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Session 63PD
Impact of Regulatory Uncertainty on Product Innovation

Track: Product Development
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Summary: Attendees hear the most up-to-date information available on regulatory developments of interest to product development actuaries.

Experts close to the heart of regulatory developments discuss current issues including adoption status and proposals for various regulations critical to product development efforts. Also, industry experts discuss the impact of the uncertain regulatory environment on current product development activities. Topics to be addressed include:

- *Regulation XXX*
- *Annuity and variable life illustration and disclosure*
- *Valuation and Nonforfeiture Standard Law Proposals*
- *Guidelines 33,34*
- *Guidelines ZZZ, ZZZZ*

Mr. Timothy C. Pfeifer: I am a consulting actuary with Milliman & Robertson. In today's session, we will discuss current regulatory activity and the impact, either currently or in the future, on product development innovation. I just want to remind you again of the disclaimer regarding antitrust. We will be adhering very closely to antitrust guidelines, so to the extent that we engage in a Q&A session later in this program we want to remind you to be cognizant of antitrust rules.

The panel that we have today is likely familiar to you and is very qualified to speak on this topic. Jim Van Elsen is founder and president of Van Elsen Consulting. Jim's practice specializes in product development for smaller companies. As many of you undoubtedly know, Jim is one of three co-chairs of the industry committee that worked hard to redraft the new NAIC Model Regulation XXX. Jim will talk about some of the mechanics of Regulation XXX, but more specifically talk about the

Note: The charts referred to in the text can be found in the documents atl63pd2.pdf and atl63pd3.pdf.

potential impact it may have on product design. Next I will talk about a hodgepodge of recent regulatory developments, including Actuarial Guidelines 33 and 34, which relate to annuity reserves, and Actuarial Guideline ZZZ (renumbered 35), which addresses equity-indexed annuities (EIAs). We'll also talk about a proposed Actuarial Guideline ZZZZ, which covers reserves for equity-indexed universal life (UL) products. Finally, I will make comments about a few other miscellaneous rules and their impacts on products. Third will be Bob Wilcox, again a familiar face to many of you. Bob is the former Commissioner of Insurance in the state of Utah. More recently, Bob joined Deloitte & Touche where he is the National Director of Insurance Regulation Consulting. Bob is also the chair of the Valuation Task Force for the AAA. Bob's comments will be focused on recent activities in reexamining the valuation processes in the U.S. for insurance products.

Our approach here is not to delve deeply into the technical aspects of all of these regulations, but rather to summarize and then talk about the product development implications for these rules.

Mr. James N. Van Elsen: As Tim mentioned, I will be discussing some of the product development aspects of Regulation XXX. I am a consulting actuary from the big community of Colfax, Iowa, a small town near Des Moines. I will be giving you a brief update on XXX, including its status in the various states. Also, I will give you a quick overview of Regulation XXX. If you came here expecting to learn how to deal with Regulation XXX from a technical point of view, this is not the right session. We'll talk about some of the potential product development problems raised by XXX and some of the choices that you're going to have to make as a product development actuary. Finally, some of the opportunities that have presented themselves because of this regulation will be covered.

Insert 1 illustrates state adoption status. It was based on a survey we conducted in the past week.

INSERT #1 (NO CHANGE)

- Adopted 1995 XXX, Possible 1/1/2000 (10)
  IL, KS, ME, MD, NM, NY, NC, TX, UT, WI

- Didn't Adopt 1995 XXX, Possible 1/1/2000 (11)
  AR, CA, CO, DE, IA, MN, MO, OH, OK, OR, PA

- Didn't Adopt 1995 XXX, Favorable (3)
  CT, LA, ND

- Potential Problem States (4)
  FL, MA, WA, WV

In the state of Washington, the staff has proposed that XXX be adopted with the X factor being set at one. I don't think the Commissioner has taken a position on

that yet, so it's unclear at this point whether that will go forward. Florida also appears not to be adopting XXX, at least not in the foreseeable future.

Now, just a quick overview of XXX. The primary issue that one needs to learn to deal with is the definition of how to deal with segments. For a 20-year term, carriers have to start reserving as a 20-year term with classic humpback reserves for the 20-year period (if you guarantee the premium for 20 years). If you go to five-year guarantees, you have five-year segments. It really is nothing more complicated than that. There is a requirement that you compare the results from the segmented calculation to a unitary approach, which is the method that is currently popular, so you end up using the higher of the two.

The regulation did introduce new 20-year select mortality factors. A new innovation in XXX this year was the development of the new X factor. As Larry Gorski has described many times, this is almost a test to see if a valuation actuary is going to be able to take the responsibility professionally for setting one of the key assumptions in the reserving process; that is, the valuation mortality.

UL products have been swept into this regulation. Secondary guarantees must be reserved as if they were term policies within the UL product. Of course, as you get deeper into the regulation, you're going to find there are many exceptions. I'm not going to go into those, but just be aware: If you think you have a product design that really takes advantage of Regulation XXX definitions, look really hard at some of the exceptions; it may be considered covered by the regulators.

One of the big concerns is that some states will not adopt Regulation XXX as it was written. An example is the recommendation in the state of Washington that the rule be adopted with an X factor of one. If you're licensed in the state of Washington, that could pose a significant problem. I can tell you that the trade associations are working very diligently to insure that there will not be state exceptions. Individual companies will probably be in the best position to police this in their own states. It's very important that we have uniform adoption of a common regulation.

There is also a concern with the states that previously adopted Regulation XXX with the 51% provision. The risk is that they could accidentally become effective with the older version of XXX if enough states adopt the new Regulation XXX. The state of Illinois actually set out some standards to define what was considered to be a "comparable regulation." To my knowledge, other states did not do that. I think Illinois would not consider the new XXX comparable, but I cannot say that of the other states. Texas also has adopted the old version of XXX. It is effective January 1, 2000. If Texas does nothing that regulation will become effective, so one of the big pushes right now is to get Texas to adopt the new version of Regulation XXX.

In spite of all our best efforts, it's likely that not all states will adopt XXX—at least not initially. In your product designs, if you're licensed in both states that have adopted XXX and not adopted XXX, you're going to have to take into account both

reserve methodologies. For the classic 20-year term design with high ultimate premiums, it means you may have to keep that type of design to avoid very high reserves in those states that have not adopted XXX. There's also the potential that if your domiciliary state has not adopted XXX, you could be in a position to ignore and live with the high reserves in the states that have adopted it. Only that state will know about it. It's not generally published information and if there's not a solvency threat, you're probably OK, so for a short period of time there may be a few companies unaffected by XXX.

The previous unitary methodology essentially had high ultimate premiums subsidizing the reserves for the early guaranteed premiums. Each segment is now going to have to stand on its own in terms of funding its reserves. We're not going to be able to depend on the later premiums to fund those benefits ,so there is a more significant reserve burden on the earlier premiums. A long guaranteed period product, the 20-, 25- and 30-year terms and longer, are certainly adversely affected by this regulation.

Now to the X factor. If you're going to be in the competitive term market, you will have to look at the X factor. There are a lot of implications to this part of the regulation that companies are going to have to carefully consider before they finalize their position this year.

UL products with a secondary guarantee are adversely affected by this regulation. Companies that are big in this market are going to have to make some adjustments for their products. Of course, those UL products that have multiple guarantees are also addressed in this regulation. You will have to carefully consider their impact on those designs.

What choices do product developers have under XXX? I've come up with five. First, you can reduce guaranteed premiums. For 20-year term, you could go to a 5-year premium guarantee. There's the agent's favorite choice: you can always increase premiums or reduce guaranteed benefits. An example is one in which you have a 20-year level term but you only guarantee that the benefit will stay level for 5 years; after that it turns into a decreasing term. That's just an example. There are other ways to reduce your guaranteed benefits.

Reinsurance strategies also represent a choice. Also, there is my favorite topic—the use of nonguaranteed guarantees. Of course, the last choice is to do nothing (leave your products exactly the way they are).

When you think product design with Regulation XXX, forget deficiencies initially. The basic reserves alone on 20- to 30-year term products are very high and will be very difficult to support with current competitive premiums. I've been told by some companies that even with the most aggressive preferred classifications, deficiencies exist using X factors, implying that the minimum 20% may not be low enough.

If you take the 20-year term and reduce its premium guarantee to 5 years, XXX reserves must still be calculated. Unlike the old XXX, you can't ignore five-year

guarantees. You still have your humpback reserve pattern and you are not exempt from deficiencies. The old regulation contained a five-year maximum guaranteed period safe harbor. This safe harbor was a magnet for the consumerists to attack, so the new regulation does not have such a safe harbor. All policies have to consider deficiencies and all have to hold appropriate humpback reserves.

If a company reduces its guarantees, one of the choices you may be making (for example, if you take the 20-year term with a 5-year premium guarantee), is that your product may need to be illustrated. For companies that I'm working with, that's what we would do. If we have a 20-year term with a 5-year premium guarantee, that product will be illustrated. I'll leave you to your own market conduct officer to make that decision for you, but certainly it's going to be very difficult to talk about the 6- to 20-year premium on a strictly guaranteed basis.

There may be a market for companies to increase their premiums and to take the 20-year term, maintain the guaranteed periods, and take the premium increase. If you go out to the Internet today and try to look at term life insurance, you're going to find that virtually all of the products out there are fully guaranteed products. I have not found term illustrations on the Internet. There are some situations where applicants fill in the information and the insurer sends you an illustration, but not having an illustration is a benefit of the Internet. Of course, there is a segment of the agent market that prefers not to use illustrations. They prefer just quoting a term insurance premium. It's a simple product. You just tell them what the premium is, it's guaranteed for 20 years, and that's all you need to say.

In New York, which has dealt with Regulation 147 for a number of years, which is similar to XXX, the guaranteed premium products have been the products of choice. I do believe, however, that the market will be very intense, particularly at the 20-year term, in trying to keep the extra premium for the guarantee down to zero or a very small number.

The following is an idea I've had in trying to deal with XXX. I have no idea if it's a good one, but it is certainly one of the ways you can deal with the extra reserves. You can reduce your guaranteed death benefits. For 20-year term, benefits are guaranteed for 3 years, 5 years, 7 years, or whatever and then they revert to a decreasing term. You can then use nonguaranteed death benefits to maintain an illustrated or current level benefit.

On the topic of reinsurance, it is my belief that next year there will be 20-year term rates at today's competitive levels, guaranteed for 20 years by some companies. Some of them will be doing some of this business by coinsuring the reserves overseas where reserves standards are different. However, there's limited capacity for such type of reinsurance. It is my belief that today's term market cannot fit in the ocean. There is no way that the amount of term insurance written in this country can be totally coinsured away.

I'll also caution you that there are potential regulatory problems. You need to be sure that there's a proper transfer of risk, and if you get too large a reinsurance

reserve credit, it may begin to affect your ratings from A.M. Best and S&P, etc. This reinsurance is also not without cost. I've had some discussions with reinsurers who say, "Our clients sometimes think we can do this for no cost. We'll accept all these reserves for nothing." There is a cost to doing that and, of course, that will have to be reflected back in your pricing. I do believe that for some companies, and for some portion of their business, this may be the appropriate solution. This may not allow full guarantees on the 20-year premium at today's levels, but it will perhaps get it closer.

Everyone is looking back towards the reinsurers to see if they can help them with the levels of their X factors, and I think the answer is there. At least the initial answer is that they certainly can help, particularly with the initial level of the X factor. Ongoing X-factor development will require development from a company's own experience.

Next is the topic of nonguaranteed guarantees. The ploy here is how to persuade your agents and your prospective policyholders that you probably won't increase premium rates, but be sure that they understand that you retain the right to increase rates. One possibility is to restrict your ability to do that. Perhaps one can borrow some ideas from the health insurance line. Maybe a carrier puts it in their contract that they can only increase premium rates if experience justifies this or if death benefits exceed some percentage of premiums. Again, you're still giving the company the ability if situations turn poor to increase premiums, but you have restricted your ability to do that. Companies could perhaps offer some options of taking the level benefit or allowing the client to turn it into a decreasing benefit or other options that happen if premiums increase. I do believe there is some potential for gimmicks in this area.

I want you to be very careful about these nonguaranteed guarantees. There are those who like to read the letter of the regulation and I caution you. Be sure you understand the intent of the regulation. If you're guaranteeing the premium or if it looks or feels like you're guaranteeing the premium, regulators may not agree with you. I particularly caution you because if you're wrong, the results can be disastrous. If you priced based on 5-year term rate reserves and they decide you've guaranteed the premium for 20 years, how sure are you of your position? Are you willing to bet the solvency of your company?

Now, for examples. I'm going to look at a 20-year term, first with a full guarantee, then with a 5-year guarantee followed by ART rates. Next we'll look at a full guarantee with increased premiums and then original premiums reducing the death benefits. Chart 1 shows the classic humpback reserve. In this example, you see a premium for a 45-year-old of about $2 per $1,000 and the basic reserve getting up over $40 per $1,000, which is about 20 times premium. This is a fairly heavy reserve burden for a policy to carry.

With Chart 2, the current premium is the same. After five years, the guarantees actually turn into an ART. The net premiums actually follow very close to gross

premium patterns. Reserves peak at less than $10. This is certainly a much lower reserve burden to carry.
In Chart 3, a level increase in premiums does nothing to change the shape of the humpback reserve. All it really does is give you more premium to pay for it. I won't hazard a guess as to how much is necessary to pay for that.

In my final example, Chart 4, instead of focusing on the premiums, after five years we no longer guarantee the death benefit. Instead, we guarantee a decreasing death benefit. In this example, you end up with a fairly modest reserve. You had a small humpback in the first five years, but it actually turns out to be a fairly flat reserve after that at around the $2 level, which is very close to the premium.

There are numerous opportunities that will arise because of Regulation XXX; the first of which is in 1999. I also want to talk a little bit about the year 2000 market that we're trying to design for, which does not currently exist. I'll talk about some of the trade-offs between full guarantees and low premiums, differentiation, and managing segments.

First, the 1999 market. It's my prediction that this may very well be the greatest collective term sale of the millennium. It's probably the third going-out-of-business sale we've had. This time I think we mean it. Of course, one of the things you're going to have to deal with this year is getting your agents used to the types of products you're going to be selling next year.

This particular regulation is very difficult for product development actuaries to deal with. The market that you're trying to design products for does not presently exist. All of your current sources for product development market intelligence are no longer useful. Agents can't tell you specifically what's going to work next year. Everyone is guessing. Companies will be groping for their position in this new market, and it's my belief that those companies who take the time to understand the dynamics of next year's market will find a place because producers are going to be looking all over trying to find the type of product that fits what they're trying to do.

One possible way of distinguishing yourself next year if you can't compete on rate is to distinguish your product, perhaps through new types of benefits, new payment plans, higher commissions, more aggressive underwriting, or (everyone says) better service.

Managing segments is the key to product development under XXX. Generally, shorter segments yield smaller reserves, offset, of course, by the fact that at the end of the first segment you no longer have the ability to use the 20-year select factors or the X factor, so it's a trade-off on what will give you the best benefit. Shorter segments may not, however, be marketable. Will the market next year go for premium or guarantees? I really don't know.

Something to not overlook is the whole life product, or other permanent products. They actually benefit by Regulation XXX. The key to next year, I believe, is to fine-tune your ability to respond quickly to the market.

Virtually all companies in the competitive term market will be introducing products next year. Those who respond best initially will gain market share. It is my belief that those who respond best second may actually be the ones that ultimately win. Those who are able to look around and see what is working in the marketplace and respond to it may be the ultimate winners next year, but speed will be critical, as will good market intelligence.

Mr. Pfeifer: We're going to shift gears a bit now and talk about four or five actuarial guidelines that impact annuity business and (separately) equity-indexed life insurance. We're going to talk about Actuarial Guidelines 33, 34, and 35, which have all been adopted, and proposed Guideline ZZZZ, which at this point is still in draft form. I think it's interesting to note the increasing use of actuarial guidelines versus the use of model regulations. Actuarial guidelines have the ability to define the parameters of regulation in a broad way more quickly than does a model regulation, which has to be adopted by individual states. I think there could be a difference across the states as to how much force of law they believe actuarial guidelines have versus model regulations. At least that could create some differing interpretations or some squishiness relative to the guidelines. Clearly we seem to be in a mode where guidelines are almost the preferred way to enact new rules, in particular if they're viewed as just being extensions of existing regulation that's out there.

Actuarial Guideline 33 defines minimum Commissioner's Annuity Reserve Valuation Method (CARVM) reserves for individual annuity contracts. Guideline 34 relates to reserves for variable annuity (VA) minimum death benefits. Guideline 35 relates to CARVM for EIAs, and Draft Guideline ZZZ to the application of CRVM to equity-indexed life insurance. I'm also going to make a couple of comments regarding an Actuarial Guideline XYZ, which has just been drafted within the last few days.

What I'm going to attempt to do quickly for each of these rules is to give you a general description of the guideline, the current impact the guideline has had on product design for individual companies, if any, and perhaps what the future impact might be on product design.

For Actuarial Guideline 33, the basic purpose was to elaborate on the definition of CARVM. If you look back to the original CARVM as it defines annuity reserves, it is really more of a philosophy than a specific regulation that gives intimate details on every aspect of reserving. The idea behind Guideline 33 is that it will embellish and give more detail on how to handle specific annuity designs and interpretations of CARVM. It applies to deferred and immediate annuities, and it replaces a version of Guideline 33 that was produced in March 1995 that was viewed by some as ambiguous. This effort was meant to follow up and provide greater definition. The need for Guideline 33 also came about because of certain product features. Companies have added various forms of liquidity to their annuity products, in the

form of nursing home surrender charge waivers, cumulative-free withdrawal provisions, bailouts, annuitization bonuses, and the like.

The basic provisions of Guideline 33 involve introducing the concept of guaranteed benefit streams, all of which the actuary must consider in establishing reserves. The actuary must look at an integration of all of these possible streams of benefits, again on a guaranteed (not a current) basis. As well, the actuary must differentiate between those benefits that are elective and those benefits that are nonelective and look at the possible future streams that could develop for the elective benefits. These streams must be examined assuming zero utilization or 100% utilization (and anything in between) by the customer and whatever form of future guaranteed benefit flow that would be created must be reviewed.

It is important to note that Guideline 33 is really being characterized as a guideline that enhances the definition of CARVM. It does not create a new definition of CARVM; therefore, if a particular state had a continuous CARVM approach to calculating reserves, Guideline 33 would be consistent with that. On the other hand, if the state had a curtate definition of CARVM, Guideline 33 is not meant to change that. It's meant to be consistent with what was there.

The reserve under a Guideline 33 approach is really the maximum present value of all of these possible future integrated benefit streams. The actuary is not necessarily required to test all possible streams (an infinite number of combinations might exist), but rather to consider all of the possible future flows and work from there. It also goes on to consider one specific issue that was of some concern in drafting this guideline—contracts that have a provision that will guarantee future annuitization at whatever a company's current single premium immediate annuity purchase rates will be at that future time. This was viewed as a significant guarantee, but one that was not really quantifiable at the point of valuation in many cases. In such a case, the guideline requires that a reserve no less than 93% of the full account value be held.

What has been the current impact of Guideline 33? A few companies have had material reserve increases but most companies have had either minor or no reserve increases, and to the extent there have been increases, there are provisions in the guideline that would allow for a three-year grading period with the approval of the states that you're operating in.

The companies that have had increases in reserves due to Guideline 33 mainly have seen that happen because of liberal annuitization features, which ends up being a fairly costly item given the level of utilization of annuitization most companies have had. These are features that either waive surrender charges upon annuitization or perhaps pay some sort of bonus for those that annuitize, especially when that occurs a short time after issue. Within the product design, that can create some fairly high Guideline 33 reserves. Similarly, those that have had increases of any size have seen that often because of liberal free-out provisions, so cumulative free-outs that could grow up to 50% of your account value or something like that have often seen substantial increases because of Guideline 33.

One of the interesting issues has to do with tax reserves. Guideline 33 defines CARVM, which is the accepted method for tax reserves. For some companies, there could actually be a benefit in Guideline 33 in that it might reduce their tax liabilities, which is real money as opposed to a book reserve. If you recall in last year's budget proposal, there was a provision (which eventually was struck down) which essentially said that there were limits to how much of a tax deduction companies could take because of the Guideline 33 impact.

What can we expect in the future? I think Guideline 33 sets the stage for a couple of the other things we're going to talk about relative to things like guaranteed minimum death benefit (GMDB) reserves and EIA reserves, all of which have to be integrated with the Guideline 33 approach. I think the impact of Guideline 33 will probably increase in the future as annuity products are designed with more policyholder options and consideration is given to integrating annuity benefits within the same contract with other forms of indemnity benefits like long-term care. But I think for the moment, at least for the near-term future, the biggest impact will be on annuitization-related features. You have to be very careful as to how generous you make those as well as some of the more generous liquidity features such as disability income, free-outs, or unemployment free-outs.

It's worth noting that when we talk about the impact of any of these reserve guidelines, we also have to keep in mind that to the extent your risk-based capital (RBC) is expressed as a percentage of reserves, there's really a double hit that you're taking, not just on the statutory reserve side but in RBC as well.

Guideline 34 defines the minimum reserve standard for minimum death benefit provisions on VAs. This guideline again is viewed as an enhancement of CARVM, not a new regulation. This rule applies to VAs that have minimum death benefits in excess of the account value. The idea here is to define how to apply CARVM in the case of such a plan. It introduces the concept of an immediate drop in the fund value, the size of which depends upon the nature of the variable subaccount that you're talking about. The guideline classifies the possible types of subaccounts into five main categories. It's the responsibility of the appointed actuary to decide for a company's specific product which of the five categories your subaccounts most appropriately fall into. The assumption is that there's a drop in the subaccount values which vary by type of fund, followed by recoveries at future specified rates of return until maturity, which also vary by the type of subaccount you're talking about.

Now this just sets the stage really for an overall Guideline 33-type calculation, where you're looking at future guaranteed benefits with and without the minimum death benefit provision. The difference between those two integrated reserves is the reserve for the minimum death benefit, which is then held in the general account. Thus, there is a fair amount of actuarial judgment involved and a consideration of what Guideline 33 integration needs to be done.

I'm not going to talk about reserves for guaranteed living benefits, but it's interesting to note that there's a lot of activity right now on guaranteed living benefits and appropriate reserves for those plans. The approach that's being taken on the living benefits is slightly different from the approach taken here, although the concept of a drop and the grow-back is still prevalent. What will be interesting will be to see if any of the living benefit concepts work their way back into the GMDB, given some of the rigor that went into the living benefit reserve approaches.

What has been the current impact on Guideline 34? Really, other than administrative efforts, I believe so far the impact of Guideline 34 has been fairly small. Many GMDB features are reinsured and Guideline 34 does have a whole set of reinsurance rules for minimum death benefits, but the strong equity markets would tend to limit the net amount at risk even with the drop and grow-back. For many designs, it ends up producing a reserve that isn't that sizable. In some cases prior to Guideline 34, companies were holding zero reserves, though in that sense Guideline 34 did have some impact. However, most companies were holding a simplified term reserve of ½ c_x or something like that.

The future impact of Guideline 34 is probably going to be modest as long as the current version stays as it is and fund performance stays relatively strong. Variable margins, however, are continuing to drop, so companies will be looking for ways to minimize the impact of any rule, including Guideline 34. At this point we don't have firm guidance on RBC for GMDBs, so we can anticipate something will be coming down the road as well. As I mentioned before, a big question relative to Guideline 34 is whether or not we'll see some residual impact of the living benefit approach on the death benefit reserve approach.

Guideline 35, which has also been known as Guideline ZZZ, defines how to apply CARVM to EIAs. Again, this guideline is an interpretation of CARVM as it relates to these EIA products—not a whole new law on reserving annuities. This guideline defines several different methods to reserve for equity-indexed products. One method is deemed to be consistent with CARVM in situations where companies can show that the product has been hedged-as-required. Hedged-as-required is a specific definitional requirement that has a particular set of rules in the guideline itself, so a company that can show that it's tightly hedged may be able to use a so-called Type 1 approach, which is more of a "book" approach. I know that those people involved in drafting the guideline hate to differentiate it according to book versus market approaches. To simplify it quite a bit Type 1 is more of a book approach and Type 2 is more of a market-value approach.

There are two different methods that can be used when hedged-as-required criteria are not met. Those are more market-value-type methods. In any case, there is significant actuarial judgment that has to be made and a number of certifications that have to be produced by actuaries regardless of the type of method that you use showing that your valuation of the optionality and the liability is consistent with the option values that you're holding on the asset side. Once again, this guideline is a platform from which to jump to Guideline-33-type methodology, so this guideline

is sort of a partial answer to how to get to a point where you can apply Guideline 33.

What has been the current impact of Guideline 35? The industry was in sore need of some sort of guidance on how to calculate reserves for equity-indexed products. Companies were using a variety of different homemade approaches and there really was very little consistency, so Guideline 35 served to produce a uniform standard. Certainly you have the four possible approaches (because there's a variation to one of the market approaches), but at least there is now some definition as to what a reasonable approach to quantifying liabilities would be. As a result, for some carriers, the adoption of Guideline 35 did significantly increase reserves. However, in the scheme of things for most companies, the equity-indexed reserves were small enough that even a high percentage increase in them produced a fairly immaterial overall impact on financials. It also served to motivate a closer hedging of the risk. It's clear in the rule that there's an anticipation that both your assets and liabilities are working consistently, or should be working consistently, and I think it drove home that point and did help companies see the importance of tying their hedges to their liability.

As far as the future impact of Guideline 35, I think it would serve to solidify the dominance of the S&P 500 as the index of choice in these products because of the importance of being able to quantify the value of the underlying option on a regular basis. If you had an option definition or an index choice, that was less liquid, it may be hard to get reliable consistent values as to the optionality. Thus, the guideline tends to support the S&P 500 Index dominance going forward and maybe also the Dow Index. (We saw the first Dow product recently.)

Use of the annual ratchet design will probably continue to spread because of the importance of quantifying the true option risk. In today's market, a long-term guarantee of a hedge or an index definition like a ten-year point-to-point is very, very expensive. Not only is the cost of buying the assets an issue, but also just the type of liability you're taking on in today's option market, which makes it difficult to buy those long-term options and to sell those types of benefits. Compound that with the impact of Guideline 35, and I think it speaks to a continued predominance of annual ratchet products. Frankly, Guideline 35 for some companies will be enough of a headache that it will keep them out of the equity-indexed market. Clearly, there is a fairly significant amount of ongoing monitoring and managing of the assets and liabilities driven home by this guideline. That amount of work for some companies will just be enough to convince them to sit on the sidelines for EIAs or perhaps completely reinsure them.

Finally, Guideline ZZZZ, which is a sister guideline to the previous one, defines the application of CARVM to equity-indexed UL insurance. As far as I know, all of the equity-indexed life insurance in-force is UL in nature. The provisions here are similar to those in Guideline 35. It allows for two different reserve methods. One would be Type 1, which is more of a book-value method, the implied guarantee rate method, requiring that the company be hedged-as-required with very similar types of criteria as under the annuities. Type 2 would be more of a market value

accounting approach, known as CRVM with updated market values. Again, actuarial certifications are required in this regulation; the actuary must certify that if the company is taking advantage of the hedged-as-required rule, then it is truly hedged-as-required. If you're using market types of approaches, then you're consistently valuing the optionality on both sides. The difference here that you don't have on the annuity side is that you bring in the UL model regulation method, and integrate this approach, either Type 1 or Type 2, with a consistent UL model regulation approach as you look forward.

Since it hasn't been adopted, Guideline ZZZZ really hasn't had much impact yet. Companies do have a variety of different approaches to valuing equity-indexed ULs. The guideline has been crafted in such a way that it seems to contemplate a one-year ratchet design on the equity-indexed side; in fact, that's what we see predominating anyway for a lot of other reasons. Guideline ZZZZ will tend to solidify the one-year annual ratchet products on the equity-indexed life side. An interesting question would be, "What if you're active in a state that hasn't adopted the UL model regulation but you do sell equity-indexed life products?" You now have an actuarial guideline that refers back to the UL model. How do you deal with that?

It will be interesting to see the future impact of Guideline ZZZZ. We could have equity-indexed UL products with no lapse guarantees. We're now bringing together three different regulations, all covering a slightly different territory. It will be interesting to see how companies deal with that kind of overlap on the regulatory side.

Just a few other comments. In March, we saw the adoption of the annuity disclosure rule. It will serve to replace the annuity-and-deposit-fund-disclosure model. It applies to all group and individual annuities except for products like structured settlements and VAs. I don't see this rule as necessarily changing anything on the product development side anytime soon, although it is very specific in setting out delivery rules, furnishing the buyer's guide, etc. There is a bigger effort going on in annuity illustrations to define something on the annuity side that is comparable to the life side in terms of the self-support test, i.e., how can you be sure that annuity illustrations are supportable and not just a vehicle to bait and switch? There's been a lot of effort already made to quantify that. At this point, there's still much work to be done. In the meantime, though, it was felt that issuing some rules on disclosure would be helpful and at least take us part of the way there.

I just quickly wanted to mention one other thing and that is draft Guideline XYZ, which I think within the last couple of days has been produced by Frank Dino. You'll probably be hearing more about this in the future. Essentially there's attention being given to UL products that have secondary guarantees that are based upon the payment of a specified premium. That, of course, sounds a lot like XXX rules. This Guideline XYZ refers to nonforfeiture requirements, not reserve requirements for such products. If you have a UL product with a 20-year, no-lapse guarantee predicated on premium payments, then you need to look at the nonforfeiture

requirements as if the contract were a 20-year policy and held a cash value equal to the greater of whatever you got there and what would be defined under a UL model regulation structure. Therefore, we are seeing some activity from the nonforfeiture side, which may impact some of what's done in reaction to Regulation XXX.

Mr. Robert E. Wilcox: When talking about the regulatory impact on product development, there can be no doubt that there is an impact on product development from the uncertainty of the regulatory environment. It's a difficult problem, and it's one that regulators struggle with. By necessity, regulation has to follow innovation. You have to look to the industry, first of all, to determine what the new products are going to be. Regulation has to then either anticipate or respond to it. Anticipation of all of the unknowns in the way we regulate today is virtually impossible. I can say from my past experience as a regulator and from my regular interface with today's regulators that they are concerned about the industry's ability that the industry to respond to the needs of consumers. There's a great deal of attention given to that from the regulatory perspective.

There is a concern about how difficult and time-consuming this is and how much effort goes into the ability to respond to product innovation in the current environment. As you can tell from the presentations we've had, there are really three elements of the regulation of life insurance that are of concern to us. There is valuation, nonforfeiture, and disclosure—each of those pieces being key and each of them potentially being rather complex. It was out of that complexity that nearly two-and-a-half years ago, there was a charge from the Life and Health Actuarial Task Force (LHATF) of the NAIC to the AAA to undertake a study of one of those three legs; this being the valuation process. The charge was originally given to initiate a thorough study regarding current valuation methodologies applicable to life insurance, annuities, and health insurance and to develop a model valuation system unencumbered by existing legal, regulatory and practical constraints. This system was to have actuarial integrity and to address the concerns of the LHATF. Those concerns were primarily the difficulty and effort required to be able to respond to product innovations and to come up with all of the actuarial guidelines that we've been discussing. That was the reason for the project. You have to understand going into this that the standard valuation law does not fit most of the new products that are out there. That's why it requires actuarial guidelines. If it fits, anybody could read the regulation and say this is what I have to do, do it and come up with an innovative product and scoop the market by being the first out there. The fact is that those innovative products don't fit the standard valuation law. We have to figure out how to contort either the product or the law to be able to fit it together.

There were other concerns from the LHATF. One is the fact that insurer liabilities are not currently given adequate attention. Nonguaranteed elements of the products are not reflected in the valuation process. Jim alluded to this in part of his presentation, but I think it's also clear from the events of the last few years that companies may be required to pay nonguaranteed policy elements just as if they were guaranteed. That presents some problems. The bottom line is that the

current approach for life insurance is no longer maintainable. There just aren't the resources there to be able to develop new products that have a very short life span these days and to put the effort into maintaining the system.

It would be difficult to guess the actuarial man-hours that have gone into Regulation XXX alone. I think it's certainly in the tens of thousands of man-hours or more. It's for that reason that being able to maintain the system has become a difficult problem.

In 1997, an AAA Valuation Task Force was formed. It undertook a clean piece of paper approach, analyzed the current system, examined systems in 14 other countries, and developed basic objectives and a framework that would be followed.

Some of the things we were trying to accomplish with the new system was to have a single system that served different needs rather than the separate systems that we have now for statutory valuation, GAAP valuation, tax valuation, and RBC. We wanted a consistent basis for all financial information. It was important that resources and obligations be addressed consistently so that there would not be wild swings in overall results—an important element that is missing from the current valuation system disclosure of the expected levels of adequacy in the system. Even though there is an element of the actuarial opinion that addresses expected levels of adequacy, it doesn't really tell you in a quantifiable way what that means. We felt that the audience for the information from the valuation system ought to know what level of adequacy is provided. If you think about it, the current system takes a prescribed mortality basis with some margin in it (but we don't know how much) and an interest rate with some margin in it (but we don't know how much), ignores lapses, ignores expenses, and puts it all together and presumes that you have a reserve with some margin in it. A knowledgeable individual could only guess how much margin is in that analysis or how much conservatism is in the reserve that's established.

The last element that has been controversial for some people (but one we think is an important part of the overall approach) is treating the insurer as a whole rather than simply assigning a reserve basis to each product or each block of products and adding those up and assuming that those represent the valuation of the entire entity. Certainly a company that can diversify its risks through writing a variety of products has a different sort of risk or liability or viability than one that is very monoline.

A little more history is important. In 1998, the NAIC asked the Academy to put together a model law. Some people thought that was strange, but regulators recognized that when you write the rules it's much easier to identify where the problems are. We undertook to put together a law, and we also drafted what the actuarial opinions and reports might look like and began developing numerical examples and testing the results.

For 1999, the NAIC LHATF has set a priority to complete the development of this approach by the end of this year and has taken over responsibility for further

development of the draft model law language. They have asked the Academy to prepare a model company presentation to show how a new unified valuation system would affect an annual statement so that we could actually see how it looks. You should choose a broad enough kind of company so that the process would provide a valid illustration of how the model would work. The LHATF has a list of issues for resolution that they're working on, and the Academy also said that it would examine a Canadian-style alternative.

As you increase assets relative to liabilities or resources relative to obligations, the probability of survival shows a definite increase. If you had resources or assets exactly equal to current statutory reserves, there would be some probability that the company could meet all of its obligations and survive. Actually, from a regulatory perspective that probability is zero because you're statutorily insolvent and you would be put into receivership, but, ignoring that possibility, there is some point on the curve that would be represented by that. As you add additional resources equivalent to capital, you increase that probability, and at some point you would have enough assets to reach the company action level of RBC. That should put you fairly high on that probability S-curve and fairly high in terms of your probability of meeting your obligations. This represents the approach that unified valuation systems are built on. It involves a lot more actuarial judgment than the selection of the X factor that Jim talked about. Under this approach, the valuation actuary would have to select the assumptions and the methods—generally stochastic methods—to identify the probability distributions around all of the obligations that the company has. When I say all of the obligations, the intent is that nothing would be left out. You also have to determine probability distributions around the resources to be able to manage the relationship of both resources and obligations. All of that then becomes the responsibility of the valuation actuary.

A quick summary of a definition of what we mean by obligations is appropriate. They are both tangible and intangible. They are commitments or responsibilities to provide cash flows, current or future, to policyholders or others. It includes not just policyholder obligations, but all obligations. As you read a list of those obligations, when you talk about commitment or responsibility read into that that it includes both guaranteed and nonguaranteed elements. Then the company identifies the assets that would be committed to support the obligations. We're really looking at cash flows. The obligations are defined as cash flows. The assets provide the positive cash flows to meet those negative cash flows. By the way, these definitions for indicated level of adequacy and obligations and so forth are taken from existing actuarial literature. These are not new definitions.

The valuation of assets must also be considered. Assets that are allocated to support obligations are valued on whatever statutory basis is selected. The system really is independent of what valuation method of assets is used. Then the liabilities are set equal to the value of the assets that is established.

The viability analysis is an important key to this system. This is a report given to the board and management by the valuation actuary. The valuation actuary certifies annually that the report has been presented as required. There are details

as to what needs to be in the report. It's basically a dynamic analysis of the company's ability to carry out its business plan and still be in business at the end of the period—at least five years. The plan would be confidential unless we were dealing with a troubled company subject to regulatory intervention.

The system attempts to respond to the uncertainties of the regulatory environment with regard to new products and enhances the likelihood that a company can innovate and present new products and stay in business. It's not a perfect solution. It's a work in progress and it may be that there are better solutions that are completely independent and different from this. That's fine, and those of us who have been working on this welcome any concepts and ideas to take us in a different direction. It's clear that we need to come up with a different system. Some of us think that this one has the necessary elements to be viable.

Mr. William J. Schreiner: I'd like to add a little footnote to Jim's description of state activity. For states that wish to adopt XXX and don't get it done by January 1, 2000, one should not be surprised if, when they get to the year 2000, they retroactively move the effective date to January 1, 2000. In fact, in many cases they may be encouraged to do just that. I'd also mention that we are maintaining a compilation on our Web site that will update the activity in the states.

Mr. Daniel C. Wiedrich: Relative to Actuarial Guideline 35, is that applicable to immediate VAs?

Mr. Pfeifer: A strict reading would say no. Larry Gorski, did you have a thought on that?

Mr. Larry M. Gorski: I would agree, no.

Mr. Timothy W. Verschelden: Mr. Van Elsen, on your reserve comparisons, what is the difference between net gross and basic reserves?

Mr. Van Elsen: Actually I was referring to the net and gross premium and then the basic reserve. I should have defined that.

Mr. Verschelden: Again, that's not inclusive of deficiency reserves?

Mr. Van Elsen: That's right, it ignores deficiencies.

Mr. Verschelden: OK. On this same subject, you didn't really deal with the impact on product development about maintaining the X factors or updating the X factors. Do you view that as a major consideration?

Mr. Van Elsen: One of the things I think the product development actuary is going to have to consider is the sensitivity of the X factor. If you're developing a product at the edge and are very dependent on the valuation actuary maintaining aggressive X factors, you need to take that into account in your product development. Some sensitivity analysis with respect to X factors would be

appropriate. In particular, if a ten-point swing in X factors five years from now would cause your company solvency problems, it ought to be reconsidered.

Mr. Jesse M. Schwartz: Jim, can you elaborate a little bit on when a 5-year guarantee is a 20-year guarantee relative to what regulators would look at?
Mr. Van Elsen: I think a lot may depend on the adequacy of disclosure to policyholders. I'm not going to give you a legal definition of it, but I think generally if regulators look at what disclosure you provided to your policyholders and presume that a reasonable person would believe that premiums were guaranteed for 20 years, they're probably going to expect you to act accordingly and reserve accordingly. Larry Gorski, would you disagree with that?

Mr. Gorski: I would agree with you.

Mr. Gregory J. Carney: It's a question for Tim and Bob. Tim, your presentation was on guidelines, which are supposed to just interpret the law, not expand it. Over the last five or six years, we've seen a lot of proliferation of guidelines to solve problems. As I looked at some of these guidelines on CARVM, some of them seem to me to have gone a little beyond CARVM initially. If we're going to be innovative in terms of products and guidelines come along that change the law retroactively because that's how it was always interpreted, do we think that's going to stifle innovation? Is this the best way for us to regulate new products?

Mr. Van Elsen: I can maybe give a quick answer first. I think that they go beyond the law because the law is unclear and ambiguous and it's capable of more than one interpretation. But because it just simply doesn't deal with the new products and the new benefits that are being developed, that really is at the heart of the problem. We have to contort either the law or the product in order to come up with some kind of a match, and that's part of why I think the current law is dysfunctional. It does stifle innovation because developers are not sure how it's going to be interpreted. The industry and regulators decide this is the way it's going to be affected by reserves, nonforfeiture, or disclosure. Then you can't really come to market with that product. By the time you go through that process, everyone else has it too, so it's impossible to come up with an innovative product and really get the benefit of that innovation in the current environment.

Mr. Pfeifer: I don't necessarily think that the proliferation of guidelines will necessarily eliminate innovation. I think companies are being innovative right now, but what it does serve to do is to create more problems for the quick-follower companies. The innovative companies get in the business. They make commitments to it and they market, and then a guideline comes along that pertains to what they've just done. It's the companies that want to follow closely that are having a harder playing field to deal with. Larry Gorski, could you comment just on actuarial guidelines versus model regulations and what you see happening in that thought process?

Mr. Gorski: First, I want to respond to Greg's comment. I don't believe that the current group of actuarial guidelines go beyond the laws they're trying to interpret.

I think they're natural applications of laws to innovative situations. In particular, Guidelines 35 and ZZZ fit that mold exactly. I see more guidelines developing as products emerge. I'm glad you made the comment concerning the followers for the second group of companies. My biggest concern in this whole process is the level playing field. Under the current framework, it doesn't bother me that maybe more hours have to be devoted to reviewing forms and advertising material. It's the lack of level playing field that's my biggest concern, and I think the only way that issue can be dealt with is through moving ahead with the unified valuation system or something like it where everyone is on a level playing field at least from a legal standpoint and where creativity, knowledge, and intelligence dictate the winners, not who's first in the door. I do see more guidelines being developed for more new, innovative situations as long as we're in the same environment.