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Session 6PD
2001 CSO Table

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Summary: Mortality has improved significantly since the 1980 CSO mortality table was introduced. The NAIC and the insurance industry have developed a new individual-life, valuation-mortality table.

Panelists discuss the following issues regarding the 2001 CSO table:
- *Implications for statutory reserving in general*
- *Implications for reserving under Regulation XXX*
- *Implications for the tax definition of life insurance and other broad strategic issues*
- *Time-frame and adoption mechanics for statutory reserving, tax reserving, and section 7702*
- *Implementation issues actuaries are facing as the table is phased in*

At the conclusion, participants will understand the significant business implications of the new valuation mortality table.

MR. MICHAEL TAHT: I sent a reporter some material, got him all comfortable with it, and a couple of weeks later an article came out. One of my colleagues said, "That reporter that you were speaking with, his article came out, but I didn't see your name in there." I looked at it and I thought, "Gee, I spent a lot of time." As a consultant you want your reference out there, and I was disappointed. Then I actually read the article.

The article was the one published in the *Wall Street Journal* that talked about how life insurers have a new view on mortality and about how this new 2001 CSO Table

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is wonderful. There was one company coming out with term rates that were 10 percent to 30 percent less because of this new table. I had spent a lot of time trying to explain that I didn't think that reduction was going to be coming through. This is not a new view for life insurance companies on mortality, but it is a new valuation standard. If you went into the article and dug deep, you saw that he captured a lot of the good points, but his byline was awfully wrong. I think it is indicative of how, on the surface, you think it's just a new mortality table, but it does touch a number of different places.

In putting the table together, I chaired the Society Task Force that developed the Valuation Basic Table and also was on the Academy Task Force that put the actual 2001 CSO Table together. Part of the challenge was to develop a valuation standard that is appropriate for the current environment, and covers the risks, yet does so within the current structure of statutory valuation. It shouldn't make one product more difficult to sell than another one, and yet it had to fit in with all the tax implications of a new valuation mortality standard.

Today's presentation will give an indication of many of the different areas that the new mortality table, 2001 CSO, touches on and gives you context into some of the key issues.

One area that has not maybe been explored in as much depth as we plan on exploring it is the impact on XXX, and specifically selection of X-factors and deficiency reserves. There are a lot of nuances in terms of how X-factors are selected and the implications of the 2001 CSO Table that you may not necessarily see when initially reviewing the table.

For those who have not seen a presentation on this subject, you'll get a better feel for the impact of 2001 CSO. For those who have kept on top of this issue, you will get a better feel for some of the emerging issues and really get a good look at the impact of 2001 CSO on X-factors.

One area that I'm not going to cover is the actual development of the table. The table itself was based initially on the '90-'95 experience with modifications to create the valuation basic table, which is on the Society of Actuaries (SOA) Web site. Using that valuation basic table, the table was loaded to create the 2001 CSO Table. For those who are specifically interested in the nitty-gritty details of that creation, I'd refer you to the SOA Web site.

I am going to start with an update on the model regulation itself and status of adoption. I'll then talk about some general implications for statutory reserving of the new table, focusing on a whole life product. Then, I'll talk about some specific implications regarding Regulation XXX, I'll talk about tax issues and then I'll talk about some specific implementation issues.

The new table is being introduced into statutory evaluation through a model regulation. The regulation is titled, "Recognition of the 2001 CSO Mortality Table For Use in Determining Minimum Reserve Liabilities and Non-Forfeiture Benefit Model Regulation."

When can you use 2001 CSO? The model regulation was drafted so that you could use it on Jan. 1 after the model regulation has been adopted. But the three states that have adopted the table so far have adopted it with a mid-year or a point-in-time effective date, so that you could use the table for valuing policies on or after that adoption date.

When will you have to use the table? The model regulation states that the 2001 CSO Table will be the minimum standard for all policies issued on or after Jan. 1, 2009. Between that date and the effective date of your state's adoption of the table, you can use the table, but you do not have to. There are some products you may want to use it for and some products you may not want to. We'll touch on that in a little bit, but after Jan. 1, 2009, you will have to use the table. So there is a large window in terms of making the transition to 2001 CSO.

What does the 2001 CSO Mortality Table mean? It means sex-distinct rates—male/female. It includes both the smoker and non-smoker tables and a composite table; composite being both smoker and non-smoker experience combined. It includes both a table with only ultimate rates and a table with select and ultimate rates. As many of you know, the table has a 25-year selection period. This is consistent with the '90-'95 experience table and the '85-'90 experience table, and is consistent with observations regarding the persistency of selection. If anyone has studied '75-'80 in any depth, that table has a 15-year select period, but there is a significant discontinuity in that table for males attained ages 55 and above or 55 to 75. This was a question that came up during the development of 2001 CSO, and a 25-year select period is what the experience is showing. It's slightly different than 80 CSO with respect to Regulation XXX, which did not include the select form of the table.

One thing that is not part of 2001 CSO is extended term. In developing 2001 CSO, there was not a lot of extended-term insurance experience to go back to and look at. For the one company that did provide experience, the experience was basically consistent with standard premium-paying experience. But there was really not a difference there, and I think the prominence of extended term in the insurance industry has gone down in comparison to 1980, which is due in large part to universal life (UL), variable universal life (VUL) and, to a lesser extent, the prevalence of term.

Rules for using smoking-distinct rates are specified. If the premium rates are smoking-distinct, then the minimum reserves, the minimum non-forfeiture values, may be based on either smoking-distinct or composite mortality rates. You can use either one. Valuation net premiums and additional minimum reserves, if any are

required when gross premiums are left in the valuation net premium, may be based on smoking-distinct rates even if composite rates are used for the minimum reserves and for minimum non-forfeiture values. So that's a point to note when looking at deficiency reserves. If premium rates are not smoking-distinct, then the minimum reserve and non-forfeiture values must be based on composite rates.

One requirement to use 2001 CSO in the model regulation, which is new, is that to use the table, asset adequacy must be completed and must accompany the annual statement. For many people this is not an issue because asset adequacy is being done for those who are impacted by actuarial opinion and memorandum regulation (AOMR), by the potential adoption of AOMR, or by the impending adoption of AOMR. That also eliminates in great part opinions that are filed without an asset-adequacy return. This may not be a big issue, but from the regulator's perspective, it was put in because the table can be used for ordinary insurance. And ordinary insurance encompasses fully underwritten, preferred, but it also encompasses simplified-issue and guaranteed-issue insurance. To date there is not a separate simplified-issue or guaranteed-issue table. It was one way to get the regulators comfortable with the fact that you can use the table, but you're not going to be under-reserved.

In many ways, this isn't a new issue because there are products out there, guaranteed issue products, that have mortality experience that is greater than 80 CSO. But given the significant reduction in mortality moving from 2001 CSO to 80 CSO, this becomes, I think, a much larger issue and this is how that issue is dealt with.

One part of the regulation you may want to focus on that has not received a lot of attention is how does 2001 CSO fit in with Regulation XXX? I will point out that there are certain areas of Regulation XXX where you could use 10-year select factors with 80 CSO, but now you have to use 2001 CSO ultimate rates. The minimum value reserve, the tabular cost, is one area; optional exemption for yearly renewable term insurance is another. That's something that has not gained a lot of attention and is something that you need to pay attention to.

Other applications of the table are specified within the model regulation: gender-blended tables, age-last-birthday modification and age-last-birthday tables are provided in the Academy report.

As of Aug. 14, according to Van Elsen Consulting (www.veconsulting.com), three states had adopted the table: Texas, Oklahoma and Utah. Minnesota has indicated that it is planning to adopt it as of Jan. 1, 2004. Also, Florida has indicated that it is planning to adopt it but didn't indicate a date.

One of the key things with respect to state adoption is that once 26 states adopt the table, it becomes the prevailing table for tax purposes. There are indications that maybe 15 or 16 states plan to adopt it in 2004, in addition to the three that

have adopted it already. You're getting very close to the magic number of 26. The ACLI has not been going to states and actively lobbying the adoption of the model regulation at this point in time. They're in support of it, but they're not actively lobbying. However, when the number of states gets at or near 20 states, I believe that the ACLI will start actively lobbying states to adopt the table. If we get to a point in time when we have 26 states adopting the table, problems could occur in states that have not adopted the table. The 2001 CSO has to be used for tax purposes, but you could be in a state that has not adopted 2001 CSO, which could make it basically impossible to issue insurance. It is a real concern. I think the ACLI is very much aware of the issue, and I think state adoption will proceed more quickly once you get at or near 26 states.

That's the model reg. The table touches many other places in addition to statutory reserves. It becomes the reserve basis or the mortality basis for tax reserves on new issues, and it touches non-forfeiture requirements as well. In addition, it touches Section 7702, Guideline Premiums, and, in essence, maximum cost of insurance charges. The touch points of the table are immense.

The impact that adopting the table or using the table for evaluation purposes varies by product. For term products, for the most part you're lowering your base reserve, so it's a plus. For whole life, you probably don't necessarily want to lower your cash values, so there may not be a compelling reason to move to the table. For UL and VUL—given the limitations on cost of insurance charges and using the 2001 CSO as your cap on guaranteed cost of insurance charges as opposed to 80 CSO—when you look at your product design, look at your source of profit and look at your current cost of insurance charges. Depending upon your product design, you may have to make some material changes to your product design to cover the fact that you may have early duration cost-of-insurance charges that are greater than 2001 CSO. If that's the case, you're probably getting some loads in there that would have to be obtained through a different load structure. The impact of the table is not uniform, and I think that's a key point.

We're going to focus on the impact on a whole life product, which illustrates a general reduction in reserves and it also illustrates some of the different aspects of the table—who's affected most by the table and who's impacted least by it.

As part of the report on 2001 CSO, the Academy compared whole life reserves under 80 CSO and 2001 CSO. The issue ages covered were 25, 35, 45, 55 and 65. The analysis was done based on ultimate mortality for the whole life product because in general the reserves under the ultimate table are actually lower than the reserves that you get under the select and ultimate table. The impact on cash values is going to be analogous to the impact on reserves.

They also compared 2001 CSO reserves to 80 CSO reserves for whole life. These are mean statutory reserves. For a male, non-smoker they're about 65 percent to

75 percent of 80 CSO. Overall, the reserves are 85 percent to 90 percent in that range of 80 CSO reserves. Reserves are higher for a male, age 65.

If you look at a female (non-smoker), the comparison of 2001 CSO to 80 CSO varies, I think, more greatly than for males. The ratio of 2001 CSO QXs to 80 QXs varies more for females than for males. At age 65, the Q is around 80 percent so there's not as much of a discount as you had seen with the males. Once you get into calculating the reserves, the reserves for a whole life product are about 80 percent to 90 percent of the reserves calculated under 80 CSO.

The results are analogous for a smoker male. The results for female smokers are probably one of the most interesting aspects of the table. There are a number of ages in which the mortality for a female smoker under 2001 CSO is actually greater than that of 80 CSO. One can ask, "Has female smoker mortality gotten that much worse?" My contention is that it's not necessarily that female smokers' mortality has gotten worse. It's more accurate to say that we know a lot more about mortality for female smokers today than we did when 1980 CSO was put together.

If you look at the derivation of 80 CSO, you see that the ratio of smoker to non-smoker mortality for females was maybe around 150 percent for males, maybe 180 percent. There wasn't a lot of experience to build those relationships on. When you look at more recent experience, which is based on actual data, there really isn't that gap between the ratio of male smoker mortality to male non-smoker and the analogous female ratio. In some circumstances the ratio of female smoker mortality to female non-smoker mortality is actually greater than the comparable male ratio. When you see the comparison, I think sometimes people say female smokers lose. Maybe they were winning under 80 CSO, but there is a big difference. In many cases, there's not a reduction in reserves for female smokers.

As part of the Academy report, there was also a model office completed that compared whole life reserves. The reduction in reserves for a whole life product was 80 percent to 90 percent.

One aspect of the table is that the omega of the table is 121 as opposed to 100 for 80 CSO. In general, that doesn't cause a significant issue except for the very high ages, such as when you get into age 95. There is a material difference between having an endowment at age 121 and an endowment at age 100, but there is not a significant impact.

Also, for a non-par whole life plan, what is the impact on premium? We looked at a sample product for a male non-smoker and came up with a reduction in premium due to lower reserves and lower cash values. We've done it at both at a discount rate at 7 percent and a discount rate at 12 percent. At a discount rate of 7 percent, you're really just reflecting primarily the impact of lower cash values. At a discount rate at 12 percent, you start to see the impact of lower strain as well and that drives those ratios.

That gives you a sense of the impact of 2001 CSO on a whole life plan and some insight into the level of mortality in 2001 CSO versus 80 CSO. Now Paul is going to discuss some of the specific implications of 2001 CSO from a XXX reserve perspective.

MR. PAUL YATES: I'm going to be talking about the impact of 2001 CSO on XXX and, more specifically, the determination of X-factors using the 2001 CSO. I think it's pretty common knowledge that because the general level of mortality is lower with 2001 CSO, you would expect that the basic reserves under the new table would also be lower. Even though the overall level of mortality under the 2001 CSO is lower, because the slope of it is steeper, we will tend to get higher basic reserves in some places. But the main thing that we'll focus on in my part of the presentation is how the difference in the two slopes, in combination with the limitations that XXX puts on the determination of the X-factors, will combine to affect the level of deficiency reserves that are produced once the 2001 CSO table is used.

Just to review, XXX puts limitations on determination of X-factors. Of course, your X-factors can vary by any policy factor that's expected to cause your mortality to vary. X-factors can't be less than 20 percent. They can't decrease in successive policy years. The actuarial present value of your X-factor mortality has to be greater than or equal to the actuarial present value of your anticipated mortality. Your X-factor mortality in the first five years after the valuation date has to be greater than or equal to the anticipated mortality. Finally, you have to take into account the adverse effects on your expected mortality due to a lapse or increase in gross premiums, things like that.

The best way to do this presentation is to look at a few different examples and look at a few different cells and see how that is going to affect those cells. In these particular cases that we're going to look at, I've made some assumptions. This will only deal with term insurance, and we're going to be looking at some 10- and 20-year terms. I've used a high average size. That's just to help me get some deficiency reserves on them so that when you spread the policy fee on a per-thousand basis you get lower rates so that we can actually look at how this is going to affect the deficiency reserves a little bit easier.

Chart 1 is a male, non-smoker, 25-year-old with 10-year-term. Charts 2 and 3 show the anticipated mortality versus the table mortality for the 80 CSO and the 2001 CSO. Below that we've got the difference in the actuarial present value of the X-factor mortality over the actuarial present value of the table mortality. These two sets of boxes give us a look into those two limitations that I had highlighted on the one chart. We can use those to come up with what would be the minimum X-factor that would be able to be used under each of the tables.

Under a 25-year-old, using these X-factors, the limitation that comes into play is comparing the X-factor mortality versus the anticipated mortality in the first five durations. Because of that and because of the limitations on the development of the X-factors, the slope of the 2001 CSO actually ends up being a lot steeper than the slopes of the 80 CSO and thus our overall level of deficiency reserve mortality is higher.

Because of that, in this particular case for this age and this term, we end up with deficiency reserves in a place where we never had them before. The other thing you can note here is that the basic reserves actually end up being higher than the basic reserves under the 80 CSO. The reason behind that is even though the overall level of the 2001 CSO is lower; the slope of it is slightly steeper. Because of the slope difference you'll actually end up with higher base reserves and with deficiency reserves in a place where we didn't have them before.

For age 35, the slope in the level ends up being very similar once we apply the X-factor limitations. It just so happens that for the 80 CSO, the particular limitation that comes into play to determine our minimum X-factor is the actuarial present value rule. For the 2001 CSO, it happens to be this third duration ratio of the two QXs. As you would anticipate if the fact that the slopes and the levels are very similar, the reserves will also end up being very similar. But the slope on the 2001 CSO is just slightly steeper, and because of that, we will get slightly higher deficiency reserves. But overall the basic reserve still ends up being just slightly lower.

Under a comparison of the two tables without X-factors, they roughly have the same slope, if there's no X-factor applied. But because the overall level of the 80 CSO is higher, we'll actually end up with higher basic reserves there. Applying the 2001 will slightly lower the basic reserves.

For age 45 cell with 80 CSO, the actuarial present value rule comes into play, which determines the minimum X-factor we can use. For the 2001 CSO, again it's looking at the fourth duration QX. Because of that and the difference in the two slopes of the table, the 2001 CSO ends up being steeper and you also have an overall higher level of deficiency reserve mortality.

The point to bring out here is that some people have thought that (1) my basic reserves should be lower because my overall level of mortality is going to be lower. (2) My deficiency reserves should be roughly the same because of what the X-factor is doing, which means that even though I have the tables lower, I should be solving for a level of mortality that is similar to my anticipated mortality. And (3) my deficiency reserve mortality should be pretty similar under the two tables and therefore my total reserve, my minimum reserve, should be pretty similar whether I'm using 80 CSO or 2001. But what I'm showing is that because of these limitations on the X-factors and the difference in the slopes between the two tables, that's not always true. In fact, in some cases you may get deficiency reserves

where you didn't have them before and likewise you may end up with lower deficiency reserves because of the way they come out.

Again, if we look at the age 45, we come up with more deficiency reserves than we had before because we had the steeper slope. Again, with this particular cell we end up with higher basic reserves and that's due to the steeper slope of the 2001 CSO.

FROM THE FLOOR: What select factors are you using on the mortality?

MR. YATES: For the anticipated mortality?

FROM THE FLOOR: For the 2001 CSO and the 80 CSO.

MR. YATES: The 2001 CSO has the 2001 CSO select factors; the 80 CSO, I'm using the XXX select factors.

FROM THE FLOOR: Are you applying the X-factors to the 2001 CSO select?

MR. YATES: Yes. Because of the way the limitations cause the X-factors to come out, for age 55, with a 10-year term, we end up with higher and steeper mortality under 2001 CSO. This, as you would guess, would give us higher deficiency reserves.

Then at age 65 there's a noticeable difference. This is where with the XXX select factors at age 65, after the first five durations, the select factors really bump up a lot. Because of that, obviously deficiency reserves go way down with the 2001 CSO to where they're almost nonexistent, and, of course, our 2001 CSO basic reserve is significantly decreased. Again, that's just due to the way these select factors for the 80 CSO are developed. They have a large increase after the fifth duration.

So far I've just showed you age by age how this would come out, but in practice or in real life, not all companies determine the X-factor for every single cell. Most companies probably aggregate at some higher level to have a larger class to validate the X-factors that they are using. Because of that, the way that you determine your X-factor class, and therefore your X-factors, along with the distribution of business that you have will also impact your aggregate level of reserves for both basic and deficiency reserves.

We're going to look at two different scenarios. They use the same five different ages that we've looked at already, but they are aggregated using different distributions. In this particular case, with the distribution we're using, we've come up with a weighted average X-factor for the entire class for all ages, under both 80 CSO and 2001 CSO.

Once we do that, the basic reserves don't change much if it's age specific—because there's no difference in these two other than the X-factors—but the difference in the

deficiency reserves when we do either age-specific X-factors or class-specific X-factors is significant. The minimum reserves using 2001 CSO are not a lot different. The 80 CSO is the one that is much higher with age-specific X-factors, but if we're looking at the difference from going from 80 CSO to 2001, there would be a big difference whether we are using age-specific or class-specific X-factors in this particular example.

We'll now move to a different age distribution, where we start out with 10 percent with 25-year-olds, 37 percent with 35-year-olds, 17 percent at age 55 and 2 percent at age 65. Now, when we move to fewer 25-year-olds and more distribution at the older ages, we get different X-factors when we aggregate for the whole class. If we have age-specific X-factors under this particular scenario, deficiency reserves actually go down when we use 2001 CSO in aggregate. However, if we use the weighted average to come up with our X-factor, we actually end up with higher deficiency reserves.

The whole point is that you need to determine what is going to happen with your deficiency reserves when you switch to the 2001 CSO. You also need to consider how you should determine your X-factor class. Once you determine that, you need to determine what your distribution of business behind it is and how all of that is going to play into what your overall level of reserves is going to come out at.

We're going to go through a few ages for the 20-year terms. They end up coming out slightly different just because of the longer term and the difference in the two slopes over the longer period. But we have age 25 again. Once again, due to these limitations on the X-factors, our X-factor mortality starts out at the same point, but we actually end up with higher X-factor mortality and a steeper slope. Because of that, again, in a place where we didn't have deficiency reserves before, they're small, but we have them now. Again, on this particular example, our basic reserves decrease when we move to 2001 CSO. That's due to the steep slope of the 80 CSO for this age.

For age 35 we end up with a very similar level in slope between the 2001 and the 80 CSO, even over the 20 years. The 80 CSO is a little bit steeper out in the tail, but when you look at the difference in these two, our minimum reserves come out almost identical for this particular cell. Again, because the 80 CSO is so much steeper here, the basic reserves will go down at this cell.

Age 45 is next. This is a little bit deceiving. You might think that the 80 CSO is going to be steeper and we'll actually end up with higher deficiency reserves under 80 CSO, but there's a big piece where 2001 CSO is much higher. As a result we end up with, again, another place where we have more deficiency reserves than we would have had before, even though our basic reserves are going down.

Age 55 is the last age I did for the 20-year term. Again, this comes from the XXX-select factors and the sharp increase they have out here. Of course, deficiency reserves for this particular age will significantly decrease.

Once again, if we look at aggregating, it's going to make a big difference on what's our distribution of business, how do we come up with our X-factor class, and how does that develop into an aggregate level of reserves, both minimum and basic reserves. We have 5 percent at age 25 and 14 percent at age 55. Deficiency reserves are slightly lower for age specific; once we do the weighted average, they're slightly higher, even though under both scenarios our basic reserves are lower. If we shift more distribution to the younger ages and away from the older ages, we get higher deficiency reserves under either scenario. Again, this is similar to the one we looked at before where you can see that the level of deficiency reserves for whether you're aggregating by class or by age is similar for the 2001 CSO. The difference here comes in the 80 CSO, where 80 CSO produces lower deficiency reserves if you're aggregating by class.

To conclude, the basic points are that it is true that the general level of the 2001 CSO is lower, which, for the most part, you would think would lower your reserves-and that is true for most basic reserves. In general, most of the basic reserves will be lowered. There are some places, however, where the slope of the 2001 CSO will end up being steeper than the 80 CSO. Because of that, there will be places where there are higher basic reserves.

The other thing to keep in mind is that the interaction between the limitations that the XXX places on the determination of X-factors, in conjunction with the difference in the slopes of the two tables, may cause higher minimum reserves in some cells. The last point to keep in mind is that most companies don't use each individual cell for its X-factor class. So the way that you determine your X-factor class, in conjunction with the distribution of business that you have inside of that X-factor class, can significantly change the difference in the level of minimum reserves when going from 80 CSO to 2001 CSO.

Let's turn back to tax issues.

MR. TAHT: As I mentioned at the start of the section on whole life and the impact of 2001 CSO, 2001 CSO impacts not only statutory reserves, but also tax reserves. In general, tax reserves will be smaller using the new tables. For tax reserves within Section 807, the transition rules for moving from 80 CSO to 2001 CSO are quite clear. The mortality table to be used for tax purposes is the prevailing table and that's the most recent NAIC-prescribed commissioner standard table permitted by at least 26 states. That's why watching out for 26 states is important.

The transition rule is as follows: You may use either table on a contract-by-contract basis for three calendar years following the change in prevailing tables. It's probably more likely that 2001 CSO will be adopted by 26 states by Jan. 1, 2005,

so it would then be optional between Jan. 1, 2005 and Jan. 1, 2008. It would be mandatory for tax reserves after the three-year transition period.

For group contracts, the date that a benefit is guaranteed to a participant governs the table used to value that benefit, but for tax reserves the transition rule is quite clear. There will be a period of time in which you can use 2001 CSO for statutory purposes and 80 CSO for tax reserve purposes, and you may choose to use that. That would be a temporary situation, but it is one that, given the way the transition rules are laid out, you could do.

With respect to tax reserves and the prevailing table, the 2001 CSO table encompasses many tables. Which one do you use for tax-reserve basis? You use the one that produces the lowest reserves and basically, where two or more tables or table options are prevailing, you should use the table and option generally yielding the lowest reserves. Part of what the Academy did in constructing the 2001 CSO table was ensure that the ultimate table produced lower reserves in aggregate. That was demonstrated within the report.

Also, the report demonstrated that the weighted average of non-smoker and smoker mortality is generally equal to the reserves under the composite tables. What does that mean? You have to use ultimate mortality for tax reserve purposes, and the ultimate table is the prevailing table. You can use smoking status or composite mortality–smoking status distinct or composite mortality. However, the IRS can, if it wants to, review this issue and offer its own guidance, but at this point, this is the scenario.

The issue is pretty clear on tax reserves. Section 7702 also uses the prevailing statutory mortality table. There is not necessarily a clear transition rule. The ACLI will ask for guidance on this, but it is still not certain what the transition will be, so that is an outstanding item. However, we do know that discussion of 7702 transition is on the IRS's mind because it's on the business plan. The IRS business plan for 2003-04 includes a bullet point that says, "Items with respect to transition to 2001 CSO." This is an area that is still unclear, but it's getting clearer, and we should expect to receive guidance by the middle of 2004.

There are a couple of other issues that have come up. As I mentioned before, 2001 CSO has an age 121 maturity. However, with respect to the 7702 calculation, the rules deem that the maturity date is to be between 95 and 100. I don't see that changing. I don't see any sort of appetite for the industry to go and change tax law.

There's not a lot of guidance currently regarding substandard risks. Where this is probably the biggest issue is for simplified-issue and guaranteed-issue plans in which one may want to characterize those as substandard plans and use a multiple of 2001 CSO. That is an issue that is outstanding.

The last issue with respect to 7702 is material changes. This has been addressed in the past, but I think the impact of moving to a new mortality table will have a much more significant impact on it, and I think this may be another area in which the industry asks for clarification.

One observation that we have regarding the table with respect to tax issues is that there may be a reduction in cash-value test accumulations, specifically because you have a greater net amount at risk for a single premium.

I want to spend a bit of time on implementation issues. The speed and the rate of stated option is still somewhat uncertain, but it is getting clearer. To date I don't think there's been a concerted effort by the industry to push the table through, but I believe that will change once you get to 20 states adopting, which could occur as quickly as Jan. 1, 2004. Once we hit Jan. 1, 2004, we'll be very close to 20 states having adopted the table. At that point in time, I think you'll start to see a concerted push to have the table adopted.

There's really no good precedent for how this might play out and whether there will be issues that the industry will find as we complete state adoption. The situation where there was an element of mortality in Regulation XXX with the 20-year select factors was a much more controversial regulation as opposed to this model regulation, so it's not a good precedent. I do think that state adoption will happen relatively quickly after Jan. 1, 2004, but who knows.

I think that part of what spurred on the *Wall Street Journal* article that I referred to earlier was that once Texas adopted the table, a Texas domicile company announced that it had launched a 2001 CSO product. Their plan, and this was in their press release, was that they were launching it in at least 30 states. What this means for them is they're on a path where they have to maintain at least two sets of blue books, two sets of statutory annual statements. They'll retain one for their state of domicile, which will have the product value using 2001 CSO for the 30 states that they're selling it in. But they will also have to maintain an annual statement that has those products valued under 80 CSO for states that have not adopted 2001 CSO. It's a path that may be administratively onerous, but it is a path that they've decided to follow.

Another issue that may come out as the state adoption of the table continues is whether there will there be a crunch of product filings at the beginning of the transition period or at the end of the transition period. My belief is that there won't be a significant crunch of product filings at the beginning of the transition period. But there could be one at the end because there are some products, I'm thinking of UL and VUL, where the gains from using 2001 CSO are not necessarily great, but the stress on having to change your product load structure is great. This may force you to wait and see how the market plays out in terms of how you account for this change in load structure.

You can't look to XXX for guidance in terms of product filing crunch because products typically didn't need to be filed because of Regulation XXX. It may be an opportunity for companies to rationalize their product portfolios. With any major transition, it requires significant resources. Especially if you start looking at it in-depth in terms of X-factors and XXX reserves and what is the best approach. It's not necessarily intuitive or clear that one method is better than another is.

In conclusion, timing may be everything. In general, 2001 CSO offers lower reserves, lower guaranteed cost of insurance rates and lower 7702 limits. I think that's a key issue.

What are the implications? You may have more competitive term, but my read on the term market is that either through external reinsurance or other methods, the strain associated with XXX has been in one way addressed. You still have strain associated with 2001 CSO and XXX, but the impact of moving to 2001 CSO for term may not be as great as people think. I think there will be an element of rethinking charges and load structures on UL and VUL products. It may facilitate longer-term secondary guarantees, especially if you think about age 65 to 10-year term, where you don't have that discontinuity at attained age 70, which hurts deficiency reserve calculations at some of the older ages. This may facilitate longer secondary-term guarantees. However, Guideline E-XXX comes in first and makes those more difficult.

You may have an opportunity to rethink your par dividend scale and, given the reduction in 7702 limits that come about, you'll have a less efficient tax advantage product. I think early adopters will be term writers. We've already seen that with one company, and probably UL with secondary guarantees.

There may be a fire sale on accumulation products. If you get the press out there saying that you should buy it now because the tax advantage nature of your product will be reduced come 2007-2008 when the table is the prevailing table for 7702 purposes, it could translate into a fire sale for tax advantage products. Because of that, accumulation products will be the last to adopt it. Those are just some possible responses. Who knows how good my crystal ball is.

FROM THE FLOOR: This question pertains to the application of X-factors. The wording is that X-factors are to be applied to select mortality factors, so let's say you have a 30-year term product, the segment is 30 years long. Does this mean that under 2001 CSO you can only apply X-factors for the first 25 years?

MR. TAHT: No, I think the mortality that you would be applying the X-factors to would be 30 years of mortality. The first 25 years would be select and then you start going down the table on the ultimate.

FROM THE FLOOR: I noticed in the detailed examples that you were using anticipated mortality, where you were using the '75-'80 table as a sort of

underlying chassis for getting the percentage. I'm wondering whether the results would be more favorable if you use the '90-'95 table, which corresponds much more smoothly with the 2001 table.

MR. YATES: That's a very good observation. You bring up a good point that depending on what your anticipated mortality is based on, it's going to have a different slope. I used '75-'80, which has a different slope than the 2001 CSO. Because of that, you see some of the differences that we saw. There is a good chance that if you use the '95, that the slope of your anticipated mortality would be a lot more similar to the 2001 CSO, and therefore you might not see some of the things that I saw in what I was presenting. My whole reasoning behind using the '75-'80 is that a lot of the companies that I've seen, that's what they are using for their anticipated mortality. But you bring up a good point that by maybe adjusting what you use for anticipated you may be able to mitigate some of the effect of the 2001 on the deficiency reserves that we saw.

MR. TAHT: Or at least if your view on anticipated mortality is different than '75-'80, you'd see different results.

FROM THE FLOOR: Someone mentioned that for the 2001 CSO mortality table the resulting mortality covers 15 of the 21 companies. We're now talking about the reserves under the 2001 CSO basis being less than those on the 80 CSO basis are. Has anybody considered, say, on a traditional life product for a company, maybe one of the six of the 21 that the mortality did not cover? Would they be setting up reserves under the 2001 CSO table or would they use some percentage higher than 100 percent of that table? And if they did, would the IRS consider that to be a substandard reserve or a standard reserve?

MR. TAHT: I haven't heard of anyone using a higher percentage of 2001 CSO. When you're calculating reserves, you don't necessarily have persistency involved. There may be other areas, where the fact that statutory reserving doesn't take into account persistency, where they may have a more conservative interest rate than what you use. That may offset the differences in mortality. One place where it would come into play most is with your asset-adequacy testing. If you use your expected mortality, which may be higher than 2001 CSO, does that then generate additional reserves due to asset-adequacy testing? The answer may be no, but it's not necessarily yes because of the inclusion of persistency and may be higher interest rates in the asset-adequacy testing. As long as asset-adequacy testing does not result in any additional reserves because of a discontinuity between 2001 CSO mortality and your expected mortality, I don't think any company would choose to use a higher percentage at 2001 CSO in that situation. They'd feel that their reserves were adequate based on asset- adequacy testing.

The place where it's probably going to be the biggest issue is for mono-line companies involved in maybe guaranteed issue, maybe pre-need or policies where the mortality is significantly higher than 2001 CSO. Then you have a situation

where, because you're a mono-line, because of that gap in mortality, and because if you're a small company and you haven't had to do cash-flow testing, if you use 2001 CSO you may have to use cash-flow testing. You may end up having additional reserves due to asset adequacy at that point. That's the situation in which guidance is going to be sought in terms of using a percentage of 2001 CSO for tax reserves. The additional reserves due to asset adequacy are not necessarily tax sufficient.

FROM THE FLOOR: Related solely to the tax reserve implications, if you do wind up, for example, deciding to use a percentage greater than 100 percent of the table, take your example of simplified underwriting and you're able to back that up, it would very likely be appropriate to use that same percentage for tax. There is certain language in the Code apart from the substandard risk section that says you can adjust the federally prescribed tables as appropriate to reflect the risk. Most companies that I'm aware of, if they are adjusting the table to reflect the risk, they have simplified underwriting. There's also a very good basis for carrying that over for tax purposes.

MR. TAHT: Do you believe that under 2001 CSO this isn't necessarily an issue? That it's an issue that already exists and has been addressed? It may have wider applicability given the level of 2001 CSO, but it is an issue that currently exists for some lines and has been addressed in that manner by the IRS.

FROM THE FLOOR: Yes, I agree with what you said. I think people have raised this issue, but I don't think the issue is any different than it was under the 80 CSO table. Companies aren't going to make a decision to adjust mortality table with a percentage greater than 100 percent, I think, under the same situations that they had under the prior table. I agree with what you said that just because the six companies might not have had adequate mortality that they would necessarily adjust the table for that reason. I think it's going to be more likely for the reasons of simplified underwriting or other things in which the multiples of the table would be expected to be higher.

Chart 1

Implications for XXX reserves

MNS Age 25, 10-Year Term - X Factor Calculation

	1980 CSO X-Factor		
Year	Anticipated qx	1980 CSO qx	Ratio
1	0.24552	0.7904	31.1%
2	0.24552	0.7844	31.3%
3	0.24552	0.8030	30.6%
4	0.24552	0.8064	30.4%
5	0.25234	0.8352	30.2%

APV X-factor (10-years)	30.5%
APV X-factor (20-years)	29.6%

Minimum X-Factor	31.3%

	2001 CSO X-Factor		
Year	Anticipated qx	2001 CSO qx	Ratio
1	0.24552	0.4700	52.2%
2	0.24552	0.5300	46.3%
3	0.24552	0.6000	40.9%
4	0.24552	0.6500	37.8%
5	0.25234	0.6800	37.1%

APV X-factor (10-years)	39.0%
APV X-factor (20-years)	37.6%

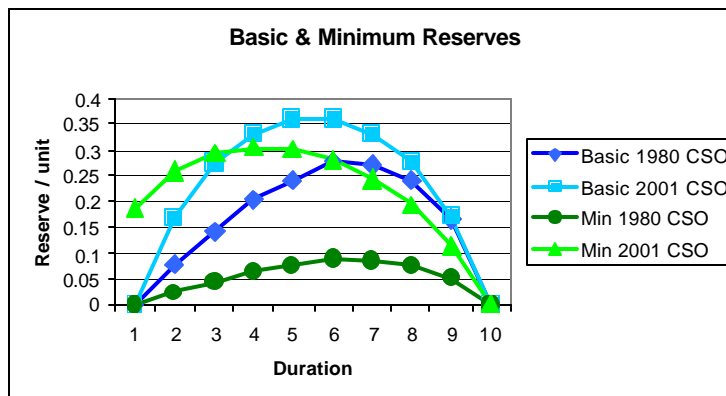| Minimum X-Factor	52.2%
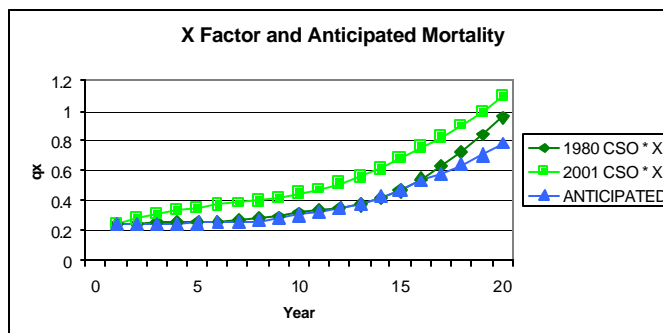
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Chart 2

Implications for XXX reserves

MNS Age 25 – 10-year term reserves

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Chart 3

Implications for XXX reserves

MNS Age 25 – 1980 & 2001 CSO

■ The steeper slope of the 2001 CSO is the reason for the higher 2001 CSO basic reserves, despite the higher level of 1980 CSO mortality

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