1990 VALUATION ACTUARY
SYMPOSIUM PROCEEDINGS

Session 9

Open Forum: Reinsurance

William B. Dandy
Courtland C. Smith
Jeremy Starr
John E. Tiller, Jr.

REINSURANCE

MR. JOHN E. TILLER, JR.: Reinsurance and the valuation actuary is a very broad topic; we could spend a week discussing the implications of certain reinsurance treaties and still not resolve all aspects to everyone's satisfaction. Since we do not have a week, we intend to discuss some major points that we believe will assist you in preparing financial statements this year-end 1990.

This is an open forum and will be run largely as a large workshop. Consider the people on the podium not as panelists but as workshop leaders. Each of us will comment on one or more topics as a lead-off speaker and then open the discussion for audience participation. Such participation is necessary if all of us are to maximize the benefit of this session.

Some of our opening presentations will be longer or more formal than others. That is based upon what we perceived to be the relative importance or the relative level of interest. Topics that have been touched in other sessions will not be discussed as deeply. We intend to cover all seven topics on the original program if there is time and will explore additional topics that you might have if there is enough time.

This session was originally planned to be more of a discussion group back when we expected much lower attendance. We planned to use some case studies, with discussion groups of six to ten people. Three weeks ago, we found that registration was up to 60 people, and we thought we could still operate with discussion groups. We found out a week later that registration had grown to 165, and that was too large to break into small discussion groups and have any meaningful interaction. So, I called the three people now on the podium with me and asked them to help out. One of the good things about our profession is that if you look around, you can always find some qualified people of goodwill who are willing to make a contribution. I thank them very much for participating today.

I would like to introduce the panel. I call this the "Dallas Panel." I am John Tiller from Tillinghast in Dallas. William B. Dandy is Actuary for Great Republic Insurance Company in Los Colinas, also known as upscale Dallas. Courtland C. Smith is Vice President and Actuary of Winterthur Life Reinsurance Services in Turtle Creek division, which is high society Dallas. Jeremy Starr is Vice President of Reinsurance for the Guardian Life Insurance Company of America in New York, known as Yankee Dallas and the home of future Dallas residents. As examples of this phenomenon, I would like to cite the cases of American Airlines, J.C. Penney, GTE, and Exxon, all of which have decided to move from the New York area to the Dallas area in recent years.

The first topic for discussion addresses the implications of the Actuarial Standard of Practice #11, which addresses life and health reinsurance transactions in financial statements. I assume you have read this guideline, but some points merit discussion. The most basic requirements are that you need to include all material reinsurance transactions in any cash-flow testing and that you must consider the effects on the entire balance sheet, both current and future, of the transaction. This has been written about several times, most notably by Diane Wallace in the Reinsurance Section Newsletter when the standard was first released, but I would like to go through some specific points of the standard.

The standard applies to all financial statements -- statutory, GAAP or other -- which contain material reinsurance transactions. It describes the minimum level and quality of actuarial attention to be given to reinsurance in financial statements or in your opinions as an actuary. It affects both the ceding company and the reinsurer and applies for all financial statements for periods beginning after December 15, 1989. For most of us that means the 1990 annual statement or convention blank and 1990 GAAP reports. I think that really means that you should have been applying the standard to quarterly or monthly statements in 1990.

Our panel discussion is focused largely on the statutory effects, but the open discussion can address any GAAP issues you wish to raise. I personally am unclear as to how this

standard applies with regard to tax accounting; if anybody has an opinion on that, I would like to hear it.

Certain definitions are listed in the standard. In particular, the term "net statement liabilities" is defined. Basically, this is the balance sheet effect of traditional gross reserves for direct-written or reinsurance-assumed business, plus any liabilities that might flow out of those transactions such as funds withheld on a coinsurance arrangement, less any assets such as funds due, and, of course, net of reinsurance reserve credits. Note that this definition is not confined to reserves, but defines net statement liabilities in a very broad sense across the total balance sheet.

The standard specifies that the actuary in making provisions and providing an opinion should satisfy all legal accounting and valuation requirements. For example, it does not endorse specifically the concept of mirror reserving, but if mirror reserves are required by law, then it would be expected that the actuary would fulfill that requirement. It does require that the actuary make appropriate provision for all unmatured obligations, using his best estimate of future experience and including all aspects of reinsurance agreements as well as the direct policies and contracts.

The standard recognizes that the sum of net liabilities of the ceding company and the reinsurer may either be equal to, be greater than, or be less than the amount which would be held were no reinsurance involved. One simple example of this is that the reinsurer may use a different interest rate in calculating reserves than the ceding company does. This is a frequent occurrence for YRT or even term coinsurance in order to facilitate administration by the reinsurer. As another example, the two companies may use slightly different mortality scales.

The standard requires that the actuary review the financial features of material reinsurance contracts and that only risks that have been transferred be recognized in any reserve credits or any calculations. Again, YRT offers a very simple example of this with respect to, say, a traditional whole life plan. In developing reserve credits for YRT reinsurance, the actuary would only look at the mortality which has been reinsured, not at the entire contract including the cash value. This is, of course, a very traditional part of reinsurance accounting practice. But when considering some of the more esoteric treaties developed lately for surplus relief and joint ventures, one may find a different sharing of risks. The valuation actuary must identify what risk or risks have actually been transferred.

The guideline does not specify, but I think it implies that the actuary should not take credit for risks which are not included in the original reserves. For example, if the only risk in

the reinsurance treaty is for mortality in excess of 1980 CSO, and that is the valuation mortality basis, then it is unlikely that the company would not be entitled to any reserve credit since there was no reserve for that risk.

As I said, this situation is not specifically discussed in the standard, but it does include requirements which will normally lead to the conclusion I have reached. The standard requires a review of cash flows either including reinsurance in the cash flows or performing a separate cash-flow test for reinsurance. These cash flows should include provisions for all aspects of reinsurance including any contingent payments that might evolve under the reinsurance contracts. This could be a contract provision such as the chargeback of any excess allowances in the event of a lapse. Special attention is called to agreements where the reinsurance terms and provisions do not exactly parallel those of the original policies underlying the reinsurance. Again, the main point is to perform cash flows and to see if any recoverability is likely. If the risk is too low or too remote, then the company may not be entitled to full or even partial reinsurance reserve credit.

The standard requires that the actuary review the accounting treatment for the entire balance sheet and determine throughout the financial statement if any assets or liabilities such as receivables or payables are created as a result of the reinsurance. The actuary should take these factors into consideration in determining the sufficiency of the net

statement liabilities also. Particular attention is called to termination provisions, especially if those termination provisions may be invoked at the option of either the ceding company or the reinsurer.

The standard specifically provides for additional liabilities, for items such as future obligations of the ceding company to the reinsurer which exceed the expected revenues on the reinsured plans. The standard further requires the actuary to address the likelihood of collection. This will be addressed more fully later, but this aspect includes attention to solvency of the reinsurer (to some degree), to timing of payments, and to treaty terms. For example, the ceding company may collect the full amount of benefit, but only when the last contract or policy under the reinsurance agreement expires some 40 or 50 years later. In such a situation, it might be appropriate to take as credit only the present value, not the full amount. Remember, the intention is to make "good and sufficient provision for all liabilities."

MR. PAUL A. HEKMAN: You mentioned that this is effective this year-end 1990, and my concern is a situation that we run into with one of our clients, which I think might affect a lot of people here as well, and that is the surplus relief issue. Many states have not yet adopted versions of New York Regulation 102. California has, Texas has, and there are probably a few more, but quite a few people may not have had to deal with that yet, but

effectively what you're saying is that if you have a surplus relief agreement which does, in fact, transfer, for example, the risk of mortality only in excess of statutory and are taking abnormally large reinsurance credit for that, that this -- not regulation -- it's a guideline -- effectively requires that you perhaps either write that off or make that a matter of comment in your opinion. Is that correct?

MR. TILLER: I believe that is correct. It depends upon the circumstances of the treaty.

MR. HEKMAN: This is going to be a very painful thing for a lot of people this year, I think. I just wanted to bring that out, that a lot of these agreements do, in effect, provide only a type of catastrophe coverage rather than true reinsurance, and there's a lot of surplus tied up as a result of that or released as a result of that which is going to be written off this year if that's true.

MR. TILLER: I do not know if the general situation is very desperate. I would say that ten years ago or seven years ago, this standard would have created problems with respect to a large number of treaties that I saw. Today, a large number of the treaties that are still in force have been written in the last five years and are substantially in compliance with the standard, so this may be less of an issue for many companies. However, it may be a very a painful issue for some companies. I suggest that companies that might have this problem

start reviewing it early and perhaps talk to the regulators. The regulators may feel that the contracts in question are not a problem or may work out a phase-in of any changes in accounting. It is up to the individual actuary as to how he believes the standard should be applied according to the regulation in his state.

MR. M. LA MAR WALKER: It bothers me a great deal to hear this type of talk because basically we can measure risk to some extent. I mean one of the purposes of reinsurance is to protect a company against adverse claims deviation that comes from excess mortality which happens to exceed the 1958 CSO or the 1980 CSO. That's exactly why the reinsurance is in place. Now, I think the problem is, At what level should reinsurance credits be taken? Well, it's fairly easy to go through and do a Monte Carlo study, if you will, based on the statutory valuation mortality and/or interest and expenses and terminations when that creeps into statutory accounting as it seems to. It's fairly easy to make those calculations and determine what portion of the risk is, in fact, transferred, and it's that portion that ought to be allowed as a reinsurance credit rather than thrown out entirely. And I think my second comment is related to that.

MR. TILLER: May I interrupt for a moment? I do not think I disagree with you. The concerns are about the effect on the total balance sheet, and does the original balance sheet reflect the reinsured risk as part of the original reserve? I think I am on fairly sound

ground that a company cannot take a reserve credit for something for which there is no reserve.

MR. WALKER: That's correct.

MR. TILLER: Now, to go back a step further, for example, traditionally companies have purchased stop-loss reinsurance to cover deviations, and there has never been a reserve credit except for any claims due at year-end. Now, what if the treaty superficially looks like coinsurance or modified coinsurance but effectively is only stop-loss? I think the actuary has to decide at what level is the reinsurance a stop-loss and at what level does it provide other, broader protection? That is my point.

MR. WALKER: Yes, and certainly if a premium's already been paid for stop-loss coverage, then there is a theoretical way to take a credit. It's not going to be a very large one, but there is, in fact, a theoretical way to do it.

MR. TILLER: If a benefit is expected or due.

MR. WALKER: Yes. The other thing that's very closely related is in some states, I think it was New York that first did this, if the contract doesn't transfer interest, mortality and

all the other elements together, combined, then you can't take a reinsurance credit. Again, I think that's improper. We ought to be able to reinsure just the mortality risk or just the interest risk and go through the same sort of risk analysis to determine what the proper reserve credit should be.

MR. TILLER: That may be a case where some regulation, such as New York's is stricter than the standard.

MR. COURTLAND C. SMITH: I think you may have hit on one point where the New York regulation may be questionable. It is possible to write, in my opinion, legitimate surplus relief arrangements in connection with a basic YRT cover, in other words, basic transfer of mortality risk alone in which there's, let's say, a negative premium or a bonus of some sort in the first year to provide the surplus relief that is desired by both parties. It seems to me this is a legitimate transaction even though there may be no transfer of investment risk, and there may be only a limited transfer of lapse risk. So, I don't think that the standard of practice that we're talking about necessarily brings us within the purview of the New York regulation as it has been promulgated. The New York regulation may contain overly stringent limitations in it, even considering the laudable objectives of the New York Department.

MR. TILLER: It is my understanding that the authors of the standard specifically rejected certain concepts regarding regulation so that the actuary has to comply with regulation as it applies to a particular treaty or in a particular state. My interpretation is that the standard is not as severe as New York's regulation, for example. I agree with Court that it is possible to write a stop-loss agreement that should give reserve credit. I just doubt that at this point any state is ready to approve or accept such a concept.

MR. STEPHEN L. WHITE: I have a question about the extra reserves that might be required if future payments to the reinsurer could not be funded from the future earnings on the block of reinsured policies. If such a reserve were to be required at December 31, 1990, as a result of this new standard, would the creation of that reserve have to be charged against 1990 income or could that be reported as a change of valuation basis?

MR. TILLER: As I understand the question, you are asking about what we might call a reinsurance deficiency reserve, where the ceding company's future reinsurance premiums and considerations exceed its future revenues on the block reinsured so that the block is not self-supporting with respect to reinsurance. In this case, if the actuary establishes an additional liability, either as a reserve or as something else, should changes in that liability be taken through statutory earnings, or can this amount be run directly through the capital and surplus account as a change in valuation basis? Is that correct?

MR. WHITE: That was the question, yes.

MR. JEREMY STARR: Regulations in California and Colorado already require the posting of these extra reserves. I believe the intent of these regulations is to take these reserves through earnings. I will have more to say about reinsurance regulations in my part of the presentation.

MR. TILLER: I think that is correct also. There are some companies that have been able to charge deficiency reserves and changes thereto directly to surplus. So, you might make an argument for that. One point I want to add is that I am not convinced that this is a change in reserve basis. It may very well be that an additional liability has been created, but it is not necessarily a reserve.

MR. STEPHEN M. MAHER: I'd like to go back to the conversation on the stop-loss and whether or not you should be able to take credit for that. It seems that if you had any reserves, either the 1958 or the 1980 CSO, and your reinsurance only covered a risk over that, your reserves actually are some sort of conservative estimate of what is going to happen including the risk for greater than that, and by having that stop-loss it still would reduce your expected risk. It seems it would still be appropriate to take some sort of credit.

MR. TILLER: I do not necessarily disagree. But I do not think that credit would be allowed by most states on an examination. Does anybody want to address that?

MR. HEKMAN: I think using normal actuarial risk techniques, it would be possible to put a number on it. I think the only point I was trying to make is that frequently that number's going to be a lot less than a strict quota share portion of the reserve on the direct block. You might have a $700,000 reserve ceded based on the percentage of business that's reinsured, but you might end up with a reserve credit of only $50,000 based on this new calculation.

MR. MAHER: I agree it would be pretty small, but it seems like you should be able to take a credit then.

MR. TILLER: One problem we have is that traditionally on the direct side we have a static valuation basis using predetermined factors, and when we consider reinsurance, we have traditionally used static-type factors to calculate reserve credits. I believe this standard moves towards a risk theory approach or collective theory of recoverability. In my opinion, that is what a lot of the coinsurance, modified coinsurance, and other surplus relief treaties in essence have done. From what I have seen I do not think the regulators are ready to deal with that yet. There is an issue of proportionality, which many have claimed says, if

a company is going to take a dollar of credit, the reinsurer has to pay a dollar when a direct claim occurs, not 20 years later when the total experience on the reinsured block is known. I think most of us who have spoken are in agreement that there could be a legitimate reserve credit from stop-loss. But before credit can be taken, the concept and details must be developed very carefully; you might even want to discuss a specific agreement with the insurance department. That is up to you.

MR. JOE E. DAVIS: Has any thought been given to reserve credits on a plain vanilla YRT reinsurance basis where the reinsurance premiums are less than the traditional half of the cx premium, the 1958 or 1980 CSO premium?[1] Which is appropriate, the unearned premium reserve or the traditional half of the net CSO premium?

MR. TILLER: For those of you who may not have followed all that or may not be aware of it, reinsurance premiums that are charged on a YRT basis are typically less than the cx premium, and the reserve credit taken is generally one-half cx. The question concerns the appropriate reserve credit. Is it the one-half cx or is it one-half the unearned premium? I believe it's one-half cx or a pro-rata cx because that's the mortality in the valuation basis

1. $cx = v q_x$

that you started with that you've ceded. That is the liability which has been transferred. The fact that the reinsurer is willing to take the risk for a lesser price than that does not affect the credit. You could ask some questions about what should happen as the result of renewal premiums being lower than cx, but we will not take time for that now.

MR. STARR: The regulation of reinsurance is a topic that is going to become more prevalent as we progress through the 1990s. We have seen a modest amount of reinsurance regulations written in the 1980s. I will talk about these regulations and some of the more recently proposed regulations. I believe that the reinsurance regulations written in the 1980s were a mere prelude to an increased level of regulatory oversight in the future. This increased regulatory attention is being caused by outside pressures on state regulators to make sure that companies remain solvent. In the recent Dingle Congressional Committee report many insurance company insolvencies were described. The Committee pointed fingers of blame at the state regulatory system and at the contribution of reinsurers to these problems.

New York Regulation 102 was promulgated in 1985. It was the first of the reinsurance regulations written in the 1980s. This regulation was in response to certain findings that New York state examiners discovered in audits of various insurance companies. These companies had reinsurance agreements where the only impact was an increase in the direct

writers surplus for a fee paid to the reinsurer. The reinsurer had structured the agreement so that it could not lose money (i.e., no risk was passed). New York felt that these agreements were financing agreements, not reinsurance.

Regulation 102 was promulgated to disallow these agreements. The regulation outlines six specific features that reinsurance agreements could not have. Two of the limitations are prohibition of treaties that have negative experience refunds and prohibition of treaties where the reinsurer has the right to automatically decrease the surplus of the ceding company. An experience refund reinsurance agreement returns some percentage of the profit on the reinsured business back to the ceding company. During audits, New York identified reinsurance agreements where if the block was profitable, the reinsurer would pay a refund to the direct-writing company. However, if the treaty was not profitable, the ceding company would refund some of that negative profit back to the reinsurer. This means that there is no way that the reinsurer could lose money. As an example of the second feature, the treaty would specify that after three years, the ceder had to pay back $x amount of relief. Also, New York State found reinsurance agreements being put into effect for the December 31 statement that were signed in January. In so doing, the direct-writing company with perfect 20-20 hindsight rigged its statement to achieve the level of surplus that was desired. To remedy this abuse Regulation 102 specified that risk must be passed and short of a signed agreement, by the as-of date of the statement, the parties must

have a signed letter of intent outlining what the agreement is going to provide. The letter of intent must be followed within 90 days by a signed agreement.

Later in 1985 the National Association of Insurance Commissioners (NAIC) adopted a model regulation that took New York Regulation 102 and added a couple of situations that would invalidate an agreement. The most significant was when reinsurance cash flows between the parties were not coming from the profits and losses on the block reinsured. For example, a treaty may require the reinsurer be paid its profit margin independent of whether the profits for the period were sufficient to pay for that profit.

No further new regulatory actions were instituted until 1989 when California promulgated Regulation 89-3. California took the foundation laid by New York Regulation 102 and added a few more restrictions plus some actuarial requirements. Like its predecessors, it cites certain kinds of transactions that will invalidate an agreement. California's regulation also requires the ceding company have an actuarial memorandum on file demonstrating that the reinsurance agreement adheres to the regulation. A new concept developed in California 89-3 is using excess interest reserves as penalty reserves. The regulation requires these excess interest reserves be established if the direct writer makes interest guarantees to the reinsurer in excess of the valuation rate which extend beyond the end of the calendar year. It does allow some safe harbors (e.g., Exhibit 2 rate or a rate related to the actual

assets backing the reserves). The significance of this penalty reserve concept is that it allows for an agreement to remain in effect, while at the same time moving closer to regulators' view of statutory accounting.

Just a few months ago, Colorado came out with Regulation 90-12. Colorado, in this regulation, extended the concept of penalty reserves beyond excess interest reserves and applied it to other conditions where the regulators felt adjustments were necessary but not so extreme as invalidating the agreement. In the fee example that I addressed earlier, if the fees that the reinsurer is collecting as its profit margin are potentially coming from something other than the profits of the block, then penalty reserves equal to the present value of this potential would be required. The Colorado Regulation 90-12 is also a lot more comprehensive than the other regulations previously discussed. The other regulations specifically focused on just the characteristics of the reinsurance contract that were necessary to make a valid reserve credit. Colorado took reinsurance regulations a step further and incorporated language on the letters of credit, and the offset clause.

Also this year, Mr. Montgomery, Chief Actuary of the California Department of Insurance, suggested that the NAIC use California 89-3 as a basis for revising its current model regulation. An industry committee has been researching this suggestion. The committee's

current position is to require the use of penalty reserves in more situations than those outlined in the California regulation. This would allow more agreements to remain valid.

A number of proposed regulations are currently being drafted. One is the NAIC proposed fronting regulation. This is an idea that the New York Insurance Department has been pursuing for most of the 1980s. It has promulgated a formal regulation because of industry pressures against it. The model regulation on fronting that is before the NAIC is very similar to New York's proposed regulation. The regulation is aimed at an unlicensed insurer that is using a licensed insurer only because the unlicensed company cannot or does not desire for other reasons to get a license in that state. It's a particular problem in New York because New York has very strict licensing requirements as well as restrictive extraterritorial regulations.

Another proposed NAIC regulation is the Credit for Reinsurance model regulation. This regulation addresses the qualifications that the reinsurer must have for the direct insurer to take a reserve credit. The onus in this particular model regulation is on the direct-writing company to determine the characteristics of the reinsurer. If the reinsurer is a licensed reinsurer, your reserve credit equals the full amount of reserves being ceded as a credit. A reinsurer that's accredited, will also allow the direct writer a full credit. To be accredited the reinsurer must meet the following three criteria: first, the reinsurer allows

the state in question to review its statutory books; second, the reinsurer must file with the accrediting state a Certificate of Authority from its domiciliary state and its annual statement as filed with its state of domicile; and finally, the reinsurer must maintain a surplus of $20 million or more or get the approval of the accrediting state's Commissioner. The last part of the last requirement was added recently due to the demand of small life reinsurers. The regulation was not aimed at these small life reinsurers, but at small property/casualty reinsurers. The final situation was added in order to include all the companies which did not meet the first two situations. The direct writer can take full reserve credit if a reinsurer while not accredited is licensed in a state in which this model regulation has been promulgated, has $20 million in surplus, allows the state to review its books and sets up a trust in the amount of the liability credit that the ceder is taking. A reinsurer failing these requirements can still provide credit if the reinsurer sets up a trust in the amount of the required reserve credit plus a surplus trust account in the amount of $20 million and submits an NAIC blank or a statement containing information compatible with the NAIC blank. The latter is aimed at a company that does not fill out an NAIC blank (e.g., a Canadian company).

The last proposed NAIC model regulation that I will address is called the Model Law on Minimum Surplus to Assume Property Casualty Business. Under this model regulation the onus is on the reinsurer to prove that it is an acceptable reinsurer. It requires the reinsurer

to have at least $10 million in surplus, or it will not be allowed to assume business. This regulation is not something that has been adopted, nor has it been applied to the life side. It is, however, one that we all need to monitor closely. This is especially true considering the significant number of life reinsurers whose surplus is very close to the $10 million level.

New York Regulation 20 was issued in response to reinsurance agreements with offshore reinsurers (e.g., Bermudian reinsurers) where deficiency-type reserves would disappear. This occurred because these offshore reinsurers were not required to set up deficiency reserves under the laws of those lands. Reserve credit was taken based solely on the reinsurer providing a letter of credit in the amount of all reserves being ceded (i.e., deficiency and "regular" reserves). The New York Department felt that the use of reinsurance as a method to avoid setting up reserves was an unjustified weakening of reserve standards. Since all licensed reinsurers had to live up to New York standards already and therefore had to post deficiency reserves, the Department aimed the regulations at nonlicensed reinsurers. For these nonlicensed reinsurers, the reserve credit taken by its clients cannot be greater than the sum of the reserves the reinsurer and its retrocessionaires are holding. This idea of the reinsurance reserve credit being equal to the reserve set up by the reinsurer is called mirror reserving. Since New York requires this of retrocessionaires it has led to Regulation 20 being called the worldwide mirror reserve regulation. Not only must the reinsurers and retrocessionaires hold the reserves, but also

a letter must be sent every quarter certifying this fact. If the reinsurer has filed an approved plan of compliance, these periodic letters will not be required. For an unauthorized reinsurer the reserves must be held and the reserve credit must be secured by a trust or a letter of credit.

In a recent conversation with the New York Department, I inquired if any changes were being contemplated to Regulation 20. The industry has requested that the regulation be amended to waive the mirror reserve requirements for YRT reinsurance and coinsurance of ART. The state has looked upon the request favorably and plans to come out with an amendment to the regulation that would alleviate some of the problems relating to these two forms of reinsurance, although nothing will be forthcoming in 1990. Once there is a satisfactory resolution of the YRT situation, industry and state officials will work on defining an acceptable format for a plan of compliance.

Regulation 20 was created in an environment of traditional statutory accounting where cash-flow testing really was not done. It did not consider that the valuation actuary would establish additional reserves based upon the nature of the company's assets and other company specific factors. Regulation 20 was aimed at a situation where reinsurers were getting evading statutory accounting, not because their cash flows are better or their investments are better or they have a way of managing their mortality better, but just

because they are taking advantage of different regulatory requirements. Since it is changing to a regulatory environment where the reserves held by a company will be more closely tied to the individual company's experience, New York may have to amend Regulation 20.

MR. CARL B. WRIGHT: Is New York Regulation 20 applicable to all companies licensed in New York?

MR. STARR: Companies licensed in New York have to meet New York regulations. New York regulations have certain minimum reserve standards. So, in effect, New York companies had to live up to at least the spirit of Regulation 20 even prior to its promulgation.

MR. WRIGHT: So that would require that I am supposed to report to New York every quarter.

MR. STARR: Regulation 20's requirement for a letter certifying that the reinsurer is holding the requisite reserves applies only to unauthorized, non-licensed companies.

MR. WRIGHT: Yesterday in a workshop there was a discussion about the length of surplus relief treaties, and it was a discussion in the context of Regulation 102 and

California 89-3. The comment was that in order to be a legitimate surplus relief treaty the life of the treaty had to parallel the life of the policies being reinsured. Well, as Court knows, he negotiated a treaty with you for us several years ago. Do the regulations preclude treaties that have a fixed life that may not necessarily be the same as the life of the contracts in question? That could make a surplus relief deal run for 50 years. I guess I'm a little unclear on that particular point as to whether you can write a surplus relief treaty that says, We want the repayment on this to take place only over a six-, seven-, eight-year period and then be ended.

MR. STARR: The traditional, non-surplus relief-type reinsurance agreements have always had recapture provisions in them. Financial reinsurance agreements have those same provisions in them. None of the ones that I know of post-New York 102 state that at a certain point in time the reinsurance agreement must end. Financial reinsurance agreements have a period in which both parties anticipate that the need for the coverage will end and the direct-writing company will then elect to terminate the agreement. Current regulations forbid forced recaptures. Typically, on a financial reinsurance agreement, there are two recapture dates in the treaty. One is an early recapture date that allows termination of the agreement upon making certain payments to the reinsurer. The second form of recapture, the kind common to all indemnity reinsurance agreements, allows termination of the agreement without any fees being incurred. These two forms of

recapture are present in traditional reinsurance agreements, except that the early recapture provision is agreed to via a side letter instead of being formally incorporated into the reinsurance agreement.

MR. HEKMAN: I have a question about the mirror image reserving. With the new emphasis on basing reserves on cash-flow testing, I can see a lot of reasons why one company's ceded reserve would be quite different from the other company's assumed reserve on the same block of business because the underlying assets are different, and the assuming company may decide to increase reserves. I presume this doesn't necessarily create an increased credit on the part of the ceding company. Is that correct?

MR. STARR: Regulation 20 was created in an environment of traditional statutory accounting where cash-flow testing really wasn't done. It did not contemplate the valuation actuary and the setting up of additional reserves based upon the nature of your assets and how you, the ceding company, view your reserves. It was really trying to get at a situation where reinsurers were getting around statutory accounting, not because their cash flows are better or their investments are better or they have a way of managing their mortality better, but just because they're taking advantage of different regulatory environments, which allowed that foreign companies didn't have to set up deficiency reserves, whereas, if you were an American reinsurer, you would have to set up those reserves. Moving to the new

kind of regulation, I think you're going to have to see some kind of reformation of Regulation 20 in some way. What that's going to be is sort of unclear.

MR. ARMAND M. DE PALO: Jeremy, the question of recapturing your allowances under a reinsurance surplus relief agreement has to come from the profit from the block.

MR. STARR: Right.

MR. DE PALO: Can you discuss the question of whether that is before or after the crediting by the ceding company of nonguaranteed elements in their contract? Is it the gain in the block before dividends or crediting of excess interest, or does the reinsurer run the risk of a ceding company unjustifiably crediting more to the policyholder, therefore, not netting a gain after dividends or after excess interest and then precluding the reinsurer from recapturing his original investment?

MR. STARR: The reinsurer has to, under California-style regulations and probably most future new regulations, bear a certain amount of investment risk. What you are referring to is an example of the kind of investment risk that the reinsurer will have to maintain. The reinsurer and the direct writer will have to agree to an index that items, such as modified coinsurance reserves, would be accrued. For example, the reinsurance interest

rate would be set equal to the old style Exhibit 2 rate. Should the direct writer declare uneconomic crediting rates to their policyholders, there is a possibility that the reinsurer will lose money. This potential to lose money is precisely the point of the regulators requiring an indexed interest rate.

MR. TILLER: I would like to make a comment for consideration. A number of these treaties have a guaranteed spread where the ceding company guarantees on modified coinsurance reserves to pay to the reinsurer a modified coinsurance interest rate equal to the credited rate plus 200 basis points. As the actuary for a ceding company you have to determine if that interest guarantee to the reinsurer has created an extra liability. Can that spread be maintained throughout the life of the agreement? As the actuary, can you justify assuming that spread will be earned forever? If the minimum credited rate guaranteed in the contract plus this guaranteed spread exceeds the valuation rate, has the company made a long-term guarantee that is in violation of the California regulation?

MR. STEPHEN N. STEINIG: I just wanted to comment on this last exchange between Armand and Jeremy. We have a reinsurance agreement where the reinsurer is obligated, in effect, to pay our dividends to policyholders. We are aware of the fact that the reinsurer is left holding the bag if we credit policyholders too much. In some ways it becomes a throwback to the days when reinsurance, to a degree much greater in the past than today,

was a gentleman's agreement where you relied on the good faith of the other party. The financial protection is simply that the block reinsured is so small relative to our total block in force that the notion that we would somehow do this maliciously, pay a higher dividend so as to hurt the reinsurer, would just be nonsensical because of the cost to us on all the nonreinsured business.

MR. STARR: To reemphasize your point, even where a large quota share of the direct writer's portfolio is reinsured, if it starts crediting uneconomic interest rates, its bottom line will be adversely affected. The direct writer has to realize that it can't make profits off the reinsurer.

MR. THOMAS MCCOMB: What about the situation where you're not guaranteeing interest rates, but you're agreeing to accept the issuer's current mortality costs? Does the reinsurer incur a deficient premium liability, and if so, how do you measure it?

MR. STARR: I'm not sure I fully understand the question. You're saying if the underlying premiums that the direct writer is charging are deficient, does the reinsurer have to set up deficiency reserves, too?

MR. MCCOMB: The issuer quite often will have a discretionary premium, such things as universal life and other aberrations, where the premium can be set by the issuer, and the reinsurer accepts whatever the issuer does. So, in effect, the reinsurer is agreeing to a deficient premium, but it doesn't know that it is, and the premium can change over the period of time. Does that create a deficient premium liability in the reinsurer?

MR. SMITH: I think to some extent that might depend on the form of the reinsurance agreement. It would not create a deficient premium liability if the agreement were structured as a YRT arrangement, and the reinsurer reserves the right to increase premiums up to the valuation level.

MR. MCCOMB: But you're adding a fact that I didn't put in there. There is no right of the reinsurer to increase it. The reinsurer just accepts whatever the issuer charges.

MR. SMITH: If the reinsurer has to accept whatever is charged, (so that, in effect, it's a coinsurance agreement), it's accepting those rates. It seems to me that in many jurisdictions the reinsurer would be responsible for creating a deficiency reserve liability, which is very difficult to evaluate at that moment (except that certain assumptions would have to be made to set it up in terms of what had been agreed for the current rates on issues at that time).

MR. MCCOMB: There are apparently quite a large number of these agreements out respecting universal life, and I'm not exactly sure I know what the minimum amount is. I mean presumably the issuing company could be that outfit that advertises in the *Wall Street Journal.*

MR. SMITH: I think we have to be clear on what the form of the original policy is. If it's a dual premium policy or an indeterminate premium policy, and the reinsurer is careful how he writes the agreement, he may still reserve all the rights the original company has to change premium; but if it's not, if it's a fixed premium policy, as you seem to be saying, then I think a deficiency reserve may have been created.

MR. TILLER: Tom, I think what you are saying is that the ceding company can change its gross premiums or its cost of insurance rates, but the reinsurer has no unilateral right to make changes.

MR. MCCOMB: That's correct.

MR. TILLER: Then I think Court is correct that in that case the reinsurer may very well have a deficiency reserve.

MR. MCCOMB: How much?

MR. TILLER: I would say that potentially that it could be at a level of the difference between the expected costs of insurance (COIs) or reinsurance premiums and the valuation cx. I am not aware of a reinsurer having to set up such a reserve. Many contracts will grant the reinsurer a technical right to change rates, but I think you have raised an issue for the reinsurers that has not been discussed openly.

MR. DE PALO: This is directed to anyone in the panel. The question of deficiencies to and from the reinsurer and the ceding company's point of view is an area in which I think there has been great amount of neglect by many companies. I think this is an area in which many companies have a real deficiency, and they do not know it. As a simple example, you have an existing YRT treaty. In that treaty to avoid deficiencies by the reinsurer, the reinsurer has a guaranteed right to raise his rates to the 1958 CSO. Many times these treaties stayed in force even after the company adopted 1980 CSO as its valuation rate. I contend that companies that have such treaties out there have a deficiency equal to the difference between the 1958 CSO q_x and the 1980 CSO q_x. By not amending their treaties they have substantial liabilities that they have not reflected, and if they have not done so, they should take a good, hard look at this question. Anyone on the panel can answer this question, if they believe this is true.

MR. TILLER: No other necks seem to have jumped onto this chopping block. I believe you have a point. The issue of normal industry practices also is relevant; there have been few, if any, instances where a reinsurer has raised YRT premiums. Given that this has not happened, I think there is room for reliance upon that practice to some degree, but that may not be true in all cases. You have raised a very valid point that actuaries need to consider. Cash-flow testing would probably resolve some of the concerns. The issue also contrasts the problem of a regulatory minimum versus the reserve that is necessary to carry the business.

MR. MARTIN S. HUEY: I've got a question for Jeremy. In a situation where you're ceding to a non-U.S. reinsurer you seemed to say that was allowed on Regulation 20 as long as you had trust or a letter of credit and quarterly notices, but under the NAIC model it seemed to imply that a license from somewhere under NAIC jurisdiction was also required. Is that really the case?

MR. STARR: No. There is a seeming dichotomy, but what is really happening is two different approaches to solving a problem. The new NAIC model does not require a company to be licensed. A Bermuda company is fine so long as either its statutory surplus is sufficient or it holds the reserves and has filed with the state an NAIC-type of financial statement. The problem being addressed here is the state's inability to determine the

strength of the reinsurer and the amount of the reserve being held due to the inaccessibility of financial statements of these offshore reinsurers.

MR. TILLER: We need to move on if we are to cover everything. I would like to add one comment while Court is getting ready for his comments on solvency. Let us take all comments today in a vein of relative value rather than absolute statements. I happen to agree very much with Armand that there could be major problems on these treaties, but I would hate to see anybody walk out of here saying that absolutely in all cases something has to be treated a certain way. One advantage of a standard versus a regulation is that we are allowed to look at the realistic situations, and I do not want to be quoted or have anybody else here quoted as saying that this is the absolute way it has to be done in every case because you do have to look at the circumstances. I was not sure I was straightforward with your answer, Armand, but basically I agree with you, given that caveat.

MR. SMITH: I'd like to just carry that point a little further, Armand. I think you do have a good point in principle, but I've seen sprinkled through the files of various reinsurance companies letters that went out to the client companies in which the company indicated, for example, that it did not at present plan to raise rates and didn't contemplate doing so, but if it should do so in the future, it was prepared to pay an experience refund of the difference between the valuation *cx* and whatever might be the current *cx*, if less. There

are different forms of such letters, but I think in principle what you say is correct. However, I believe the customs and practices of the business and the presence of such letters provide an out, if you will, indicating that it's really a moot point in most situations. I think, though, given the state of the business at the moment, some companies might want to pay some attention to that particular question and possibly secure such a letter for themselves from their YRT reinsurers.

I've been asked to talk about the solvency of reinsurers. I'm really going to talk about a broader point because I think that's what we're concerned with, and that is the recoverability of the benefits reinsured under your agreements, and also, as a subsidiary point, the matter of the statement credit that you can get for ceded reserves, for recoverables and for similar items in your statement.

Taking existing reinsurance agreements that you may have as a ceding company as a starting point, it seems to me that the actuary has some sort of responsibility to assure recoverability from his reinsurers. As a core matter, he has to assume their solvency, or at least make some assessment of their strength. A minimum position might be that he just has to assure that the reinsurer is admitted in the jurisdiction -- the domiciliary jurisdiction and certain other jurisdictions -- in which the actuary operates. However, this by itself would not assure recoverability of those ceded benefits.

As a maximum position, the actuary might be responsible for examining every reinsurer and its retrocessionaires under each of the reinsurance treaties, and examining the conditions of those treaties to assure recoverability and some minimum level of financial strength. However, you then have the questions, Where do you stop? How much examination do you have to do? How far do you have to go? Would you have time for anything else?

Let's look at some actuarial standard pronouncements and see if we can get some guidance. Obviously the answer has to be somewhere in between, and is going to involve matters of judgment. But to the extent that standards are available, we may have some useful guidance.

The Canadian Institute of Actuaries has a paper, Valuation Technique Paper #4, which came out in the middle of 1989. Remember now, this is within the context of a valuation system that's different from that which holds in the United States. Theirs is, I guess, a modified gross premium valuation approach. The point here, though, is that this paper states that it is incumbent on the valuation actuary to examine his reinsurers and their retrocessionaires, and consider their financial strengths and their reserving policies with respect to the risks that have been transferred. The valuation actuary must assess the probability of nonpayment of those benefits, and he must reduce the value of the benefits costs savings due to reinsurance accordingly. Furthermore, if the reinsurer faces collapse,

according to this valuation technique paper, the actuary should ignore the reinsurance altogether and increase the premium that he has set up for adverse deviation to the level appropriate if there had been no reinsurance at all.

Incidentally, this Canadian paper gives no requirement for matching. If the reinsurer sets up reserves which are significantly lower than those of the ceding company, the valuation actuary has the responsibility to inquire into that matter. He's supposed to check with his reinsurer, and compare assumptions. There may be just a difference in assumptions. The reinsurer, for example, may be assuming a higher interest rate; i.e., a higher discount rate. But he has to also consider the possibility that the reinsurer may not realize all the risks that it has accepted under the agreement. Or the ceding company actuary may be in a position where he hasn't actually ceded risks that he thought he had ceded. In either case the ceding company actuary would be responsible for adjusting the reserve credit that he takes and also inquiring into the potential strength of that reinsurer. If the reinsurer's too casual about its reserves, i.e., sets reserves too low in this instance, it may be doing that in other instances, too. So, the Canadians have a guideline here which is perhaps on the stringent side.

The Actuarial Standards Board Standard of Practice #11, which was adopted in August of 1989 and which John reviewed with you before, has a few clauses in it that John did not

spell out. I'd just like to call them to your attention because I think they are relevant to this discussion.

Standard of Practice #11 states at one point that the company is liable to its policyholders and its ceding companies for gross benefits guaranteed under its contracts regardless of subsequent ceded reinsurance. Whatever subsequent reinsurance agreements were reached are separate from the agreements or contracts up to that point. The principal responsibility of the company, however, is for its net statement liabilities, and there are two requirements. The net statement liabilities must satisfy all legal accounting and valuation requirements, and the net statement liabilities must make sufficient provision for the company's unmatured obligations according to the actuary's best estimate of future experience considering reinsurance. Now, if the reinsurance should be, in fact, unrecoverable from a reinsurer because it becomes insolvent or because it's weak or because its retrocessionaire in turn has become insolvent, then there are problems of recovery. For whatever reason, the actuary has to be in a position to reevaluate that situation. However, he merely has to reevaluate the situation in relation to the actuary's best estimate of future experience. He does not have to assume that he has the same margins between the valuation assumptions basis and the realistic assumptions basis as he had before he considered the reinsurance question. He just has to assure that on a net basis he can recover.

John Tiller pointed out that the actuary is supposed to consider and review all material reinsurance agreements, all cash flows, all accounting treatment of reinsurance throughout the statement, and also the conditions for termination of any reinsurance. For example, if there is anything in a reinsurance agreement where that agreement would be terminated automatically in a certain number of years or terminated before underlying coverages would reach extinction, then there's some question about whether the full reinsurance credit can be taken, because, in effect, the ceding company now has the liability for the reinsured portion between the time of reinsurance termination and the time of extinction. A recapture provision does not involve any automatic termination. So, that is not a problem. A problem arises when a recapture provision might allow a reinsurer to terminate the agreement. In principle the reinsurance agreement has to run indefinitely in the life business and for other long-term coverages, so that it covers the same period as the underlying policies.

The Actuarial Standards Board Standard of Practice #11 says the actuary should consider certain additional liabilities, including the reinsurer's right to increase premiums beyond the level of the expected incoming premium revenue of the ceding company. In other words, there may be additional liabilities created by the reinsurance agreement and the likelihood of collection. Also, the standard of practice says that the actuary should take into account regulatory requirements regarding reserve credits, for example, regarding the required

insolvency agreement provisions, risk transfer -- now we get into Regulation 102 -- and treaty filing and preapproval.

What are companies actually doing to assure the financial strength of their reinsurers? Well, they're beginning to do more now than they ever did in the past because margins are a bit thinner these days. One company limits its ceding reinsurance to what it calls first-tier reinsurers. Well, what if a reinsurer in the first tier decides that his reinsurance isn't sufficiently profitable, and he wants to get out of the business and sell off all his reinsurance? In particular, he wants to sell off the block ceded to him by this particular company. This company faces that problem now, and it is quite surprised that it should come up. It thought that first-tier reinsurer would be in the business forever. Or what if a ceding company needs something from one of its first-tier reinsurers that the reinsurer can't or won't provide? That ceding company may have to go elsewhere.

Another strategy that companies have followed is to limit ceded reinsurance to companies rated A+ or A by *Best's Reports Life & Health Edition.* However, what do they do when they want to cede to a good foreign company or a good Canadian company that might not be an authorized reinsurer in any U.S. jurisdiction or to a reinsurance pool? These entities may not be in Best's Life/Health edition.

What we're talking about here are strategies which can simplify the job of the ceding company actuary. We are, under Standard of Practice #11, allowed to rely on third parties' judgments. Here we're relying on the judgment of Best's. Incidentally, Best's has an International Edition in which companies are rated according to the same criteria as those used in the Life/Health book that we're all familiar with. Some companies limit their ceded reinsurance to Best's rated A+ or A companies (in either the Life & Health Edition or the International Edition). In addition, some companies also consider using the Standard & Poor's ratings.

Some companies choose to avoid pools altogether. There's a problem of collection from pools. In the London market there's a rule, "Each for himself and none for another." If you want to recover from certain pools in Europe, you have to recover from each retrocessionaire or reinsurer separately. In some cases this means having to deal with them on their own ground either in the courts or through an arbitration procedure. Furthermore, most pools do not remain fixed in their composition. Occasionally, some people take more than before, and others take less. In some cases members drop out. With pools you may have a problem because you have to determine in which year of experience, which pool year, a given claim can be collected under. However, some of these pools can arrange reinsurance through an A+ fronting U.S. company. While it is possible to deal with pools

for certain supplemental benefits or certain other special situations that may arise, there are special problems, and you ought to be aware of them.

What are companies doing to protect themselves in the new treaties that they're writing today where they deal with reinsurers that may have only questionable strength or may be viewed critically by the regulatory authorities in their domiciliary jurisdictions? I have seen one type of agreement where the ceding company requires that it be asked to provide permission for any sort of assumption reinsurance sale of its business to a third party by the reinsurer. Some contracts contain an insolvency clause for the reinsurer. In the event of the reinsurer's insolvency the ceding company has the right to recapture immediately. Now, sometimes such recapture would involve leaving a portion of its reserves with the reinsurer, and that can be dangerous. You want to be assured you can get your reserves back dollar for dollar without diminution. Companies have tried various ways of achieving that. One way is to have a cut-through endorsement to the parent or an affiliated retrocessionaire of that reinsurer. That's perhaps more common in the property/casualty business than it is in ours. Another way is to obtain a guarantee of substitution by an affiliated company or a parent that has unquestioned financial strength. Another thing a reinsurer can do, and some reinsurers have done this, is require that the coinsurance reserves under its agreements be put in a trust or escrow account so that the ceding company can draw on them whenever it has a legitimate need to do so without having to do more than simply

notify the reinsurer. In effect, that keeps those monies out of the hands of the regulatory authorities in the jurisdiction of domicile of the reinsurer. Some reinsurers require that their retrocessionaires provide for cash deposits of coinsurance reserves or of receivables or both. This is not unusual in relationships between subsidiaries of European reinsurers and the European parent. Having high cash deposits over here, in effect, is a kind of trust on which the U.S. company can draw at any time.

And finally, of course, there's the letter of credit. Letters of credit permit recovery from a bank. Now banks, as you know, are not as strong as they used to be. This is an off-balance-sheet liability of the bank. So, they can issue a whole lot of these things and not worry, or at least they generally could avoid worry in the past. I've seen situations where letters of credit issued to property/casualty companies or broker intermediaries in this country have been drawn down to pay for other expenses, in one case even for personal expenses of an intermediary. Now one European reinsurer that issues such letters of credit requires a signed agreement in advance before the letter of credit is issued which in effect sets up a quasi-trust that permits the letter of credit to be drawn down upon only for certain purposes, otherwise the situation is actionable in court.

We are seeing banks now raising their charges for letters of credit because they're beginning to realize what liabilities they're under. Often the banks require that the customer

company, usually the foreign or alien company for which the bank issued the letter of credit, has sufficient deposits in the bank to cover it. Under certain forms of letter of credit, the banks can't automatically recover. A letter of credit is, of course, preferable to trust or cash deposits for most alien companies because they can control the investment monies that back up the coinsurance reserves, invest them the way they like and obtain some excess investment return.

What else can the valuation actuary do? If he has none of these protections in place, there may be some in-force reinsurance business that may not be recoverable because the reinsurer lacks sufficient financial strength. For one thing, the actuary can put up an additional reserve to cover the reinsured portion. This is undesirable, but it may be necessary. How much do you put up? Well, in principle I suppose you put up the present value of the anticipated reduction in the value of the reinsurance credit or offset. This simply equals the probability of loss times the anticipated amount of loss.

Now, let's just consider this for a moment. The savings and loans have had troubles. Many banks have had troubles. I wouldn't be surprised if some insurance companies and some reinsurers have comparable troubles in the future. Let's consider one scenario. Let's suppose that the surplus from all that old profitable business that we used to issue -- all those whole life policies and all those nice whole life policies that the reinsurers

participated in under Modco 820 -- is all exhausted. You are in a very competitive environment. And let's suppose that the average margin on new business issued and reinsured today is virtually zero, or possibly even negative for a wide majority of the companies out there. Let's suppose that the reinsurers continue fighting to survive, and let's suppose that each reinsurer sees and accepts automatically from others because he wants to increase his book of business as much as possible in order to get an average result. Some of the business may produce losses, but he wants to get an average result like that of the other reinsurers down the block. And let's suppose that the bankers get tough on letters of credit, and routinely require much higher charges for letters of credit backed with deposits from alien reinsurers. And let's suppose further that management in many companies, in order to maintain a strong, competitive position, allows surplus to diminish to a minimum, relatively small percentage. (Of course, as valuation actuaries, we are not supposed to review surplus or if we do look at that, we're under no requirement to broadcast our findings to the world).

We have a pretty tough situation here. You've had a situation something like this, incidentally, in property/casualty, but that industry seems to be in a three- to seven-year cycle, and we may be in more of a hundred-year cycle.

Well, let's suppose, then, the probability of insolvency of each company is approximately 50%, and the anticipated loss in unrecoverable reinsurance benefits at insolvency is roughly 50%. Then the expected loss in the case of insolvency of your immediate reinsurer is one-half times one-half. That's a quarter. And the expected insolvency in the case of his retrocessionaire, if the reinsurer that you're dealing with does not become insolvent but that retrocessionaire does, would be one-half times one-half times one-half, and so on. If you went down the whole chain, you wouldn't quite have an infinite series, but you'd have a series that would probably approach a value of one-half times the value of whatever the reinsured item was. In other words, you could only anticipate recovering one-half, and you should really put up additional reserves for that one-half that you can't recover. I suspect nobody in the industry would put it up, but when insolvency started, everybody would wish they had.

MR. WILLIAM B. DANDY: John asked me to say a few words about reinsurance of long-term-care products. I am not and never have been a representative of a reinsurer. I've spent all my working life in small insurance companies. I do have a firm belief that professional reinsurers were put on earth to help us. I'm a little naive, perhaps, but mostly my belief's been affirmed. In my opinion long-term care is a product whose time is about to come. I think that in spite of annual premium rates ranging up to $20,000 and the current sleaze factor that taints many senior product marketing operations, the senior

citizen market, even the youngsters in their 50s, would buy and keep this product in large quantities, (unless and until the government adds it to Medicare). But it's a risky business for a small company to get into, and reinsurance is a potential salvation.

There are several reasons for a small company to seek reinsurance on its long-term-care line of business that have nothing to do with its fear of the unknown. One would be to coinsure a high percentage of its new business for the first year only in order to amortize its acquisition costs over the first year instead of taking them all into expense at the moment of sale. You collect an annual premium; you have to set up unearned premium reserves, but you have to pay an annual commission, and you have to expense everything at that point. Another reason would be to utilize the assumed expertise of your reinsurer in product design and pricing. But of greater import, I think, is the need for the small company to protect itself from runaway claim costs and runaway active life reserves on a product that has yet to produce a database for pricing and reserving that's of any validity. Standard coinsurance is one possible solution. The insurer would calculate its claim and active life reserves on a basis approved by, if not supplied by, the reinsurer and then reduce the reserves by the coinsurance percentage.

Another solution would be per claim excess loss reinsurance where the insurer pays 100% of the claim up to a given dollar amount, and the reinsurer takes a high percentage of the

claim dollars in excess of that amount. The insurer would calculate its ICOS claim reserves on a certain basis, approved by its reinsurer, then reduce its reserve to its expected future claim cost on each claim with a reserve that crossed the reinsurance threshold. In that case active life reserves would not be reinsured.

A third reinsurance program might be an excess loss ratio cover. The insurer and reinsurer could agree on an expected loss ratio for the plan after taking increases in active life reserves into account and a corridor of 5-10% with 100% reinsurance of losses in excess of the expected loss ratio plus the corridor. The insurer would calculate claim reserves in its usual fashion, and would reduce them by the amount that incurred claims for the period exceed the expected loss ratio plus the corridor. Active life reserves would not be reinsured since the increase in these reserves would affect the actual loss ratio, although the reinsurer should assist in the development of active life reserve factors.

I guess what I'm saying most of all is that if you're a small insurance company, you shouldn't be getting into the long-term-care business without a quality reinsurer to help you, and you can, I think. My company has been in this business for about seven years on a relatively small basis. It has usual reinsurance facilities with usual insurance expertise. We haven't developed any kind of a valid database because there just isn't enough exposure

anywhere that we're aware of that's valid, but the data we have accumulated has been helpful.

MR. TILLER: When I was recruiting for this session, I discovered that there was very little knowledge but many questions about reinsurance of long-term care. Bill has highlighted some of the issues that we need to deal with, but as he said it is a business that is emerging and the techniques are still being developed. The general principles for reinsurance should follow along the lines of the other products that we have discussed but with provision for some of these special features.

MR. STARR: As the number and size of insurance company insolvencies have grown through the 1980s, offset has become a more important issue. This is a definition of offset that is over a hundred years old, but is still quite applicable today:

> That right which exists between two parties, each of whom, under an independent contract, owes an ascertained amount to the other, to set off their respective debts by way of mutual deduction, so that, in any action brought for the larger debt, the residue only, after such deduction, shall be recovered. [*Stuart* v. *Kimball* (1876)].

To clarify this definition, take the example of a ceding company that owes the reinsurer $100 in premiums, the reinsurer for that same accounting period owes the direct writer $75 in commissions and claims. With offset being applied only one check would be transferred (i.e., $25 sent to the reinsurer). It is well-accepted that offset applies in a situation where

both direct writer and the reinsurer are solvent. It's only when one of the parties becomes insolvent that there seems to be some question as to the validity of offset.

There are four basic types of offset. The first type is an offset within a treaty between a subsidiary and a parent. The second kind of offset is between treaties where Company A both cedes to and assumes business from Reinsurer B. The third kind of offset is where Company A cedes several different blocks under several different reinsurance agreements to Reinsurer B, and the offset encompasses all of the agreements. The last type and the most common is an offset within a single agreement. The regulators feel that in the case of an insolvent ceding company, if the reinsurer applies offset, the reinsurer has received an unfair preference (i.e., the reinsurer is getting funds before the policyholder, when the policyholders should take precedence).

Some of the most important recent offset cases are:

- *Grimes v. Crown Life* - still pending
- *Prudential Reinsurance Co. v. Superior Court of the State of California* - still pending
- *Balzano v. Bluewater Insurance Ltd.* - anti-offset
- *Zack Stamp v. Insurance Company of North America* - pro-offset
- *Kemper Reinsurance Company v. Corcoran* - still pending

All except the *Stamp* decision are still being appealed. The first is the only life insurance company case, *Grimes v. Crown*. The business reinsured was accident and health, so even this case might be considered to be property/casualty related. The ceding company in this case, United Equity, was insolvent. This case represents an example of the fourth type of offset. While originally tried in the federal court system, with *Crown* winning the right of offset in each decision, the latest federal court ruling has remanded it back to Oklahoma for further litigation. This was based on the courts feeling that the federal courts do not have jurisdiction. The next case involves the Mission insolvency. This is the third type of offset where a ceding Company A is acting as both an assurer and a ceder. As of today Prudential, the reinsurer, has won the right of offset up through the California court system. It is now on appeal to the California Supreme Court. I believe hearings are going to be held in December of 1990. The *Balzano* case is a Colorado case. This involved the insolvency of Aspen Indemnity. It is an atypical case in that Blue Water, the reinsurer, did not collect premiums for five consecutive quarters, then when the company went insolvent, Blue Water demanded offset. The court ruled that a right that Blue Water voluntarily gave up cannot be restored by the courts. Thus it is not purely an offset decision. The *Stamp* decision was issued this past summer. The most important aspect of the judge's opinion was that the right to an offset must be put in the broader context of public policy. The judge felt that without an offset the availability of reinsurance would be limited and thus the soundness of the insurance system would be severely hurt. The final case is *Kemper*

Reinsurance v. Corcoran. This is a New York case involving the insolvency of Midland Insurance. The appellate level court has found in favor of the Commissioner in not allowing an offset, but again, this is on appeal and should be heard either late in 1990 or early 1991.

The final comments that I have on offset relate to recent regulatory actions. The NAIC model Rehabilitation and Liquidation Act states that the first two types of offset (i.e., that between affiliates and that where there's an assumed ceded situation) would be disallowed. The model will allow offset between multiple treaties and within a single treaty. However, it restricts the right to use an offset to a single accounting period (e.g., a calendar quarter). The model gives the Commissioner the ability to allow an offset in the second type of offset (i.e., Company A as ceder and reinsurer), if the Commissioner deems it desirable. In Colorado Regulation 90-12 the allowable period for an offset is 180 days, which is equivalent to two accounting periods in many reinsurance agreements.

MR. TILLER: We have two topics left on the list. One is non-guaranteed elements, which I believe we have covered earlier in our discussion. We had a long discussion on AIDS in general yesterday, but Court has something to add regarding AIDS with respect to reinsurance.

MR. SMITH: One thing I would say, and I'm not asking for sympathy here for reinsurers, is this: I think a reinsurer is in a much poorer position than a direct company to get a handle on his experience under AIDS and to anticipate problem situations. First of all, companies generally can look at their business by issue year where there's relative uniformity in underwriting requirements within each issue year. The reinsurer accepts business in any issue year from a variety of companies under disparate, varied underwriting requirements. So, reinsurers' business is lacking in homogeneity. Furthermore, the reinsurer probably has a poorer idea of his distribution of business by state, particularly if it accepts a large proportion of its business on bulk administration, and reinsurers can be selected against by the ceding company in selective recapture of blocks of business. Typically, if there's a high rate of AIDS claims in the block, the ceding company would probably tend to refrain from recapturing.

The reinsurer may be able to raise YRT rates to a guaranteed limit for guaranteed issue and simplified underwriting business while the ceding company may not able to. That's something that does tend to protect the reinsurer. Typically, the reinsurer's liability runs off sooner than a direct company's on excess share business.

Usually reinsurers have a better AIDS model than their direct company clients. Reinsurers are in touch with worldwide mortality situations, so to some extent they're sensitized to

problems in this area before the ceding companies. Reinsurers have, indeed, been concerned to see that blood testing is used at all amount levels, even at the lowest amount levels where they may not participate at all, in order to select out HIV positive and AIDS cases and also to try to select out drinking/driving type cases, cases with incipient CVR conditions, cardiovascular renal conditions, and so on. Generally speaking, reinsurers have supported the moves to lower testing amounts.

The reality is, in my opinion, that reinsurers are probably less likely than direct companies to suffer long-term adverse deviation from AIDS mortality simply because reinsurers tend to participate in the higher layers where blood testing is almost universal. However, reinsurers do have a problem with a few large amount cases that may have AIDS that went undetected or were not properly underwritten. I think the likely situation is something like the experience of one life company that I spoke to recently, a company that has a direct and a reinsurance department. The ratio of AIDS claims to total claims on the direct business was reported to be 3%. On the reinsured business it's reported to be something like 1 to 2% for most years. However, my informant did admit that there was one year when it was a little over 3%. In other words, the reinsurer's going to see much wider fluctuations in its experience than the direct company. But if the reinsurer is underwriting properly, and it's careful about those small facultative cases that come in with ambiguous information on possible HIV or AIDS, the reinsurer is going to tend to have a much lower

average ratio of AIDS claims to total claims. A reinsurer could be a good source of information and assistance to you in keeping out of the worst situations.

MR. TILLER: There's one other point on nonguaranteed elements that I would like to mention. You are aware that we are about to be faced with a new tax which may raise the cost of reinsurance. Certain reinsurance transactions will create a cost for the reinsurer at the same time that they create a deduction, to some extent, for the ceding companies. In reviewing your business in the future I suggest that you talk to your reinsurers to see how they plan to react. If there are nonguaranteed premiums in your reinsurance, there is a chance that they would be raised. If so, what would the effect be on the valuation?

A related issue is that as a company pays this tax or gets a credit for reinsurance premiums ceded, which effectively reduces the tax, a company creates deferred tax credit in one case and a deferred tax liability in the other. Should these deferred tax effects be reflected in statutory valuation? Is the asset something that would be allowable in the statutory statement? Would the future liability have to be recognized in the statutory statement? This is beyond strictly reinsurance issues, but remember that ceded reinsurance has an opposite effect to that of direct writings, and this tax could affect reinsurance premiums.

BIBLIOGRAPHY
REINSURANCE REGULATIONS

1. New York Part 127 Regulation 102 -- Reinsurance Transactions Between Licensed Life Insurers -- filed Feb. 21, 1985 and effective March 15, 1985

2. NAIC Model Regulation Life Reinsurance Agreements -- November 5, 1985

3. State of California Bulletin Number 89-3 Surplus Relief Reinsurance Contracts -- August 2, 1989 and 89-3a Supplement to Bulletin 89-3 -- November 20, 1989

4. State of Colorado Regulation 90-12 -- effective for agreements executed subsequent to December 1, 1990 for which there is no fixed termination date or which are renewable so that they shall comply with the standards of this regulation by December 1, 1992

5. Proposed NAIC Model Law on Minimum Surplus as Regards Policyholders to Assume Property or Casualty Reinsurance proposed December 1988

6. NAIC Model Act -- Limitations on Reinsurance Activities of Insurers

7. NAIC Credit for Reinsurance Model Regulation

8. New York Part 125 Regulation 20 -- especially Amendment 5 issued September 21, 1988

9. NAIC revisions to Section 29 of the Model Rehabilitation and Liquidation Act -- adopted at the June 1990 NAIC quarterly meeting

10. NAIC Model Law on Credit for Reinsurance

For further information on obtaining the above documents, contact the Society of Actuaries Seminar Department.