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REINSURING INVESTMENT PRODUCTS

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The panel will present a reinsurance actuary, a ceding company actuary, and an investment professional discussing the issues in developing a reinsurance arrangement for general account products. The panelists will discuss:

- *How treaty arrangements are best structured*
- *How crediting rates are set and monitored*
- *How the results are measured*
- *Reinsurance arrangements reflecting the differences in single premium deferred annuities (SPDAs), guaranteed investment contracts (GICs), structured settlements, universal life (UL), or individual life products.*

MR. PAUL NITSOU: I'd like to introduce our panel of speakers. Our first speaker will be Jonathan Studer. He's a graduate from Ball State University and joined Nationwide Insurance in 1982. Jonathan joined the banking division of Nationwide in 1990, designing variable and fixed annuities. More importantly, he led his company's efforts to complete an annuity reinsurance transaction. Jonathan will describe the process and the lessons learned from the experience.

Our second speaker, Alan Ryder, will focus on the issues from the reinsurer's perspective. Alan is the president of Intercedent Actuaries and Consultants. His company specializes in providing market entry advice to life companies and reinsurers in North America, Europe, and Asia. Alan's focus is on the development of strategies and new products. Prior to this position, he was president of Winterthur Reinsurance, and at that time the company was focusing on the reinsurance of annuities.

Alice Su will discuss the reinsurance of the investment risk for products other than fixed annuities. Alice graduated from the University of Iowa and has a Ph.D. in psychology and is a Fellow of the SOA. Alice is with the Reinsurance Division of Transamerica Occidental and is second vice president in charge of interest sensitive products. She also has written an article in *Best's Review* titled, "Helping Carriers Balance the Annuity Risk." Also, for the past year-and-a-half, she has provided seminars to the industry in Taiwan on annuity products and asset/liability management.

MR. JONATHAN M. STUDER: My topic is reinsurance of fixed annuities from the ceding company's viewpoint. I think one of the most important things, if you're interested in annuity reinsurance, is to determine your company's specific goals. Because reinsurance is such a flexible tool, you need to know what your company seeks to accomplish. My experience is that vague goals create problems. You need to know what you want and then look for it.

DEFINE CEDENT'S SPECIFIC GOALS

One goal may be surplus enhancement or just increasing the amount of surplus in your company. That would happen if your products have a statutory surplus strain. Another goal may be to help your rating if the rating agency might have some concerns about certain risks that you're concentrated in. Maybe there's a concentration of a particular risk that you're uncomfortable with at your company.

Reinsurance of annuity products may be used if you do not have the capacity for a specific source of distribution. Certain distribution systems may be able to produce more business than you had initially anticipated. It's also difficult to shut down the production of distribution systems. You could lose producers and their allegiance.

There are some nonfinancial reasons why you may want to consider reinsurance. You might want to tap the reinsurer's expertise in annuity pricing, risk management, or asset/liability experience. You also might attempt to leverage the reinsurer's ratings.

ISSUES TO BE ADDRESSED

But what is your company willing to give up to achieve these goals? You may have to give up investment control. You may have to give up some level of crediting rate control. You may have a lower profitability of your product after reinsurance is consummated. Are you willing to let the reinsurer manage the money? Are you willing to let a third party manage the money or the investment function? My experience indicates that every company's investment department is the best in the country.

The reinsurer wants some input into the interest crediting process, so you need to make sure that you're comfortable with that. As a product manager, I want the least amount of interference to run my business and set my crediting rate. I don't want the reinsurer telling me how to set these crediting rates, so there's a fine line. Reinsurance rarely increases your profits. Usually, you have to give up something to get the reinsurance.

Annuity reinsurance, unlike maybe other types of reinsurance, is not primarily a pricing function. It's more of a joint venture. In my experience, people have used metaphors such as a marriage of two companies, and I find that to be very helpful in setting the tone for the kind of relationship that you will have. With these kinds of products, you need to be flexible and to be able to alter your contract. In my experience, I have amended our treaty two or three times in the first few months just to deal with circumstances that come up.

Also, intangibles play a very important role. How comfortable are you with the people you're meeting from the reinsurer? What kind of perspective do they have? Is it compatible with the way you want to run the business? How about their management style? Are they primarily trying to accomplish a profitable product, or are they willing to be more long term in their viewpoint? I think in this relationship trust is very important, both the trust that the reinsurer has in the direct writing company and the trust that the direct writing company has in the reinsurer. I think you also need to explain the markets in which these annuities are being sold. It helps the reinsurer to know that you're confident in your direct writing capacity and your interest rate setting strategy.

There are three key components to fixed annuity reinsurance listed in terms of importance: investment strategy, interest crediting strategy, and profit objectives.

Most reinsurance deals happen because the investment strategies are compatible between the direct writing company and the reinsurer. This is the most important facet—where you start. If you don't have this compatibility, then there will not be a deal, and there is no use in having further discussions.

Interest crediting strategy is second in importance. It determines the spreads and spreads are the only revenue for fixed annuity products.

You need to have a common language to discuss profit objectives. There are so many different approaches to these products. There's certainly different risk and different surplus measures being used—internal formulas, formulas used by rating agencies, and risk-based capital (RBC), or a percentage thereof. Once you get a common language, most companies turn out to have similar definitions.

With regard to the investment strategy, there's five key pieces that we've shared between the direct writing company and the reinsurer. They are the sort of topics you would expect: (1) credit quality, (2) duration, (3) convexity, (4) commercial mortgage exposure, and (5) use of derivatives.

With respect to credit quality, it's important to explain to the reinsurer your investment approach and back it up with data. Give the reinsurer data for the supporting assets. Duration is usually one of the best measures of the C-3 component. There will need to be a discussion on asset duration, as well as liability duration, and how you're investing. With regard to convexity, what is your company's exposure to collateralized mortgage obligations? What is your prepayment exposure?

My company has a significant exposure in commercial mortgages. That made it difficult for many reinsurers to do business with our company, because there was not a comfort level for many reinsurers as to that exposure. Our company doesn't use derivatives at this time. If there was a plan in the future to do that, you would need to inform the reinsured.

REINSURANCE STRUCTURES

There are three basic types of rate crediting strategies: (1) target spread, (2) current market rates, or (3) some combination. It's important not only to explain your strategy, but to also explain the execution of that strategy in different interest rate environments. You may even want to look at interest rate scenarios and how your company would react to those. Historical crediting rates also can help the reinsurer evaluate how you are doing with your strategy and your execution of that strategy.

Profit objectives usually reflect a hurdle rate and a target surplus component. You just need to communicate with the reinsurer as to what your goals are and find out what the reinsurer's goals are and see if they are compatible. I have not found this to be a big problem, but there's a different language used to describe this for reinsurers and direct-writing companies.

There are three basic reinsurance structures that you can use for fixed annuities. Coinsurance is where reserves are transferred to the reinsurer and the investment is usually done at each company, so both companies are investing their position of the reserves. The second type is coinsurance with funds withheld. This method transfers the reserves, but the asset management would be either with the direct writing company, or possibly a third party. Modified coinsurance would have no reserves transferred. This has some interesting legal implications.

REINSURER SOLVENCY RISK

From the ceding company's perspective, the reinsurer's solvency is of particular importance. The reinsurer has an obligation only to the ceding company. The ceding company has the obligation to the customer. So if the reinsurer goes insolvent and the assets backing up those contracts are not available to the ceding company, the ceding company can actually go insolvent. Our company was very concerned about this risk.

Let's talk about reinsurer solvency risk management, what I call the $100 million bond. We analogize the reinsurer default to an investment default risk. Would your company buy a $100 million bond from anyone regardless of how solvent and put that risk in one company? You have this kind of concentration when you consider annuity reinsurance and the transfer of reserves. We looked at it in that context and put some provisions in our treaty to help take care of this kind of risk.

To deal with this problem, we carefully chose our reinsurer. We wanted to have a reinsurer with substantial surplus. We wanted to have a reinsurer with high ratings. Some reinsurers are not well capitalized and you want to reduce the probability of insolvency. You need to underwrite your reinsurer. We also did specific things to treaty provisions. We established a trust with Nationwide as the beneficiary. We required that the market value of the trust assets be greater than the ceded reserves. This requirement was necessary for fixed annuity reinsurance to minimize the risk of a higher interest rate environment. Also, there was a minimum quality level for the assets placed in that trust so that asset default would not become a major problem. In addition, we allowed termination of the treaty at certain rating thresholds. So if the company started to deteriorate financially, we could get to the trust assets.

LESSONS FROM MY EXPERIENCE

What are some of the lessons from my experience? In the initial search for a reinsurance partner, many reinsurers would talk to you. Some reinsurers are not comfortable with fixed annuity risks, so obviously it will be difficult to work an annuity reinsurance treaty with them if you want to transfer the risk. You can spend much time with potential partners. Discuss the key issues initially to determine whether there's potential. It's like courting or dating to find out whether there's a real possibility of a corporate marriage. I found it helpful to designate a point person because it's easy to get confused when various people from the reinsurer are talking to various people at your company.

After the partner was selected and we worked through the basic issues, we found it helpful to assemble a team of key people to draft the treaty. In our case the treaty took four months to finalize, and we had ideal conditions. There was no disagreement as to how we would approach this. The management at our company made clear its goals and how it wanted to accomplish them. Most reinsurers want some input into the crediting rate decisions, so that has become an ongoing process that I'm involved in.

It's difficult to write treaty termination provisions, and I think that you have to get some input from upper level management as to how and when it wants this relationship to terminate. Frequently guarantee fund assessments are overlooked, and you need to reflect them in your treaty.

We decided to take annuitization out of the reinsurance relationship, and instead we paid a commission to the reinsurer to make them whole. The reinsurer does not participate on annuitizations in our treaty.

The deferred acquisition cost (DAC) tax treatment now is no longer mirror treatment. It is based on a cash-flow basis. When you're doing pricing, tax treatment is not equivalent to the reinsurer compared to the direct writing company so you may have to modify your treaty.

Settlement frequency depends on the amount and timing of the actual cash flow. Sometimes quarterly is best. Our treaty settles daily; that's probably too often. You also need to have a provision to deal with the changes in reserve requirements due to solvency concerns or reserve adequacy.

MR. LARRY J. BRUNING: Are the typical recapture provisions fairly standard if you want to recapture this down the road?

MR. STUDER: I don't think they're standard. I've seen recaptures based on a market value appraisal. Our recapture formula is in the treaty, and it describes the payment our company makes to the reinsurer on recapture.

MR. BRUNING: When you said the reinsurer didn't participate in annuitization, that is maybe when it all recaptures essentially anyway.

MR. STUDER: Well, by contract, yes.

MR. ALAN K. RYDER: I don't think that you could say that there's a standard approach here. In my experience, the one that is easiest to negotiate is something which is market-value oriented because certain embedded options are usually present. I was asked to speak from the point of view of the reinsurer on the topic of reinsurance of investment products, specifically annuities. When John and I first exchanged notes, I realized that he had more or less stolen my speech, so I had to write a new one. I say that because I think John has hit on many of the important points, and he and I see eye to eye on the significance of them. There are a multiplicity of solutions, but I think I would endorse his view of the critical issues.

WHY ARE REINSURERS INTERESTED IN ANNUITY REINSURANCE?

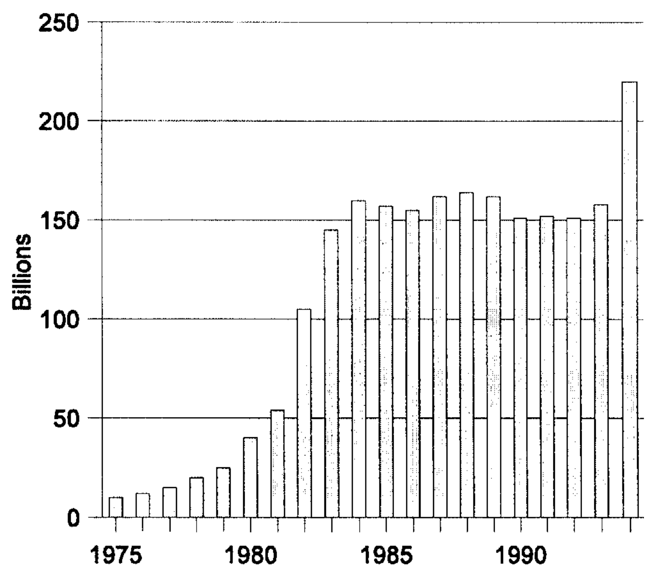
The place I'd like to start is why would reinsurers be interested in this? The first point I'd like to make is why shouldn't they be interested in this? Reinsurance has been, from the beginning of the invention of reinsurance, a mechanism for the transfer of capital from one company to another. This is just another way that can happen. Even traditional, so-called risk reinsurance, yearly renewable term (YRT) reinsurance is all about capital transfers.

The second significant reason why reinsurers might be interested is they've had about a decade of fairly stagnant production in their core business. I'll come back to that later. Another important reason is the historical development of the life insurance industry in North America. In both Canada and the U.S., the growth of the savings sector of the life insurance industry has been significant, and I also will come back to that later.

Perhaps as a result of both of these forces, for the last 10 or 15 years there's been a considerable diversification thrust within life reinsurance organizations. This is yet another market that could be looked at.

I think, not insignificantly, ten years ago or so there was a great deal of surplus relief reinsurance written on savings products. This was the method that seemed to work the best in many people's eyes, but there's been considerable regulatory attack on the surplus relief market and so alternatives have had to emerge (Chart 1).

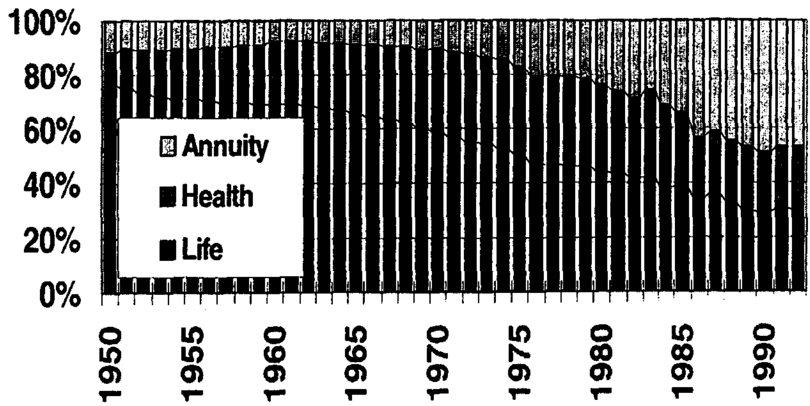
CHART 1
U.S. LIFE REINSURANCE RECURRING PRODUCTION



I said I would come back to the issue of the stagnant marketplace. If you were a reinsurer in 1983 or 1984, you thought you were in a very good business writing life reinsurance. However, subsequent to 1984, there has been very little increase in the size of the market. Chart 1 shows the recurring life reinsurance production in the U.S. It is in billions of dollars of face amount, and the graph more or less levels out at around $150 billion more than ten years ago.

Chart 2 is intended to demonstrate to you the increasing significance of the savings sector in the life insurance industry in the U.S. This is a chart of market shares. The bottom section of Chart 2 is life premium, the middle section is health, and the top section is annuity premium. It shows the steadily increasing importance of annuity premium to the life insurance industry since the early 1960s. What this chart doesn't show is the increasing concentration of savings dollars embedded in the life insurance business as well.

CHART 2
DEVELOPMENT OF MARKET SHARES IN U.S. LIFE INSURANCE INDUSTRY



REINSURANCE ALTERNATIVES
John touched on the various ways that you can go about reinsuring this business. The first that I wanted to discuss very briefly is surplus relief, which takes on a whole bunch of different forms, but frequently we've done them with combinations of coinsurance and modified coinsurance. This particular form of reinsurance resulted in very little cash transferred, except for fees, and rather minimal risk transfer. The second basic alternative is modified coinsurance with funds withheld—leave the funds with the ceding company. But I would argue that for investment products you haven't achieved much if, in fact, you've done that.

I think there are certain places for this. I think the discussion that we're having focuses mainly on coinsurance; that is, where the assets are actually transferred from the ceding company to the reinsurer. It can take on two basic flavors. The first is that you identify a block of business that is somehow problematic. It is absorbing too much capital or creating some other financial problem and you reinsure it. I will refer to that as the reinsurance of closed blocks. The other possibility is open blocks or ongoing new business. I will come back to those issues later because there is some complexity in the decision as to which one you might prefer as a reinsurer.

CHALLENGES FOR THE REINSURER
The reinsurer faces a number of challenges in doing this. The first is, quite clearly, meeting the direct writer's needs. John has given us an inventory of what those needs are, so I will not go through them again. It is important for the reinsurer to pay attention and to

listen during the process. I think a key thing here is the issue of control. The ceding company typically wishes to retain as much control as possible, and that is usually where there is a significant amount of discussion. The next issue is clearly to address the direct writer's concerns. I personally think the most significant concern is the one that John spent some time on, and that is reinsurer insolvency. Significant amounts of money flow to the reinsurer, and I think it is important for the ceding company to become comfortable that the insolvency risk is addressed.

I personally feel the way that annuity coinsurance works best is when you forge a partnership. I think it's quite important to work at this together. John and I see eye-to-eye on that one. He has described this as like getting married and so would I. You have to think of it as having the same set of complexities.

Another problem is that this is uncharted territory. It is uncharted for the reinsurer. The coinsurance of these types of products is an invention of recent times, I would say, and there is no real history on how to do this. It's also uncharted territory for the ceding company and, most importantly, you could be talking about a long-term relationship here. I will mention later how I think annuity coinsurance requires you to commit to active management for a long period of time.

One significant factor for the reinsurer is that the competition comes from what I would call amateurs. I will define an amateur as somebody who does not routinely take on risk from other companies for a living. This is a market that amateurs do play in. In my experience, there's a tendency for them to underestimate the risks and complexities associated with the transaction.

FUND MANAGEMENT

A key issue is how to manage the money. There are four ways you can do it: (1) the direct writer manages all the money, (2) the reinsurer manages all the money, (3) you both go your own way, or (4) you both figure out how to work together through some sort of independent third party. Each of these has pros and cons.

Certainly the direct writer would prefer to manage all the money. That's an issue of control and an issue of having the investments conform to the culture of the company, the culture of the marketing program that is underlying, and so on. This works well for small blocks. It works well when the reinsurer is very comfortable with the process, including the expertise of the ceding company. But, in general, it's something that reinsurers would not be comfortable doing.

The second possibility that the reinsurer manages all the money, is the mirror image of the first. This certainly will be the preference of the reinsurer. This works well when the block is substantially reinsured and when the direct writer, perhaps lacking in some expertise, has developed some confidence that the reinsurer is more knowledgeable than they are.

The independent approach has a significant danger. Unless you are very careful, you can get divergent results. Divergent results threaten the successful long-term management of the business. To me, the ideal solution is that both parties sit down and select a third party, independent advisor. This means that the investment management function is owned by neither party. However, in my experience this is also a difficult point of negotiation and difficult to get to.

ELEMENTS OF A GOOD DEAL

From a reinsurer's point of view, what does a good deal look like? I think it starts with a good partnership. A good partnership has an adequate amount of resources, which I've identified as capital, expertise, and credibility. Importantly, there must be a compatibility between the partners as well. The reinsurer has to recognize that a shortage of some of these resources is potentially the reason for the reinsurance program being sought in the first place. That is, a ceding company may come to a reinsurer and say, "I'm short on capital. I'd like to reinsure." This way the reinsurer can't expect necessarily that all of the resources will always be in place within the ceding company.

The reinsurer will certainly be looking at these items in its due diligence process. It will want to know what the cedent has been up to, how it has been using its capital, what the rest of the company looks like, and so on before it will be comfortable that it has a good partner. John has identified some of the issues in partner selection from the ceding company's point of view.

I cannot overemphasize the issue of compatibility. You are entering into a long-term, working relationship, and both parties have to feel that in the long run, there is a significant potential to work successfully together.

I think the next set of issues are that both parties are relatively flexible. This goes back to an issue of control. I think it starts with both parties being motivated. As a reinsurer, I saw a number of companies that were not sufficiently motivated to be flexible to engineer a reinsurance transaction. That is, they wanted control over all aspects of the deal and weren't prepared to recognize that the reinsurer needs to exercise some control in order to feel comfortable with its risk and exposure. On the other hand, I think reinsurers can get caught up in trying to pigeonhole a particular deal into a framework of other deals that they have done. I think both parties have to come to the table motivated to discuss the transaction. They have to have a very good understanding of each other. That is, much communication and many discussions of business principles and practices and histories in other lines of business needs to take place. There has to be a willingness to work together.

The key issue according to John, and I agree completely, is you require a compatible investment philosophy. It's hard to know in advance what that might look like, but if you consider your investment philosophy and your business partner's investment philosophy, it will be a subset of both of those. It will be where matters overlap. You will not be very successful if you want to invest in commercial mortgages and your partner wants to invest only in government bonds. This is where, in my experience, the discussions break down, and this is where the discussions ought to start.

An obvious element is sound product design. John pointed out that the presence of reinsurance will, in fact, increase costs to the total program. Both parties have to understand that and recognize that. In addition, both parties have to be comfortable philosophically with the product design. This is another area where I have seen discussions break down quite quickly.

A key ingredient is what I'd call parallel profitability. I think it's very important for this to be structured as a win/win or lose/lose deal. If you have a long-term deal where one party is winning and the other party is losing, then it will be very difficult for the two parties to continually reach agreement on how to manage the business. I mentioned earlier that there is a danger of divergent investment results. This is where it arises. If your portfolio is earning 20 basis points less than your partner's portfolio, for example, it can create a great deal of friction in terms of rate setting.

One aspect which is important, and I would say maybe it makes the list of critical items, is the cash flow. A block of business, when split in half between a reinsurer and a direct writer, might become uneconomical; and both the reinsurer and the ceding company should pay attention to what this is doing to their cash flows to enter into such a reinsurance arrangement.

There are a couple of fundamental decisions the reinsurer has to make to determine what kind of business it might prefer to write or how it would treat certain businesses. The first, which I mentioned earlier, is closed blocks versus open blocks. There are a whole slew of issues that arise here. A closed block has a clearer financial impact on both companies. You have an identifiable set of assets and liabilities that you're dealing with. It is, in that sense, easier to manage because there is not any incoming cash flow associated with the new business. It is, however, much harder to negotiate.

The reinsurance of a closed block of business involves either the sale of assets by the ceding company or the transfer of assets by the ceding company to the reinsurer. Which assets to sell or which assets to exchange becomes a tricky part of the negotiating process. I think there are a bunch of complex accounting and investment issues which arise. In particular, you should recognize that reinsurance of a closed block of business will be done on a market-value basis. However your assets and liabilities are held on a book-value basis. Well, if market and book are quite far apart, I think you can get some interesting distortions which could affect or nix the transaction completely.

You will see that I have put embedded decisions as an issue. A closed block of business has a set of decisions from the past that are embedded in it already. New business does not. So I would argue that it is somewhat more difficult for a reinsurer to become completely comfortable with a closed block of business than it might with an open block. In fact, I had more experience successfully negotiating deals that were open block-type deals.

Another issue of preference is whether you would like single, annual, or flex premium business. Single premium business is generally easier to deal with. Flex premium introduces a number of other complexities, from the reinsurer's point of view. However, flex, especially annual premium business, gives you an interesting opportunity to budget your cash flow and your capital requirements that you do not necessarily get from single premium business.

REGULATORY ISSUES

There are a number of regulatory issues to consider. The first is the NAIC's model regulation on risk transfer. I believe that if you enter into what I will call a conventional coinsurance deal, you do not have to pay much attention to this. If you want to start fiddling with that deal so as to change it from pure coinsurance into something else, you have to pay attention here.

A second point to note is that RBC rules do not treat reinsurance the same way they treat holding assets. John has referred to this as a $100 million bond. I will come back to that issue in just a moment, but you will end up with different RBC requirements if you have $100 million of bonds versus $100 million of a reinsurance receivable.

An important issue is the issue of control over rate setting. Regulators, in my experience, have taken the position that direct writers set rates and reinsurers don't get to participate in that process. I think that is somewhat problematic. I, for one, have difficulty seeing a reinsurer being very happy in a deal where it is not involved in the process of setting rates somehow.

Finally, there is the issue of insolvency. There is a significant concentration of risk issue, which John alluded to and for which he described solutions. There is the issue of the direct company's insolvency. I do not see that as particularly problematic for the reinsurer, especially if you have been writing single premium business. Reinsurers worry about offset at that moment in time. On the insolvency of the ceding company, the reinsurer is owed very little.

ONGOING MANAGEMENT ISSUES

This is a business that I have said requires a significant amount of ongoing management. A key thing that we have already belabored, I think, is that you have to agree on an investment philosophy. In addition, you have to have a mechanism for working out credited rates. I see that in two parts—one is the method and the second is how you set rates day-to-day within the method. They are two distinct things. I think you can have a reinsurance arrangement where the reinsurer is actually not involved in all of the day-to-day decisions as to setting rates, but I think the reinsurer has to be involved in the discussion of methodology.

Another significant issue, is product changes. In this particular marketplace, you see rather dynamic products which change from month to month, and you have to focus on issues like repricing, new features, special marketing programs, and even including temporary or permanent changes to profitability objectives. You have to get together on asset/liability management—how will you do that and who will do what? There is the potential for some operational savings if people are comfortable with one party doing that work on behalf of both parties.

Finally, there is the issue of relationship management. Frequently it is useful to have a marriage counselor present. There are issues of style and trust, and ongoing communication is essential. I would recommend you go out on a date once in a while and remember that divorce is very messy.

INVESTMENT ISSUES

Moving on to some investment issues. I think the key thing you have to do, aside from getting your investment philosophy straight, is to coordinate your activities. You have to have a good understanding of what risks you are prepared to take on a day-to-day basis. Most investment policy documents that I have seen do not give you so much day-to-day guidance. They establish the shape of the playing field and that's all. It may be important to even go further and establish the game plan; that is, how one would conduct one's self day-to-day. You have to identify what the constraints are, what goals you are trying to meet in your investments, and so on.

Communication is the key here. Once you have in place a good investment philosophy, something that you're both comfortable with, I think it is useful for both parties to fully and completely disclose, in a timely fashion, what they are up to. Whether that is weekly, monthly, or quarterly depends on the circumstances. Another issue to pay some attention to is the availability of funds for investment. I think what you need to try to construct here is something where both companies are working very much in parallel and having very similar results. John said that Nationwide transfers cash daily. I think that's the kind of thing that works. If that's not economical, then transfer it weekly. If that's not economical, do it less frequently than that; but the reinsurer needs the money when you have the money.

CRITICAL SUCCESS FACTORS

I would like to close with a list of items that I consider to be critical to the success of such a program. This is a bit of a summary. The first is good partner selection. The capabilities need to be present between the two partners, and there has to be a set of compatibilities. I think you have to work with what I will call a full partnership approach. John has called this a joint venture-type approach. That takes the form of quota share coinsurance, some form for making key decisions jointly, and a framework for delegation by the reinsurer.

You have to identify what the constraints are and learn to live within them. There are a number of them. Capital planning and investment philosophy are a couple which quickly come to mind. Finally, you need to have a way of working this thing each day. It starts with communication and compatibility. You have to identify what the key statistics are that tell you how well you are doing. You have to remember that you will live with this arrangement for a long time, so you better find a way to do that.

MR. BRANDT T. BROCK: With regard to Chart 2, which showed increasing annuity reinsurance, what is the major component of that? Is it guaranteed minimum death benefit (GMDB) reinsurance or this kind of fixed annuity reinsurance, or something else?

MR. RYDER: Chart 2 was not annuity reinsurance. It was the marketshare of direct written annuities premium.

MR. BROCK: Then I was also wondering. Is it a buyer's market or a seller's market? I'd like each of the panel members to answer that.

MR. RYDER: My answer is that I think it is a difficult market. There are so many hurdles to getting a good deal put in place that it is not clear to me who is advantaged. John said that he has had discussions with many reinsurers, but many of them cannot get comfortable with the risks. I think you can have discussions with reinsurers that can get comfortable with the risks, but they are not comfortable with the way you are managing them. It is not a market, in my opinion, where you can send out tenders and ask reinsurers to bid and get back five bids. It just does not work that way.

MR. STUDER: I guess I would just say some of the same things as Alan. From my perspective, it isn't a buyer's or a seller's market if you're trying to get into a joint venture with somebody. Finding someone who has the right fit is a difficult task to begin with. If you want to surrender much of the control, you'll probably find that there are many reinsurers who will do that for you. If you want to keep all the control, you'll find there's no market for that. It's hard to describe the market very carefully.

MS. ALICE W. SU: I have two comments to make. The first one is whether there has been an increase in the reinsurance activity level for investment products. Based on our experience, we would say the answer is yes. In recent years, many annuity writers have ventured into alternative distribution systems, such as bank distribution, broker distribution or stock broker distribution. Many companies feel more comfortable bringing in a reinsurance partner to get into the venture together for risk diversification purposes.

The second comment is whether it's a buyer's or a seller's market. I agree with the previous two speakers. This is a long-term, joint venture project, so it takes a win/win situation for the deal to work. We would encourage the ceding company to sit down with the reinsurer to explain what the financial objectives, needs, and risk considerations are in order for the two sides to structure a deal that represents a win/win situation for both.

MR. NITSOU: It is a market that, in many ways, needs to be created. I think both the direct companies and the reinsurers need to develop their methodology and improve on them, and then one may say that there is a market in place. Now, a select number of reinsurers are in the market. Others are sort of developing their expertise. Similarly, certain direct companies feel comfortable with the transactions at this time, but, again, there will be new players. It is a market that needs to be built and to build on it for the interests of both the reinsurers and the direct companies.

MS. SU: Both Jonathan and Alan did a great job in discussing the reinsurance issues for fixed annuities. Now I would like to share with you the reinsurance activities and issues in the area of investment products other than fixed annuities. One thing Jonathan said that touched my heart is that a reinsurance arrangement can be a very flexible arrangement.

Whenever there is a risk, it presents an opportunity for the ceding company to work with a reinsurer to develop a reinsurance arrangement that can serve as an alternative risk management tool to strengthen the ceding company's position to compete in the marketplace. Therefore, if you have not worked with a reinsurer in the investment product area, you may be surprised to see how flexible the reinsurer can be.

First of all, let's look at four products other than fixed annuities that are being reinsured in the marketplace. Besides fixed annuities, the interest sensitive life product, or UL product, is probably the most commonly reinsured product. I understand that the primary purpose of this session is to discuss reinsurance for general fund products, but both variable life and variable annuity products are perhaps the fastest growing products in the industry. I would like to share some comments on reinsurance for the latter two products.

While the majority of the annuity writers are still focusing on the accumulation phase of the product, we are seeing some energy being channeled to the payout phase of the product. As a result, there has been some reinsurance activity in that area, and that's also something I would like to review. Also, we have seen other products, for example, the terminal funding group annuity product. Even though I will not get into reinsurance of the GIC product, some issues discussed will have some application to the GIC product field.

REINSURANCE OF INTEREST SENSITIVE/UL PRODUCTS
For ceding companies that appreciate the use of reinsurance, we always like to start by talking about the benefits reinsurance can provide. Earlier, both speakers mentioned surplus. For example, John mentioned the situation where a direct company wishes to use an alternative distribution system, but the company doesn't totally feel comfortable with the risk element, or doesn't want to allocate capital. Reinsurance allows the ceding company to maximize its potential growth without being subjected to surplus constraints.

Risk diversification is another reason to use reinsurance. For example, a ceding company may wish to get into the payroll deduction UL product market, but, again, for risk diversification purposes it may wish to bring in a reinsurer to share a portion of the capital investment and to bring other risk management expertise to the table.

One thing that you may have heard in the reinsurance market is that many ceding companies wish access to a reinsurer's product expertise or product development expertise. A ceding company may currently not have the right UL product or may not even have its own UL product to sell in the market. If you can get a qualified reinsurer with the capabilities to help you put a product on the street within a three- to six-month period, that's going to be a win/win situation for both parties. The beautiful part about getting a reinsurer involved as opposed to getting an outside consultant to do the job is the reinsurer will be there sharing the risk with you. In the product development process, your partner will be on the risk too. Some companies may wish to bring in a reinsurance partner that may have a higher risk tolerance level to provide some leverage to profitability. For example, the reinsurer may have a higher mortality risk tolerance level or a slightly different profit objective. With those put together, there can be benefits to the ceding company as well.

One other reason for companies to reinsure interest sensitive UL products is for business outsourcing. We may see some annuity writers acquiring blocks of business that included some UL products which the buyer doesn't have the internal expertise or infrastructure to handle. The reinsurance partner will be able to help and take care of the whole business including administration, risk sharing, and so on. Those are the very common reasons or benefits a reinsurance arrangement can bring a ceding company.

Earlier, both Alan and John discussed in detail the importance of the investment management issues, as well as the crediting rate issues. When it comes to the interest sensitive life product, these are still very important issues; but there are other perhaps equally or even more important issues that need to be addressed in a reinsurance arrangement.

If you're talking to annuity writers, soon people will tell you the disintermediation risk is the biggest risk facing fixed annuity writers. A related issue, of course, is surplus management. How much surplus do you need to enable you to take the risk? Let's look at the role disintermediation risk plays in the UL product area.

In my opinion, the disintermediation risk does not play as important a role for a UL product. First of all, UL products are being purchased primarily for mortality protection reasons, and also the renewal commissions and the persistency bonuses which are quite common help the persistency of the business. Also, typically a UL product has a much longer surrender charge period. In general, the UL product writers are not as concerned about disintermediation risk as annuity writers.

As a result, if you look at interest crediting rates, they do not respond to market rates as closely as fixed annuities. Chart 3 shows that if you look very closely at the profit component for both UL products and fixed annuities, you will see that the investment spread accounts for a much smaller portion of the total profit for UL.

CHART 3
INTEREST RATE RESPONSIVENESS

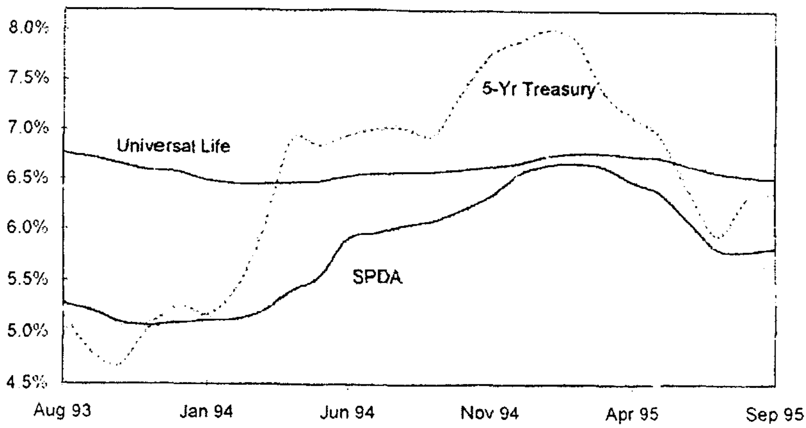


Chart 3 shows the average industry crediting rate for UL and for fixed annuities over the past two-year period. The dotted line is the five-year treasury rates for the same two-year period. If you look at the fixed annuities, you will see the interest rates credited in the industry follow closely to the five-year treasury rates. Even though it's not a perfectly positive correlation, they trend in the same way. Whereas if you were to look at the UL product, you'll see the credited rates remain relatively flat and so they are not as responsive to market rates as fixed annuities.

In Table 1, we will look at the profit components for the two products. First of all, with the fixed annuity product, almost all of the profits come from the investment spread. So investment spread management is the most overwhelming, important element in fixed annuity business management. Whereas, for a typical UL product, the mortality or the differential between the cost of insurance (COI) and the actual mortality assumption is a primary profit contributor and the investment spread contributes to a portion of the profitability. That will not totally wipe out your profit in the UL situation.

Because of the difference shown in Table 1 and Chart 3, there are different implications for UL reinsurance arrangement. When it comes to the investment policy issue and the rate-crediting issue, the issues are generally handled similarly to fixed annuities. But because of the lower profit sensitivity of the interest rate risk, you may find that there is much more flexibility in the UL reinsurance negotiations. For example, the treaty may allow the ceding company a longer period of time to bring the spread to the targeted spread level.

TABLE 1
SOURCES OF PROFIT
PERCENTAGE OF PREMIUM
SPDA VERSUS UL

	SPDA	UL
Investment	7.67%	5.75%
Mortality	0.00	14.53
Expense	(7.11)	(27.23)
Surrender	0.48	9.39
Reserve adjustment	1.16	3.94
Book profit before FIT	2.20%	6.38%

What are the main challenges of interest sensitive life coinsurance? You may hear your reinsurers say that for investment efficiency reasons they would like the annual reinsurance premiums to be at least $50 million. We would like the annual reinsurance premiums to be at least $50 million in order to create an efficient asset portfolio. However, that will not be the case for interest sensitive life products, especially for new business. The asset build-up will be relatively small. Therefore, for risk transfer purposes or for asset segregation purposes, this will create a bigger challenge. It doesn't mean that it cannot be worked out, but psychologically when two sides are working together, the two sides need to be both flexible and open to alternative arrangements.

In many cases, the ceding company may not have been segregating the assets supporting the UL products. If we are talking about an in-force block of business, this may present a challenge for the negotiations. Also, as Alan and John both have commented, in the due diligence process the reinsurer oftentimes would want to see historically what you have done to manage the block of business to get a sense of comfort about the company's management strategy. For companies that historically have not been managing the spread, that may present a challenge for the deal.

The last item is not a technical issue but a negotiation issue. From a reinsurer's standpoint, in talking with the ceding company, the actuaries on the life side are not very used to the coinsurance concept. In this case, it helps to get a reinsurer who is experienced in the field to anticipate issues, to proactively bring up the issues, and to address the issues.

VARIABLE LIFE AND ANNUITY REINSURANCE

Variable life products and annuities. Why are people reinsuring these products? The first question that comes to mind is probably, particularly when it comes to the variable annuity products, there is not a very high first-year strain. Of course, the situation for variable life would be slightly different. In addition to surplus management, cash strain management is also a reason for variable annuity reinsurance. For each thousand dollars of premium you bring in, even though you only set up a commissioner's annuity reserve valuation method (CARVM) reserve perhaps of $900 or whatever, you immediately need $20 to transfer into the neutral fund subaccounts. On top of that, you need to pay commissions of 7%, 8%, or whatever percent, plus other set-up expenses. By the time you're all done, you need perhaps $100 to put $1,000 of premiums on your books. So for companies which are not cash rich, this may present a challenge. Annuity reinsurance becomes a way to solve that business issue. Of course, there will be mortality risk transfer and a persistency risk transfer.

Again, that goes back to what we were saying about the alternative distribution systems. Everybody is very concerned about higher lapse associated with the business to be generated from the stock brokers' or financial institutions' distribution market. That provides an incentive for writers to get a risk-sharing partner as an overall business risk management tool.

One special thing about variable life and variable annuity products is the separate account. Therefore, assets may not be transferred to your reinsurer. Assets that remain are in the separate account. Therefore, the only way to do this would be to do a mod-co reinsurance deal where the assets will remain in the ceding company's separate account.

The biggest risk associated with immediate variable annuities is the longevity risk. The reason the longevity risk presents a special challenge or concern to the writer in a variable annuity situation is because this longevity risk can be compounded by the market risk that's associated with the business. Typically the way a variable immediate annuity works is the initial monthly benefit would be calculated or determined by the insurance company using a benchmark interest rate selected by the policyholder.

The insurance company may tell the policyholder, "We have three alternative benchmark interest rates. For example, we have a rate of 3.5%, 5%, or 7%." To the extent the actual underlying subaccounts yield more than a 3.5% bench mark rate, your monthly income will be adjusted up accordingly. That's how the typical variable immediate annuity works.

Just imagine if you have a policyholder or a contractholder who selected to have the initial monthly benefit calculated at 3.5%. The longevity risk provides additional reserves that you need to set up. Let's say your pricing assumption is 10%, but there will be times that the yield can be as high as 20% or 30% or whatever. Because of that fluctuation, the lower the initial benchmark rate is, the more back-end loaded the benefits could be. That presents a risk concern for many immediate variable annuity writers. Also, as a result of that, there could be accounting earnings or statutory earnings fluctuations more than what the ceding company wishes to deal with.

This is the reason that some variable annuity writers are talking to the reinsurers about a possible reinsurance mechanism to help manage the accounting risk or statutory earnings fluctuations, or perhaps to provide some kind of stop-loss coverage to protect the ceding company against pricing losses.

TERMINAL FUNDING REINSURANCE

Finally, we are seeing activities in the terminal funding reinsurance area. For those individuals who are not totally familiar with the terminal funding arrangement, this is typically a group annuity contract issued by an insurance company to a defined benefit pension plan sponsor to take over the benefit obligations in a plan termination situation. The plan sponsor would pay the insurance company a lump sum premium for the insurance company to take over both the deferred benefit and the immediate benefit obligations.

Alan mentioned something about it, so this is an in-force block of business typically involving a very high volume of assets. So some of the points Alan mentioned previously will apply to this situation. For example, whether this will be a cash transaction, or whether this will be an asset transfer transaction, then there may be some assets which present a challenge to the reinsurer. If it's a cash transaction, the premium will help the ceding company accomplish the profit objective. Those are the considerations.

Also, between the two parties, one will take a reserve credit and the other will set up additional reserves. So to the extent that the valuation reserve interest rates are lower than the pricing interest rate, there will be a significant amount of surplus strain to the reinsurer; and there will be a capital cost associated with that.

On the tax side, to the extent that the tax valuation interest rates are higher than the statutory valuation interest rates used by the ceding company, there will be an initial tax strain to the reinsurer. Again, there will be a cost associated with that. So those are the issues which will need to be dealt with in the negotiation process before the two sides can finally agree on a price and all the other terms for the reinsurance agreement.