a waste of time and scarce resources, particularly for smaller companies? Is it possible to perform cash-flow testing "economically" and still have reliable results?

Mr. Robert H. Dreyer: How many in the audience think smaller companies should cash-flow test? How many think they should not do it? How many are on the fence—either you don't know or don't care? Well, it seems like we have all three groups represented here.

Larry Baber will be speaking for the affirmative. He is an FSA, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. Larry is a consulting actuary with Milliman & Robertson, Inc. in Phoenix. He is past president of the Conference of Consulting Actuaries, and he was one of the organizers of the Smaller Insurance Company Section.

Mr. Larry D. Baber: This is the first debate that I have ever participated in, so I don't know the rules. I hope I won't violate them. I think it should be known that this is an unfair match right now because there are two against one on this panel. I am an advocate of cash-flow testing for smaller companies, and I will try to tell you why by sharing some of the experiences that I have had.

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First, I want to tell a story. It took place in the fall of 1990. I was invited to visit a possible new client whom I had met over the summer. It was a group of three small companies. I sat down with one of the officers and was talking with him about what we could do for them. This was prior to the Actuarial Opinion/Memorandum regulation, and it was just after the *Actuarial Standard of Practice* (*ASP*) *14* had been adopted. I thought that if I became their valuation actuary, I might later be asked to become their appointed actuary.

The discussion was going really well with one of their officers when in walked a second officer. Both of these men were high-level people. The first thing the second officer said was, "Do you think that small companies should do cash-flow testing?" I responded that I didn't think the size of the company mattered, instead we should be concerned about the product type and assets in which they were investing. From the look in his eyes, I knew immediately that there was no chance of me working for these companies. As I anticipated, I never heard from them again.

One of the companies was an annuity company, and it failed about three years later. I don't know whether cash-flow testing could have saved that company or not, but it might have known in advance that there were serious problems. That's just one sample of the type of experiences that I have had. I have several others that I could tell you about, but this one is sufficient to make my point. Some of you might say that I am just a typical consulting actuary, and all we're concerned with is the work. It is true that we would like the work, but we also think it can be of significant value to any company. We think there are many reasons why small companies should do cash-flow testing.

I will run down the current exemptions in the regulations based on ratios within the size category. The first ratio is capital and surplus to cash and invested assets. The second ratio is reserves and liabilities for annuities and deposits to total admitted assets. The third ratio is the book value of noninvestment-grade bonds to capital and surplus. These ratios reflect my thinking as a way to measure the investments that you're holding and the products that you're selling, but they do not reflect the entire picture.

Now consider size categories. What's the magic of a $20 million company, a $100 million company, or a $500 million company? I do not think that there is any magic in any of those numbers. They could have been set almost any place we wanted to set them. However, this was strictly a deal struck among the regulators, the National Association of Life Companies, and the small company organization. They were not set on any particular basis of hardship or anything of that nature. I will tell you that they recognized at that time that there would be failures in small

companies. We're not going to stop them. We're not going to do anything that will change that. They are saying that you might fail as small companies.

There are some proposed changes in the regulation of which you probably have been keeping track. One would be to reduce the number of company sizes to two: under $100 million and over $100 million. Changes in the ratios are also being considered. The inclusion of other products in the liability ratios, such as interest-sensitive life, participating life, and long-term care. There is also some consideration of additional asset scrutiny. I am not sure where all these are right at the moment. I haven't kept close track of them, as yet, but I would advise everyone that they will probably be changing the rules of the game shortly.

Was that the intention when the regulators and the small companies struck a deal? No. We all thought there was a deal, and we are prepared to live by the original rules. Now they are being changed. This is another reason why I think you might as well bite the bullet and do your cash-flow testing.

What are the advantages to a company of cash-flow testing, other than the fact that you have to do it because it is the law under certain circumstances? First, I think it is an excellent management tool. I know that we are all from well-managed companies, as are my clients, and you're thinking that it won't help us that much. Believe it or not, there are some poorly managed companies out there right now, and they are not necessarily small ones; some are sizeable companies.

I had a former client who wrote a paper about how poorly managed some life insurance companies were. He believed that it should be easy to succeed in this business because so many companies are poorly managed. I believe that the cash-flow testing can help you manage your company effectively, not just in the long run, but in the short run as well. It can help you to manage your products. It gives you a means of profit testing that tells you where your profits are coming from. Finally, it will give you a means to determine where you may be going in the future.

You could say that strategic planning is part of management. To me, however, strategic planning is different from management. Management refers to the hands-on situation in which you are working with the company every day. Strategic planning is looking at the future and saying, "What if we did this? What if we did that?" I believe that if the model you are using for your cash-flow testing is built properly, then you can use it to manage the company, and you can also do strategic planning with it. I think that when you build your model to do your cash-flow testing, that second potential use of the model should play a major part of your planning.

I have described two main reasons for doing cash-flow testing; however, the most compelling argument that I see, and I wanted to make a big build-up to this, is that it is the actuary's professional responsibility to do so. We do not have a choice. If your company needs cash-flow testing, you must do it. It's very plain in *ASP 14*, "When to Do Cash-Flow Testing." The purpose of this standard is to give guidance to the actuary in determining whether or not to perform cash-flow testing as a part of forming a professional opinion.

I'm not advocating the need for cash-flow testing to be done every year, at every company. When we look at it professionally, we must make a decision about whether or not it has to be done. It doesn't matter what the regulation says. If we, as actuaries, feel that our company or our client has to be cash-flow tested, there is no choice. Backing that up is *ASP 22*, "Statutory Statements of Opinion Based on Asset Adequacy Analysis." It delineates the responsibility of the appointed actuary with respect to providing a statement of actuarial opinion related to reserves and other actuarial items.

I believe that the real bottom line is that you have to make your judgement as an actuary. It's too bad that there has to be a law or regulation dictating whether we must do it or not do it, depending on circumstances.

I have another concern about signing a Section 7 actuarial opinion based on the current regulation. If you look at the wording, you don't have a good-and-sufficient clause in that opinion. All you are saying is that the reserves of your company meet the state's requirement. It doesn't mean that they are adequate. I have a real problem with that, and I think that the wording may prove to be detrimental to us. The regulators are in the process of changing that wording and they will try to put in the good-and-sufficient wording. How are you going to determine good-and-sufficient if you don't do cash-flow testing? The rules are changing, and I think they are going to provide a tighter net than we already have.

There can be pressure from management for you to opt for a Section 7 opinion. If management chooses to rely on the exemptions provided by the ratios, you, the actuary, may still have concerns about what is going to happen with your products in the future. This raises the professional liability issue again, and I believe that some of us may have a great deal of pressure from management telling us that it doesn't want to do cash-flow testing. The consultants have a major problem, and I think the internal actuaries also have a problem. If management won't support you in doing cash-flow testing, then how can you provide an actuarial opinion for it?

I will conclude this part of the debate by saying that I think smaller life insurance companies should do cash-flow testing. I don't believe it is something that should

be required every year, but I believe it is a valuable management tool. It should be based on the actuary's judgement of the liabilities and the assets that the company has. It should not be based on size. It will have added value in that you can use it for management and strategic planning purposes.

Mr. Dreyer: Larry wanted the affirmative viewpoint because he wanted to go first, because he was in favor of the proposition, and because he is a consultant. Finding somebody to take the negative was not as easy, but I believe we have selected an able speaker. Norm Hill is senior vice president and chief actuary of Kanawha Insurance Company in Lancaster, South Carolina. He is currently a member of the Smaller Insurance Company Section.

Mr. Norman E. Hill: My position in the debate is that smaller insurance companies should not do cash-flow testing, at least not every year, unless their insurance in force and/or invested assets have certain characteristics that suggest the potential of future problems.

One such characteristic is the disintermediation risk. I believe that cash-flow testing was intended to measure disintermediation risk when it is significant, and this should be the only time when cash-flow testing is required. When a product has a disintermediation risk, you will find that policyholders tend to surrender the product for cash when the invested assets of the insurance company have a depressed market value. In other words, they surrender at the worst time for the insurance company. This is what I call interest antiselection.

The risk is highest for products that have high cash values or high account values, relative to the death benefit of the product or the premiums paid. In a general sense, what we are talking about is investment products. They have the disintermediation risk. Products with a significant amount of disintermediation risk would include universal life, interest-sensitive life, single premium deferred annuities (SPDA), and flexible premium annuities.

Some allege that participating ordinary life, which has been around for many years, also has a high amount of disintermediation risk; therefore, if a company has a significant block of this business, it should be required to do cash-flow testing. My answer to that would be it might be needed, but not necessarily. It is true that the level of dividends in a policy tends to move somewhat with prevailing interest rates, but I think the main key should be how high the cash values are. This includes dividends left on deposit. How high are the cash values relative to the death benefits? Some participating ordinary life plans might be closely related to universal life, but others might not.

Other products that I believe have high disintermediation risk would include GICs, if they have significant surrender values. In addition, equity-linked annuities are a

very hot product on the street today, but they are basically an SPDA with a different way of crediting excess interest. They would fall under the SPDA category.

You may not think of the word *disintermediation* with regard to invested assets, but I think it applies in a certain sense. Some invested assets are subject to debt or refinancing; in other words, interest antiselection on the part of the debtor, not the policyholder. When interest downturn takes place, the market value of the assets moves above par value and the debtor may choose to refinance at a time that is worse for the insurance company. The borrower, in this case, would select against you. Some types of invested assets that appear to have a significant amount of this risk would include callable bonds, corporate bonds, mortgages, and collateralized mortgage obligations (CMOs).

Not all invested assets present the same level of risk, though. I believe I can show that there are differences between these types of instruments. Some of the callable bonds and CMOs have more risk of disintermediation through refinancing than others do. This can be shown by the historical performance. Illiquid assets really are not the same; they are not subject to debt or refinancing. They are still relevant to this discussion because if they are illiquid, the cash isn't going to be there when the company may need to have it.

Certain types of CMOs are more susceptible to refinancing. They are usually the types in what we call the lower tranches. The so-called exotic CMOs probably have more risk of this sort. They have various phrases and buzzwords like *interest only*, *principal only*, *sticky Zs*, and various other names.

I think it is important to assess the cash-flow testing exercise to determine what is involved. First, it is a major project and should not be taken lightly. Cash-flow testing is time and resource consuming. Cash-flow testing is expensive in an out-of-pocket sense if the company relies on a consulting firm. Some companies only do cash-flow testing every third year because there are legal exemptions. If they had to do it annually, instead of triannually, would this make any difference? Is there a simpler way to just fill in the intervening two years? I would say no. The annual update of cash-flow testing is as much work as when it is done triannually because you have to revalidate your in-force and asset models.

I think the key to cash-flow testing is the cost benefits. I think the actuary can do a cost-benefit analysis of cash-flow testing and still fulfill his or her professional responsibility. I would argue that the cost-benefit ratio is satisfactory if, and only if,

the insurance products of the company and the invested assets of the company fulfill the characteristics that I mentioned before. In other words, they are the types

that are subject to the disintermediation risk. If that is the case, and only if that is the case, would I argue that cash-flow testing would make sense.

Mr. Dreyer: As you can see, this is not a black and white issue. It is important that we bring out the kind of points that Norm has discussed. In keeping with the debate format, I will ask Larry to give a rebuttal to Norm's talk. Larry, you are a consultant, so I am interested in hearing your perspective on the cost.

Mr. Baber: First, I will concede that it is expensive to have a consultant do the job if he or she does the whole thing. There are many things companies can do internally to keep that cost down. Consultants do not have to do all the detail work. We can just run models through our systems based on the client's input. In 1990, somebody mentioned a number of about $25,000 (which was attributed to Milliman & Robertson). The figure is actually wrong. It is actually going to cost more than that if a company offers many different products. It could easily cost $40,000.

I had a client that sold only annuities. It was a brand new company that started business in 1996. It issued 88 policies. It was not exempt because all its business was in annuities, and it obviously failed the test. In order to sign that opinion and do an actuarial memorandum, I had to do all the work. In the end, I charged off more that two-thirds of my time to do that memorandum for them, but it still cost them more than we anticipated. It cost more than $10,000 for 88 policies. If it had the same number of products, but issued 8,888 policies, I could have done the work for the same amount of money. The additional amount that it would have cost would have been minimal.

I agree that the cost of cash-flow testing is high. It is also costly if you do it in house. It is going to demand a fair amount of time from your actuarial department to do the work internally. Either way, it is not inexpensive. That is the reason you have to get more value out of it by using the results as a management tool.

Jim Hickman made a comment at the general session. He said, "What gets measured, gets managed." If you measure your future operations through cash-flow testing, you should use it to manage your company.

I would suggest to Norm that the one thing that is missing from his presentation is the actuary's professional responsibility; I do not think we can ignore that. If you feel you can be exempt, that's fine, but unless you can feel comfortable, I think you

are required to do cash-flow testing. I don't know what else to tell you about the management aspects, except that I have seen companies that have used it effectively.

There was a fellow who said life insurance companies are poorly managed. We did cash-flow testing for his company. He worked for one of those $100 million companies that have to do cash-flow testing every third year. We did the cash-flow testing for his company, and he made no use of it except to meet the legal requirement. He did not use it in the management of his company. This was like the pot calling the kettle black! He is telling me that life companies are poorly managed, but then he doesn't use his cash-flow testing to manage his company. He said, "Do what you have to do to sign the actuarial opinion. I don't want any more done." We tried to persuade him that this was wrong, but he was convinced that he had management well in hand.

I think that even if you have a well-managed company to begin with, you can use something like this to do a better job. I mentioned the sources-of-profits situation. You can build your models so that your systems can give you profits by source. I think it is very valuable in managing a company to know where you are actually making money. You may think you are making money off the interest spread, but how much are you losing off your expense? Where is your mortality? Most of the time, we don't have a good idea about our true mortality costs, particularly with universal life.

I would suggest to Norm that participating life might be cheating our clients. Perhaps I shouldn't say something like that, but maybe participating life has not done the job that has been said it was going to do for these clients. They are buying something, and they are paying a great deal more for it than they should. If participating life is really managed as it should be, including cash-flow testing, perhaps the policyholder would get a better deal.

Long-term care was listed as one of Norm's points, but long-term-care insurance is a can of worms right now. I think every company is still trying to find out where it is in the long-term-care market. If you don't issue this type of insurance, you are lucky. But those that do are finding that they haven't yet developed any meaningful experience as yet. What you need to do is run some scenarios to see what can happen. The only way I know to accomplish this is through cash-flow testing because it is definitely tied to economic situations, just like long-term disability is.

There are new products and some not-so-new products out there that should be cash-flow tested if they are to be properly managed.

Mr. Dreyer: I'll make a brief comment regarding my own experience in the cost from a company point of view. I have been working for Erie Family Life since its inception in 1967, first as a consultant and then for the last 13 years as the in-house actuary. I never had an assistant and had never really needed one until cash-flow testing came along. Our company is big enough that it would not be exempt. I had to purchase a system that cost about $50,000. Annual maintenance fees on the system are $15,000 and I had to hire another actuary. We had to double our actuarial staff because of having to do cash-flow testing. We have such a conservative operation and such favorable cash-flow test results that I can write my opinion before all the runs are completed.

From the Floor: Have you used your cash-flow testing for management purposes?

Mr. Dreyer: Yes, but not as much as I would have liked to. Our executive management is not oriented that way with regard to our life operation. Our property/casualty owner is more than 10 times our size, so most of its efforts are concentrated on the other operations. I do know that several of the board members (we have the same board) have read my memorandum because I have received questions from them. I can't see that it has had a major impact on the management of the company.

Norm, Larry threw out a challenge for you. Are there any ways around professional responsibility, or do you have any observations or comments as to how you can apply it in a situation where cash-flow testing does not seem appropriate?

Mr. Hill: I'll be glad to touch on the question of professional responsibility, but first I would like to talk about the various products. Where do certain products fit? All of this controversy has arisen because the exemption that smaller companies have today, in terms of their products, is chiefly aimed at annuities. If a company writes many annuities, or if it has substantial liabilities for deposits of various kinds that presumably include pension liabilities and GICs, it cannot be exempted. It has been proposed that long-term care and/or noncancellable disability should, if sufficient in amount, require a company to do cash-flow testing. My answer is that those kinds of products don't fit the description that I gave as to what really constitutes a need for cash-flow testing. They don't have cash values, of course, and they are not subject to the disintermediation risk.

The point has been made that long-term care has various future uncertainties that other products do not have, and that's true, but future uncertainty is not a disintermediation risk. Some allege that noncancellable disability is very volatile or has recently been volatile in underwriting results. I would say the main reason for the volatility has been the recession of 1991 and, in some cases, an abandonment of

underwriting standards, but it is not because of the disintermediation risk. Some also allege that these products have a lack of official NAIC reserve standards, which is also true. However, the reserve standards do not produce disintermediation risk or future uncertainty. In the latter case, I think the proper solution is to establish reserve standards. Regulators have called for cash-flow testing for these products, but perhaps it reflects their frustration with the delay in passing other new reserve regulations, such as XXX for term insurance and new universal life reserve standards. I would agree that there is sufficient data and statistics available to derive new reserve standards.

Cash-flow testing is just one of the many analytical tools that actuaries and companies have at their disposal, and I think this should be taken into account when you look at a company's products and the assets it holds. As one alternative, a company can use gross premium valuations. Our company uses them every year. It also might use projections. It may rely on loss ratios and even profit tests for individual products. I would say that you have to look at the cost benefit ratio of using these various tools to see where they fit in with the types of products and assets that each company has.

I'd like to talk about professional responsibility. The lack of cash-flow testing, if a company does not do cash-flow testing, does not equate to blindly following formula reserves. One regulator alleges that this equates to being a bad actuary, but I take exception to that. The asset adequacy opinion referred to as a Section 8 reserve opinion does not, by itself, require cash-flow testing. There is a problem emerging in that there is a regulatory mind-set equating the two. In other words, if you must give an opinion based on Section 8, you have to do cash-flow testing. We need a definitive statement from the AAA. The current statements generally talk about the need to consider cash-flow testing. Hardly anybody would argue against this need because you should consider cash-flow testing to fulfill your professional responsibilities. I think you should consider cash-flow testing. In some cases, even though cash-testing might provide some added value, the conclusion may be that it is not called for.

Let me make some other pertinent points. I heard it said that the large companies do cash-flow testing every year anyway. They are required to do it. Therefore, because of that fact alone, small companies should be required to do it. I think this is irrelevant to the issue. I keep harping on the fact that it depends on what the characteristics are of your own product mix and your own invested asset mix. The likely annual cost of cash-flow testing is high. My own number was $40,000 or more. This is tricky to measure. You have to consider the sum of the out-of-pocket cost plus your own management time. It should be high because there is consider-

able professional liability involved. Either the in-house actuary or the consultant assumes this liability.

Let me sum up by going back to the characteristics of the products. There was a discussion about participating life. I don't think participating life automatically calls for cash-flow testing just because it is labeled participating life. I think there needs to be a test in terms of the characteristics of account values relative to other benefits provided under the policy, such as death benefits. Take cost benefits into account. In that way, we can all fulfill our professional responsibilities, and put cash-flow testing in its proper place.

Mr. Dreyer: I want to thank both the panelists for their prepared presentations. I also decided to throw a little curve at them. I did warn them, but I want to change the question just slightly and restate it as: Should smaller insurance companies be required to do cash-flow testing? Because Larry has gotten first shot every time so far, I will let Norm comment first on the requirement issue.

Mr. Hill: I am not sure how I can answer that, even though you warned me it was coming. The American valuation system has historically relied on "requires," not "shoulds." It has been built into the law that very specific standards have to be followed. If we are going to be consistent with that historical approach, I think we have to conclude that small companies should be required to do cash-flow testing. However, I would limit the requirement to the extent that it should be required only when professional actuarial responsibility calls for a small company to do cash-flow testing.

Mr. Baber: I think you can probably tell that Norm and I aren't as far apart on this debate as might be implied; sometimes we are both on one side. I would answer that question, no, they shouldn't be required to do cash-flow testing. (As you can see, we just flip-flopped). I still think it is actuarial responsibility, our responsibility, that determines whether or not we think our company/client requires it. As Norm said, *ASP 14* does not necessarily say you have to do cash-flow testing. There are other ways to accomplish the same responsibility of saying whether a company requires cash-flow testing or not. I am sorry that the law has taken this out of our hands in many ways. I would like to say that it should not be required by law or any other means, except actuarial professional responsibility.

In addition, I do not think we should have made the issue cash-flow testing. It should have been asset adequacy analysis. That is really the whole picture we need to consider to be able to sign an actuarial opinion. It can be accomplished in more ways than just through cash-flow testing. Cash-flow testing is probably the most expensive thing we have to do. As Norm said, one viable alternative is gross

premium valuation, and that is not as expensive as cash-flow testing. I do a great deal of loss-ratio analysis for my accident and health clients, for long-term care and for group medical for which I do not do cash-flow testing because it is not appropriate. I can sign an opinion with a clear conscience that I've looked over those products.

Mr. Dreyer: Larry, you mentioned that failure of some companies is inevitable. Some regulators believe they need to regulate so that the probability of failure is zero. For this reason, it is difficult to come up with exemption rules. I would like to ask each of the panelists to comment on the exemption ratios that are in the present law and the possibility of some subjective evaluation that might exempt companies from the requirement under circumstances such as Larry's 88-policy company.

Mr. Hill: It has been pointed out that the current legal standards for exemption from cash-flow testing are tied to three numerical tests. One is your capitalization (your capital and surplus relative to your invested assets). The second one is the magnitude of your annuity and deposit reserves relative to your admitted assets. The third one is the amount of your below-investment-grade bonds, that is NAIC categories 3 through 6, relative to your capital and surplus. I think the standards for exemption have to be expanded. There are other products that are mainly investment products that probably should be subject to some kinds of cash-flow testing. I'd like to see some tests built in that don't just label products or don't just label invested assets, but put in some characteristics of the products in terms of what their cash values are relative to other things like death benefits or premiums paid.

Mr. Baber: I have had several situations with clients that perhaps failed a ratio on December 31, but by March 31 cleared up the problem. It was purely a timing situation. We didn't get any relief from the states for that, which is wrong. I believe that if you can prove that there was an immaterial situation, there should be some means of relief. On the other hand, we have received some relief in a few instances by discussing the situation with the department. There should also be some subjective relief for the ratios, too. I am not sure where that would come from. The NAIC does not have any real power to do that. It is up to each department or commissioner.

Mr. Dreyer: Maybe the NAIC is softening up a bit. In the case of the illustration requirements, the NAIC is accepting the statement of the actuary without any required review.

Mr. Jerome F. Seaman: Norm brought up the point that cash-flow testing is designed primarily to test for disintermediation. Actuaries seem to have removed themselves totally from the whole issue of reserve adequacy and the relationship of

assets to the cash-flow testing and not reserve adequacy. I think that is why this debate is taking place.

Mr. Hill: I agree that reserve adequacy is very tricky, but it is vital for products like long-term care and noncancellable disability where there is no official reserve standards as yet. I don't think the actuary should certify to reserve adequacy without considering the types of assets used to back up those reserves. The long-term care problems with future claims are likely to be quite a few years down the road, and your asset position is likely to be much longer for a product like this.

If you see some problems developing 10–15 years down the road, you still want the fairly longer term assets. If you were holding a reserve for a product where there are not cash values, but you knew the company had short-term claim deficiencies of various kinds, for whatever reason, then you'd want the invested asset backing up that product to be fairly short term. I don't think that anything I said would support just doing formula reserves blindly. You have to take into account, in various ways, the proper asset for each type of liability.

Mr. Baber: Let's look at an example. Let's say a company issued only universal life and long-term care. Assume you did cash-flow testing on the universal life block of business, and some sort of loss ratio testing on the long-term-care plans. There is still a melding of the assets that are going to back all of those liabilities, and both of them are long term. You're going to have to look at the reserve adequacy in total to be able to form an opinion. I don't know whether this is where you're coming from or not, but I find this is a real challenge when I am mixing and matching the kind of tests I do for a company.

Usually you cash-flow test your annuities and your universal life plans; I even do the cash-flow testing for traditional products. Some people would claim that the surrender values of traditional nonparticipating products are a problem or could be a problem. I don't see it quite as much as other people, but when you are mixing two types of testing, you must allocate the assets between the two lines some way or another, so one may need the long-term assets, and the other may need the short-term assets. They must match up with the liabilities that you have.

Mr. James W. Pilgrim: When you finish doing your cash-flow testing, and you're doing that as part of your asset adequacy analysis, how many have had to increase their reserves because of some projected deficiencies?

Mr. Baber: I don't know the statistics on that, but I think we have seen some in the *National Underwriter*. In my particular situation, I probably had to do it less than

one-fourth of the time. There must be some statistics out there because I think the NAIC does keep track of who has increased reserves because of projected deficiencies. However, I can only tell you of my own experience.

Mr. Hill: Our company doesn't have those kinds of products, so we have never set up any additional interest reserves from cash-flow testing. One consultant told me, somewhat in jest, that a couple of companies have been complaining, or are concerned that their risk-based capital ratios are too low. One reason they are too low is because of the extra liabilities that they are setting up from cash-flow testing.

Mr. Baber: I will say that I think Actuarial Guideline GGG has caused more reserve increases than cash-flow testing.

Mr. Dreyer: I have always felt that the failing of one or two scenarios 10, 15, or 20 years down the road should never require additional reserves today. Asset adequacy testing is intended to give you a blueprint to show you where you have problems.

Mr. Baber: I would agree with that. I know that you can manipulate those cash-flow results by adjusting the assets that you buy and, within a five-to-ten-year period, you can correct those problems. If management does that, that is another story, but you can argue that a change in investment strategy or crediting strategy, or both, can change those results so that you do not have negatives down the road.

Mr. Hill: I've heard at least one regulator, who is an actuary, say that he thinks companies have to pass every one of the Standard 7 tests to avoid setting up these extra reserves. I don't think that is the prevailing regulatory opinion. Some companies are doing thousands of tests using Monte Carlo techniques or things like that, but it seems as if there is a division of opinions among regulators as to what triggers setting up these extra reserves.

Mr. Dreyer: I might also add that if I was in a company situation where I knew management was not going to make use of the cash-flow testing results, I'd be more interested in seeing the extra reserves set up. That becomes a matter of professional judgement and responsibility.

Ms. Lori A. Grapentine: I am currently on assignment at a small insurance company in Santiago, Chile. Norm, you mentioned other tools that are available in place of cash-flow testing. You mentioned projections. It seems to me that there can be many similarities in the work that you have to do setting up projections for cash-flow testing.

Mr. Hill: If you make a projection, it is likely to cover a broad financial result, such as the aggregate cash flows from investment income, premiums, claims expenses, etc. The results will depend primarily on the interest assumption. If you are making an assumption that the interest rates are going to be steady, or if you are assuming interest downturns such as those that are built into some of the Standard 7 tests, you will get different results. I do think there are similarities between the various tools that you have available. Some companies use certain types of tools more frequently than others.

Mr. James M. Jerome: Perhaps an historical perspective will remind us that all this started because of the failure of a couple of large companies and the battle between the states and the federal government for regulating power. The states were under pressure to come up with some sort of procedure to keep the federal government out of the regulation business. At the same time the Academy was trying to get respect and professional status among all the states; it was eager to cooperate with the state regulators. Now we have cash-flow testing and the regulation windmill does not stop. It keeps going—we have Triple X, the illustration, and GGG, it will never end.

Mr. Hill: Don't forget risk-based capital.

Mr. Jerome: Yes, there is risk-based capital too.

Mr. Hill: And the soon-to-be nonforfeiture values.

Mr. Jerome: There may be nonforfeiture actuaries required before we are done with all of this. You pointed out that if the law says we have to do it, we have to do it. Larry has pointed out that it is a management tool, but we've had management tools for hundreds of years. Prudential did not get where it is by accident. If you spend $50,000, it's nice that you can do so for something other than making the regulators happy. I kind of wonder whether actuaries are not being jerked around by the regulators on some of this, and the Academy doesn't seem to be supporting us. It seems to be supporting the regulators. Perhaps we are addressing the wrong issue. Perhaps we need to have a professional organization that represents actuaries rather than regulators.

Mr. Baber: I must agree. I think we have capitulated at times, especially in this area. One of the things I was against was writing a standard of practice right alongside the illustration actuary regulation. I noticed just recently that with the nonforfeiture value plan, they are not going to use that same kind of approach of writing the regulation and the standard of practice hand-in-hand. It seems to me that it didn't come out the way it was supposed to come out. In the long run, we

have sometimes abdicated our position. We did it on GAAP with accountants. We have done it on the appointed actuary issue with the regulators. We have not stood up as we should have and said these things are not required. We should have

different kinds of rules where they do apply. I guess that we probably should take a stronger position in these situations.

Mr. Hill: I also agree. I would like to see the Academy make more definitive statements on cash-flow testing, and in other areas, too, instead of generalities, such as the actuaries should consider this or should consider that. There is an Academy task force in place, of which I'm a member, that is supposed to take a fresh look at the valuation law. If you could start with an ideal world, what would the valuation law, in totality, look like? I guess that is the charge to us. It is hard to say what will ever come from this task force.

It would be such a monumental task to completely revamp the valuation law. There are influential members of the task force that would like to see the U.S. change to some kind of a U.K. approach or a Canadian approach where reserves are set by the actuary, based on judgement instead of all the numerous and increasing standards spelled out in the law. One of the dangers that I see is that some recommendations might be made for new tests that actuaries would apply. Instead of replacing the current regulation, they would be adding additional requirements that kind of tie in with what the previous speaker was saying.

It is hard to say what will come out of the task force. We can be hopeful, but you have to have a certain amount of skepticism and watch very carefully what recommendations may come out from this group. I think we all need to be attuned to that.

Mr. Dreyer: I think I detect a subtle shift coming in the area of regulation. As I mentioned before, the illustration actuary has been given much more professional leeway than in any of the previous regulations. Unless something has changed in the last few months, the nonforfeiture actuary regulation will be in addition to existing nonforfeiture law. You will have the option of developing a more flexible product or you can continue under the present cookbook cash value procedures. We are gaining little by little. I sense that there is some progress being made, and I hope it will continue.

Mr. Baber: There has been some talk about calculating probabilities for the New York 7 scenarios. I think most of us have in our minds some idea of the relative probabilities of some of those patterns. If they are thinking about putting probabilities on them, it is going to complicate things even more.

Mr. Hill: I would like to make one last comment about professional responsibility. I think there is no issue about its importance. Mutual Benefit, the year before it failed, received a clean actuarial opinion under New York Regulation 126, which deals with cash-flow testing or asset adequacy in a limited sense. Then what happened a few months later? There is no question that the need for actuarial analysis exists, and the actuary should be using all the tools that are appropriate for whatever products and assets he or she has to analyze. The available tools are probably going to increase in the future, but there is no substitute for professional responsibility.

Mr. Baber: Norm's comment suggests something that worries all of us—legal liability. If you issue an opinion, and something goes sour within a year or two, the only thing you can do is make sure that you have documented everything you did in your cash-flow testing and have given reasons for doing it. If you did anything different than what the standards of actuarial practice say, you have to note that, too. Even if you cover everything, you still might not be protected, but at least you have done the best you can.