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Session 21PD
2001 CSO Table

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Panelists: Christian J. DesRochers

Summary: The NAIC adopted a new individual life valuation mortality table, which is in the process of being recognized by the individual states. Panelists discuss the issues regarding the 2001 CSO table including current approval status, tax reserves, IRC section 7702 and implementation issues.

MR. MICHAEL PALACE: I'm going to encourage questions immediately following Christian's presentation rather than waiting until the end following my presentation. As most of you are aware, there are a lot of issues that have come to a head recently regarding this topic. I believe that by allowing questions immediately after Christian's presentation, it will encourage and bring these up and out in the open rather than waiting until the end.

Without further ado, I'd like to introduce Christian.

MR. CHRISTIAN J. DESROCHERS: I want to say a few things about the tax book, because it is coming out. At some prior valuation actuary meetings and some prior SOA meetings, there was a place on your evaluation form that asked if you thought the speaker was trying to sell you something. Well, I am and I'm not ashamed of it, so if you want to write me up, go ahead. The tax book is about ready to come out, and it's out-of-date thanks to the IRS, which is just one of those things.
I'd also like to do a little pitch for the Society of Actuaries' new taxation section. The section is in the process of getting organized. I hope you've heard about it. It costs $20 a year to join, and I encourage anybody with any interest at all in taxation to join.

I have good news and bad news about my presentation. The good news is that I

Note: The charts referred to in the text can be found at the end of the manuscript.

actually have something to say because we've finally gotten some guidance on the 2001 CSO from the Internal Revenue Service. The bad news is, if you have a copy of my presentation, that's not the one I'm going to give. The Society also sponsors a product tax seminar. Right after that seminar, I got calls from from both the Treasury and the IRS, who were had appeared on panels with me. They said, "Well, you have to change all the slides, because we've just issued this guidance." So apparently the Society of Actuaries has some responsibility for the timing of the guidance. What I thought I'd do is set it up with a little background and talk a little about the developments with the 2001 CSO.

As you all know, it was adopted by the NAIC in December 2002 and at least 26 states have adopted it. I think it's something like 31, 32 or 33 states. Therefore, for tax purposes, it's generally agreed that the table was prevailing or is prevailing on July 1 of this year. That, not the Society seminar, is what motivated the Service to get some guidance out.

We used to say that 2001 CSO is coming, but now it's here. It's now prevailing. It affects both tax reserves and "reasonable mortality." It affects the definition of life insurance under Notice 2004-61, which is the guidance that the IRS released last week, and I'll be talking about that a lot. It also affects section 807 tax reserves. There's a three-year transition rule under section 807, and that is not affected by the guidance. I'll talk a little later about that as well.

Anyway, it affects "reasonable mortality." Under the notice, the 2001 CSO will be required for products issued January 1, 2009 and later. You'll also see under section 807 that it's required after 2007. Effectively, even though there are different rules for products and tax issues, if you want to have consistency in a product, your 2001 CSO transition probably needs to be done by the year 2008.

Let me give you a little background on why we care about this with respect to 7702 and 7702A. Originally, as the statutes were enacted, the use of the contractually guaranteed mortality charges was allowed. Whatever the charges were in the contract, that's what you could use to do your definitional testing. When Congress put those sections together, they felt that market forces would limit the size of the guaranteed charges. Obviously, they didn't know the insurance industry. By 1988, it became clear that this wasn't working. The Service's view in 1988 was the same as it is today. There was a 1988 report by the General Accounting Office that observed that while higher mortality charges could be used to provide insurance for substandard risks, they could also be used to artificially inflate premiums for individuals who normally are considered standard risks. As we look at the tables, the dilemma is that on one hand, higher mortality charges are appropriate to some risks, but on the other hand, the industry proved in 1988 that, in fact, it could use these to manipulate the limits of the requirements. For section 7702 and 7702A, contracts issued after October 20, 1988 are subject to limitations on reasonable mortality charges. This is included in the Internal Revenue Code in section 7702(c)(3)(B)(i). There's both a permanent rule and an interim rule. These rules will be important to really understanding the effect of the 2001 CSO.

The permanent mortality rule doesn't define what's "reasonable." It simply says that reasonable mortality cannot exceed the rates in the prevailing commissioners' standard table at the time the contract is issued, unless regulations provide otherwise. In 1991, the Service proposed mortality regulations, but they never finalized them. So part of the rule simply says you look to the prevailing table. As of July 2004, the 2001 CSO is the prevailing table. Quite frankly, one of the reasons we need guidance is that there's no transition rule in absence of the Service telling them something. Some people worry that as of July 1, we would have had to use the 2001 CSO. I don't think anyone really felt that, but you certainly could read the statute and reach that conclusion.

Section 5011(c)(2) of the Technical and Miscellaneous Revenue Act of 1988 (TAMRA)—you cannot find this in 7702A, but have to look either in the correct appendix to our book or in the general statutes—says that until regulations are issued, mortality charges that "do not differ materially from the charges actually expected to be imposed by the company" are actually the operative rule. Since regulations have not been issued, that's actually the rule. If you read the rule, as many in the industry did, you would be concerned that maybe current mortality charges in the contracts were what would need to be reflected in terms of doing your 7702 and 7702A calculations. It's in response to that and in response to industry's concern that in 1988 the Service issued what we call Notice 88-128. This is simply a notice from the Internal Revenue Service. It's issued under their general power to issue regulations. It provides safe harbors. Essentially it said that certain mortality tables will satisfy the reasonable mortality requirements. It follows the TAMRA effective date, so even though it was issued later, it still goes back to the October 20 date. It said, among other things, that 100 percent of the sex-distinct 1980 CSO is a safe harbor. That was consistent with the 1980 CSO being the prevailing table. So the guidance that we had was a TAMRA rule that said mortality charges that do not differ materially from those you expect to impose is what the statue requires, and the IRS said "We'll provide you some safe harbors from the statutory requirement. These, in fact, are 100 percent of the 1980 CSO."

The IRS at that point was told by Congress, as part of TAMRA, that they had a certain amount of time to issue regulations. They are, by last count, about 14 years overdue. I think that when the IRS issued Notice 88-128, they thought that regulations would come shortly. However, regulations have not yet come. I'll say more about that later.

This is what happened in September 2004. The IRS issued a second notice, Notice 2004-61. It's available on the Internal Revenue Service's Web site in the "Notices." Eventually it will be published in the Internal Revenue Bulletin. It's very important to recognize that it supplements Notice 88-128; the prior notice remains in effect except as it's modified by this notice. The first thing it did was acknowledge what everyone knew, that the 2001 CSO is now prevailing and that happened in 2004.

It also clarified the reasonable mortality rules, but it did so for both the 1980 CSO and the 2001 CSO. It provided safe harbors under the section as a modification to the 88-128 notice. It was issued in mid-September, and it's still open for comment until January 10, so this may or may not be the final word on it. There are several issues in the notice, and it's expected that ACLI, among others, will comment on it.

For the 1980 CSO, Notice 2004-61 provided that the 1980 CSO remains a safe harbor if all the following conditions are met. First of all, consistent with Notice 88-128, it said that a mortality charge that doesn't exceed 100 percent of the 1980 CSO is reasonable. That's part of it. But it also added that the mortality charge cannot exceed the charge specified in the contract at issue. This is a change from what was in Notice 88-128. Effectively what this says is, unlike Notice 88-128, from some time forward (or from some time) at-issue mortality guarantees should now be properly recognized in the calculation if you wish to take advantage of the safe harbor under reasonable mortality. It also said that for the 1980 CSO to be a safe harbor, the contract needs to be issued in a state that permits (or requires) the 1980 CSO, and, consistent with the NAIC model regulation, the contract has to be issued before January 1, 2009.

So the first thing we got in this notice was a revision if you will, or a restatement, of the 1980 CSO safe harbors. With respect to the 2001 CSO, the safe harbor is very similar. Again, the mortality charges cannot exceed 100 percent of the 2001 CSO. It also contains the provision that limits the mortality charges to those specified in the contract at issue. Again, following the NAIC model regulation, it says the contract is either issued before January 1, 2009 in a state that either permits (or requires) the use of 2001 CSO tables at the time the contract is issued, or is issued after December 31, 2008. Beginning January 1, 2009, the only reasonable mortality will be the 2001 CSO.

The notice also clarified a couple of things that were left open in Notice 88-128. Again, this applies both to the 2001 CSO and the 1980 CSO. In Notice 88-128, the safe harbor for unisex mortality was based on state requirements. For unisex to be a pure safe harbor, the state needed to require it. What they did here is follow the language of the 1991 proposed regulation. It simply said that if the state permits it, then if you use unisex, that's okay. That is now a safe harbor. But if you use unisex for female insureds, you have to use the same table for male insureds under the same plan. To preclude a question, it's the view of the IRS that 100 percent male is probably not unisex.

They also clarified Smoker and Nonsmoker. Again, it applies to both tables. They added a safe harbor for the Smoker and Nonsmoker tables. Again, this is just an issue that wasn't addressed in Notice 88-128. What they did is bring their notice and their safe harbor up to industry practice. But again, they have what they call the anti-whipsaw provision, which simply says that if you use smoker charges for smokers, then you use the nonsmoker tables for nonsmokers issued on the same plan. People would argue that they could use smoker charges for smokers and then the aggregate table for nonsmokers. You can still do it, but it's not part of the safe harbor.

With respect to the 2001 CSO, there were primarily three questions that the Service was asked by the industry. When is it "reasonable"? Which table(s) should we view as "reasonable"? How should it work with respect to section 7702 and 7702A calculations? As I said earlier, there is a relationship between the 2004-61 and the 2001 CSO model regulation. The IRS, in response to what the industry had asked them (with respect only to 7702 and 7702A, not with respect to tax reserves), really follows the state model regulations. This says, effectively, that if a state permits or requires it, then you can go ahead and use it, and it will be required everywhere for issues after December 31, 2008. It's too early to speculate on what might happen if a state doesn't require it, but this should motivate the industry to go out and get the rest of the states to use it.

The 2001 CSO must be used where the contract guarantees are based on the 2001 CSO, and mortality charges can't exceed the charges guaranteed on issue. The question that naturally arises is, what is the effective date of this limit on mortality charges guaranteed at issue? In response to questions that they received at last week's seminar, essentially the Service continues to say, "These are safe harbors. View these as safe harbors." If you have issued a contract in reliance on Notice 88-128, then you can still rely on the notice. But I think the IRS has effectively put us on notice that they consider the safe harbor to not only be limited by the table, but also to be limited on the contractual guarantees in the contract. You almost have to say, "From here forward, this is what it is." The IRS would also say, "You should not be surprised by this because in 1991, we issued a set of proposed regulations. Those proposed regulations limited the mortality charge to the rates guaranteed on issue. It shouldn't surprise you now that that's our view." For people that have been following the notice and not recognizing initial mortality guarantees and calculations, you probably ought to revisit that.

Which table? One thing they did was provide safe harbors for unisex smoker and nonsmoker tables where the state allows it. It doesn't require that the state actually have adopted those regulations, simply that the state would permit it. It follows their proposed regulation language. As I said, "reasonable" mortality is limited to the at-issue guarantees. Whether it's 1980 CSO or 2001 CSO, those are the operative rules right now.

This is where it gets interesting. One of the questions asked by the industry was, what happens if I have a contract that was originally issued on the 1980 CSO? If the contract is changed, what do I do? There's a provision in the notice that says if you change a contract, modify it, exercise a right, add or delete benefits, and if the change is not underwritten—this is very interesting language—and really conducted according to a right that you have in the contract, then you can continue to test that contract under the 1980 CSO. A second condition is that the state does not require it. If the state requires that the new contract be moved to the 2001 CSO, then obviously the tax treatment will follow the state treatment. Finally, the contract needs to continue on the same policy form.

There was some interesting discussion. What do you mean by "not underwritten"? Does that mean that if we underwrite a change, that automatically brings it under the 2001 CSO? Again, the IRS would first point out that these are safe harbors. If you move off the safe harbor, that doesn’t mean the contract doesn’t qualify, it simply means you don’t have a safe harbor. The Service would invite comments on this, I think. Here's the example they gave. Let’s say that you have a $50,000 face amount universal life (UL) contract. Ten years from now, the policyowner comes in and wants to change it to a $1 million variable universal life contract. You underwrite the increase. You can’t take that contract and continue to test it under the 1980 CSO; that would obviously be a move to the 2001 CSO.

What they are attempting to do here is apply sort of a "reasonable" rule. If you have a change in the contract that keeps it the same contract, then that’s fine. Keep testing it under the 1980 CSO. But there’s also a line where they would say that that’s really a new contract. They simply are not willing to give an open checkbook to simply continue anything that’s underwritten. One of the arguments might be that even if you had that same contract that was a $100,000 contract and now becomes a $1 million contract, even if the policy form didn’t change, if you underwrote the increase there’s some point at which that’s no longer the same contract. I don’t think we’ll get any more clarification than that. That’s what their explanation was to us when the question came up.

One thing that we’ve looked at is how did the industry do. Somebody at the workshop this morning reported that the industry pretty much got what they wanted in this. The industry asked for this guidance and got it. Clearly, the industry asked the IRS to have the product tax treatment follow the NAIC model. The IRS was perfectly willing to do that, and so we have the parallel in 7702 and 7702A of what the NAIC model regulation tells you to do. I think that is very good news, and certainly people cannot overemphasize the fact that the Service provided the guidance to the industry that in fact was asked for by the industry.

It’s a little less clear as to what the issue is with respect to material changes or adjustments. In general, what the industry asks for is that we want to continue to use the 1980 CSO, other than when a contract is formally exchanged. I don’t think that anyone believed the IRS would go that far, and they didn’t go that far. There’s a general rule in the tax code that causes confusion in the insurance industry because there are two concepts of material changes. There's a little material change, which is a 7702A provision, and there’s a big material change, which is more of a section 1001 broad exchange provision. The big material change simply says that the contract you ended with is not the contract with which you started. Those are the kinds of changes that they are not willing to grandfather. Companies still need to use some judgment in terms of what’s a new contract and what’s an old contract. Having said that, the Service also has said that they don’t see that you would have a split contract in this. It would either all be under the 2001 CSO or all be under the 1980 CSO. If the change is enough to bring you under the 2001 CSO, then it should bring the entire contract under that. They were concerned that companies were asking how they would ever administer a split contract. Their answer is that they don't see that as happening. It doesn't mean it won't happen, but that's the view of the Service.

There are some unanswered questions. I think the guidance we've gotten is the guidance we're going to get; we're not anticipating much more. The first question is, what's the effective date of the limit on contract guarantees? I think the effective date is now. The Service says, "We put you on notice. If you want a safe harbor, then you need to limit to your at-issue guarantees." If they get a lot of comments that that will cause administrative issues, then they might give you an effective date. They are very careful to say that what you have here is a safe harbor; take it for what it is. They are not willing to move much beyond that.

A couple of issues that have been around for a long time are substandard and multiple lives. What's the proper treatment of substandard issues? Can you use a multiple of the guarantees, or do you need to use the current charges? With respect to multiple lives, which has been discussed since I started doing this in 1982, we still haven't reached any resolution. Those are outstanding issues. On substandard, I think the IRS would point you to their proposed regulation. One of the things that they indicated to us may be one piece of fallout of the change they made. Some people at the Treasury said, "Why do you have this regulation that has been proposed since 1991 and never finalized? Why don't you finalize it?" So there may be some issue to revisit the proposed regulation. I'm not sure that they can actually get to a result on that, but in there it's clear that they have a certain view on substandard, and it doesn't provide much margin.

The other question is related to the 2001 CSO. In its wisdom, the committee that put together the 2001 CSO tables moved the end age of the tables to age 121. That leads one to the question, if the statute says in doing your calculations under 7702 and 7702A you deem a maturity date between age 95 and age 100, what do I possibly do between age 100 and age 121? Here the IRS is much less limited in their willingness or their ability to give guidance. It's a statutory provision, and so therefore, they don't have much freedom to say to ignore it. Truthfully, I think the whole area of what happens after age 100, in terms of extended maturity and in terms of just the basic tax principles that apply, is an area that neither the industry nor the IRS particularly wants to discuss because, quite frankly, the industry might not like the IRS's answer. This is one where probably nothing will happen and where companies will have to develop reasonable positions.

About the farthest I think that one could go is simply to say that the general tax rules tell you that if there is no net amount at risk, then there probably is no insurance there. That's certainly the general tax rule. The other advice that the IRS might give us is simply that if you have a contract where at age 100 everything

freezes—if you stop deducting costs of insurance (COIs), if you stop crediting interest and simply keep the contract enforced—then in all likelihood that contract is not really continued past that age either. Those are probably the best we're going to see on the terminal age issue. There is no appetite for attempts to amend the statute; there are just too many issues that could arise. Therefore, if the only way to extend it to age 121 is to amend the statute, we're simply going to have to do the best we can after age 100.
In terms of product, what's the effect of it? In the table below, if you compare similar values on the 2001 CSO to the 1980 CSO, for males, new values are somewhere between perhaps 75 percent and 85 percent of what they might be under the 1980 CSO. For females, it varies a little more, from about 70 percent to 90 percent. It varies by underwriting class; it varies by all sorts of things.

Change in Tax Limitations

Ratio of 2001 CSO to 1980 CSO Values		
Test Premium	Male	Female
GSP	75 to 85%	75 to 90%
GLP – Option 1	75 to 85%	80 to 85%
7-Pay	80 to 85%	85 to 90%
GLP – Option 2 E@95	75 to 80%	70 to 75%
GLP – Option 2 E@121	150 to 160%	155 to 170%

I'd like to point out the bottom line on the table. This is one of the reasons why you will never have an extension to age 121. Look at a guideline level premium computed under an option 2, which is defined here as the face amount plus cash value benefit. If you fund those mortality charges out to age 120, the option 2 becomes a 150 percent to 170 percent of the endowment at 95 value. The IRS knows this, and therefore, is simply not willing to have a reduction in mortality create an improvement in the amount of premium you can fund. Therefore, option 2, as much as anything, effectively limits what the Service might be willing to do after age 100.

The table below is an example that goes through and says what happens between endowment at 100 and endowment at 120. Again, you see the option 2 is sort of a problem.

Change in Tax Limitations: An Example

2001 CSO ANB Ult.: Endowment Age 100 v. 121 (Male 55 NS – Rate per 1,000)		
Test Premium	Endow @ 100	Endow @ 121
GSP	271.60	270.86
GLP – Option 1	25.64	25.52
GLP – Option 2	53.74	107.38
7-Pay	65.39	65.21
NSP	400.01	398.89

To summarize what happened under 7702 and 7702A, first of all, we now have a safe harbor. Notice 2004-61 applies to the 1980 CSO for 1980 CSO plans. In that case, it's optional, consistent with the NAIC model. It's the 2001 CSO for 2001 CSO plans, and again, it's optional until the final effective date. Again, existing contracts, as a general rule, can continue to use 1980 CSO unless the contract is significantly changed, and "significantly changed" is probably not going to be any better than a facts-and-circumstances kind of analysis. That's with respect to products.

What I'd like to do is talk for a few minutes about the differences in tax reserves. Then, as Michael said, I'll be glad to take any questions on these issues.

The key point is that the product safe harbors do not apply to tax reserves. We'll give a little primer on tax reserves. Under section 807, a life insurance company can deduct reserve increases in computing taxable income. There's a certain definition of "life insurance reserves," and it has some conditions. These conditions include recognized mortality or morbidity tables and assumed rates of interest, "mature or liquidate" future unaccrued losses, involve life (or other) contingencies and required by law. .

Again, I'll give a little history. Before 1984, you could use statutory reserves in preparing your tax return. But Congress said that statutory reserves resulted in overstatement of liabilities if you looked under "realistic economic assumptions," and so they didn't want you to deduct anything more than an economic estimate of your liabilities. The 1984 Act mandated assumptions for interest, mortality and reserve method. They were looking for the smallest reserve that would be required under the prevailing law of the states. You can set that aside, or you can set the surrender value aside if that's greater. The concept of section 807 is to minimize the deduction of life insurance companies for their reserves.

The definition of the commissioners' standard table is part of this. The reserve mortality is based on the prevailing table, and this is the definition. The prevailing table is the most recent commissioners' standard table. It's prescribed by the NAIC and it's permitted to be used for valuing reserves for that contract. It applies under the insurance laws of at least 26 states, and it's the table in effect when the contract is issued. As of July 1, 2004, the prevailing commissioners' table was the 2001 CSO, because that was the point at which it was approved in at least 26 states.

The 2001 CSO by section 807 provides for a three-year transition rule. If you look back to the 1980 CSO, it was prevailing at the end of 1983, so companies could use either the 1958 or the 1980 CSO for their 1984 to 1986 issues. The 2001 CSO is prevailing now, so companies can use either table for the 2005 to 2007 issues. In fact, you could use the 2001 CSO this year as well, if you decided that that's what you wanted to do. The key here is that there is a different transition rule. We need to be aware of that.

There's also a lowest reserve rule. This is a concept that has been in the tax code. If more than one table can apply to a contract, the company must use the table that generally provides the lowest reserve. This generally is defined on an industry-wide basis. Revenue Ruling 92-19 says that for the 1980 CSO, it's the male and female aggregate. When the 2001 CSO was put together, it was put together in a way that created the aggregate table as the table that generally provides the lowest reserves. So I think there's an issue. But the 2001 CSO really came out as one table. It has male and female aggregate, smoker and nonsmoker, and unisex variation, so it came in one shot as a class of tables. There may be a question in terms of what produces the lowest reserve. The industry and the Academy have done some work that says the aggregate table produces the lowest reserve. In general, companies have followed the unisex, smoker distinct or aggregate table, depending on the way their products were designed. That in all likelihood will meet the rule, but at some point the Service should clarify that.

I'd like to summarize in terms of the transition rules under section 807. The 2001 CSO is "prevailing." Until January 1, 2008, you can use either table. The "least" reserve rule is unclear, although I think we have a good idea. Under state law, the 2001 CSO is required for all products beginning January 1, 2009, and that obviously applies not only to nonforfeiture but also to valuation. The tax reserve rule at this point is a year ahead of the state-mandated requirement. Because the tax reserve rule is statutory, and because the IRS doesn't see this as a policyholder issue (they simply see this as "if you don't get converted, then use the 2001 CSO") but as a company issue, there is no likelihood that that will change. That's the situation we're in.

We now have guidance on the 2001 CSO on transition. The guidance is, for all intents and purposes, very favorable to the industry. There are a few questions. It's not clear to me how much the Service might clarify. They are certainly willing to receive comments, and they expect that between now and the January comment period. I think they'd be disappointed if the industry didn't do that. As I said earlier, the other thing that we need to be aware of in this area is that this project has reminded them that they have a proposed regulation that they have not finalized.

One of the consequences of providing the 2001 CSO guidance is that it may well cause them to go back and revisit the proposed regulation. Whether they will do anything is problematic, but certainly their expectation is that they'll go back and look at the regulation.

I'd be glad to take any questions on this topic if anyone has any.
MR. PALACE: Can a company elect to switch over on a product-by-product basis or division by division, or does it have to be all or nothing?

MR. DESROCHERS: That's very much the concept. The concept in the NAIC model regulation was that you could do it on an elective basis, on a product-by-product basis. The Service chose to do what the industry said, which is to follow the spirit of the NAIC model regulation. What you can't do is say, "Well, we've got a 2001 CSO product, but we still want to do our tax calculations on the 1980 CSO." They are not going to let you do that. Certainly if it's 2001 CSO, it can follow that. If it's 1980 CSO, follow that. I think that's where the Service would come out in this.
MR. PALACE: I'm an actuary with Transamerica/AEGON. What I would like to focus on today is relating the 2001 CSO to some actual valuation reserve characteristics that I have observed, as it relates to a couple of products that are relatively widely sold within the industry today. I picked these products partly because the company I work for happens to sell them; it made it a bit easier to get hold of good information. But beyond that, I picked these products because I believe that the introduction of the 2001 CSO table has not necessarily solved many of the issues surrounding what might be termed the "excess reserve issue" that many companies were laboring under with the 1980 CSO.

For those of you who have a feel for history and were present when the 1980 CSO was created—and I was not one of those who followed the back-and-forth with the regulatory authorities—my impression is that at that time there was a strong feeling within the industry that finally, by introducing the new table, they had solved many, if not all, of the problems that were attached to the preceding table. That was the 1958 CSO, which by that point had been recognized to have become out of touch with the reality of mortality experience that was then emerging in the 1970s.

As far as the 2001 CSO table is concerned, I can speak with more authority. I was involved in many of the deliberations that led up to the adoption, and I was present at many of the meetings, both of the NAIC and of the industry, where these issues were discussed. My concern is that the adoption of the 2001 CSO, while it certainly has improved the situation for many products, is not very much of a panacea for many of the problems that face companies, especially those who are writing either preferred risk products or universal life-type products with secondary guarantees.

The table was based on the Society of Actuaries' 1990 through 1995 experience. A lot of effort went into compiling the table, putting it together, and polishing it by a team of volunteers from the Society who worked many hours. By participating, I came to realize the extent of the effort required to produce what, when you look at it, may appear to be a relatively simple mortality table.

It is based on ordinary experience for 21 companies, which were fairly major companies. They were not completely representative of the entire industry. But the feeling was that, given the companies that participated were voluntarily giving up resources in order to provide the information, it was regarded as the kind of experience that would be recognized as typical of what companies in the industry might experience.

For ages 45 to 90, there was a change from any preceding table that was created; mortality improvement was projected as far as the calendar year 2001. Again, this is an innovation. I would like to add as a note in the margin that there were those who were of the opinion that given that mortality tables appear to stick around for a generation at least, maybe consideration could be given to have a mortality improvement that would be projected perhaps a little beyond the official calendar year of the table, and perhaps as far as the midpoint of the expected life of the table. However, that was regarded as too radical a suggestion and was not adopted.

With any mortality tables, you take the experience table and you load it. The load in this case is approximately 15 percent of the experience study, but because of the formula used, the loading is actually somewhat smaller in early durations and larger in later durations. The concept behind the loading was to target 85 percent of expected mortality for the entire industry. Bear in mind, even though it is based on 21 major companies, the solvency concern is to ensure that we have a big-tent philosophy here and can cover all or the vast majority of the companies writing business throughout the United States. This table is, obviously, as we all understand, an industry table to be used by every company out there who's writing life insurance.

Another point that was noted during the construction of the table in the consideration of loading was that lapsation, which hitherto had received marginal acknowledgement, if any at all, actually provides a further margin. I say "noted," because it was really not recognized, primarily by the regulators and perhaps by some in the industry, that, given the formulaic approach is strictly confined to mortality and interest, there's a possibility that people leave the fold and take their business elsewhere. Hence, we are reserving and prefunding on the assumption that everybody stays the course. Simple testing showed, and it was noted in the report, that even on term insurance, a 5 percent lapse rate, which is by no means excessive in this business, would effectively give rise to something on the order of a 20 percent margin. So in addition to the explicit loading (the margin that is loaded on), there is implicitly a margin due to the fact that there is no recognition of lapsation.

I took a male nonsmoker, issue age 45, and looked at the qx's. It was a bit of a surprise to me, for a couple of reasons. The ultimate table of the 2001 CSO is significantly lower than the ultimate table of the 1980 CSO. On the other hand, when you look at the select and ultimate (perhaps I picked the wrong age, but 45 is a fairly typical age), the 2001 CSO select portion is less different from the 1980 CSO select portion than the ultimate tables are. In fact, there are a couple of durations where the 2001 CSO select q is actually higher than the 1980 CSO select q for the comparable age and duration.

These are my observations. Again, the 2001 CSO ultimate table is considerably lower than the 1980 CSO ultimate. Select q's of the 1980 CSO (XXX version) were extended out effectively to the 20th year, and so I've used that table to compare to the 2001 CSO. The 2001 CSO is generally lower than the 1980 CSO (XXX version) in the select period, but, notwithstanding my comments about age 45 with those couple of durations, it's not as significantly lower as the ultimate table. The other obvious point is that the select period does extend for longer duration on the 2001 CSO, at least for many key ages, certainly age 45.

When we come to mortality, I want to point out that the 2001 CSO first year ultimate qx is required in the CRVM calculations. That's an interesting little footnote in the new 2001 CSO. I personally don't remember whether there was a debate about it, but it is an interesting fact. I do believe there are a couple of software providers that have to scramble a bit to take care of that.

Chart 1 shows as we go out, as the tables the select and ultimate tables blend together, the differences between the 1980 CSO and the 2001 CSO ultimate are fairly extensive.

This sets the stage for the meat of what I would like to present, which is consideration of reserve levels for fairly preferred risk underwritten products. What you've got is the 1980 CSO select and ultimate and the 2001 CSO select and ultimate. Again, there are very strict anti-trust rules here. I certainly don't want to be led away in handcuffs, so I am assuming a reasonably typical mortality level for a typical preferred or standard underwritten product. No company representations are made here, nor is this an invitation to exchange thoughts on the levels of mortality.

I did pick what I think are reasonable, typical levels of mortality for preferred, and, again, "preferred" varies from company to company. Many companies have several categories of preferred—most preferred, super preferred, super-duper preferred and then rating down to what is typically called "standard," which is usually the least preferred standard underwritten level in the company. The mortality levels are significantly lower than the 2001 CSO select and ultimate, certainly for the preferred underwritten products in general, and I think the case could be made for most companies' standard. You, of course, know what the levels are in your own companies. Now, with the X factor regulation, we have to define those more carefully.

Again, I stated the obvious. The 2001 CSO is based on aggregate underwriting experience of all number of companies. Preferred risk underwriting, which is only a recent slice of the industry, is nevertheless a very fast and constantly growing slice over the 1990s. Even if you discount for the fact that it's a relatively new part of the industry (new in the last 15 years), nevertheless, it's significantly under-represented in the 2001 CSO because of that. Certainly, as I've said, preferred risk underwriting mortality would be significantly below the new table even if it were fully included in the table.

Finally, many standard (which I've defined as the least preferred) underwriting classes in many companies still have mortality significantly below the 2001 CSO Table level.

I prepared a few graphs showing the reserves on a statutory and what I've called a "natural" reserve level. They're based on a per $1,000 of face. These are assuming level term products, and this is on the level term period. The statutory reserves assume minimum standards of mortality and interest. That's just to set the stage. No deficiency reserves are assumed here. The natural reserve assumes realistic standards of mortality, lapse and interest, so it could be close to a traditional GAAP benefit reserve. When I said that in the past, I got into debates about provisions for adverse deviation, so I'm not calling it a GAAP reserve. It's a natural reserve. Natural reserves assume, unlike typical GAAP reserves, no post-premium spike. Most products that are sold are 10-, 20- or 30-year level, and then at this point, primarily because of the existing nonforfeiture requirements, they have huge, and I mean huge, ultimate premiums. I am ignoring any of the impact of those spikes. Therefore, I'm treating them as term without a future after the end of the level term period. In addition, I'm not assuming in these reserves any deferred acquisition cost (DAC) offsets, so there's no consideration given to DAC or amortization thereof. I'm also including accumulated gross premiums in the graphs. In the past, there were questions whether I accumulated them with interest or without. I'm accumulating them without the interest component, and I'm making the case that that is a reasonable offset for consideration of maintenance expenses. Usually you pay premium tax, we have maintenance expenses and so forth. I'm saying that the fact that I'm not accumulating the premiums with interest in the graphs to come can be taken as an offset there. Finally, they're all for a male nonsmoker, issue age 45.

The product 10-year level term, which was the first wave of these about 15 years ago in the late 1980s, is shown in Chart 2 I've taken the best underwriting class, mean reserve factors, both on the 1980 CSO and the 2001 CSO, and again the natural reserve. I've also shown the accumulated premiums. What does this tell us? First of all, the influence of the ultimate qx was seen in the first policy year. The comparison to the natural reserve, the 2001 CSO, provides effectively no relief. I think you can see that. There is no material difference in the reserve, whether it's under the 2001 CSO or the 1980 CSO. Finally, the premiums do not exceed the reserves for the majority of the term. It's only around duration six that you actually exceed the reserves. We're all valuation actuaries here; none of us are pricing. What little I know of pricing tells me that your gross premium needs not only to provide for reserves, but it has to provide for things like claims and acquisition costs, and some companies would like to turn a profit as well. None of that is possible, in the short term at least, if your gross premium is all going into the reserves. This is something that is perhaps not well understood by the regulators. I have had these discussions that reserves come in, they go out, you earn interest. Hey, what does it matter? I had to emphasize that we have uses for premiums other than set up reserves, and returns on investments are not necessarily in many companies treated as equivalent to the return on what you invest your money in.

Reserve relief has to be obtained for many companies. There are reinsurers in the audience who maybe can acknowledge this or enlarge on it if they wish. A lot of the reinsurance today is in order to give us reserve relief. Beyond reinsurance, there is securitization. I certainly hope nobody asks me to explain how it works because I'd have to refer you elsewhere. I know enough to know that's also something that's going on in the industry. Reinsurance has a hallowed tradition in the industry, but frankly, a lot of companies are forced into reinsurance arrangements purely to get reserve relief.

Just in case you thought I was cherry-picking, I also chose the most preferred for the 10-year level term product. I picked a typical standard underwritten class, which to me means the class just before you become substandard. The story is a little different. On those policies, yes, the premiums now are greater than the reserves at all durations. Nevertheless, the minimum statutory reserves are still significantly higher than what we might call the natural reserve. Again, every company has its own experience and its own statistics. I would think it's fair to say in most companies that offer preferred risk underwriting that a relatively small percentage of their business is going to end up in this standard underwriting class. Again, this varies from company to company. But certainly in most companies I'm aware of, most of these policies are written higher level, graded up preferred higher levels than the standard, so this is not the most typical case.

Just to recap, even for the least preferred underwriting classes, minimum reserves are higher and reserve relief, if required, is less significant, and therefore, maybe is not that necessary.

The 20-year level term is currently a very large seller in the industry. You've got hundreds of companies writing this stuff. The story is fairly clear on Chart 3. You can see the reserves under both the 1980 CSO and the 2001 CSO. You see the natural reserve is way down underneath, and the accumulated premiums march in between. At this point, it takes a lot longer, 16 years, until your accumulated premiums actually equal your reserves. That is certainly a very big problem in a company trying to turn a profit. Again, 20-year level term is very popular. There's a lot of it being sold in the industry. The 2001 CSO provided some relief. But as I say, it was far out before premiums exceed reserves. At this point, reserve relief is almost mandatory, and not only in the short term. For 20-year level term, persistency is pretty good, so these policies are going to stick around quite a while.

Again, to show I'm not cherry-picking, I also looked at the least preferred underwriting class for the 20-year level term product. The story is not much better. It takes a long time for the premiums to get to higher levels than the reserves. The natural reserve is way underneath the statutory reserves. Remember that we need premiums for more than just setting up reserves.

The 30-year level term product used to be extremely popular. In fact, at one time it was our single largest-selling product. I've taken current levels of the premium, and I think you can see what Chart 4 tells us. Pre-adoption of XXX, 30-year level term was a very popular product. In fact, the proof is in the "fire sale" prior to the adoption of XXX, this was by far the largest product that was sold for us and for many other companies. Today, even though we've all had to raise premiums, statutory reserves, as you saw before, are extremely high and unrealistic in relation to the premiums collected. Even when subsidized, today this product is very unattractive. We sell very little. I believe most other companies cannot sell much because even with subsidized premiums, it's too high for the consumer.

For the standard underwriting class for the 30-year level term product, the story is comparable to what we've talked about before. The statutory reserves in relation to the natural reserve are way out of the ballpark.

I want to move on to a different product and a different age. I'd like to focus on our more senior citizens, where universal life in many companies is sold at age 65. The story is a little different. Interestingly, because you see a shorter select duration at age 65, the table grades quicker into the ultimate, as shown inChart 5. Again, the 1980 CSO versus the ultimate is significant. It has dropped a lot when we go to the 2001 CSO. The selection is helping and it grades in over a longer period of time, so the q's are significantly lower. Paradoxically, there's more relief proportionately at age 65 than for age 45 under the 2001 CSO. The 2001 CSO ultimate is lower and the select period is much shorter, which actually increases the significance of the new table rather than decreasing it, because the ultimate being much lower is a more powerful influence.

As a comparison between typical levels of mortality, we can see on Chart 6that for preferred risk underwriting and on UL—that's a fairly significant portion of the business—where the q's are.

Chart 7shows reserves for UL products without secondary guarantees. To try to make this simple (UL comes in many complexities and I am not necessarily equipped to go into all of the details), I've picked one, level premium to endow (LPTE), which is a relatively simple form of universal life. You can see what the reserves look like under the 1980 CSO and the 2001 CSO, in comparison to the fund values and the accumulated premiums paid.

I have a few observations. First of all, the reserves are pretty much in the same boat. Statutory reserves for UL products without secondary guarantees mirror growth in fund values and accumulated premiums. That's the nature of the model regulation and that's how it works. The R-factor produces that impact, which forces it into a similar reserve level.

Now we add something that is extremely popular, universal life with lifetime secondary guarantee. That may be a bit extreme; some secondary guarantees are more limited to 20 or 25 years, to age 90 or age 95. It's a very different picture, as shown in Chart 8. First of all, you see that nothing much has changed with the fund value and accumulated premiums.

On the other hand, the reserves are now in a very different situation. We have a situation with the reserves being forced way above the level of the fund value or the accumulated premium. This represents a major problem for a lot of companies. Until a couple of months ago, I might have had to convince you if you didn't think that that was a major problem. This presentation was put together without realizing the impact of the concern about AXXX that is currently going on within the industry. Even though this product happens to be a more classical secondary guarantee product (it does not have the complications that come with a shadow account), I think you can understand what is driving companies to come up with approaches that minimize the reserves. The reserves, even under AXXX, are excessive and can be demonstrated by many companies to be excessive. This is presenting a very real problem for a major segment of the industry, which is leading to these discussions on AXXX and the proposed changes to Actuarial Guideline (AG) 38.

To state the obvious, the addition of secondary guarantees raises the statutory reserves level significantly above the fund value. The economic reserve may be somewhere in between. Again, this is something every company has to look at for their own purposes. It's somewhere in between the fund value and the required statutory reserve, but will typically be closer to the fund value than the statutory reserves, as shown.

That closes the formal part of the presentation. In conclusion, I think most people in this room are aware of this issue. If you work for companies that sell preferred risk or UL with secondary guarantees, this is not news. The issue is that the 2001 CSO is really not solving these problems. It's a step forward, but it is nowhere near a solution. The solution is only going to happen when more of the actuaries in the industry who are concerned about these issues, primarily because they work for companies that get affected, step forward and participate in the various forums where these issues are discussed and debated. It is important for those people who have these concerns to allow their voices to be heard. If we go by history, I will presumably not be working when the next CSO table comes around. If we're going to wait another 20 years for significant reserve relief, we can all appreciate that the industry is going to be facing a lot of serious challenges.

MR. MARK BIRDSALL: Thank you for your presentations. Both of them were clear and understandable.

The company I work for is more in a limited underwriting market. We've been concerned that the 2001 CSO Table isn't adequate for the kind of business we write. The 1980 CSO is barely adequate. Just for your information (you may already know this), there's a project just beginning, under the chairmanship of Mark Rowley of Van Elson Consulting, to do a mortality study for this limited underwriting business, such as pre-need and funeral-type business, with the eye to creating a separate valuation table that's appropriate for the mortality of that business. Contrary to most ordinary life business, that business often has a reverse select and ultimate situation, where you get anti-selected against in the early durations and it grades down. That project is just barely beginning, but hopefully within the transition period we'll be able to put that together.

MR. MARC CAGEN: A couple of times an ultimate qx in duration one was mentioned, and then it started being select in duration two or something else. Maybe I misunderstood. Can you clarify that?

MR. PALACE: Sure. I was a little surprised myself. I think all the states that have adopted the 2001 CSO regulation have adopted the provision that says when commissioners reserve valuation method (CRVM) is being used, the cost of insurance in the first year has to be based on the ultimate table, not the select and ultimate.

MR. MARTIN E. UHL: Following up on that question, in your demonstrations of your reserve levels in the first year, was the ultimate used in the 1980 CSO calculation as well, or was it the select 1980 CSO in the first year?

MR. PALACE: It was using the select table because under the 1980 CSO, that was allowed.

MR. DESROCHERS: I have a comment regarding the discussion of a simplified underwriting table. Although it may be appropriate for valuation, there's a great deal of skepticism in the government for anything that purports to be simplified underwriting in terms of its use in 7702 and 7702A. One thing to keep in mind with respect to the development of a table like that is that it would be a difficult sell to the IRS to use that in setting net single premiums, guideline premiums or seven-pay premiums

Chart 1

1000 qx Male Non-Smoker Issue Age 45

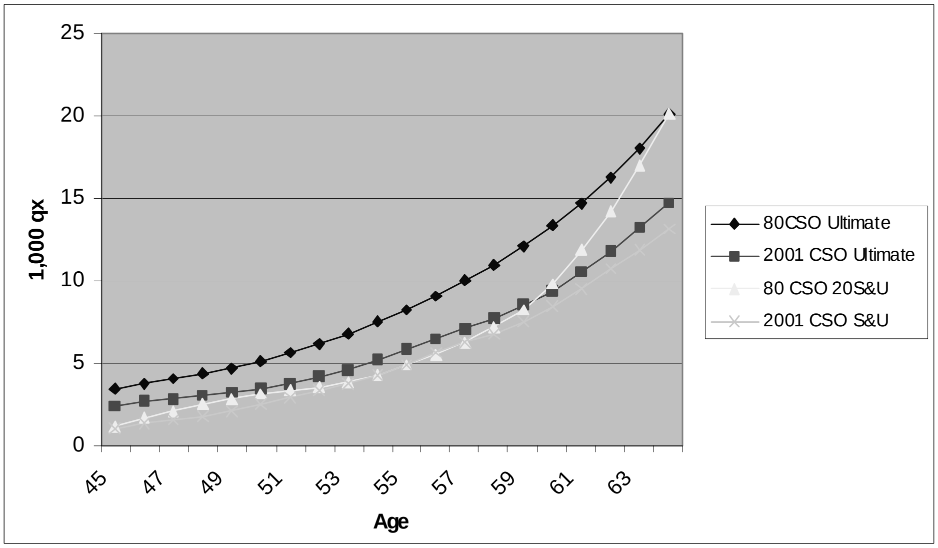

Chart2

10 Year Level Term Product, Issue Age 45
Best Underwriting Class, Mean Reserve Factors

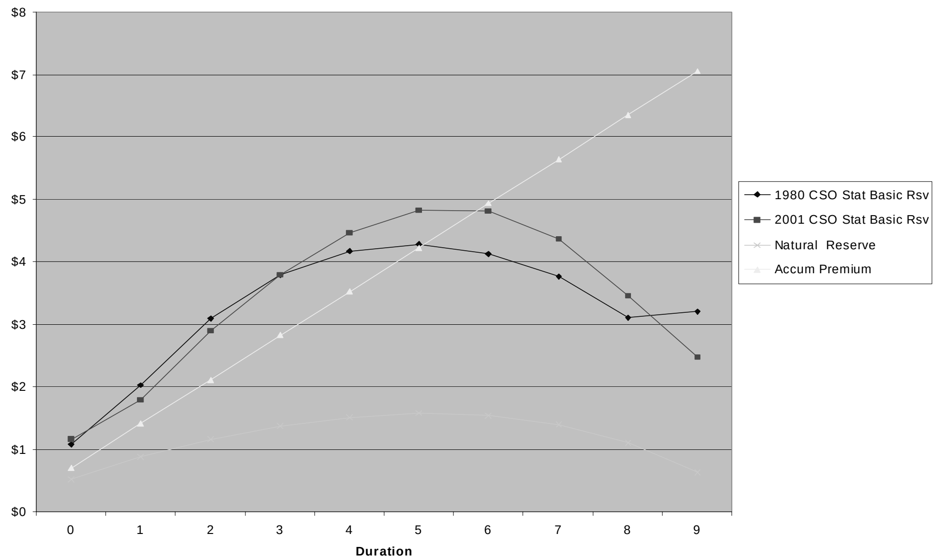

Chart 3

20 Year Level Term Product, Issue Age 45
Best Underwriting Class, Mean Reserve Factors

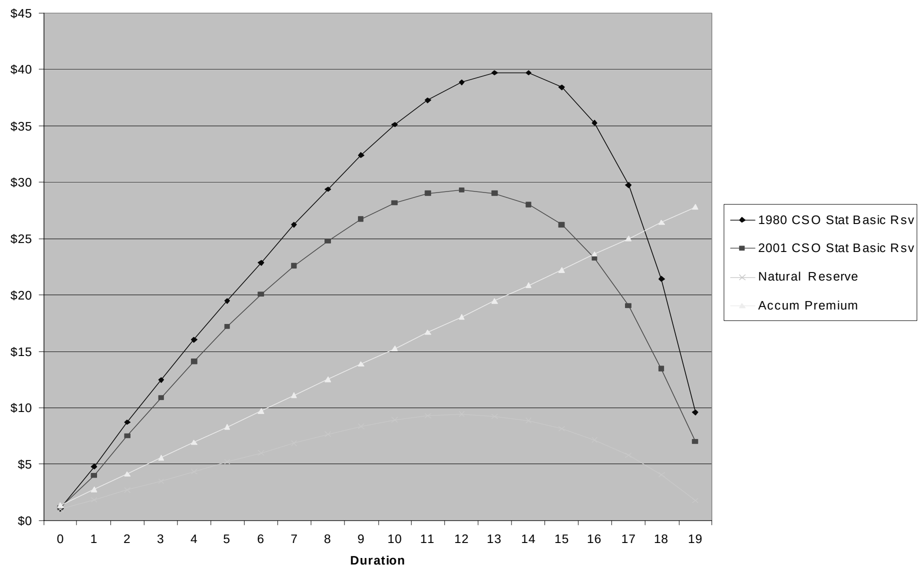

Chart 4

30 Year Level Term Product, Best Underwriting Class, Mean Reserve Factors

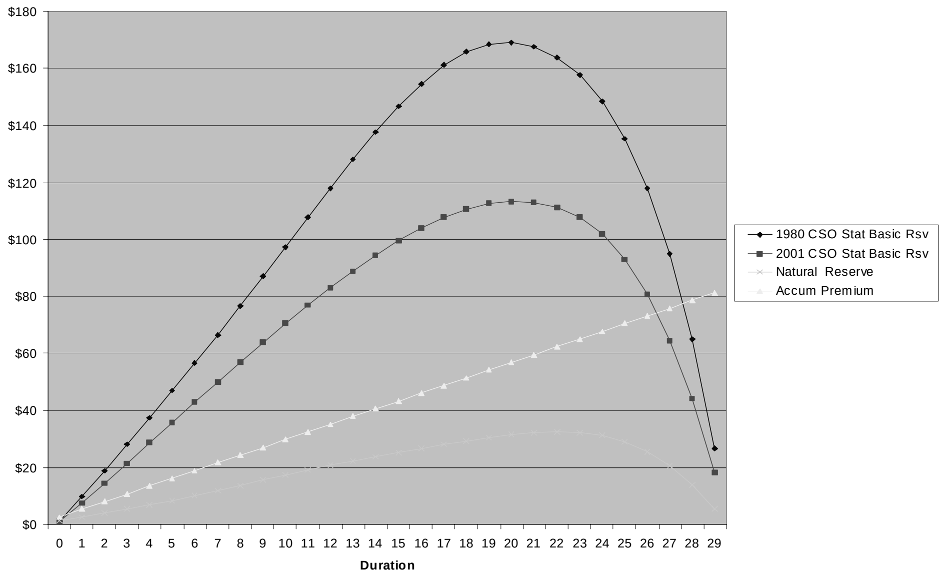

Chart 5

1,000 qx Male Non-Smoker Issue Age 65

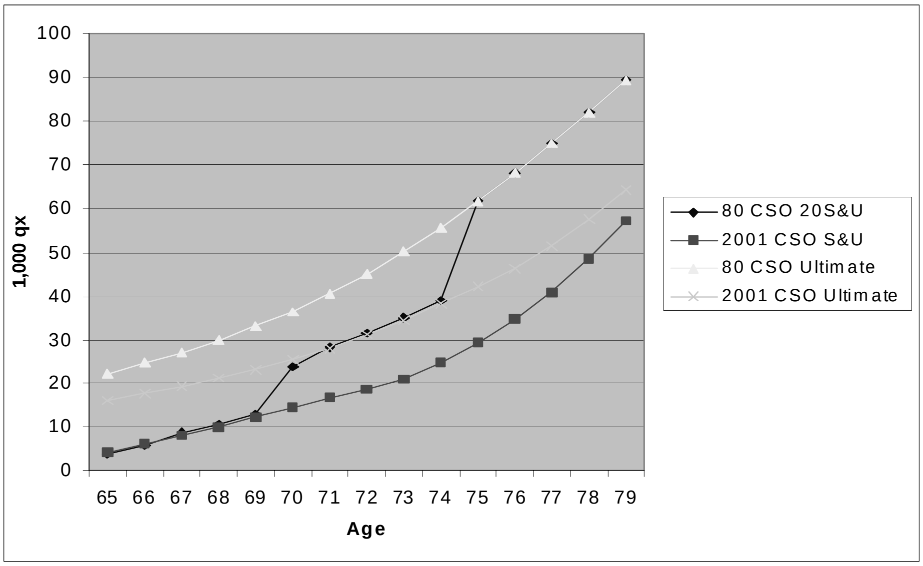

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Chart 6

1000 qx Male Non-Smoker Issue Age 65

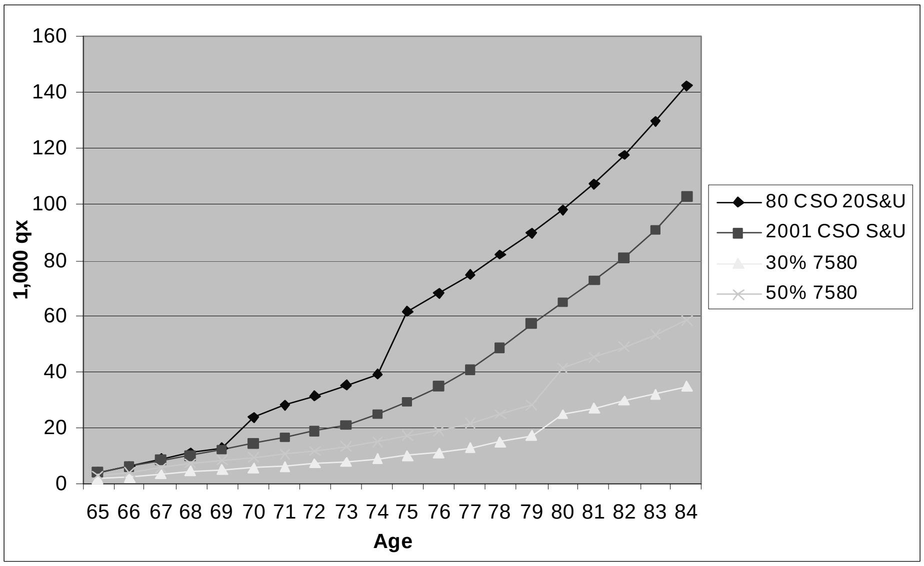

Chart 7

UL LPTE With No Secondary Guarantee: Male Non-Smoker Preferred Class, Issue Age 65

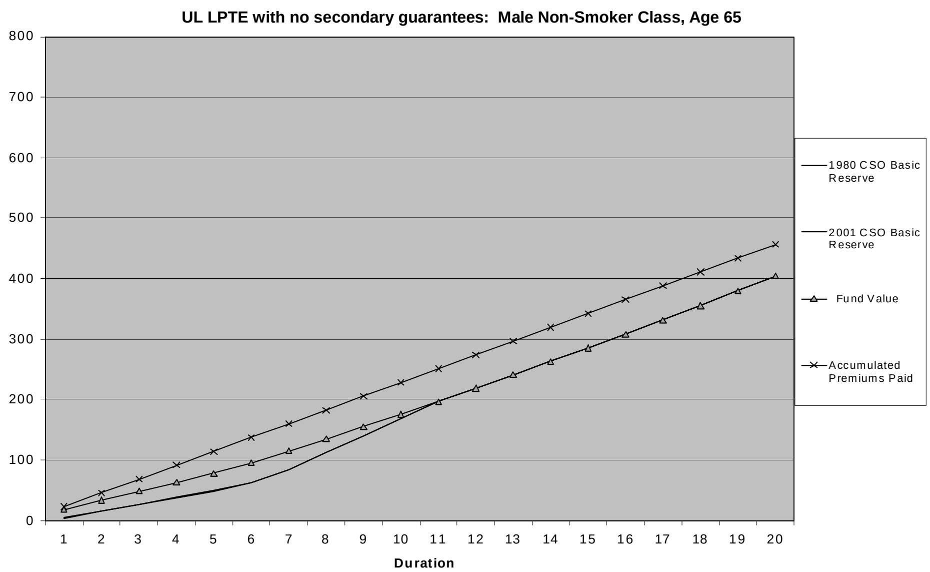

Chart 8

UL LPTE with Lifetime Secondary Guarantee: Male Non-Smoker, Preferred Class, Issue Age 65