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## FREQUENTLY OVERLOOKED TOPICS IN SOLVENCY TESTING

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This panel will describe the less obvious financial exposures and qualitative issues affecting an insurance company's financial strength. In addition, panelists will discuss risk-based capital as a means of solvency assessment.

MS. JOANNE BALLING: When I first joined Standard and Poor's (S&P) three years ago, I thought I had a pretty good understanding of all the issues involved in solvency testing, but I quickly learned how much I didn't know. And in the past three years I've learned a lot of new things, and I'm still learning new things today.

The speakers all have various backgrounds in solvency testing. Laurie Blank is director of corporate finance for USAA, which she joined in May 1990. As director of corporate finance, her responsibilities include corporate relationships with commercial banks, investment banks, and rating agencies as well as corporate funding programs in domestic and international capital markets for USAA and each of its subsidiaries. Prior to joining USAA, she was with KMPG Peat Marwick in San Antonio. Earlier in her career she was a real estate developer at Grant Thornton in its tax department. Laurie's going to speak on the quantitative issues involved in solvency testing.

The second speaker is Diana Monteith. Diana Monteith is a vice president at J.P. Morgan. She heads up the financial institution's global credit research team. There she analyzes insurance companies, banks, broker/dealers and leverage and mutual funds for Morgan's loan and derivative portfolios. Diana has spent 13 years in the insurance industry. Prior to joining J.P. Morgan, her experience includes rating the claims-paying ability and senior debt of insurers for S&P. She also has experience with acquisitions and divestitures for various major insurers and consulting for Lloyds of London. Last, but not least, Steve Dreyer is the director at Standard and Poor's Insurance Rating Services. He's responsible for S&P's quality solvency rating of 3,000 U.S. insurance companies. Prior to joining S&P in 1990, Steve was director of Insurance Solvency International, a rating agency later acquired by S&P.

MS. LAURIE BLANK: Joanne asked me to speak with you about frequently overlooked topics in solvency testing. I was a little bit hesitant because she is our analyst

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at USAA, and I hope I don't divulge anything to Joanne that she didn't know about us anyway. I would like to discuss four major topics; specifically, catastrophe exposure, affiliate financial obligations, latent liabilities, and asset/liability management as it relates to the property and casualty (P&C) industry.

First let's discuss catastrophe exposure. Unfortunately, when we read an insurer's financial statement we cannot learn a great deal about its catastrophe exposure. Therefore, we have to look deeper into the operations of the entity. At USAA we spend a great deal of time getting to know our own catastrophe exposure and find ways to mitigate that exposure. It is vitally important that we have a feel for our unrecorded liabilities.

To accomplish this we analyze our members' geographical dispersion; we gain knowledge about our exposure; we evaluate and adjust, as necessary, our underwriting techniques, policy limits, and deductibles; and finally we look at reinsurance. Let's spend a little time on each of these topics.

First, it is important to know our geographic dispersion, including concentrations of business in catastrophe-prone areas. At USAA, for example, our membership is composed of active and former military officers and their families. Our commitment is to provide insurance coverage and other financial services for our members no matter where they live. Obviously, we have a large number of members in coastal areas due to the location of the U.S. military bases.

We have also found that once a member leaves the military service, he or she is still likely to live in the prime, beautiful regions of the country which, unfortunately, are many times located on the coast. Once we know our geographic dispersion, we map our business mix by area. This is important because exposures vary greatly, depending on the line of business.

We then look carefully at our catastrophe history by line of business and by area. This information gives us a basis from which to project potential catastrophe losses.

Next, we get to know our exposures through the use of sophisticated models. We use models produced externally to USAA and compare those with the internal models that we have and try to arrive at good estimates of our catastrophe exposures. We also define our exposure down to very specific areas such as zip codes. We know where our members are, what policies they carry, and what our exposure is in any given area. This type of information helps us internally to prepare for liquidity needs, and it gives our external analysts, such as Joanne, comfort that we know our business.

We then evaluate and adjust, as necessary, our underwriting policies. At USAA, all of our members (as I spoke before) are eligible for coverage despite the area where they live. This gives us a challenge in that we cannot generally turn down business simply based on location. Therefore, we have to have special underwriting policies in catastrophe-prone regions.

We must evaluate carefully our business strategies, such as our affinity to the military and how our underwriting affects such strategies. Regulation can play a big role in

underwriting. For example, Florida regulators at one time would not allow writers to withdraw from the state. Additionally, some states force us to "take all corners," military or not. These types of factors can greatly alter our exposures; therefore we continuously monitor the regulatory environment. Finally, we must be competitive while being careful to set the rate for the exposure, especially in catastrophe-prone areas so as not to adversely affect competitiveness in other regions of the country. Balancing pricing with other underwriting techniques in catastrophe-prone areas can be difficult. We also reevaluate and adjust, as necessary, our policy limits and deduct-ibles in our catastrophe-prone areas. Finally, we evaluate the reinsurance market.

I'd like to touch briefly on traditional coverages versus nontraditional reinsurance. As you're aware, reinsurance coverage has come out of the London markets for the most part. That market, however, is shrinking, and the U.S. capacity for reinsurance has increased. This increased demand is affecting new capacity such as can be found in the Bermuda market. Let's discuss Lloyds and Bermuda just for a moment.

Lloyds of London is facing one of the most turbulent periods in its 300-year history due to a series of natural catastrophes and unanticipated losses stemming from U.S. environmental clean-up costs, asbestos claims, low premium levels, reduced investment yields, and a diminishing number of names willing to participate. However, corporates are now entering the market, reemphasizing underwriting skills.

The past few years have brought tremendous growth to Bermuda's insurance industry, which has attracted capital from investors including some of the largest, most sophisticated institutions in the world, such as Zurich Insurance, J. P. Morgan, SwissRe, and GenRe, just to name a few. Why Bermuda? Because of the tax benefits. Exempted companies may be guaranteed immunity from income and capital taxes through the years 1996.

The Bermuda market appears to have the capacity today, but the long-term commitment should be questioned as these companies are new and many times new commitment does not last. The earnings may be attractive today, but these companies may find the market to be a different place four or five years down the road.

It is important to evaluate the underwriting skills of the participants because many are new to the market. The rates are attractive from the buyer's perspective, which makes us question the adequacy of such rates. Finally, the regulation is minimal today and therefore we are left with the responsibility of due diligence.

In an attempt to retain writers in catastrophe-prone areas, several states have implemented or are considering state-run catastrophe plans, including the Florida plan and the Hawaii plan. Additionally, two U.S. senators have introduced the Natural Disaster Protection Act of 1993.

Let's discuss each of these plans for a moment. Briefly the Florida plan is a state trust fund requiring mandatory participation that provides reinsurance for hurricane losses. The plan reimburses 75% of losses and LAE in excess of a trigger that varies according to the insurer's size. The revenue sources come from property premiums, revenue bonds, and an emergency assessment of 2% of P&C premiums excluding worker's compensation. This plays a big role in USAA's decision on whether to buy

reinsurance this year, because if we can exclude our Florida business, it may greatly reduce our reinsurance costs.

The purpose of the Hawaii Hurricane Relief Fund is to provide hurricane coverage that is otherwise unavailable. The policy is sold in conjunction with underlying property policies, and the revenue sources therefore come from the premiums as well as a special mortgage recording fee, P&C premium assessments, and some other miscellaneous charges.

The Natural Disaster Protection Act of 1993 basically establishes multihazard reinsurance programs for which state and local communities are responsible. It establishes a primary earthquake insurance program and a federal reinsurance program for catastrophes. Some of these government programs are better than others, but all reinsurance affects the company's solvency and must be considered when analyzing the financial exposures.

Changing gears, I'd like to discuss affiliate financial obligations. Anytime Joanne is evaluating the solvency of USAA, she must be careful not to overlook USAA's affiliate obligations. So far she hasn't missed any. Understanding affiliate obligations means knowing the legal structure, capital-market obligations, guarantees, and other obligations of the entity and its affiliates.

When looking at legal structure it's important to not only look up and down but sideways as well. An insurance company's parent may have a noninsurance subsidiary that requires large inflows of capital. The parent may be pulling cash from the P&C operation to dividend to the other affiliates and may not have resources available, should the tables turn and the P&C company needs capital.

In our case, USAA is the parent and has a downstream finance affiliate known as USAA CapCo, which is the parent of our noninsurance subsidiaries. It includes a savings bank, an investment management company, and a real estate division. Our analysts are careful to know and understand the obligations of CapCo as they may well affect P&C.

We must know and understand capital market obligations of the affiliates of the P&C operation. These could include private debt programs such as commercial paper and medium-term notes. At CapCo, for example, we have a \$2 billion global commercial paper program and a \$1.2 billion medium-term note program. Our analysts must be careful to know and understand these programs and how any market disruption could adversely affect our P&C company, which I'm sure would never happen to USAA.

It's also important to know about any financial guarantees the affiliates may be involved in. Our real estate companies from time to time enter into guarantees that could ultimately have an effect on the P&C operations. Again, I'm sure that would never happen.

Other financial obligations of affiliates could include bank notes that our savings bank has considered as a form of funding the consumer loan portfolio, and capital leases and recourse debt that our real estate companies utilize from time to time. Any of

these obligations could affect a P&C company solvency and therefore must be known.

The next area I'd like to talk about is latent liabilities. As you are aware, the most critical liability on a P&C balance sheet is its reserves. How do we really know if the reserves are adequate? The longer the tail on the line of business written, the larger the risk for underreserving. Fortunately at USAA, we do not have the industry problem of trying to guesstimate latent liabilities as we have no commercial lines. But it is an industry problem. And the evaluation of a company's solvency would not be complete without knowledge of both environmental and health risks.

Environmental risks are present for large, comprehensive, general liability writers. Today the industry is uncertain as to the magnitude of these exposures. Thus far there's been no clear direction from our court system. And the superfund reform is still pending. This makes this area of exposure very real and important for these types of writers.

Another area is worker's compensation lines where we ask what the effects are of pollution on health in the future. What are the effects of changing technologies on health? I was talking with one of USAA's risk managers the other day, and she pointed out that with the dramatic change to computer use over the last decade has come the increased incidence of carpal tunnel syndrome, which is caused by the repetitive use of the wrist. This is a new health hazard that we didn't know about in the past. Who knows what latent liabilities are developing today that we will only learn about tomorrow?

The last area I would like to address is asset/liability management for P&C companies. My first response to the subject a few years ago was, who needs it? After all we have adequate cash flow and liquidity to meet all needs. Well the industry realizes today that we all need it. Not only does the industry have cash flow and liquidity issues, we also have *FAS 115*.

First, cash flows have deteriorated for the industry. Catastrophes have been at an all time high for the last several years. And the first quarter of 1994 has been no exception. The insurance market is soft, with severe underpricing driven by competitiveness and regulation going on today. Interest rates were low and are now on the rise, with a very uncertain future.

*FAS 115* has forced us to divide our investment portfolios into three categories: assets held to maturity, those held for sale, and our trading account. And we expect Statutory Accounting Practices (SAP) to follow GAAP.

This accounting rule may well have an effect on management and corporate strategies as well as business reviews. Operating performance may be affected. Choice of investments and levels of capitalization will be impacted. *FAS 115* will affect liquidity and surplus ratios as well as debt capacity.

Another risk inherent to *FAS 115* is the differences among insurance companies as to the classification policies. Some may classify a great deal of their portfolio as held to maturity and another company may put 100% of its assets into the held-for-sale

category. This not only has the potential of distorting surplus levels but it also will affect comparability of industry balance sheets.

All of these factors—cash flows, liquidity, and *FAS 115*—must be addressed by a P&C company, as asset/liability management does exist for P&C companies now and it will in the future.

In conclusion, solvency measurement requires the broadening of the scope of analysis to include off-balance-sheet risks and business strategy.

MS. DIANA MONTEITH: At Morgan we spend a lot of time analyzing the credit risk of various types of obligations. And in my group, in addition to other financial institutions, we look at the credit risk of insurance companies. We're looking at this credit risk for many reasons: we're looking at credit risk that comes from making a loan, credit risk that comes from doing a swap, or from even selling company securities. There can be significant settlement risk if a company goes under.

When we look at a company we always look at two things. We spend the first part of our analysis looking at the numbers, the hard-core numbers that everybody looks at. And then we look at the second part, what i call the soft side of analysis. And this is really a large portion of analysis. It's probably half of the analysis that we do.

At Morgan I would say the key to the soft part of analysis is really knowing your client. Know and understand who your client is. Part of knowing your client and understanding this risk is understanding these key risks:

- Risk of industry
- Management
- Competitive advantages
- Sources of distribution
- Diversification
- Financial flexibility

Understand the risk of the industry. Form an opinion of management. This is so important to Morgan that for each company we take any credit exposure to a senior person who must sign on a piece of paper that he or she knows management and is willing to vouch for management. This is a very important part of our analysis.

We also look at the company's competitive advantages. With so many commodity products in insurance it's very important but also very difficult to determine what competitive advantages are. We look at the company's source of distribution. Is it a positive or a negative to the company? As Laurie talked about, how does the company diversify? How does it manage the risk through diversification? And then finally we look at financial flexibility.

Regarding risk, we can't really say what line of insurance has the most risk, but we try to rank and say what lines of business have the greatest insurance risk.

### CHART 1 INDUSTRY RISK

- Insurance risk associated with the Property/Causalty Industry
  - Risk of catastrophes; difficulty in determining "proper" level of loss reserves



What we're really looking at is what events could occur that could cause either a sudden insolvency or would slowly cause an insolvency. So we're looking at the risk of catastrophes and we're also looking at the risk of companies being underreserved and having liabilities that may not even be recognized.

One part of the industry risk is looking at the regulatory risk. The pricing flexibility that a company has a big impact on our view of the company and the strength of the company. A personal-lines company, in our opinion, has much less pricing flexibility. There's so much pressure these days on personal-lines companies that they've become very politicized, with many governors running on platforms that they're going to cut auto rates. Property and casualty insurers really don't have a lot of flexibility in auto pricing.

We also think that the possible prohibition of certain investments with the Model Investment Act could have an impact on companies. It will give them less flexibility, less ability at times to match their assets and liabilities if they choose. We look at the dividend restrictions. In our opinion, the dividend restrictions can be both positive and negative, depending on what company we're looking at. If we're looking at an operating company, these restrictions are positive, if we're going to do a swap with the operating company, that's where our obligation is. With this type of risk, the

dividend restrictions make the operating company much stronger. It will keep a weaker operation or a weaker holding company from siphoning out a lot of capital or cash.

On the other hand, if our exposure is to the holding company, then dividend restrictions make that a much weaker credit. And again as Laurie pointed out, the operating or the organizational legal structure is a very important factor that we look at in evaluating the solvency and credit.

We also look at barriers to exit. Because insurance is a commodity product, there aren't a lot of barriers to entry. With more than 100 new insurance companies being formed in the last year there aren't barriers to enter. But the barriers to exit are great, such as the difficulty that companies like USF&G and Prudential are having trying to decrease their exposure to Florida. That causes the individual risk of these companies to go up significantly. And it's a big concern to us.

Also, because you can't just exit a line of business is a credit factor; the fact that many companies have written very long tail lines of businesses and want to get out of them for 10-20 years because of the long tail. Many companies have had to actually pay other insurers to take these companies over. You can't even sell them. So here again the barrier to exit is great.

We also look at the political risk. And that's pretty much what I had talked about before with the governors' running on a platform of cutting auto rates.

How good management is is a key factor because insurance is somewhat of a commodity product. The real way that a company can differentiate itself is by having very good management. And the first question we ask, is it credible? Can the company generate the kinds of earnings that management promises?

Track record is also important, both the track record of the current company and its prior company. Does management have the skill to turn around organizations? That's one thing we look at. What was the track record at the last operation? Was it able to generate some good, strong earnings? Was it able to do what it said it was going to do?

We analyze management's strategies. Is it a strategy that really complements a company's strengths? Or is it a strategy that's merely been copied from another company? Many companies that I've met with will spend their time talking about this great strategy, and it's very obvious that they've merely copied it from another company, e.g., AIG, Chubb or USAA. Those strategies worked for them, but they don't necessarily work for this other company. So we look to see if a company realistically assesses its strengths and weaknesses and then from that formulates a strategy that works very well. An example of a strategy that didn't complement a company's strengths and weaknesses would have been Home Insurance's strategy. A number of years ago, back when it was a rather troubled company with a lot of exposure to junk bonds and very high leverage at the holding company level, Home's strategy was to sell high-income homeowner insurance. When customers compared Home with Chubb, it was a very hard sell. That's an example of the strategy that didn't really fit the strengths or the weaknesses of the company. Sure enough, a

year later it discontinued and sold the high-income homeowner business, recognizing it was fighting an uphill battle to sell to that marketplace.

Another issue is, does the management really have the appetite to carry out its strategy? So many companies are now beginning to downsize after talking about downsizing for a long time. And it's very difficult at times for many insurers to downsize. And a good example outside of the insurance industry of a company that's having a difficult time downsizing is Digital Equipment Company (DEC). The newspapers report it is continuing to cut people. But it has talked about cutting people for two or three years. And last week the news reported DEC had cut 700 people in the last six months but hired them all back as contractors. This is an example of a management that really doesn't have the appetite to carry out its stated strategy.

You often see that in insurance because insurance companies tend to be very paternal. Because they invest a lot in employees, they have a very difficult time making decisions to cut when they need to, even when that's the efficient thing to do.

Another question is, what's the risk if the strategy doesn't work? Is there a lot of downside if it doesn't work? And how great is the upside if it does? An example of a company or strategy that has a lot of downside would be growing premiums in the down market with the expectation that the turn in the P&C cycle is right around the corner. So when the market turns, it will have a big position, and it will generate large profits. I view that as a very risky strategy. The down side of that is high. If the market doesn't turn, the company will have large underwriting losses.

How proactive and forward looking is the strategy? Is this a company that's merely reactive? Or is it a company that's proactive? Is it a company that has a strategy in place? How does this company think and plan? What is its contingency plan?

Is it open or is it very closed and does it not share information? Who is it open with? Is it open with S&P? Is it open with its bank? Is it open with its security analyst? Or can you never get quite behind the numbers to figure things out?

And the companies where we never quite get behind the numbers and figure them out concern me. And I assume that they're not sharing information because it's negative. I don't think many analysts assume companies are not sharing things because they are positive.

What's the company's appetite for risk? Is it comfortable with risk? Many companies that are very profitable and well run, have huge appetites for risk. And as a creditor that concerns us.

When we look at competitive advantages, these are the points that we consider. Can the products be differentiated? Again I make the argument that it's very difficult to differentiate insurance products. What's the technical expertise that the company has?

Laurie was talking about the new companies that are being formed in Bermuda. These companies are trying to differentiate themselves in two areas. One is a lot of capital and the other is the technical writing expertise. The market value for property underwriters has probably doubled or tripled in the last year. These insurers are trying to convince people like Morgan and S&P that they know how to quantify those risks. And that's an effective approach to differentiation. And again, the question will be 5-10 years from now, will they really be able to differentiate themselves? Or will they all have good underwriters?

What kind of economies of scale does the company have? Can it get some efficiency out of its size? What's the company's financial strength? What's its claimspaying-ability rating, what's its debt rating? These are very big competitive advantages, especially on the life side. How does it utilize these advantages? A few years ago, AIG's stated strategy in its annual report was to capitalize on its triple-A rating and enter businesses that required financial strength. So that's one thing we're looking at. How does it use these competitive advantages that it has? How does it maximize them?

Economies of scale or the cost advantages are important competitive advantages. Is it a company that has cost advantage? Does it have a more efficient distribution system? Do they have a more efficient way of processing paper that actually makes the expense ratio much lower?

And another important consideration is reputation. How is it viewed in a market? Is this a company that people like doing business with? Or is this a company that it only does business with when there's no other company to buy insurance from?

I think distribution is a key factor. Insurance has an inefficient distribution system in the U.S. In Europe we see somewhat more efficient distribution systems as banks are able to sell many insurance products. The question that we ask when we are looking at a company's distribution system is, does it have control over its sales force? A direct writer will have control over its sales force, it will be able to determine what it's selling and how it's being priced. A company using independent agents doesn't have that kind of control over its sales force.

An independent agent selling for four and five companies cannot be "managed or controlled," even though companies try to tie the agent's long-term compensation to its loss ratio. So the question we ask is, how much control does it have? Does it have any control over the distribution system? And does it acknowledge that? Does it recognize that? Some of the nonstandard auto companies I met with a few weeks ago at the American Foreign Insurance Association (AFIA) conference said they recognize that they have no control over their agents. "They lie to us, they cheat us, they'll say that people live in different counties, that they don't have children." This company recognizes it needs the agents to write the business, but also recognizes that they're truly working for themselves. And that's something that most companies have a very difficult time acknowledging, so it's hard to control agents.

Are the objectives of the sales force or the agents in line with the objectives of the insurance company? Very frequently they're not if the company is trying to cut back

in certain areas. Insurance agents will sell whatever products they can sell, even if that's inconsistent with the individual insurance company.

Another question is, can these products be sold through the given sales force? Again this relates a little bit more to Europe and outside the U.S. where banks are used. Can every product be sold through the bank? Is this a reasonable distribution network? Can annuities and life policies be sold through banks?

Finally, is it a cost-effective method of distribution? The direct writers all have a cost advantage. They save a lot of money. So that's positive, but on the other hand, using an independent agency system creates a variable cost structure. So a company can choose to downsize and cut back in bad times. Is it a cost advantage? And how does it balance that with its strategy?

Diversification is key. We believe the basic portfolio theory, that a company that is diversified geographically and by line of business is going to be a stronger company. It may not have returns as good as a monoline company that really knows its market, say in one state, but as far as strength and solvency go, we think it's a lot stronger.

Does it have more than one source of distribution? A few years ago, Pacific Mutual was generating the bulk of its premiums through one very large, very capable independent distribution network. When it was downgraded, the distributors decided that they could no longer go to their high-income clientele and just offer them one or two policies. So they started selling insurance of five or six AAA-rated companies. This effectively forced Pacific Mutual out of part of its marketplace. The fact that it didn't have a diverse source of premium was a real risk. It actually lost about half of its life insurance premium.

To be well diversified you have to be big; you have to be bigger than an undiversified company. And how is that balanced? Size is good from a diversification standpoint. But how does that trade off with profitability? If you look at the companies with the greatest return, the best combined ratios, the lowest loss ratios, they tend to be the more monoline, smaller companies. We're constantly trying to balance the diversification of the larger company with smaller size and more control over a marketplace.

The last thing that we consider on the softer side of the analysis is a company's financial flexibility. What options does it have going forward? Can it raise cash? Can it raise capital? Can it only raise cash and capital now? Or can it do it even when there are problems? What sort of policies does it have in place? What sort of relationships does it have with its bank? What sort of relationships does it have with its bank? What sort of relationships does it have with the rating agencies? Are those organizations going to buy into the plan and give it some financial flexibility? Are the banks going to back away from it when it has problems? Are the rating agencies? How much room is in the rating? Will it be quickly downgraded if it needs to raise significant capital?

Can it raise equity? Ultimately most companies can raise equity but if it is a mutual, it must first demutualize. That's not something that can be done quickly. So what are its options to raise equity in the intermediate term? What kind of flexibility does the company have?

In summary, the key is to know your client, understand your client, and understand how it deals with risks. I don't want to underplay the numbers. We look at the numbers, we have models, we have many spreadsheets we look at. But that's only half of it.

MR. STEVEN DREYER: When I say risk-based capital, I'm talking about the recent model law propagated by the NAIC to distill into a single number an insurance company's risk. The NAIC will use that single number as a means to actually regulate the company, and in some cases, close the company down if the number falls below a certain level.

I'm not going to get into a lot of specifics about the factors or the formula or anything along those lines. But I would like to talk in general terms about the risk-based capital guidelines; where they come from and how good a job we think they will do in both their stated purpose and in their underlying functional purpose. As we'll soon see, those are two different things, two different concepts.

First of all, why risk-based capital now? It's a response by regulators to accusations that they've been sleeping on the job, plain and simple. It's meant to appease Congress and it's part of a multipronged approach, including other model laws, accreditation standards, and other sort of last-minute actions on the part of the commissioners to show Washington that they really are getting their act together. And, I think, to a large degree, they are getting their act together.

But risk-based capital provides a couple of other functions for regulators. One is to prove, not only to Washington but to the general public and to voters in the states where insurance commissioners are elected officials that insurance regulators are on the ball. And third, this may be the most important of all, it gives regulators a legal stick that they didn't have before. They can take action against a company sooner, before things really get out of hand.

As an illustration of this, look at just about any insurance company that's been taken over by state regulators. Except in a few cases where the impact causing insolvency was sudden and unexpected, there usually was some advance notice. Insurance commissioners and others (sometimes the entire market) knew that these companies had problems long before regulators were able to take action.

A case very recently occurred in January 1994. Corporate Life Insurance Company was taken over by the state of Pennsylvania two years after regulators knew it had serious financial problems. Well, the legal challenges the insurer was able to mount basically gagged the regulators from doing anything until things got so out of hand that the regulators were then finally able to take action. In the meantime, for two years the company continued to sell policies to unsuspecting individuals.

So it's a tough job for regulators. They have to balance the needs of the public along with the legitimate legal rights of the insurance companies. And they also have to protect jobs and protect tax revenue. And again for commissioners who are elected, that's more of an issue.

Now risk-based capital as a tool won't solve all these problems or make that balancing act a whole lot easier. But it will provide something objective to point to, that being the risk-based capital ratio, which should come up on the regulators' scopes before the old measure, which was that once the insurer's capital had sunk below \$2 million, they could take action.

So this tool is actually very important and it's going to have a very meaningful role in the regulation of insurance companies. And for that reason I think it deserves a little bit of scrutiny.

One thing we should all bear in mind is that this formula was not generated by a bunch of scientists or actuaries locked up in a room someplace wearing white lab coats and sterile gloves. This is a very much living, breathing, negotiated kind of a formula. Maybe a better term would be risk-based compromise instead of risk-based capital.

And you really have to wonder what they ended up with here. The RBC is wide ranging and covers many different risks of insurance companies. But it doesn't cover everything. We'll demonstrate that shortly. It's basically a tool and it has some limitations. And as long as everyone understands that that's what it is, I think it'll do fine. The problem is it probably won't get used that way.

There are plenty of examples of things in everyday life that are like this. They're good tools, they're useful, they tell you something. But they don't tell you everything you need to know. We're all familiar with what we used to call the four food groups. Now there is a pyramid and they talk about the different kinds of foods. You should eat more of the food at the bottom and less at the top. The bottom has the grains and wheat bran and all that good stuff. And then you should eat the fatty foods to a lesser and lesser degree as you move up the pyramid.

Now this is something we could turn into a ratio. We could turn it into some sort of index or indicator in which we could measure someone's intake of food. A 100% score might mean you hit the recommended daily allowance (RDA) targets right on, that you consume the appropriate percentages of each category. We can construct something like that. And we could also envision that some people who eat nothing but oat bran muffins (without butter) from sun up to sun down would get much higher than a 100% score.

And at the other end of the spectrum you can envision someone who would get a score of maybe two out of 100 by eating cheese doodles and drinking root beer all day. So, the question is: if we had that ratio indicator, would it be a useful way to evaluate someone's health? Well the answer is yes and no. For that person who is very low on the spectrum, who gets a score of two or three out of 100, I think we can say if this is a habit that continued over a period of time, this person is going to get sick. In some way, shape, or form, this person is going to have health problems, regardless of what other wonderful health habits he or she might have.

Then there's the person who scores exactly 100 on that ratio, the person who is eating well. However, you can't say that person is healthy. You can say that it seems like he or she has a decent diet. But you can't say for sure that the person is

healthy. And even the person who scored 1,000% can't be called healthy. All you can really say is the person probably doesn't have a diet problem.

Well risk-based capital works pretty much the same way. We think that low scores on risk-based capital probably are telling you something about the company's capitalization. But if the company scores 100%, we cannot say that company is financially strong. Even if it scores 1,000% we can't say, with certainty, that the company should not be worried about its financial condition.

And this is a hard concept for many folks to get a handle on. You'll hear expressions such as, "Well, all else being equal, if a company has a 400% ratio, that's twice as good as a company that has a 200% ratio." And that's simply not the case. At least that's what we strongly believe.

But one thing about "all else is equal" is that there's no such thing as "all else is equal." And what we find is the "all else" part, even if there's a little variation, tends to overwhelm the difference between say 400% and 200% on risk-based capital.

I'd like to get into some demonstration of that. But before we do I want to clear up one conceptual issue. You hear many people talk about risk-based capital. They make the point, the commissioners do this as well that it's not a rating, it shouldn't be used to evaluate insurance companies for financial strength. And they're right. But the problem is that they're naive. I look at it this way. There are two ways, two requirements, for something to be called a rating.

If it's a method that groups things, in this case insurance companies, into groups and you would consider one to be better than the next, that's requirement number one. Number two is that people *use* it as a rating. Now risk-based capital meets those two requirements. It doesn't even have to be good, but if it's used as a rating and does delineate, or rank order companies, then it will, at least by my definition, be a rating.

We know, particularly in life insurance, and I think to some degree in property/casualty, that agents, policyholders, pension managers, risk managers, people who should know better, are clamoring for this information. They want to know what the company's number is. They'll look at the rating from S&P and they'll look at the rating from Best's, and they'll look at other things. But they're putting an awful lot of weight, I think maybe too much weight, on this number.

So I think to be pragmatic or realistic, we should look at this thing as a rating. Knowing that people are going to use it as such, how good a job does it do?

If you don't believe me about the RBC being used as a rating, take a look at *The Wall Street Journal*. Just last month an article showed the top 20 life insurance companies and their risk-based capital ratios. We like to think that these are fairly knowl-edgeable folks who are writing for *The Wall Street Journal*. Here's the opening sentence for that article. "Consumers have a new way of measuring whether they are buying from a healthy life insurance company." They are talking about risk-based capital. It sounds like a rating to me.

So if it's a rating let's see how good it is. Now in last August 1993, at a meeting of the American Risk Insurance Association, a paper was presented on the performance of risk-based capital for property/casualty companies. That paper was presented by Martin Grace from Georgia State University, Scott Harrington from the University of South Carolina, and Robert Klein, the director of research at the NAIC. I'd like to review the findings of that study, which were hardly discussed. It actually left me a little disgusted. I would think the NAIC would want to promote the findings that RBC doesn't predict solvency very well. It should help to achieve its stated goal of trying to keep RBC in perspective. It has chosen not to do that.

The paper "Risk-Based Capital Standards & Insurer Insolvency Risk: An Empirical Analysis," (Grace, Harrington, & Klein, 1993) went back to the year just prior to 1991 through the middle of 1993 and ran the risk-based capital test on each of those property/casualty companies that became insolvent.

I don't know how many there were altogether, but I would guess something in the order of 100. Only 15% failed the risk-based capital test. And this is using a fairly liberal definition. This is the company-action level. Only 15% fell below 100% prior to insolvency. They repeated that experiment for the following year using insolvencies that occurred in 1992 and 1993, again looking at the year just prior to failure. The results are pretty much the same; only about one-fifth of the companies actually failed the risk-based capital test.

Now this result in itself is not a tragedy by any means. If we go back to our diet example, the idea here would be that out of all the people who got sick, only one in five had a diet problem. That doesn't mean that diet is something we should ignore. It just means that things other than diet are making people sick.

So to make some kind of conclusion about how good a predictor risk-based capital is, I think we have to go a little deeper. And again, with our diet example, if we go to all the people who have a poor diet and found that they all got sick, or most of them got sick, we'd have a pretty good indicator: we should pay attention to diet.

Well unfortunately, when the researchers did that with risk-based capital, they didn't find that most companies with a bad diet eventually got sick. In fact, most companies with a bad diet stayed very healthy. Of 74 companies that failed risk-based capital tests in 1990, using 1990 information, only six of them went on to become insolvent during the next three years. Again repeating it in 1991, there were similar results. Only six of 58 companies that failed the test actually became insolvent.

Now, when I saw this result I thought that maybe this has something to do with the liberal (what I call the liberal) cut-off, defining what's a failure. Maybe if you go down to very bad diets, at some point you get a result that shows that all companies that score below X will die. Well unfortunately, even that is not the case with the risk-based capital. Take that 100% cut-off and whack it all the way back to 35%. This is an important number because that's the number that the regulators are using as the de facto standard for taking over a company. A company scoring below 35 is history; regulators are required to take it over even if they don't want to. They must take over the company. That's what the model law says. If we go back over this

sample group and see how many companies are below 35%, there were 19 companies and only one of those 19 companies eventually became insolvent.

So I'm trying to demonstrate that we don't think this particular risk-based-capital test is a very good predictor of insolvency. And maybe that doesn't surprise you. What certainly surprised me was that some other measures that have been around for years actually work better. This is the average successful classification rate over both solvent and insolvent companies. RBC on average did 57%. It was right 57% of the time. But the much criticized premium-to-surplus ratio actually did better in combination with an indicator variable on stock versus mutual, an indicator for size. If you put those three things together, and they're actually slightly better than the much more complicated risk-based-capital formula on average.

Another test is the so-called FAST ratios I'm not intimately familiar with them. But I think they grew out of the old Insurance Regulatory Information System (IRIS) tests that the NAIC used. There are 20 or 25 tests, and they actually did best of all the different combinations that these researchers had studied.

So as a predictor of insolvency, let's sum it up this way. There are really three conclusions that you reach from this study. One is that if the company fails the test even at the very lowest conservative levels, it doesn't necessarily mean the company, in reality, is financially weak enough to become insolvent.

Second, risk-based capital really doesn't add very much to existing tools that have been available to regulators for a long time.

Third, the initial point that I tried to make is there must be other things going on besides capitalization to affect the solvency and financial health of insurance companies.

We've studied this for quite a while at S&P. I'm talking about our quantitative research and we've found, strictly looking at the numbers, that capitalization tends on average to count for about one-third of the total pie in terms of predictability of insolvency (Chart 2). It breaks into thirds, with capitalization being about equivalent to liquidity; again, measuring those companies that actually failed over the past five or six years.

Looking at what their characteristics were prior to insolvency, this was the mix that best categorized companies into insolvent-versus-solvent camps. Profitability was important as was risk spread. I think the risk-spread factor (the catastrophe exposure factor) is something that has actually statistically become much more significant during the past couple of years, following Hurricane Andrew particularly.

After Andrew, 12 companies were rendered insolvent or were taken over as a result of the catastrophe. No other catastrophe in history came close to racking up that many victim companies. So statistically that helped to shift the balance a bit. Capitalization is important but it's not even necessarily the most important issue.



Source: Standard & Poor's Qualified Solvency Ratings Research

One thing that we found in doing this kind of research is that none of these factors works well in isolation. We could have had a risk-based liquidity model or a risk-based profitability model. And it would have had exactly the same kinds of short-comings that RBC has. So I don't mean to pick on capital. But when you're focusing on something that's one-third of the picture, by definition it's not going to be comprehensive.

Just to sum up, I'd like to briefly review with you how we at S&P look at capitalization from a rating perspective. We have been looking at capitalization for years. It's part of the overall picture, as I've been saying. We use capitalization-measurement techniques for really two purposes. One is the same as the NAIC's, that is to find who the bad guys are and what companies are so weak that capitalization alone looks like it's going to drag the company down.

But we have a second function and that is to loosely prioritize among the strong companies the ones that are stronger yet. Now we're venturing here, getting very close to what I said before you couldn't do. Four hundred percent is better than 200%; 200% is better than 150%, and so forth. In the way we're looking at capital, being somewhat different than the NAIC we believe we have something that's a little more valid in doing that kind of analysis.

But having said that there are no hard and fast rules in this sort of thing, we may have a triple-A company that has capitalization that doesn't look all that attractive. We may have a lower rated company with a very strong risk-based-capital-type number. We call it a capital allocation model. There's nothing magical about this; it's just that we wanted to come up with some different name and somebody thought of capital allocation model. It is the same concept though.

Let's look at what kind of capital a company needs to run its business. We happen to look at asset risks a little differently than the NAIC does. We look at it as maybe being a little more fundamental. We think that the losses that an insurance company is going to encounter with its assets are, in fact, very predictable. Bond defaults have been fairly constant over a number of years. We've been studying that. If you're sitting there with a portfolio of double-B-rated bonds, over a period of ten years, we can predict with reasonable accuracy how much money you're going to have in that ten-year period in your portfolio of bonds, allowing for defaults and recoveries and so forth.

So with asset risk we actually hit the company right off the bat and remove capitalization or capital from the analysis. For asset-related risk, we have confidence that it will come to pass and reduce the company's capital. Then we'll look at these liabilityrelated risks, which are much riskier, if I may use that expression, that a company's reserves could be under what they ought to be and could well be over what they ought to be. We don't see many insurance companies reporting bonds at values that are less than the true book value. Obviously that's prescribed statutorily.

So what we see in terms of an approach is a little bit different. We also would use different factors. The NAIC has, as I said before, a set of factors that have come about through compromise and negotiation. We think ours tend to be a little more academic. We certainly haven't had that push/pull kind of approval process in the public eye.

I think it pretty much shapes up this way. The left side of Chart 3 has the vertical lines and all those three letter acronyms. Those are the NAIC categories. The mandatory control level (MCL) is the 35% I talked about earlier. The distribution here of companies is hypothetical, but you may be interested to learn that for 1993 we've run the risk-based capital results for 1,017 life/health companies that have been reported to the NAIC. Out of that number, five companies fell below 35%. So five companies, if they happen to be in states where the RBC model law has passed, are technically now wards of the state.

The other lines represent the various less onerous action level of the authorized control level, the regulatory action level. Finally at 100% is the company action level. Again, looking on the life side, only 19 companies of that 1,000 actually fell below the 100% line company action level. So again, I wonder how much utility the market and the public will get out of this ratio. The vast majority of companies are above 100%. The NAIC is telling us to not look at that, and it is right to say that. As we showed earlier, there's not really a lot of true differentiation using its ratio. There is not a lot of differentiation among the financial strength of companies. So I think it remains to be seen how the thing will be used in practice.

Now shifting gears a little bit, I'm thinking about our capital allocation model. We think it lends itself a little more to ordinal kinds of analysis. We'll set various standards for various ratings of companies: single B, double A, and triple A. These are not entrance requirements for each of those rating categories. But we would expect to see companies with those various ratings clustering in those sorts of proportions up and down that scale.





Finally, our view of risk-based capital is that we congratulate the NAIC for introducing it because it does give it a tool that will help it with its fundamental job of protecting policyholders. We agree that strictly quantitative analysis has a place. It is useful and provides useful information, but it should be taken with a certain degree of caution. We provide ourselves quantitatively based ratings along with our quantitative and qualitative ratings. And we find that they're valuable. But they don't tell you every-thing you could possibly know once you've gone through the very detailed types of analysis that Laurie and Diana were speaking about earlier.

But we think the NAIC has made a tactical or technical error in the presentation of risk-based capital. It stood back and the commissioners told us it isn't precise and shouldn't be used as a rating; it shouldn't be used to rank companies. And they turned around and handed us, the public, a very precise number in that a company can get a score of 242.6 or 242.5. So in that regard, we view the NAIC's actions as being somewhat irresponsible. And to assume that these things will not be misused in that way is, in fact, naive.

FROM THE FLOOR: Ms. Monteith, I was a partner at a big-six accounting firm and was responsible for actuarial practice. And in that context, I assisted the auditors with about a dozen proposals for audit services. We'd go into an insurance company and propose to become the auditor of that company. In the course of working on about a dozen such proposals, it came up twice that after spending 20, 30, or 40 hours, it was clear that we were dealing with an insolvent company. In one of those cases, we went to management and talked about it and never made a proposal. But the more interesting one was where we told the company what we had found at the audit committee. We told them we were willing to become the auditors, but we

thought the company was insolvent right now. And they said we were the first people to propose to become the auditors who had identified this problem. "Actually we've been working with the state regulators for years. They know we're insolvent, we know we're insolvent, and it's not in the interest of the policyholders to blow the thing up. The state thinks we should continue to manage it." But they were getting a rating.

I'm just wondering how good you think Standard and Poor's or Best's (maybe you don't want to comment on your competition) is at assessing these soft factors. Are we really getting ratings that we can rely on by and large?

MS. MONTEITH: First I should tell you that I also worked at S&P so I think it does a great job. I think one way to answer that is, why have we set up our own group? Why do we have ten people doing this sort of analysis instead of relying solely on S&P and Moody's and A.M. Best? First of all, I don't think anybody from the outside, J.P. Morgan, S&P, A.M. Best, can always catch everything. There's just a lot that you can't get your arms around. And there's a lot that can be really hidden in the numbers. That's part of the reason we have two very different components to our analysis. And one is very touchy, feely, and smelly, including the kind of soft stuff I talked about.

From Morgan's standpoint we tend not to go very down market in our client base. And we tend to deal with the strongest institutions. So we're pretty comfortable that we can assess these risks. We also look at S&P write-ups, we look at its ratings. We look at Moody's, we look at A.M. Best. And we think that those give us some good information. I think the further down market you go though, the bigger those risks are. I guess one other reason that we're not comfortable completely relying on other outside agencies, is that they're not always measuring is what we need to look at, or what you're specifically looking at. Plenty of companies have defaulted on debt, or violated bank covenants, and have remained investment grade from a claimspaying financial strength rating because those ratings are measuring the likelihood of paying claims. And sure enough, they pay claims but creditors lost money.

So we do think it's important. And you can't get to everything. We've made mistakes, every financial institution has made mistakes, as have the rating agencies with hindsight.

FROM THE FLOOR: I'm from the university so I'm interested in whether there are series behind all the financial factors that are taken in account. You have many factors taken into account. But why do you take those factors? Is it just on a theoretical basis or something more like a series?

The second question can be directed best to Ms. Monteith. I once spoke to a university professor here in the U.S. who did research in solvencies, and he did financial research to some extent that's also done by the rating agencies. But the main problem was, in his opinion, that many insolvencies originated from top-management thought. And is it possible to capture top-management thought? And how should you do that?

MR. DREYER: I think in response to the first part of your question, we would probably lean much more on practical results than theory. One of the problems with theories is that they keep changing. Interest rates were supposed to be a great predictor of competition for property/casualty companies. Retrospectively, you could predict premium growth and rates in the aggregate for the industry with an economic model that would weigh heavily on interest rates. Higher interest rates would coincide with price cutting. During the past couple of years that theory is gone, because we've had low interest rates and the price cutting is still here. There are other factors going on.

When I say we use the practical, I guess what I'm saying is when we have developed our models for evaluating companies, for solvency purposes we've tended to look at companies that have failed in the past, using what I guess you could now call traditional approaches to bankruptcy analysis that have been done previously in the railroad industry and in banking and other industries. We come up with some prediction models to try and foresee where companies will have problems. These models are never better than about 85% accurate in terms of reclassification. And going forward you can expect they probably wouldn't even be that good. Therefore, we have tended to layer on top of the basic quantitative results what we happen to know about the market. If you go back historically and do a quantitative analysis of factors that coincide with insurance insolvencies, you will not find real estate to be issue. I cannot name for you more than one or two companies prior to 1992 that had any real estate problems at all. Frankly, since then, Mutual Benefit had a big real estate problem. But very few insolvencies were actually real estate related; that is to say the real estate investments didn't go sour and certainly the company had liquidity problems or capital problems but not insolvency problems.

So we would tend to take factors such as real estate into account that we think are very important in evaluating a company's solvency. So we'll layer that on top of the analysis. But even that kind of application has probably less theory and more school of hard knocks. We've been talking with companies and we see all the crazy things they do. Not that they all do crazy things. You know, we sort of get to know what to look for and factor that into the process. I'll give you a silly example. There was a company that had classified as a mortgage a car loan on a used cadillac. That sort of thing is silly because we don't see big companies doing that by and large. But we would find something like that and say that this is something we're going to have to look for again in the future.

So because I think we've been doing this for 20 years, and rating bonds and corporations even longer than that, we tend to build up this knowledge base that gets applied going forward. That's pretty much how we do ratings.

MR. DREYER: Outright fraud where you misstate results on financial statements is almost impossible to pick up by anyone looking strictly quantitatively. However, we've learned a lot about fraud just by listening to people. As a rating agency, we get a lot of calls from individuals, people in the public who for whatever reason don't call their state insurance commissioners. I always tell them to do that. They call up and say, "I think this company is doing something crazy." Or an agent will call me and say, "My company is charging \$100 for this and company X down the street is

charging \$19.95. Company X must be doing something wrong." I try to steer them to the regulators. But it is useful information for us to hear about.

Those sorts of things do filter back to us. Maybe it doesn't surprise you that they often become a visible problem with the company. I remember Transit Casualty. All the brokers knew there were problems there three years before others knew there were any problems. They were charging way too little. I think the company started insuring taxi cabs or buses. It got into all sorts of crazy lines of business and there was no way that it could have known anything about them.

So we get information, unfortunately, that tends not to be very systematic. And we keep our ears open.

MS. MONTEITH: Fraud is a really hard thing to detect. We first look to the auditors to catch that. We hope they catch it. One thing we've looked at is, has it frequently changed its auditors. Is it changing accountants frequently? If so why? It will probably not tell us the real reason why. But if it uses a very small unknown auditor and changes every two years, that kind of concerns us.

We're not going to see fraudulent behavior. What we're trying to asses is, do we believe these people? Do they seem honest? Do we like them? Are these people we think we can have a relationship with? We have multiple relationships at Morgan with a given company and our traders will deal with somebody. Our investment bankers will deal with somebody in the company. Our corporate bankers will. So one question is, does everybody hear the exact same story? If I talk to four different people in very different parts of the company, is there consistency? And if there's not consistency, it makes me question the honesty and the integrity.

We couldn't catch fraud, but if we feel uncomfortable with the integrity, we're not going to do business with the company. So we'll back away. Again, something else related to fraud or lack of disclosure and is frequently looked at is what's consolidated in the statutory statement. It's a very basic thing. But I can remember working for an insurer that was fighting to not have certain companies consolidated. Now I don't believe this company was doing anything fraudulent. But I do know that those companies had much worse results. And they didn't want those to affect their consolidated statements.

So you look at what's moved off shore. What's not consolidated? Is something being hidden that can cause a problem? It's much easier to hide fraudulent behavior once you move it out of the spotlight of a consolidated statement. So I'd look at that, but it's really hard to catch.

MR. CHARLES V. FORD: I've yet another question for Mr. Dreyer. Due to the political process, the life and P&C risk-based-capital formulas have very different factors for subsidiary stock. And this affects how a company chooses to structure itself. You're better off with a P&C company having a life subsidiary than a life company having a P&C subsidiary, such as my firm does. Does S&P have an opinion on this effect? And does it consider this when assigning a rating?

MR. DREYER: Yes. I think it's a good example, of which there are many, of inconsistencies between the two models for life/health and P&C risk-based-capital formulas. Another one is just general equity risk. The particular factors escape me now but for one the charge is double the other. So the logic would say if a life company has the lower number, then its equities are less likely to go down by one-half the P&C equities, which is crazy because this could be any portfolio of equities.

Maybe Joanne could answer the question better about how we treat affiliates. But we would not make any distinction between P&C and life companies. We would look at the risk-based capital, using our capital allocation model. Look at the consolidated results of all companies, if we could do that. I think a second approach, although I think it's slightly less attractive to us, is to assess the risk-based capital of each subsidiary and then roll that up into the parent. Did I state that correctly Joanne?

MS. BALLING: That is correct. We're trying to not differentiate between life and P&C companies on things such as equity charges or bond charges. We think that was a really big fault of risk-based capital. And we're not going to do anything like that.

MR. DREYER: I'd probably say there will be different risk charges for the different kinds of risk, the different lines of business. So clearly some life companies will probably look less risky than P&C companies. But not among their assets would we make any distinction.

FROM THE FLOOR: One of the questions is how stable are your formulas and how often are they updated? The minimum continuing capital and surplus requirements (MCCSR) in the Canadian regulatory environment is being changed. It affects different segments or different portions as they're refining some of the areas in the MCCSR formula.

MS. BALLING: If what you're asking is how often we are going to change the factors, we're going to continually monitor those factors. Obviously, a bond-default charge is probably not going to change as frequently as maybe a loss-reserve adjustment factor of some sort. So we are continually monitoring those factors. And they will be looked at, at least on an annual basis.

MR. DREYER: I'll give you just a microillustration there. The bond default rates I talked about earlier would be subject to change every year as we see changes in the history, the experience of the bonds by rating category. Having said that, we look at these cumulative default rates over a number of years. They've remained fairly stable. So we take that sort of ten-year average, and we roll forward one-tenth each year. So they are subject to some change there. I wouldn't expect us to take radically different views on risks unless something radically changes in the market; something along the lines of environmental risk, something looking a lot different than it does today, or some asset blowing up on us that doesn't appear to be such a risk now.

MR. DREYER: The NAIC's number has a section of off-balance-sheet risk as well. So it is trying to capture that. One of the things that kind of frustrates us in looking

at companies (I guess this would apply to Canada as well; I don't know for sure) is that these very useful pieces of information are not always available to the public to look at. The U.S. companies are required to compile the off-balance-sheet items and calculate this final number. But they're not required to report the number anyplace. So they've done a lot of work and they've achieved something in getting insurance companies to, in some cases, for the first time, compile some of these risks. And I'm not so much referring to the large companies here. But Laurie talked about how they have their risk on a zip code basis. I can assure you that many companies have no idea where their risks are even in a particular state, let alone at the zip code or county level. So this disclosure is a great thing for the public. It's great for the company to be looking at these things. But unfortunately they fall a little bit short of disclosing for all to inspect.