RECORD, Volume 27, No. 3*

New Orleans Annual Meeting
October 21-24, 2001

Session 50PD
New Developments In The Optional Federal Charter and Offshore Reinsurance

Track: Reinsurance

Moderator: JEFFREY STANTON KATZ
Panelists: EDWARD BETTETO
MONICA HAINER

Summary: Two experts in the reinsurance world discuss new developments in two topical but somewhat unrelated areas: the optional federal charter and offshore reinsurance.

MR. JEFFREY STANTON KATZ: Monica Hainer is president and chief executive officer of London Life Reinsurance Company. Monica graduated from the University of Waterloo with an Honors degree in math in 1975 and quickly became a Fellow of the Society of Actuaries. She joined the London Life Insurance Company in 1988 and worked to establish the London Reinsurance Group within London Life. In 1995, Monica moved to Blue Bell, Pennsylvania to head up the U.S. subsidiary of the group. Her professional activities include work on the Reinsurance Section Council. She served a term as Chair of our Section. She was appointed to the Board of Directors of the American Council of Life Insurers in 1999.

MS. MONICA HAINER: I've been asked to talk to you about the Optional Federal Charter. It's an awesome task, because I'm trying to synthesize thousands of man-hours of work into just a few minutes of speech. I'm not going to do very much of it justice, but what we've chosen to do is focus on the reinsurance aspect of the Optional Federal Charter.

I'm going to start with a bit of a history like what brought us to the Optional Federal Charter. This is not the first time that an Optional Federal Charter has been

*Copyright © 2002, Society of Actuaries

Note: The chart(s) referred to in the text can be found at the end of the manuscript.

discussed. It had serious consideration and several previous histories. I'm just going to talk about this round.

In 1999, the American Council of Life Insurers (ACLI) undertook a comprehensive study of state insurance regulations. While this was going on, the Gramm-Leach-Bliley Act (GLBA) was passed by Congress, which increased the likelihood of competition in the reinsurance marketplace and from forces outside of the insurance marketplace.

Looking at what was going on, the ACLI Board of Directors ordered that two tracks to regulatory reform be explored. Track one was to continue to work with the NAIC to improve state regulations. And track two was to explore an Optional Federal Charter. This entire process became known as the REM, the Regulatory Efficiency and Modernization project. I'm not going to talk at all about track one, the state regulation and what's been happening on that side, although there has been a tremendous amount of work done and some successes primarily in terms of agency licensing. So, that's another area that you may want to read a little more on.

In 2000, the ACLI Board of Directors actually moved one step forward on the federal charter and asked for Optional Federal Charter legislation to be drafted. This was so they could take a look at what it would actually look like and how it would work.

The NAIC responded in 2000 to the ACLI initiative on the state side by devising its own agenda of regulatory reform. In the meantime, GLBA was of course unfolding. All of you are probably aware of the privacy regulations that became very hot news in 2000 and the consolidation and competition that was going on as life moved forward.

In 2001, the ACLI Board of Directors ordered that the draft Optional Federal Charter be released to member companies and also interested parties. This was to allow for a fuller discussion and feedback from the various constituents. The ACLI undertook a grueling schedule of meeting with member companies, various people within the member companies, CEOs, lawyers, and compliance people to get feedback on the charter draft. They also met with other insurance trade groups, consumer groups, Congress, and the executive branch that would present the bill, talk about it, and see what feedback would come.

The ACLI Board in 2001 moved to affirmatively support the draft, but it did stop short of asking it to be moved toward legislative action. So that is a quick encapsulation of the history. I'm going to go back to the REM report for a minute. That report contained a survey of all the member companies of the ACLI, various tiers within the member companies. The survey asked: What are your issues with your regulatory system? What problems do you have? Where do they arise, and can you prioritize them?" That study took quite a bit of time. Once it was put together, the main complaint that came back was the lack of flexibility that the insurance

industry had under the 50-state regulation. The life insurance companies felt that they were competing with other entities that were federally regulated and actually had regulators who were not only regulating, but actually advocating laws and rules to help encourage and enhance their competitiveness. So these were listed by the insurance industry as primary issues.

Reinsurance was on the list of issues, but it was way down on the list of issues from the insurance industry. Our committee within the ACLI speculated that the reason for that was because reinsurance had really always performed. Reinsurance had never really given insurance companies a lot of grief. Therefore, it wasn't one of their issues to be concerned with.

On the reinsurance side though, one of our issues with the current regulatory system was that we were competing against non-insurance entities that were selling us some of the same risk transfer products that functioned very much like our products and yet were not subject to the same capital and regulatory burden. The market demand for non-proportional, non-traditional reinsurance, which the state-based regulatory framework really doesn't acknowledge, continues to grow, so there are things developing on the reinsurance side too.

The life reinsurers were feeling that they were directly competing against foreign reinsurers, and the foreign reinsurers' regulatory jurisdictions and regimes were less burdensome than in the United States. The international scope of our whole industry was listed as an issue that wasn't well addressed by the state system.

So now we're into the stage where the ACLI is asking for the draft of the Optional Federal Charter to be developed. Basically the recommendation or the guidance that was given to all the various groups that were working on drafting, was look at the state regulation as it exists right now, pick the best practices, and pull that together as the new legislation.

Within the reinsurance committee of the ACLI we asked ourselves, "If we had a blank piece of paper, what would we want to see if we were drafting an Optional Federal Charter for reinsurance?" A blank piece of paper is very awesome when you're staring at it. So we pulled together a group of people that we thought would represent the industry and have the background and knowledge to start filling up this piece of paper. I'd like to acknowledge that team, because they spent many long hours working very hard for us. This is no particular order: Jim Sherman at RGA; Pat Kelleher at TransAmerica Occidental; Margaret Asperger at Lincoln; Mike Pado at Axa, and Tom Conroy at ING, who is now in private practice in the South.

So these people got together to fill in the blank sheet of paper. The first thing they did was come up with some principles that were going to help guide us in terms of what we were going to draft. After much consideration, there were four principles. Uniformity was considered key. We wanted to foster best practices and predictability for ceding companies and reinsurers. We felt that was key to the

success of the new legislation.

We wanted to allow responsiveness to customer needs for the sophisticated risk transfer mechanisms that are very available in our market and are developing more and more. We wanted to provide a level playing field among the financial entities. This is a term that we used time and time again, which we spend a lot of time talking about. We talked about functionally equivalent products. What we meant by that was products that might have different names, might be sold by a bank, might be sold by an insurance company, but are functionally equivalent. They work the same. They have the same effect. They have the same impact on the ceding company. The idea of functionally equivalent products and maintaining that thought became an important one to us as we were developing the legislation. We are also very interested in preserving and supporting the international scope of the reinsurance business. So with these principles in mind, we started to fill in that blank piece of paper for the reinsurance industry.

Now to the Optional Federal Charter and a few of its general provisions. The Optional Federal Charter is specifically designed for the life insurance industry. It does not deal with health or property and casualty (P&C). It's drafted in such a way that these other disciplines could be brought into the legislation, but there was no attempt by the ACLI to do that, since these were not the organizations they represented.

The Optional Federal Charter is actually two pieces of legislation that are totally integrated and cannot be separated. One is known as the NIA, the National Insurer Act, and it's about 167 pages, although this is a moving target. It changes with each draft. And the other is the NISA, which is the National Insurers Solvency Act, and that's a little bit shorter, but almost the same length. It was decided to write it as two companion bills so that no poor Senator would end up with 300 and some odd pages in a pile on his desk. He would have two piles of 150 pages each. The reinsurance regulation, if you're interested in finding it, is entitled 3E of the NIA and that's where most of the thinking of our group is synthesized. So the NIA in its general form, which I'm not going to talk about very much, establishes the Office of National Insurers and a Director in the U.S. Treasury. Of course it was a big debate, deciding whether to have one person or a panel of people as the officials. It was decided that one person should lead the office. After much consideration and talking to all these other industries, it was decided that this would be the best. It does not repeal or amend the McCarran-Ferguson Act, it just gives these responsibilities and authorities to the federal regulator.

It provides funding for a new agency and the new agency is funded on assessment of the national insurers that choose to be licensed under it. It definitely continues to maintain both the state and federal taxation schemes. Most of the key parts of the legislation were drafted using best practices from the various current state regulations, and the idea was to give the new regulator a five-year transition period, where the current accounting, risk-based capital, valuation, non-forfeiture

rules, all of those rules that we know and love, were kept intact. Over that five-year period, they could be reviewed and suitable modifications could be made as necessary.

Obviously, the legislation provides for extensive consumer protections, similar to those in state law. It was very important to maintain the consumer as the key person to everything that was done here. It provides for a single guarantee mechanism in the event of insolvency, effectively making the federal government the extra state in the State Guarantee Association. This was felt to be very important to keep the transition, to keep things moving smoothly, and to not create disconnects between the state system and the Optional Federal Charter.

I want to spend a little more time on the reinsurance section. We're saying that all federally regulated insurers, all the national insurers by which they're named, are authorized to transact reinsurance business. That will just be an automatic right of a national insurer. There could also be a reinsurance-only license for someone who would like to apply for that. So if you don't want to become a direct insurer, you could just be a reinsurer. State-chartered licensures and insurers chartered in foreign jurisdictions could all apply to be licensed as federally qualified reinsurers, if they so desired.

One of the important aspects, of course, was risk transfer. We reviewed the risk transfer regs in the state laws of course, and the NAIC models and so on, and we definitely transitioned some of that in, in that we allowed federally regulated reinsurers to accept all risk: mortality, morbidity, lapse, credit, investment timing, expense from state or federally regulated insurers, or other foreign reinsurers. The risk could be taken on either a proportional or non-proportional basis. We tried to keep it wide open, so that a company licensed as a federal reinsurer had broad authority to do business.

With risk transfer requirements, none of the prescriptive rules that occur in the NAIC right now are flowing through to the current draft of the federal regulations.

Regarding credit for reinsurance, we all thought that model was pretty good in its existing form, and that was moved over consistent with the current regulations. So the new legislation would require the federal regulator to adopt regulations permitting ceding companies to take credit for ceding business. The idea was that credit could be secured by the licensing, the funds withheld, the letters of credit, the trust, the cash, the things that we're used to.

Also, if a state company ceded business to a federal reinsurer, the state company would get credit for having ceded to a licensed entity. That was a very important part of the drafting for us also.

For reinsurance contracts we carried some of those rules through, like the writing of the agreement in 90 days after the Letter of Intent. The entire agreement clause

should be carried into agreements, and that non-U.S. Insurers would have to submit to the jurisdiction of U.S. Courts when they were reinsuring U.S. risks. So some of that is familiar to you, and we just moved that over.

This provision on the level playing field was a little difficult to draft and caused a bit of debate as the draft was being exposed, but it continues to exist in the current draft, so we're very happy about that. Basically, we're continuing to say that functionally equivalent risk transfer products sold by any financial entity are regulated equally. Whether a bank or a reinsurer sells it, there will be consistent treatment, consistent capital requirements, and consistent rules applied. In the draft, we were permitting some federally regulated reinsurers to use the reserving rules of the country where the reinsured risk originates. This probably created the most discussion of anything we put into the draft with whatever recognition of the actual risk they're taking on. This was intended to ensure that the international flavor of the insurance would be continued and kept open for all of us.

in our draft, we recommended that the federal regulator promote the adoption of international accounting standards for reinsurance to level the international playing field. The federal regulator would work with the United States trade representative to do an international mutual recognition of laws and regulations around the world. So that's the NIA in a capsule—167 pages in three minutes or less.

The other part is the insolvency piece. If anything, we spent more time on this piece than the other. The problem was that there was very little guidance in statute or case law. I guess it's both a problem and a good thing. There wasn't a lot of case law available on how reinsurance should be treated in a life insurance company and in insolvency or liquidation. We did look at current arbitrations and court cases. There are some going on right now that may indicate how liquidators are viewing reinsurance in insolvency. We found to our dismay that in several instances the liquidators were trying to impose liability on the reinsurers that went beyond the reinsurance contract and we felt that was something that we definitely wanted to clarify in this legislation.

On the other hand, we didn't feel that if an insurance company went insolvent that the reinsurer of that company should just walk away as if nothing had ever happened. It would be an unfortunate event, and basically everyone would have to come to the table to create the best solution, the one that would create the least pain for the policyholders, since they're the real client. These words were very critical to us, the predictable and fair treatment of reinsurance in insolvency. We felt that the reinsurer didn't have to come out winning in the insolvency but had to know how it was going to be treated. With knowledge, we could plan how to write our treaties and how to conduct ourselves so that the predictable and fair became our principles.

So we were trying to balance the expectations of the reinsurers with the obligations of the receiver and the guarantee association because they have things they have

to do in insolvency. We have to recognize those legitimate interests, and we have to understand that in certain circumstances, reinsurance would have to be terminated. But when the reinsurance is terminated we want to make sure that the legislation has a mechanism and a methodology for how the contract would be terminated.

What happens in insolvency is that the life insurance policies find a new home. They continue on, and the insureds continue to get the benefit of their insurance policies. We felt that in that case, the reinsurance should continue on with the policy. The bargain that we had made with the ceding company to reinsure a block of business was that we would stay with that block of policies whether the company was insolvent or not. If, for some reason, we could not stay with the block of policies, the legislation covers when the reinsurance can be terminated, who can make the decision to terminate it, and when in the process. If it is terminated, the calculation of what is due, one way or the other, has to be done in such a way that the parties are economically indifferent and that again became a key point to us—the principle of economic indifference. So our bargain is to stay with those policies, through thick or thin. If, for some reason, we cannot, the calculation will be performed to make us economically indifferent— if we're no longer with those policies.

We have asked the Academy to review the formula that we came up with, and develop some principles and guidelines to help develop the formula. This is rather long, but basically the termination value would be a gross premium valuation using the best assumptions at the time the valuation is done. For instance, if there are more lapses in the block than was assumed when it was first written, the higher lapses will be used in the calculation. If the mortality has deteriorated, the worse mortality will be used in the calculation. If assets have to be sold to pay the higher lapses, that will all be recognized in the calculation of the termination value.

We did preclude any assertion of claim for breach of policy against reinsurers, where the underlying breach policies were transferred to a new insurer. So if the policies are transferred to a new insurer, the idea is the reinsurance goes with it. They can't make a separate claim against the reinsurer, which was very important to us. So again, I've tried to synthesize many hours of many people's efforts into just a few words. But hopefully you've got a flavor of what we were trying to accomplish and what the legislation is looking like for us.

For the ACLI, the events of September 11 have delayed the initiative. All effort moved over to September 11. The potential sponsors for the legislation have been identified—the people who will actually bring the bill forward on behalf of ACLI. The draft is in very good shape right now. I hesitate to say that, but I think that's what people would say. It's being submitted to the board again for another review. Another board meeting is being held in November of 2001 to discuss it.

In the meantime the ACLI, of course, continues to be open to comment, continues to meet with all the people—the member companies, the trade groups, and the

executive branch to continue to refine the draft.

At the board meeting in November, it is my expectation that the board will endorse the Optional Federal Charter and instruct staff to pursue its introduction in 2002. Obviously it's a vote and we won't know the outcome until November. But my guess is that the actual package will be walked up the Hill in the first quarter of 2002 and then from there on, you know more than me. This is going to be debated and discussed and lobbied, but hopefully something good will come of it. The ACLI Web site has the complete language of both pieces of the legislation. I would recommend to you Title III, especially the reinsurance, and the insolvency piece in its entirety is very good reading.

Gary Hughes, General Counsel of the ACLI knows this topic well. And Julie Spezio, who has been the project manager, is just a phenomenal person to go to for information. Don Preston, our ACLI reinsurance person, is the one who really drafted a lot of this speech for me. If there's anything you want to know about reinsurance, he's just a great person to talk to.

MR. KATZ: Edward Betteto is senior vice president and chief actuary of Max Re Ltd. After 15 years on the direct side of the business in various roles, Ed has been in the reinsurance business for the last seven years. At Max Re, Ed underwrites life and annuity reinsurance programs, and was one of its first employees when the company opened its doors at the beginning of the year 2000. He is a Fellow of the Society of Actuaries, a member of the American Academy of Actuaries, and a member of the Canadian Institute of Actuaries.

MR. EDWARD BETTETO: I took the liberty to rename the title of this presentation slightly. I noticed "offshore reinsurance" was part of the title. So I renamed this Cross-Border Reinsurance, because the word offshore is a bit of a misnomer. The rules with respect to reinsurance, whether it's authorized or not, are somewhat binary. Either the reinsurer is licensed or authorized within the borders of the United States, or it's not. Whether the reinsurer is based in mainland Europe or based on an island, the rules are virtually the same.

Having said that, the words "cross-border reinsurance" don't roll off the tongue very easily, so I'm going to revert to the term offshore reinsurance.

Historically, of course, reinsurers are focused on managing risk and in taking underwriting risk. It's fairly well known in the U.S. that mortality risk has been shifting very rapidly from insurer balance sheets to reinsurer balance sheets. There's an ongoing debate in terms of whether that's a spread of risk—whether there are proprietary databases that reinsurers have that give them a better spread, several underwriting platforms. It's true that the larger life reinsurers have spreads of risk that are considerably larger than even the biggest direct writers.

Most mortality reinsurance is still written onshore, but the offshore market share is

growing. There are two offshore reinsurers in particular that focus on this market. It's a capital-intensive business, so there are lots of reinsurance applications and capital market applications that actually try to mitigate the capital-intensive nature of this business.

Structured reinsurance has been used for many years, due to the fact that it is capital intensive, to try to alleviate whether it's on behalf of a reinsurer in the mortality business or whether it's for a direct writer. The reinsurers who focus on structured reinsurance or financial reinsurance are virtually always offshore these days. A few years ago, there was a mixture of onshore players and offshore players, but today I venture to say that virtually every transaction ends up offshore. Until two, three, four years ago, the life reinsurers who were offshore typically did not have a lot of capital dedicated to it. Having said that, a lot of the offshore reinsurers had parental guarantees to satisfy the concerns of their customers. But it's either structured reinsurance or affiliated transactions that are focused on. The reinsurers again, until recently, didn't have many people on the ground. They were typically managed through underwriting committees and management companies that were focused on the market.

The next area will be the bulk of my presentation, which is those reinsurers that are seeking to make a spread on investments. Of course, whether it's reinsurance company or insurance company spread, investment spread is the key part of profitability for everybody. A significant portion of the new growth for offshore reinsurers, in particular, is focused in this particular area, and offshore reinsurers account for much of the growth.

In terms of resources, if we look at Bermuda for a moment, there are over 50 P&C actuaries in Bermuda alone, and that's grown over the past 10 or 15 years. In terms of life reinsurers, until about three or four years ago, there weren't any practicing life actuaries on the island and today there are over 20. It's just an indication, together with capitalization, that the reinsurers today who are offshore focus on particularly spread investments are highly capitalized, and in fact, there are P&C reinsurers who have grown their capital bases to the extent that they're deploying more of that capital in the life arena.

I also want to illustrate that some reinsurers are focused on a term that can be called administrative reinsurance. The focus or core competence here is an extremely efficient administration plan. The key area of growth would be those ceding companies who either have inefficient administration plans or simply want to get out of a line of business. The source is usually a merger and acquisition (M&A) transaction via indemnity, co-insurance contract. It's not a focus for offshore reinsurance, there's beginning to be a lot more activity in that area. The reason for that is many potential sources of business are from ceding companies who are exiting lines. If you're exiting a line of business, you're not going to want to keep your administration around. There is a number of third party administrators who are very efficient, depending on the line of business that the organization is looking

to exit. The key difference between an offshore reinsurer who enters a transaction accepting the administration responsibility versus an onshore reinsurer who focuses on administration is the source of profitability. An offshore reinsurer is not trying to make margins on the administrative side, if in fact the third party administrator is in that business. For the onshore reinsurers who focus on administrative reinsurance, a key source of their profit is on the administration plan itself and making margins in that area.

Next I want to go into where offshore reinsurers have their advantages. This is deliberately allocated in declining order of importance. The first two are investment flexibility and capital efficiency. That's where the bulk of the value added is provided, and that's where I'm going to focus.

Those reinsurers who are in the lower tax jurisdictions have a general advantage with taxation but it's not decisive. The business models would be very effective regardless of where those plans were, as long as the first two criteria were in place. Investment flexibility, which I'll talk about a little bit more, really affects some of the accounting treatments in the various products. I was very interested in hearing about the Optional Federal Charter and in their seeking to level the playing field, but under the current rules, you definitely have to pay attention to the accounting treatments that are provided.

The other less-known factor in terms of taxation is that sometimes it's not an advantage at all. There are the rules in terms of the tax perspective with federal excise tax, the non-deductibility of deferred acquisition cost (DAC) taxes for the ceding company and even less known is that the selling price is usually below the tax base. So in situations where the selling company is selling and the consideration is less than the tax base, they're accelerating their taxes within the U.S. border. If the reinsurer is not taxable within the U.S. border, they can't claim an equal deduction. So in fact, some transactions are tax inefficient, and yet, those transactions still take place because of the other advantages. So I just wanted to illustrate taxes are not decisive.

Next is simply a question of the narrow focus which allows perhaps the entire management team to be focused on a particular area, rather than trying to manage across several lines of business.

Another factor is expenses. By no means is an offshore reinsurer in a low expense jurisdiction. It's just the opposite—it's very expensive there, but it's low labor-intensive business. There are just a handful of very specialized professionals with little support staff, and in addition to that, generally there are just a handful of large transactions done per year, so it's low labor intensive. But on an allocated expense basis, expenses are definitely helpful as well to offshore reinsurers versus one onshore.

When an insurance company allocates assets to liabilities, there are constraints that

you need to deal with in the area of investment flexibility. I'm going to explain how an offshore company has a few more tools. The first constraint is outright limitations on some asset categories. Those constraints are both imposed by regulatory rules and rating agencies. In addition to that, there are very high levels of RBC for some types of asset categories. Again, there are regulatory rules, and the rating agencies have their own rules.

The regulatory rules are set up to protect the retail individuals to make sure that the obligations of insurance companies are set up so that their interests are protected. Reinsurers always have a very sophisticated counter party, being an insurance company, so the regulatory rules don't distinguish very much between whether the counter parties are unsophisticated retail customers, or sophisticated wholesale customers, if you will. In fact, judging from the prices in the marketplace recently, there are some who would argue that the ceding companies selling the business are more sophisticated than the reinsurance buyers on the other side.

Regarding asset-liability management (ALM) requirements for regulatory reserves, there are different rules in different countries. However, in the U.S., UK and Canada, if your ALM is not viewed to be matched, there are implications in terms of your reserving standards.

Undesirable treatment of capital gains—this is for those categories of assets whereby a significant portion of the investment income is in the nature of capital gains rather than ordinary income. Because it's an undesirable accounting treatment, it drives some ceding companies away from certain types of assets like equities, even where they might otherwise have stayed with them, despite the limitations.

On an insurer balance sheet, as they look to allocate assets to liabilities, many insurers aim for 100 percent high-grade bonds that are duration matched. I know that this is overly simplistic, but this focus is so driven that in some countries, the availability of long bonds is so much shorter than the demand from insurance companies. In the UK, for example, the government yield curve has been inverted for several years. Because insurance companies are driven to buy the long bond, there's little supply for it, and the yield is significantly lower than the mid-rate bonds.

Again, with efficient frontier for those categories of business which are long tail, or a significant portion of the assets are backing expected payments many years into the future; a lot of models indicate that the best mix for both the yield and stability is 60 percent bond and 40 percent alternative assets. The efficient frontier of course is 60 percent bonds and 40 percent equities, but for the past two years, equities haven't been a place to be, so I've taken the liberty of substituting alternative assets there.

Chart 1 is an attempt to map the cash flows over time. With most treaties, the

settlements are on a monthly basis or could be quarterly. In theory, I've actually seen weekly, but whatever the pattern is expected between the insurance company and the reinsurance company, they could be mapped. The solid line is intended to be the path of cash flows over time, on a best estimate basis. The dotted lines above and below are the possible path of cash flows. Whether you want to use a 95 percent confidence interval or a 99 percent confidence interval really depends on the individual entity. Those assets that are backing payments I'm going to call "certain," in other words, underneath the lower dotted line, could be viewed to be certain requirements not subject to possible contingencies. Assets backing and volatility of return until that point are not the same as assets that you need to choose when the payments are a lot less certain. These are some of the attributes that those reinsurers who focus on making spread of investments take into account as they allocate the types of assets. In other words, asset backing the longer of the tail for that type of business that fits the criteria, less liquidity and more volatility is an acceptable offset in exchange for higher yield. In fact, the shareholders backing these reinsurance companies not only understand that, but they've specifically invested in the reinsurance companies to take advantage of that.

The other thing I want to point out here is that the ALM strategies of these reinsurance companies are one of the top core competencies involved. For example, if you follow the pattern of 60 percent corporate bond and 40 percent some mixture of other types of assets, the early cash flows are matched, primarily from the coupons of the long bonds. As you slide in terms of duration, then you can start to allocate different types of assets, depending on where you are on the curve. At the tail, you have to deal with the principal of the long bonds. So it's the mixture month by month of those asset strategies, and that is very intrinsic to the deal flow. \When we talk about duration, it's not just the duration itself that matters, but it's the volatility-adjusted duration. That means choosing the assets depending on whether the cash flow is regarded to be certain or perhaps contingent. It just affects the mixture of the assets.

The point I want to make here is that assets are typically chosen on a particular deal in most shops, specific to the sets of liability flows for that particular deal. But what the reinsurance companies are doing offshore is using the top-down process. Rather than having each deal be distinct with its own set of assets, as each new deal comes in the door, the liability flows month by month are aggregated and the new assets are not chosen specific to the deal, but in the context of the liability flows in aggregate. In addition to that, the optimization model that allocates the assets according to the path of the cash flows is reoptimized at least once a month. So even if there are no new deals, the asset mixture could be changed and assets sold or bought to fit the current pattern according to what the optimization model dictates.

Just as administrative reinsurers focus on making margins on administration and that's their core competency, the core competency of reinsurers who focus on making a spread on investments is the fully integrated risk management on both

the liability and asset flows. I'm going to say it's on a continuous basis, but on a practical matter, it's usually monthly.

The bonds that are invested are actually non-callable. So customer options are a very significant assumption as the liability flows are mapped out. On the asset side, the callable bonds are in the same category as a customer who has a choice to lapse a policy or perhaps contribute more or less premium on a flexible premium contract. Callable options on bonds are also regarded very carefully. In fact, Max Re, for example, has no callable bonds because of the regard for that feature.

So the business model revolves around trying to earn significantly higher yields on the alternative asset portfolio with a fraction of the volatility of the equity markets. The actual assets that are used in these contexts are outside the scope of this presentation.

Chart 2 represents the second category of value-added, and that's capital efficiency. This chart is overly simplistic by necessity. Notice for example, somebody might ask what catastrophe reinsurance is doing in the low capital intensity corridor on the right. But taking that into account, the frequency is so low that there isn't a lot of capital allocated versus the potential risk, nominal risk, involved with that.

In the top right-hand corner, where it says "traditional reinsurers;" under cash flow volatility being high, I would argue that for example, a mortality reinsurer who has been in the business for a long time, and has proprietary databases with a huge spread of risk would arguably be sliding over to the low cash flow volatility column.

The point of this chart is that the new offshore reinsurers are focused in the top left-hand corner, with low cash flow volatility. The lower the cash flow volatility, the more it fits. The higher the capital intensity, then the capital efficiency tools that I'm about to go into lend more credence than the lower left hand quadrant, where there's low cash flow volatility and low capital, when, in fact, there is little or no reinsurance taking place in that corridor.

I am going to spend a couple of minutes on some of the market applications to improve capital efficiency. Both the capital markets and the reinsurance markets are very active in this field. Securitization has had a very low profile lately, but from what I understand, I think that there are going to be some new applications developing over the not too distant future.

In the reinsurance markets, structured reinsurance or financial reinsurance has been in place for a number of years to help mitigate those liability categories that are low volatility and high capital intensity. The differentiating feature between a financial reinsurance or structured reinsurance solution versus a transaction that would transfer the assets, for example, in a full coinsurance transaction through a reinsurer, is the permanence or lack of permanence of that transaction. In

structured reinsurance, it's intended to be a temporary transaction of a few years, generally always callable, if you will, or subject to recapture from the ceding company over a short period of time. It's intended to cover a short-term need, whereas the latter category is more intended to take advantage of the fact that offshore reinsurer balance sheets are more efficient and those are permanent transactions not subject to recapture.

Regarding how reinsurers satisfy credit risk concerns, the rules are over ten years old and are well accepted at this point. If a ceding company is going to enter into a transaction with an offshore reinsurer, then in order to get credit for the reserves coming off the balance sheet, the reinsurer has to provide collateral in very specific ways at the level of the statutory reserves.

The point I'm going to emphasize is that just because collateral is provided, it doesn't necessarily tap fully into the equity of the offshore balance sheet. Here by the way, when I mean capital, it's twofold. On an onshore balance sheet it's not just capital or the risk-based capital (RBC) or two or three times RBC allocated to the business. It also deals with the excess of the statutory reserves versus the GAAP reserves. To the extent that there is conservatism there, that needs to be taken into account in determining the capital intensity of a line of business.

I'm going to go into some of the tools that offshore reinsurers use to provide collateral, but in ways that don't tie up capital in their balance sheet.

There isn't any particular order to these sets of tools, but trusts of course, are perhaps the best understood. They vary by state, and if you're looking at this internationally, it varies by country quite a bit. The number one thing an offshore reinsurer wants to know when considering a transaction is what assets are acceptable in that trust. The trust is almost always in the domicile of the insurance company customer.

Depending on the fit between what that domicile will accept in terms of admissible assets to the fit in the investment strategy of the reinsurance company, efficiency can sometimes dictate whether a transaction is suitable or not.

Is over-collateralization required? Those of you familiar with offshore reinsurers know that it's fairly clear. It's 100 percent or sometimes 102 percent of regulatory reserves. First a word on over-collateralization—what is less understood with collateral is where the beginning point is, the regulatory reserve. In virtually all of these transactions, the reserves run off over time. There are occasional transactions where in fact, the reserve runs up because there's cash flow in, but that's not typical. The ceding company needs to provide permission to allow any asset to be replaced, let alone removed from that trust. If there are any concerns with credit or any concerns that the reinsurer is going to pay the monthly or quarterly obligations of the insurance agreement, the ceding company can simply withhold permission to remove assets from the trust as the balances decline.

The other point with over-collateralization is it sometimes happens for types of business like annuities, for example. There's very little difference, if any, and sometimes if a capital reserve is higher than the statutory reserve, the ceding company would ask for more than the regulatory reserve, not for regulatory purposes, but to satisfy its own internal credit committee issues.

I know that a lot of assets are held at book on the insurance company balance sheet, but in this trust, the assets are marked to market; so if bonds are in the trust, and interest rates go up, then chances are that the assets are going to fall below the regulatory reserve and the reinsurer is obligated to top up the trust if you will.

Another tool is what I call investment bank products, but it's possible to use an investment bank balance sheet to help provide the sort of leverage that I was talking about earlier. Those of you who have entertained proposals or have done business with investment bankers know that these fees are not cheap by any stretch of the imagination, but they're still far cheaper than tying up equity in the balance sheet. So as long as that efficiency takes place, it makes sense to use these products.

Asset wraps are another tool. If the reinsurer's investment strategy for a particular type of business involves assets that would not normally be admitted within the trust, there are sophisticated financial entities that would understand both the cash flows of a book of business together with the investment strategy of the reinsurer. It would take those non-admitted assets as collateral and substitute what might be called clean collateral to put into the trust.

The next tool is what I call a reinsurance structuring partner. Just as you can use an investment bank balance sheet for fees, it's also possible to use a large, highly rated reinsurance company's balance sheet for fees. The difference here is that the reinsurers typically won't commit to these long-term deals for the lifetime of the deal like an investment banker will. You might expect a solution for three to five years, so that you have a rollover risk. The reinsurer would have a risk beyond the third or fifth year in considering that solution.

The last tool is the bank letters of credit, and this is usually a one-year product. It is possible to get a three-or five-year product from a bank, but they are prohibitively expensive. Some have commented that the one-year letter of credit is not a very good fit because with a letter of credit you're providing collateral for a very long deal. While this is true, the risk is not to the ceding company. The risk is to the reinsurance company and to the bank. If the bank is not going to renew that letter of credit, notice needs to be provided to the ceding company, and if the ceding company doesn't get substitute collateral, whether it's assets and trusts or a letter of credit for another one-year period, they have a very simple tool. They can walk to the bank without any questions asked, and that same day cash in the letter of credit for cash.

There is a risk to the reinsurance company because it's taking on a one-year product. The bank also has a risk, because if the bank says no, I'm not going to renew to the reinsurance company who grants the letter of credit, then if another bank doesn't come to the fore, the bank has the risk of having a letter of credit being redeemed.

At the end of the day, what capital efficiency is all about is leverage in a responsible manner. We're not talking about leverage here of 100 or 200 times the level of capital. But in fact, reinsurance companies or offshore reinsurance companies in particular have lower levels of leverage than ceding companies and for good reasons.

On the domestic balance sheet, what governs leverage? First, the capital allocation process is generally RBC driven, whether it's regulatory or rating agencies. Most well-managed companies also have a third measure of internal measurements; and it could be that, with the mix of business and certainly by any one particular product, the internal measure of capital allocations by stochastic methods are higher than either the rating agency or the regulatory formula. I've never seen that happen across the board for a large company, but it can happen from time to time.

The domestic balance sheet has the traditional levers like debt, but there are pretty strong limitations. Companies that are highly rated generally can't have debt beyond 15 or 20 percent of their level of capitalization. So that creates limits in terms of how much leverage can be created. Of course, holding companies can strongly improve the abilities as long as that holding company has the financial leverage to issue higher levels of debt.

On an offshore balance sheet, an offshore reinsurer has all of the traditional levers that a domestic company has, and in addition to that, it has the additional levers that I discussed earlier. You might ask why a ceding company can't use those tools. The reason for that is the accounting treatments just don't work. It's difficult to change whether it's an FASB rule or whether it's a regulatory rule, but a company situated offshore can convert an insurance product into a banking product or a banking product into an insurance product. That type of flexibility is a tool that's currently not available in the U.S. The federal charter might change that and might change our business model too.

The constraint is not the balance sheet restrictions per se. But how is the collateral provided? I also want to illustrate here that not all types of business work. If I were to try to talk to a structuring partner, and bring to them a deal that has less predictable cash flows, I'm not going to get a very good reception and there's no efficiency to be brought to that transaction. So, volatile cash flows are better served on insurance company balance sheets.

I'm going to go through another example (Chart 3). There are $500 million dollars of statutory reserves. I arbitrarily assigned RBC of $50 million and a net

consideration, net of ceding commission, of $400 million; so the ceding company would sell the liabilities for this book and the reinsurer would pick up all the obligations of all the future cash flows in exchange for $400 million. To illustrate some of the collateral tools, I assume that $240 million of the cash they received is in high-grade bonds, which is admitted assets into the trust, and $160 million is not admitted.

The top line in blue represents the path of the collateral, assuming that the collateral is always equal to the regulatory or statutory reserve. The second line in green represents the path of what I'm going to call the reinsurer GAAP reserve, which would start with the $400 million and then run down as its obligations are paid off. The last line in red just represents the market value for the bonds that are admitted into the trust. The corridor between the top line and the middle line says, "collateral provided by structuring partner." For example, a reinsurer or investment bank will have the sophistication to look at our cash flows and understand and accept that $400 million dollars is a fair consideration on market-value terms. They'll say the difference between the $400 million and the $500 million is a redundancy. There are margins provided on a regulatory framework that are not necessary in terms of paying off the cash flows of this block of business. That type of collateral is not as expensive. It's also easier to obtain than the second type of collateral, which is called assets in trust provided by the wrapping entity. A highly rated financial organization will take our not-admitted assets as collateral and exchange them for something that is accepted into that trust. Now that's a different order of risk and is generally more expensive than the first type.

Because that top line is the collateral at the regulatory reserve level, the ceding company needs to provide permission to the reinsurer to remove assets from the trust as the obligations go down. The reinsurer wouldn't be very happy if the ceding company withheld that permission without valid reason, but if there are concerns about the reinsurer fulfilling the obligations of the reinsurance treaty, the ceding company has tools to protect itself.

The other thing I want to comment on is that we don't try to allocate the types of assets by the duration. Earlier, I talked about assets allocated according to their location along the duration curve and whether they're volatile or not. I don't want to represent that the assets in the trust provided by the wrapping entity are allocated in that manner.

In considering a transaction, whether ceding companies are considering a transaction with any reinsurer, offshore or not, the first question you need to ask: is there value to using less capital in the business, or releasing the capital as you sell that business? All of us in the reinsurance business have seen transactions where the potential seller or the ceding company is making a very poor return, middle or high single digits at best. But the transaction doesn't take place because the ceding company doesn't have immediate use for that capital. In fact, it might already be highly capitalized. I know that my friends in the investment banking

community had a tough time understanding this. They couldn't understand how an organization could accept a rate of return of six, seven, eight, or nine percent. It's a very good book of business, but the amount of capital tied up is very excessive for that particular line.

Boards and shareholders are putting more pressure on insurance companies that have more capital than they can actually deploy in their business. More and more often these transactions are taking place and analysts, rating agencies, and Wall Street in general, are showing public companies that it's rewarding them for removing assets and liabilities that are not efficient in their balance sheet.

The other category here is the issue of reducing the balance sheet. CEOs have spent whole careers building up the balance sheet, so the idea of reducing it is not in their nature. Secondly, the chief investment officer is probably being incented based on fees that are being earned on assets, so often transactions don't take place because the ceding company does not want to part with the assets. Having said that, in the interest of full disclosure, there are modified co-insurance transactions where in fact the CIO can keep those assets, but generally the pricing of those transactions is a little less attractive than if they are willing to part with the assets.

In executing a transaction, of course, the credit committees of any large organization take credit risk in good concern. Reinsurers don't have U.S. regulators to talk to. They have their own domestic regulators, but the big accounting firms and the rating agencies are proven to be very effective gatekeepers. The reinsurers who are in the business of managing assets and making a spread need ratings. So ratings are the first line of defense. The organizations or the reinsurers looking to acquire assets in long-tail transactions are highly capitalized. And how is the collateral being provided? I know in investment banking, one of the first things I learned is that on long-tail transactions an investment banker would rather take collateral with a lower-rated entity than no collateral with a Triple A. Over the long course of time, it's unclear what that organization is going to do and what sort of risks it's going to assume in the future.

Secondly, reinsurer professionals have a history of good execution. Some of the reinsurers, of course, are new. You've got to look at the history of the individuals themselves, where do they come from? Do they have a good reputation? It's a small community, so it's usually not too hard to do some reference checking.

Regulatory and rating agency acceptance—some states require any transaction with an unregulated reinsurer to be approved. Some have a 30-day deemer rule, but as with any large transaction, more and more ceding companies ask for permission anyway. It's a very rare instance where the regulator says no or rejects the transaction.

Wall Street acceptance—sometimes a public company will make sure that the

analysts think it's a good move. But if you look at stock market action, whenever a large announcement takes place, it seems clear that Wall Street is recognizing and rewarding companies that remove inefficient assets and liabilities from their balance sheet. When I say inefficiencies, I don't mean a bad book of business. It's usually because it's very capital intensive, bigger than the margins that are available in the book of business.

There's an improving regulatory climate. And again, I just want to characterize that the rating agencies and the audit firms are effective gatekeepers, but there's more and more recognition of solid offshore reinsurers. There's increasing sophistication. I would submit that organizations that are focused in this line are taking ALM to a higher level—closer to how investment bankers manage their risk. There are legitimate advantages, as I indicated earlier.

While insurers generally dislike downsizing their balance sheets and regard asset management as a core competency, more insurers are choosing where to be world class and where to outsource some functions and businesses. I don't think there are very many insurance companies, perhaps an American International Group (AIG) that could attempt to be world class in every line of business, in every function.

If some assets and liabilities are more efficient elsewhere, more and more of these transactions are taking place and that's really why some offshore companies do exist—they have more efficient balance sheets. At least it's been proven so far.

As an example of a line of business, 20 years ago, residential mortgages were held on bank balance sheets. The banks sold them, held them on their balance sheet until maturity and renewed them. Today, very few mortgages that are sold by banks are held on the bank balance sheets. They're in the capital markets and the reason is very simple. If the bank held them on its balance sheet, the amount of capital that the regulators ask them to assign to it is such that it's simply more efficient to be in the capital markets. Whether it's securitization or whether it's a sale from an insurance company to an offshore reinsurance company, I think the same principles apply.

So the new business models are still evolving. We do expect new entrants. We actually are hoping for and anticipate a few.

MR. KATZ: Monica Hainer is going to talk to us about an issue arising from recent events.

MS. HAINER: I'd like to just take a moment of your time to talk about some of the things that are going on since September 11 at the ACLI. There are lots of numbers floating around, quite often the one you see is that $5 billion out of $40 billion total lost from September 11 is attributable to the life industry. Now the P&C industry was very quick with its $35 billion loss, to make the government and the public aware of their concern with another event happening and with the lack of

availability that's going to result because of September 11 and the war on terrorism. So they're saying that war and terrorism will be excluded from future covers, unless something is done. What they put forward to the government, you've probably seen in the press is some draft legislation modeled on a UK concept for pooling reinsurance risks and having the government provide a backstop at a certain point.

This whole concept, of course, is pretty interesting and I think the life industry through the ACLI is studying this. I think it's not as clear on the life side, but there is some concern on what catastrophe covers and clash covers etc., will be available going forward. I think that's part of what we're trying to get a handle on. I think that if there are no catastrophe covers available or if they are limited , this could have a significant impact on companies. I think all companies buy a catastrophe cover at some level, for example, multiple lives or some attachment point. If that's not available or if that's available with tight terms or huge premiums, I think this could change the outlook for some companies in the event of another terrorist action. There's no way for the life companies to go back and change their existing contracts in most instances. Nor probably would they want to change their direct policies with policyholders, so it's going to leave the direct companies with an issue and of course, the reinsurers will be unable to serve their clients and so on. So there's some concern about that on the life side also. That has to be explored further and then if this is a reality, if the life industry does have an issue here, the question is, how to best go forward. What is the right thing to do?

There are big issues like public image. Would having a backstop from the government increase consumer confidence or would it feel that we were bailing and just asking for handouts? If we ask the government to step in at some point, what would the long-term political implications of that be? So there are a lot of issues and I think the ACLI executive committee of the board decided that it was too complex to just jump in with a bill right away. Some work had to be done and some facts had to be brought to the table. It's a real interesting concept and the more you think about it, the more issues arise, like should it be pre-funded or post-funded? How do you get the reinsurers to the table? Would just direct companies be involved in this or would the reinsurers be involved too, and how do you get everyone involved? Where do offshore companies come in? The reinsurance on a particular policy could go anywhere, perhaps a first tier could go to a U.S. company, but then it could go anywhere in the world. So there are all kinds of things to think about. What do you do if a company goes insolvent somewhere in this process? Are we trying to smooth things out or are we just trying to ask for a government backstop at a certain point?

I just wanted to alert you that this is going on. I think it's a pretty important issue from a lot of different perspectives.

Chart 1

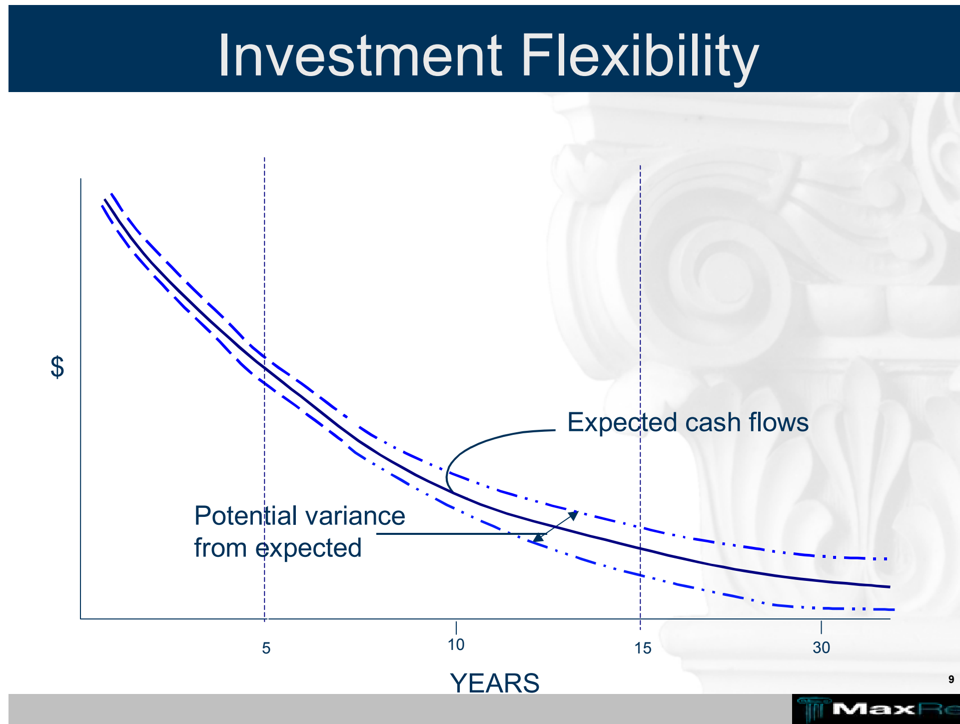

Chart 2

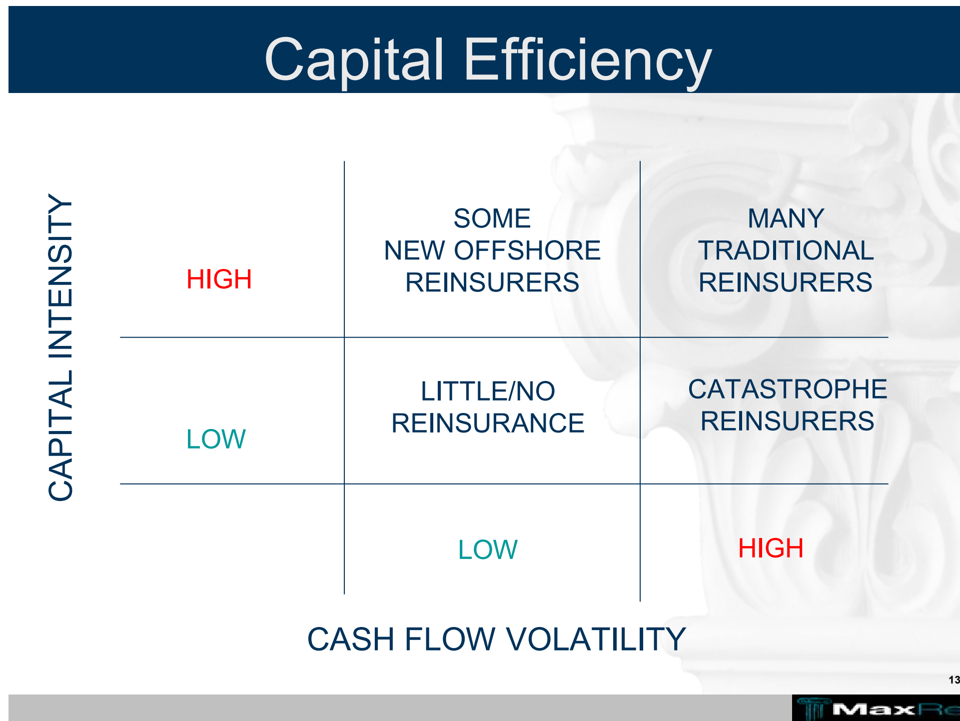

Chart 3