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Managing Risk Concentration in the Post-9/11 Environment

Track: Reinsurance

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Summary: The disastrous events of September 11, 2001 have focused the reinsurance community's attention on the subject of managing concentration of risk. A panel of experts discusses techniques for limiting exposure, impact on group and corporate-owned life insurance (COLI) and business-owned life insurance (BOLI) and changes in the catastrophe reinsurance market. Attendees gain a better understanding of changes in the reinsurance market.

MR. CHRISTIAN SVEDIN: I'm presenting from the viewpoint of the direct writer of insurance or the buyer of reinsurance coverage. Before 9/11, catastrophic coverage (cat cover) was quite easy to obtain. It was cheap. We had $100 million of cat coverage with a $1 million deductible, and the price, the last year we had the coverage, was around $47,000. We had several bidders at, or near, that price. So life was good.

After 9/11, things changed. The amount of catastrophic coverage we were able to buy dropped from $100 million on our coverage down to $45 million from one company and down to $25 million from another company. That's with terrorism

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excluded. One thing that we noticed in the quote process was a completely different philosophy among the reinsurers. They were looking at their risks far more carefully. Not just the terrorism risk, but all the risks. They wanted to get the same return on the money that they were putting at risk in the cat cover, as they were getting from all sources. The amounts of coverage, which we were able to get, decreased, even though terrorism was excluded.

The deductible went from $1 million up to $5 million from one company and up to $6 million from the other company. The deductibles went way up, as well as the coverage amounts going down.

The cost also changed. Instead of $47,000, one company's premium was $435,000, and the other company's was more than $360,000. Again, this is without terrorism included in the policies.

We were able to get some quotes with terrorism included. Again, prior to 9/11 we had $100 million in coverage. One company offered three cumulative layers. We could get cumulative layers of $20 million, $45 million or $70 million. Company D was willing to offer $24 million total, including terrorism coverage.

The deductibles, though, are quite a bit higher. The deductible from Company C was a $30 million deductible. The deductible from Company D was a $6 million deductible.

You can see the true cost of including terrorism. The costs from Company C ranged from $2 million up to $4.3 million, depending on the level of coverage we wanted to buy. The $24 million excess of $6 million coverage from Company D was $1.3 million. That's quite a bit more than the $47,000 that we had paid the year prior.

What were our options? What could we do about this? We came up with several options. First of all, we could continue to stay with traditional cat cover products from financially secure providers. The number of willing providers obviously had dropped down, and we wanted to make sure that the ones that we were dealing with were financially secure.

The second option we had was to self-insure the catastrophic risk. We could say that we've never had a catastrophe at our company in the past and maybe we'll never have one. Keep our fingers crossed. That was our second choice.

The third choice would be to work with reinsurance providers to devise a new approach to the old problem of risk concentration.

We looked at all three of those options. We decided that traditional cat cover was not really an option because it was too expensive and accessibility to it was limited. Also, self-insuring the risk was not an option for us. Our ownership was not willing to put its assets, the church's assets, at risk for the insurance company. We needed to explore new options to build our own cat risk management program.

The first step was to maintain our current excess of retention reinsurance coverage. Why did we need to do that? First of all, there are all the traditional reasons for excess coverage: to limit the exposure on any given life. Second of all, when we would talk to companies about helping us out with the cat coverage, one of the things that they would always want to know was our maximum exposure per life. This became the time for us to reevaluate our retention levels in light of catastrophic risk management.

In the Salt Lake City area where I live, several smaller companies have actually changed their retention levels to reflect the fact that they are no longer comfortable with some of the risk that they were taking. They took the opportunity to lower the retention levels that they had. All companies should probably ask themselves if they are really comfortable carrying as much risk on a per individual basis as they are currently. The second thing we did was to implement what we called an accidental death (AD) carve-out program. Under this program, the reinsurer covers all benefits incurred due to accidental causes. We personally have a 90/10 split on this coverage. The reinsurer takes 90 percent of all accidental death claims regardless of what type of product is involved. If it was an accidental death, they cover it. Because they are covering everything within our own policies, the reinsurer's liability follows our liability as defined within our own policy. That means that there are no terrorism or nuclear, biological or chemical (NBC) exclusions. The reinsurer covers anything covered by our policy.

There's no maximum reimbursement limit on the individual coverage for our company. The reinsurer will cover all individual claims up to any amount. However, there is a $50 million limitation for group life and COLI/BOLI coverages. Even though we were able to get coverage, it is essentially a $50 million maximum coverage, due to the limitation on group life and COLI/BOLI.

The third step was to implement some quota share reinsurance, where it was necessary. Again, due to the risk-averse nature of our ownership, the $50 million limitation for group life was considered inadequate in certain places where we had significant concentrations of risk. We took a look at our risks by ZIP code and found that we had four ZIP codes in which we had concentrations that we felt would put us in danger of exceeding the $50 million limitation that our AD carve-out would cover. We went looking for quota share reinsurance to bring those four ZIP codes down to an acceptable level of concentration. Being a regional carrier made it relatively easier for us than it might be for another company to find a willing partner. Many reinsurers viewed picking up reinsurance in our region as diversification of risk rather than adding to their own concentration of risk. We were able to find a willing partner to help us with our quota share reinsurance on a basis that we felt was favorable to us and to them.

What was the result of all this?

The good news is that we now feel we have adequate reinsurance coverage in the event of a catastrophic event. In other words, we feel like we can sleep at night.

The bad news of course is that the cost has still gone up. It's still a lot more expensive. We're paying a lot more for coverage now than we used to have to pay. Also, we have had to improve the internal tracking methods of our business because we now keep track of things like concentration by ZIP code. There's just a lot more detail, such as the detail on quota share groups, which we didn't have to track before. But now we do. So there's a lot more internal work involved. That increases the time necessary to analyze all this, to report it, and to pay for it. I found that my time in overseeing this reinsurance has gone up many fold. Where it used to take me a few hours each quarter, now it's taking me several days each quarter to come up with all this information and report it to our reinsurers. It's not all good news, but we feel we have been able to adequately cover the risks that we have.

MR. SCOTT MACHUT: I was hoping to see an absolutely packed forum here, given how topical this issue is, but unfortunately it might be the little bit of attention that's being placed on this in the marketplace. We conducted a survey of 28 companies, both within the United States and Canada; less than half of the respondents actually commented that they were actively engaged in concentration management. I want to summarize the topic of the presentation: Managing Risk Concentration in the Post-9/11 Environment. Chris gave you a feel from the primary side, from the buyer side if you will, of the changes in the attitudes of those who assume the risk. Ron Colligan from Guy Carpenter is going to address changes in the marketplace (both capacity and players), and the use of modeling for catastrophic risk management, financial and reinsurance considerations. I'm going to talk about the changes that ceding companies have made to manage their risks, including innovative changes and how they managed the business they take on and additional data requirements. The three areas that I want to get into are the changes that ceding companies have made to manage their risks, evaluating concentration risk and market trends with respect to concentration risk.

How many folks out there are representing companies that are involved in the group insurance business? A good number. How about in individual? One. How many of you are aware of concentration management activity that's going on within your company? The majority of the people who raised their hands were representatives of the group companies. It looks like about half of that total is aware of concentration management activity going on. Of those who are aware of the concentration management activity going on, how many of you are aware that activity has actually resulted in changes to your reinsurance structure or your reinsurance buyer? Not too many. Then this should prove to be very informative for everybody.

What created the need for change as far as risk management goes? Pre-9/11 there was already some pressure on reinsurers. They were all aware of these pressures in the pricing environment. They had been extremely competitive for a number of years already. Reinsurers were being forced to raise prices. Again, this is in advance of 9/11. They gathered better data as they went through that process to try to justify the rate increases that they were seeking. Obviously 9/11 changed everything. It hastened the whole need for gathering data, certainly concentration management. There was none, in fact, done before 9/11. The effect on the reinsurance business after 9/11 is that the capacity essentially left the market. There is essentially no, or limited, retro capacity available to tap into. So most reinsurers, ourselves included, were writing on a net line basis. That, in and of itself, is going to shrink the total capacity out there significantly.

Pricing went up, deductibles went up, terms became more restrictive and concentration data requirements became the norm.

How have ceding companies responded? The response is different all across the board, depending upon the ceding companies' appetite for risk. They've continued purchasing comprehensive cat covers; some have looked into buying natural peril covers only (for example, something that just responds in the event of earthquakes, not in the event of terrorism). Many companies have continued to go bare, basically waiting for the market to soften, or change, or reach some kind of equilibrium, or for the government to step in. What I'm sensing is that a lot of the companies that have been holding their breath are starting to run out of breath. They realize that they have to continue to persevere and look for some other options rather than go bare.

The purchase of quota share, AD first-dollar coverage, that Chris mentioned, is something that has gained a lot of momentum since the beginning of 2002. It's certainly something that our company has been supportive of from a reinsurance standpoint. You'll hear more about that later in the presentation. Companies are exiting or selling their group life and AD&D business. Just today many of you may have heard that John Hancock sold its group life and AD&D business to Met Life.

Companies are gathering location information on groups at renewal. This is kind of an indirect impact on reinsurance, but more and more companies are building into their renewal underwriting processes the gathering of concentration information. They are trying to evaluate whether the concentration risk makes sense for them, given the margins that they're making on those groups relative to the exposure. It may be that it doesn't make sense to continue that relationship. The good news is that many companies have started implementing the process for data gathering, but the bad news is that there are many companies that still continue to ignore the facts here.

As far as purchasing quota share reinsurance and protecting their net retentions for life and AD&D business, I want to talk about some of these reinsurance approaches as a result of this increased focus on risk management. As Chris alluded to earlier, one of the options is to simply look over your entire portfolio to arrange for a quota share, first-dollar percentage of your AD&D exposures, whether that be 90/10, 50/50 or 70/30.

Another option is to combine that first-dollar quota share approach with the traditional cat cover. Many reinsurers out there will not look at covering catastrophic risk below a certain attachment point, or below a specific number of lives. Some companies have a 20, 50 or 100 life minimum; some companies won't look at the opportunity unless it's in excess of $20 million or $40 million. What it means for our ceding companies is that they have to go from $500,000 net retention or $1 million net retention per occurrence, all the way up to $20 million. One thing we're trying to do is work with the ceding companies within that first $20 million or $40 million via quota share approach. If they need to buy a $100 or $150 million of coverage in total, it will enable more cat reinsurers to entertain the traditional cat layer, if you will. The other thing that that does, although I'm not suggesting that this is the way the reinsurers are responding, is theoretically. If you're doing a quota share for first dollar up to $20 million of exposure (if you've got a $1 million net retention, after the quota share reinsurance it's $500,000), you're lowering your maximum on any one life. For purposes of the cat reinsurer, that means it's going to take that figure of an event, that many more lives, to invest in the cat reinsurance. I know the answer as far as a lot of the reinsurers are concerned is: "tough." They still want the same rate on line. Hopefully, companies will be a little bit more receptive to acknowledging that they are significantly further removed from risk when a first-dollar quota share deal is in place.

Companies are taking an inventory of concentration risk and determining a risk tolerance threshold per group. Then they determine whether to purchase treaty or facultative reinsurance or non-renew the group if the experience has been marginal. I mentioned that previously, and again, that's kind of an indirect impact on the reinsurers. They're taking a look at each company, each employer that is contributing to their overall accumulation and they're trying to make a determination of the best way to solve their concentration issues in any given location or given ZIP code. Does it make sense to have a treaty arrangement? Does it make more sense to try to get facultative coverage for it? Or do we simply look at the margins that we've been getting on it and make a decision that way?

Determining risk tolerance threshold is something that you want to do either on a per group basis or in total on an event basis. I recommend, again, that each company take a hard look at what its risk appetite is, either per building, per group, per event or per quarter. How much risk are you willing to take with respect to fluctuations in your quarterly financials? Then look toward reinsurance as a mechanism to try to smooth some of that out or to take some of the volatility away. As an absolute minimum, query the existing group or individual volume by state and postal code.

For the group and COLI/BOLI business, we think you've got to go down to the street address to get the most accurate data possible to populate your concentration database with.

As far as identifying gaps in data availability, in a couple of minutes I'm going to talk about a project that our reinsurance division has done. We're not finished with it yet, but we've made significant progress in this area. The project is a disaster exposure exercise that we've gone through at the request of our management, and it's been extremely helpful to us. It has also identified some of the gaps in the data that we have, so we can go back out to the customers and try to collect that.

As I mentioned for group and COLI/BOLI buying, you need to go down to the street address for accounts with all volume reporting under a single billing address. We have found that Dunn & Bradstreet's (D&B) software has been helpful. I'm not suggesting that it's the be-all, end-all. With life business, you're never going to get 100 percent accurate information. People and companies are moving around as we speak. But what D&B enables us to do is take the data that's reported to us by billing address, for example, and as long as we have the legal name of the company, we can use the D&B software to go in and find out how many different locations that company has and approximately how many employees are in each location. There is even some information about where the officers are located as far as home office. You still need to make some assumptions as far as looking at the total number of lives, the total volume that's reported and then the various locations that D&B has reported for you, looking at the average amount per life so you can come up with an amount per location (again, to populate your concentration database with).

Data mapping tools also can assist in identifying areas of concentrated exposure. The tool that we work with is called ArcView. I don't know if any of you are familiar with that. But it is a data mapping tool that enables us to pictorially create data maps of where our exposure is located around the United States and Canada. I know you can't see this, but this is a map of the United States and on this is plotted our concentration areas. What I mean by that is ING Reinsurance Division's concentrations by ZIP code. Against this, for this particular disaster exposure exercise that we're engaged in, we've got all of the nuclear plant sites in the United States, which we got off of the Web site for the Nuclear Regulatory Commission. It's one thing to look at numbers on a spreadsheet and look at the magnitude of those numbers, but it's extremely eye opening to look at a map. Especially when you have it plotted against either nuclear sites, or potential terrorist sites if you will, and really find out where this exposure is.

Now I'd like to talk you through the disaster exposure exercise that we engaged in our reinsurance division.

Our management had asked us to consider four disaster scenarios. The purpose of this is basically a fire drill. As we go through this process, we can learn a lot about the data that we already have, the data that we need and find what gaps there might be. Then we can put together some processes, so that if and when something should occur, everyone is not running around looking at each other and wondering what to do next. You've got some processes that are in place; here's what we're going to go through and here is where we can get the data. This involves data mapping, obviously our concentration database, which is an Oracle database, and there are a number of Web sites out there that we learned about. They have very valuable information from a census standpoint.

The four scenarios were an earthquake in San Francisco, magnitude of the 1906 earthquake that affected Santa Rosa, San Jose and San Francisco; a theater fire; a mustard gas situation where mustard gas was released during an NBA basketball game with 20,000 fans in the arena; and the last one was a terrorist act, in which a 747 plane was flown into a nuclear reactor with the ensuing nuclear fallout. Each of our business units was asked to look at the two scenarios that we thought would most severely impact the division or the company from a financial standpoint. They had to further research what it was about those scenarios that made them the most severe, and what kind of benefits were being offered to the clients that were impacting us. What kind of data do we have? What don't we have? The three main business areas in the division are the life, accident and specialty reinsurance areas, which is what I oversee, medical business and our disability business.

For the life, accident and specialty area, it was easy. For me, it was the earthquake situation and the nuclear disaster. One thing that I learned during this process is that the earthquake scenario, while it certainly results in many deaths and many more injuries, absolutely pales in comparison to any kind of a nuclear situation. I'll throw out a few of the demographics on the nuclear situation because I think you'll find them interesting.

We took the nuclear plants and plotted them against the exposure that we had in the division. We essentially picked one plant that we thought was in one of the most concentrated areas. The one that we ended up picking was a plant called the Limerick Nuclear Power Plant, which is located 21 miles northwest of Philadelphia. We looked at some of the demographic information within a 150-mile radius of that particular location. I want to mention that when there's nuclear fallout, it doesn't necessarily happen in a perfect circle. It depends on which way the wind is blowing, so it's more of an elliptical shape.

Within 25 miles of the plant there are 2.8 million people. Within 50 miles, there are 7 million people. Within 75 miles, there are 10 million people, and within 100 miles, there are 24 million people. The significance of that is as follows. Radiation is measured in units of rems. Basically, within 25 miles of the epicenter, you would expect the exposure to be 2200 rems. Anything 3,000 rems or above results in death within hours. As I said, within 25 miles of that particular location there were 2.8 million people. Within a 100-mile radius, 200 rems of exposure could be expected, and that essentially means that anybody within 100 miles that doesn't die will have extensive internal damage. You can see when you look at this relative to an earthquake scenario, both are horrific events, but the earthquake situation pales in comparison to what nuclear disaster would show us.

Just in case you're wondering, from an earthquake standpoint, we found our exposure there to be extremely manageable. As far as the nuclear situation, it's still a manageable situation, but to be sure there are some additional risk management measures that need to be put into place, including having to put occurrence limitations on individual business going forward.

Lastly, I want to talk about market trends with respect to concentration risk. We are still encountering a significant amount of buyer resistance out there. Unfortunately, a lot of people have short memories. The year 2002 was a good year for a lot of folks. While there are a number of people patting themselves on the back for the fact that they didn't pay huge sums for catastrophe reinsurance, I think they've also subjected their companies to enormous net retained exposure.

Secondly, carriers are considering the impact of concentration risk on their portfolios as each case renews. We mentioned that earlier. However, it's not apparent that loads for concentration risk are being applied uniformly, if at all. This to me is one of the most frustrating and disappointing things of all, regarding the life industry. We've got a government that has a color-coded terrorism warning system in place. You've got things in the marketplace, such as the fallout from the financial scandals, where directors' and officers' insurance is going through the roof. In the past, there was asbestos where the property and casualty (P&C) companies were applying significant loads. We are not seeing much change at all on the primary side with respect to pricing, particularly with AD&D. It's still being sold at 2 cents per thousand. It used to be 5 cents and you know everybody loved that because everybody was getting fat off the AD&D margins. I can guarantee, based on the number of deals and the amount of data that we've gathered over the last 18 months, that 2 cents is pretty much what the claims cost is. It's 1.8 to 2 cents for group, and maybe 1.5 cents to 1.8 cents per thousand per month for individuals. If companies are out there selling it on the street at that rate, I can assure you that there's not a lot of margin, if any, in those rates. I think we're missing an opportunity, for lack of a better phrase, to take a look at the prices and apply appropriate loads.

Thirdly, more companies are beginning to exit or sell their group life and AD&D business. Individual life companies are becoming more active with the pursuit of quota share AD carve-out reinsurance, in particular after witnessing how quickly biological agents spread. I'm referring to SARS here. Not that that was something that would be covered under an AD&D event, but if it were the result of terrorism, there certainly is a good argument that it would be an AD&D event. There's the concern about the security of nuclear facilities. I can say that three or four of the last six or seven deals that have come in to us from a quota share standpoint have been from individual life companies. For three of those companies, it was the result of leaving the business. There are a lot of interesting things going on.

I'm going to turn it over to Ron Colligan.

MR. CONROY: I want to mention one other thing with respect to 9/11. In Ron's life, that was an even more significant event, because his office was on the 51st floor of Tower Two, which is where he was that day.

MR. RONALD COLLIGAN: Thank you, Tom.

I've been coming to these meetings for a lot of years. When you're in your 33rd or 34th year in the business, you feel very old, but as you progress in this business you really get a sense of things that are going on.

My background is individual. I know most of you are group actuaries, and I want to bring both a group and an individual perspective into this presentation, relative to two things. The two things are acquiring cover for risk concentration and then recognizing, quite frankly, that if you don't have the cover for risk concentration and you decided to go without it, that it's the underwriting process that needs to control the risk concentration to your company. Be it on the group side or the individual side, it's very critical for your underwriters to know whether or not you have catastrophe protection. If you do not have catastrophe protection, it's only during that process that your risk can be controlled.

We've got a few pictures of the World Trade Center, and I have these pictures up there when I talk simply because I was there. Again, they were big buildings, 200 foot square on the sides, 12 million square feet, 110 stories high and a bunch of elevators, which weren't working on that day. We were lucky to get out. I got out probably 15 minutes before the second building came down in the stairwell. It was an interesting event in my life, and it's an event in my life that's really made me think about concentration risk. My company's parent is Marsh, and we lost 295 people. I see Larry Walters from Aon there; I know your company lost a lot of people as well. It brings it down to a personal level when you think of that. I want to talk about the state of the individual and group life catastrophe market. I use the term "cat 48." The property casualty industry refers to 9/11 as "cat 48." Huge losses in that business are given numbers. Hurricane Andrew back in 1992 was probably cat 39 or cat 40. If you're talking to anybody in the P&C business, and my company is largely a P&C company, it's not referred to as 9/11; it's referred to as cat 48. When I talk about the individual reinsurance impact of it, the property casualty impact of it, that's important. You'll hear a little later on how it's the property casualty companies that are controlling a lot of the life capacity now in the catastrophe market. Then finally we'll start with modeling.

If we look at the total financial impact of 9/11 on the life business, it was relatively insignificant compared to the P&C business. I think the latest estimate is $3.5 billion to $4 billion on the life side. We're approaching $50 billion and still going up on the P&C side. It was less than 5 percent of the life industry's 2001 losses. It resulted in approximately 0.12 percent increase in deaths. It did not produce a material capital decrease in our industry. It produced far less of a decrease than the decline in investment income and losses in the equity market have been as far as an event that financially impacted our industry significantly. Another comment here for the individual people is that it's less by far than the current guaranteed minimum death benefit (GMDB) losses. For those of you on the group side who may not be familiar with GMDB, it's basically a market risk where at death an annuitant is guaranteed to be paid his or her account value no matter what the market has done. In addition to that, some of the GMDB contracts in effect had high market values, where if your value was down to $200,000 when you die, if it ever had been up to $500,000, then that was the benefit. So these other things have impacted the life industry in a far more dramatic way than has 9/11. Not that it's not important.

In traditional individual life business, it's had no impact on our pricing. That's because we've had continuing favorable mortality trends, healthy competition and as I stated above, the traditional losses were very manageable. When I say there was little impact on pricing on the individual side, I'm going to extend that to the group side as well. How many of you folks have seen group life premiums go up as a result of 9/11? Probably nobody. When Congress passed the terrorism insurance bill on the property casualty side, the Treasury Department was instructed to do a study as to whether the lack of catastrophe or terrorism insurance was having an impact on either pricing or the availability of group life insurance. We got quite involved in that through our chief economist. I don't think anybody can say that it's had an impact, because we haven't increased our prices as a result of that. From the pricing standpoint of our product, there's been little impact. For the pricing of catastrophe reinsurance, there's been a significant impact.

Let's talk about the pre-cat 48 cat reinsurance marketplace. It had great capacity, probably more than $400 million for pre-9/11.

The price for life cat was about 5 percent of what was charged then for property cat. Most catastrophic losses in the past have not taken a large human toll. There was one large reciprocal pool for both individual and group life cat. It was run at the time by Lincoln National, is now run by Swiss Re, which was a reciprocal, or assessment type of pool, and that's still in effect. You had really good capacity and you had an assessment pool. Quite frankly, it was "sleep good" insurance. Our group got together before the session, and Scott brought up the fact that it's a "100-year event," at least on the P&C side, that people were pricing for. Nobody really thought that his or her cat cover was going to penetrate.

What's happened after 9/11? Again, I'm speaking primarily of the cat business, not the programs that Scott's been talking about. While AD carve-outs have been around for a while, they have increased in popularity since 9/11. There has been a significant cutback in capacity. It's estimated now that it's in the $200 million range and signs that this might be increasing. The traditional players have gotten out of the market. There are very few life reinsurance companies now that are writing catastrophe reinsurance. The P&C companies that are used to writing a cat product are now writing it. What they are doing when they commit their capacity to life companies is that they're charging the same rate on line, and that's the percentage of the ultimate limit, for life companies as they are charging for property cat.

Property cat companies now are probably getting in the range of 8 percent to 10 percent rate on line. If a property catastrophe cover is for a maximum of the $100 million, the property company for the reinsurance is paying $8 million to $10 million a year.

Exclusions abound in catastrophe treaties nowadays, and we'll talk about that later.

What else is happening? A lot of this is redundant with what my colleagues have said. Life companies are hugely conscious now of risk on COLI/BOLI, worksite and group life products. As I said before, if your company does not have a cat cover, an AD carve-out or some method for managing these risks, make certain that your group underwriters or your individual underwriters know that so they can take steps to manage your net exposure in other ways. That can be the quota shares that Scott spoke about, or it can be just limiting the amounts that they will take in any one particular area.

Again, I said traditional life products were not hard hit. It's a lack of concentration of any one company in individuals in the World Trade Center or the Pentagon. Again, traditional life cat programs have seen price increases of 10, 20 times and more than that. What's happening? As Scott said, some companies are waiting the market out and going without coverage. I think none of us are *not* of the opinion that another significant event is going to change that. I think there is going to be some real concern on the part of some boards of directors that people have decided not to buy a cat cover and something happens where there's another significant loss. If there's another event, I think we're going to see companies basically say that they either have to get out of the business or they've got to pay what the cat companies want them to pay to get the coverage.

Again, there's been no impact on traditional life primary or reinsurance pricing, and there's been no impact on the group side. One thing that may be happening though in the reinsurance marketplace now is that on the individual side, we see a little bit of hardening in the marketplace. This might be because reinsurers, if they can get cat cover, are having to pay a lot more than primary companies are, because in effect it's second access. That might be one of the reasons we're starting to see price increases on the individual reinsurance side. Again, that relates to my last statement that pricing may change as companies renew cat coverage at greatly increased rates.

Cat 48, again largely a P&C event, has impacted your solvency. It has impacted availability of P&C coverage. It has impacted pricing. It has impacted terms and conditions. What's happened? Terrorism exclusions about "nuclear, biological or chemical" mean that we don't pay no matter what your limit is if it was caused by an act of terrorism. There's a cat-and-mouse game going on in the future of exclusions, and that's on the reinsurance side, on the insurers' side and on the government's side. We really don't know what the government is going to do relative to life insurance and extending it through traditional life. There are different definitions of risk, occurrence, action and event. We've all heard about the litigation that's going on now between Silverstein, who is the lessor of the World Trade Center, and Swiss RE and a consortium of other companies, relative to whether it was one or two events. If the courts hold that it was one event, the industry is paying out $3.5 million. If it's two events, they're going to pay out $7 million. So you're finding many reinsurers writing tougher conditions into their treaties.

The market is tightening now in all lines: workers' compensation, life cat, umbrella, auto/trucking, nursing home, program business and professional lines. We've seen price increases in all of those segments of the industry.

I want to talk about the major thing that we are starting to see in the life business right now. That is the significant modeling that's been done on the property casualty side, primarily for workers' compensation. It is done on the property side too, but it's primarily workers' compensation, and the intent of those modeling companies is to get life catastrophe into those models that they are doing.

The first wave is risk analysis. It sets up areas or buildings where we think there is going to be a significant, or has the potential for being a significant, terrorist attack. These include "landmark buildings"—buildings like the John Hancock Tower—buildings that we think might be targets for terrorists.

After that, it enables you to get accumulation controls in those particular areas of particular buildings. This is very similar to what Scott was talking about, except on the property side and on the workers' compensation side, they get it down to the individual buildings. In some very sophisticated modeling that's being done, they will actually load in the construction of the buildings—the type of masonry, the structural steel, whether or not it's earthquake-proof—and then they will predict injuries and fatalities based on those buildings. They'll predict, for example, a 20 percent mortality rate, a 30 percent severe critical injury rate, and a 40 percent moderate injury rate. That’s on the workers' compensation side, because all of that morbidity data is extremely important to what workers' compensation companies are going to be paying out. The same thing can be applied to that building analysis and the mortality rate on the life side, and that’s what people are starting to do now. We’ve got the targets. We’ve got all the policies in the buildings within those targets. Then it will be mapped by different kinds of events, such as a fire or a dirty bomb. I saw a presentation by one of the modeling groups about a month ago in San Francisco, and they have got this thing down to the fatality level. They want to get into the life business. Look for this to happen and look for more sophisticated modeling to be done on the life side.

With regard to risk zones, red is extremely significant. It goes up in ascending order from one to five. When you look for your concentration risk in this modeling system, you’re going to have to pay the most attention to where you’ve got policies here. The critical thing is gathering the data. On the individual side, people are just not gathering the data. On the group side, as Scott has indicated, companies are beginning to gather the data. I sit on the Medical Information Bureau's (MIB) risk advisory board, and that is primarily an individual tool, but one of the things that they’re thinking of requiring in their data collection now is ZIP code. I'm working with them to convince them that they need work ZIP code and not necessarily residence ZIP code. We can sort that data bank on ZIP code for all the risk that any number of companies might have in a particular area. They've also expressed an interest in being the data management resource for the group industry in managing concentration risk. I think you’ll see some more of that type of thing coming out soon.

Life modeling is in its infancy. The three that I showed are simple property-casualty models that need to be enhanced, and they will be enhanced. It’s developing rapidly as an adjunct to workers' compensation modeling. It can be a valuable tool for primary and reinsurance concentration risk management. As I indicated before, there’s a potential ZIP code identifier. You know 9/11 has impacted our companies in many different ways. The main thing that it has done is to convince us that we need to manage risk differently. When I'm asked to speak now to a traditional or an individual underwriter about accident, I tell them that that’s not looking at motor vehicle records. Accident underwriting right now is looking at concentration risk, looking at the new world that we’re in and making certain that our companies have not been exposed beyond the limit that will make them insolvent. We’re in a new world now when it comes to modeling concentration risk, and I hope we contributed valuably to your education at this meeting.

MR. MIKE HUPPERT: (GE Financial) My company took the catastrophic price increases. Management said, "OK, we’ll do it. You'll have to figure out a way to get it in your pricing." When you deal with things like AD&D carve-out, where you’re going to say, "Well, I'm assuming you’re going to take 10 percent less net income on the line for doing that." Have you seen, on either side, the conversations about the fact that I don’t know how I'm going to make that up beyond having more volume; I'm just going to take 10 percent less net income. That means I'm going to miss my targets by 10 percent. Was that any part of the discussions? You may have seen it directly.

MR. SVEDIN: Yes, on the direct side, what I've seen is that no one else is raising their rates. If you raise your rates, it puts you out of the market. You lose your market share, and you lose all your profit then. We basically just had to eat that 10 percent out of our accidental death line of business. Of course, it covers all the lines of business, too. Anything that is an accidental death is covered by that reinsurance, so it does cut into your margins.

MR. HUPPERT: Where my question was going was that if you're taking 10 percent of your life risk, which represents that AD&D portion, I'm assuming you are reinsuring that 10 percent, which means you're giving away 10 percent of your net income. Regardless of the pricing change, you're going to get 10 percent less net income. Is that not the way it would work?

MR. SVEDIN: The way we've structured it is we pay on a net basis. We go through and figure out how many claims there are, how much the premiums are and what the premiums would be. As long as it is between a minimum and a maximum, we only pay the risk charge on top of that and everything else is netted out. On an accounting basis, you do show the premium going out, so there's a reduction in premium, but you also show a recovery on the losses side that's equal to the premium except for that risk margin that's on top of it.

So yes, there is a reduction.

MR. CONROY: I think you're right—the foregone profits on the quota share. Some of these deals are experience rated, so it may not be fully foregone. But the foregone profits are indirect costs of your cat cover. What you need to do is compare the increased cost of a traditional cat program, if you can get it at the limits that you're looking for, versus the combined cost of the excess cover and the foregone profits on the quota share or a carve-out. But there's no question that costs have gone up. The question is, which one has gone up less? The panel has been saying that it's a major cost increase in certain lines of business, and yet, we're not seeing anybody raising prices. We think it's because of competition and a fear of loss of market share, and that's an industry issue. But certainly the costs are there. In hindsight, what it says is cat cover pre-9/11 was severely under-priced.

MR. SVEDIN: There is a reduction in premium. But you have to offset that with the claim recoveries that you booked. You have the risk charge and then you have the foregone profits. You have to compare that then to the $4 million or $5 million or $6 million that the traditional cat cover would probably cost you and see which one is the better deal for you.

MR. MACHUT: Exactly. That's what I was going to say. You have to lay out three different scenarios. The scenarios are: you keep it net, you buy a quota share first-dollar deal or you buy a cat option, or a combination thereof. Your comments are absolutely valid if there isn't a catastrophe.

MR. DAN WOLAK: I moderated the session on terrorism right before your session here. There was one point that I forgot to make in my session, so I'll make it in your session. On the group side, on one hand, we could say on 9/11 there was not necessarily a concentration of risk. I would say two carriers each had about 25 percent of the claims, and then some other carriers shared the rest. Tom, did you have any comparisons on the individual life side? I haven't heard if the largest carrier maybe only had 10 percent or 15 percent on the individual life side.

MR. CONROY: There were two companies primarily on the individual life side.

MR. WOLAK: Maybe it's similar to group. You were talking a little bit about data. The problem we group life carriers and group disability carriers have is getting good data to track the concentrations. A lot of renewal systems for the group life carriers won't even have an entry for ZIP code location. Maybe the fundamental issue is that group life carriers don't know who the heck they're insuring most of the time and what the volume of coverage is. I've heard that good data is available on workers' compensation and that workers' compensation carriers normally are getting information on, maybe not the employee's name, but at least employees by street address. Can you shed a little more light for this group on the kind of data you're getting? Are you aware of what kind of information the workers' compensation side is seeing to manage their concentration?

MR. COLLIGAN: I think what we're dealing with here is a mandated coverage on the workers' compensation side. No one is putting up with any baloney. You've got to get that information or you're not going to get the cover. What we're dealing with, on both the group and on the individual side, are producers who are not used to doing some things that the home offices want them to do. We've probably got to be forceful in saying that if you want the cover, you get the information like the workers' compensation folks are doing.

MR. MACHUT: That's exactly what we're telling the life companies as well, particularly the group carriers. During the last year, we put eight of these first-dollar quota share deals in place. We looked at about 35 deals. Of the deals that we didn't do, there were a variety of reasons for not doing them. About five or six deals were individual companies and their net retentions were simply too high for this product to make sense. But in most of the other cases, companies just couldn't get us the data. They asked if we could give them a quote anyhow. No, we don't have the data. The product is a great product, but I'm not suggesting that it is for everybody, because you do have to have the data. We're certainly willing to work with the companies and with the D&B software that we purchased to help them get there. That's part of the consultative service that we feel we can provide. But if the companies are simply unwilling to collect the data, it's not our problem.

MR. CONROY: That's a point that all of us in the room have to look at with respect to our own management. The data is needed to evaluate and price what you're selling. If you're not willing to take a stand and say that you have to have the data, then you just need to recognize that you're writing in the dark and writing blind. You're just rolling the dice. If that's what the company wants to do, that's fine. But that's your decision to make in terms of managing the operation. It's ultimately the board's decision and the shareholders' as well.

MS. AUDREY HALVORSON: What are you seeing in the group health and individual health insurance markets?

MR. MACHUT: That's a good question. Unfortunately, since I'm not personally involved in our medical business, I can't shed light on that.

MR. COLLIGAN: We've seen some initial modeling being done in that area as well. But it's not as akin to the workers' compensation model as life is. It's starting, but I cannot comment on that either.

MR. MACHUT: I can tell you that since the Rhode Island nightclub fire, there has been a definite increase in requests from our medical area for catastrophe coverage, if you will. We do offer a product. They call it "MOM," multiple occurrence medical, where we keep a $10 million net line. There has been an increase in interest in trying to buy reinsurance to help protect against that situation. At a recent event we hosted, there was a representative whose client had 20 people out of the approximately 100 folks involved that were claimants from that fire, totaling $10 million. Things happen.

MR. MACHUT: One of the things I've heard during the last 18 months about 9/11 from so many companies around the country is, "Well, it didn't happen to us. You know, we had reinsurance." Again, it's disappointing to hear people take that kind of an approach, because the reason this was as insignificant as it was for so many life companies is because it was reinsured. It was reinsured with a relatively few life reinsurers that did sustain significant hits. Unfortunately for some, they've gotten out of the business; fortunately for others, they've been able to persevere. But what once was covered now is not; at least it's not to the extent that it was on 9/11. It's unfortunate to continue to hear comments from people all around the country that say they don't have exposure there. It's as if they could suggest where the next thing might happen.