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RISK-BASED CAPITAL: INDUSTRY IMPLICATIONS

Moderator: FREDERICK O. KIST
Panelist: RALPH S. BLANCHARD III
Recorder: FREDERICK O. KIST

In December 1993, the NAIC adopted a risk-based-capital formula for property and casualty insurers. The panelists will discuss the industry implications of the risk-based-capital formula and model law.

MR. FREDERICK O. KIST: I'm the managing partner of Coopers and Lybrand's Casualty Actuarial and Risk Management Practice. I'm also this year's chairperson of the American Academy's Task Force on Risk-Based Capital (RBC), providing advisory assistance to the working group of the NAIC. With me is Ralph Blanchard. Ralph is an assistant vice president and an actuary with Aetna. Ralph graduated from Dartmouth College. He's a Fellow of the Casualty Actuarial Society and a member of the American Academy of Actuaries. Ralph is also on the AAA Committee for RBC and has been one of the key producers of much of the work that the committee has done over the last couple of years. The third panelist, unfortunately, came down with laryngitis last night. Christy Simon is a Fellow of the Casualty Actuarial Society who works for me in Atlanta. I'll be reading her presentation.

Obviously we have life actuaries, actuaries who have come over from Europe or other parts of the world, and also the U.S. casualty actuaries. Some of you may have seen RBC before, some may not have, so we're going to take a relatively broad view of RBC, talking about the purposes, the formula, and the general nature of the formula. We will also be talking about the strengths, the weaknesses, and some of the alternatives that have been put forth. In closing, we will address some of the current open issues and some of the things you might see happen to RBC in the next year. The RBC formula will evolve over time. There are a few items that are under consideration to be added next year. So with that, let me provide an overview of RBC and then get into the basic formula.

The starting point for RBC goes back into the 1980s, a period of time when the insurance industry went through some of the major insolvencies. Then part of the synthesis or one of the reasons for the NAIC moving forward with the solvency policing agenda is the fact that the Dingell Committee came out with a scathing report, "Failed Promises," addressing the regulation of the insurance industry and the insolvencies that happened during the 1980s. As a result, the NAIC produced the solvency policing agenda for 1990, which generated two RBC working groups: a Life RBC working group and a property/casualty RBC working group.

The first draft of the casualty RBC formula by the working group of the NAIC was released in April 1991. During the last two years, there have been a variety of advisory groups on accounting, legal issues, and an actuarial advisory group that have been utilized by the NAIC working group in molding and modifying the formula that we currently have. These groups act as advisors. Their advice hasn't always been followed and, in many cases, the actuarial committee, legal committee, and accounting committee had differences of opinion relative to various aspects of the formula. Between April 1991 and June 1993, much of the work was done by all the working

groups and also by the advisory committee. To give you an idea, the actuarial advisory committee met on average at least once a month over a two-year period to work on specific issues and items that the NAIC requested.

In June 1993, the second published RBC formula was released by the NAIC at their June meeting. Let me give you an idea of the transition that happened between the 1991 formula and the 1993 formula. The 1991 formula, I believe, resulted in putting about 40% of the industry in some type of regulatory action. The first calculations that were done, using the original 1991 formula, I believe impacted about 40% of the industry. The June 1993 formula dropped that down to about 4.5% of the industry. This resulted from modifications in factors and changes in what was involved in the formula; for example, covariance is in the latter formula and wasn't in the earlier formula.

The June RBC formula went into an exposure period, which lasted about 60 days. In August, there were hearings relative to the formula, and the NAIC then went back to the drawing table and made some modifications. The NAIC issued a revised formula in November that caused almost a major firestorm within the industry. Significant lobbying occurred immediately after release of the second formula because there were some changes in the calculation that were negative to the industry. For example, combining the credit component with the loss-reserve component had a major impact on companies. The lobbying continued from November to the December meeting. Finally at the December meeting, the final formula, as we have it, was approved. This formula will go into effect for the 1994 Statement, to be filed as a separate calculation with the Annual Statement on March 1, 1995. It will show up in your Annual Statement. There will be two new lines in the Annual Statement for 1994 that will show the authorized control level RBC for an insurance company, and it will show a five-year history. You don't have to calculate five years back, but going forward, the five-year history will evolve as each year is added. The history will display the authorized control level and second, the adjusted surplus. Later, I'll comment on what adjusted surplus is. That gives you a little bit of the chronology behind the evolution of the property/casualty formula.

Now I'd like to talk about the basics and what the objectives are. The purpose of RBC, as outlined in the documents provided by the regulators, is basically to establish RBC requirements for property/casualty insurers, and to permit or require corrective actions when an insurer fails to comply with those requirements. For those of you who have never been involved with a company that has become insolvent, it is a very difficult time for regulators. I have occasionally been involved as a third party in expert witness work on behalf of regulators relative to insolvent situations. Often you have to bring management in kicking and screaming, and it takes a significant amount of legal cost by a regulator to finally take over the company for rehabilitation or liquidation; it can take months or even years and, in the process, the assets of the company are drained through all the legal activity. There are also costs to the regulators to achieve their duty. The current laws do not allow regulators much latitude if the company still has minimum capital and surplus. RBC was introduced for the purpose of giving the regulator some ability from the threshold to begin to take regulatory actions; it was viewed as a necessary tool by regulators, because they had no other tools to really go in and assist them in handling the tougher situations relative to insolvencies.

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Some of the objectives of RBC include, number one, raise the safety net. When a company is going insolvent, you can't very well say the company became insolvent on August 22 and go in there on August 23, because that was when they fell below minimum capital and surplus. Typically, you have to wait until year-end. You then have to wait another couple of months for the financial statements to be completed. RBC provides some tools for regulators to monitor surplus levels based on risk characteristics.

The second objective is really the most important. The RBC formula provides an estimate of minimum capitalization required. It is not geared toward providing the estimated capital that your company needs. It is not the intent of the formula for companies to release the excess of capital over the minimum amount required by the RBC formula. Similarly, the industry has a major concern that this is going to be used to beat them down on rate increases by measuring the rate of return against the RBC requirements versus the capital that the company holds and wishes to operate with. The model law that was adopted in December does include a provision that says that RBC is not to be used in rate hearings, or associated with any type of rate-filing activities.

RBC will also enable the regulators to employ statutory remedies. They can issue corrective actions or take action relative to rehabilitation and liquidation. The important part of this is that the activity resulting from RBC, or the RBC requirements, isn't effective until the model law is approved by the state legislature. Until the model law is put into place, RBC is a nice calculation that you're going to disclose in your Annual Statement that will allow the rest of the world to see how strong or weak you are relative to another competitor. Now that's not what it is supposed to be used for, but obviously we're aware that once it goes into the Annual Statement, someone will rank all the companies on RBC ratios.

Then finally, the formula had to be practical. This is something that the actuarial committee wrestled with often. How complicated do we make this thing? We can make this extremely complicated. For example, Ralph will talk about one of the problems with catastrophes. How do we put a simple RBC charge in there for catastrophes? Do we ask every company to give us exposure information by zip code to calculate RBC?

The attempt here was to try to be practical, to have a formula that is simple to calculate, and to employ readily available, Annual Statement data in its calculation. Many of the comments from the two hearings held indicated that some of the industry feels the formula is too complex. There are pros and cons for that argument.

I'm going to take a little time on this because I want to discuss the various types of components. For the life actuaries here, the property/casualty RBC formula is quite different than the life formula. There are five major components (see Table 1) to the RBC charge precovariance. The first charge, the asset charge, basically assigns a risk factor to different components of the assets. Bonds are broken up between affiliated and nonaffiliated bonds. Nonaffiliated bonds are charged by quality. The charge for affiliated bonds picks up the excess RBC charges that might be left over from a common stock that didn't all get picked up in common stocks. In addition, on the asset side, there are two additional charges that I don't have up here that I probably

should mention. The asset charge also includes a bond-size factor. This is similar to the life formula in that the number of issues of bonds will either increase or decrease the amount of RBC associated with bonds. I think the break-even point is 1,300 bonds. If you have 1,300 different issues, the bond factor is one. And above 1,300, the factor goes below one. Less than 1,300, it is higher than one.

TABLE 1

Types of RBC	Credits to RBC
<ul style="list-style-type: none"> ● Asset ● Credit ● Off-Balance Sheet ● Loss and LAE Reserve ● Premium Charge 	<ul style="list-style-type: none"> ● Claims Made <ul style="list-style-type: none"> –Reserve –Premium ● Loss-Sensitive Contracts <ul style="list-style-type: none"> –Reserve –Premium ● Concentration Adjustments <ul style="list-style-type: none"> –Loss –Premium

Small companies will argue that this adversely affects them. This was not put in as a charge for small companies or against small companies. The Life RBC group was a year ahead of the P/C group and put some factors into place for the assets. The analysis and work that was done by the Life RBC group used a base of 1,300 bonds for developing the charge for the bond to default risk. These bond-size factors would have suggested that smaller bonds would have resulted in higher charges. That's where the bond-size factor comes in and the logic for having it in the formula.

The other item is an asset-concentration charge. To determine this charge, all the assets that have the same name are grouped together. So, for example, if your company has IBM common stock, bonds, and a mortgage to IBM on some property, all these assets are combined. The top ten grouping of assets are listed and your RBC charge is basically doubled for your top ten assets. If you have a large divestiture of assets, the asset concentration factor does not significantly adversely affect you. If you have all your assets in ten different things, it will basically double the factors coming out of your asset calculation. The maximum charge on the asset concentration is 0.3, so it doesn't double common stock charges beyond 0.3.

The second component here is credit. Credit risk basically picks up the other receivable-type items on the balance sheet. This includes all reinsurance ceded, including ceded loss reserves, reinsurance recoverable on paid losses, and unearned premium. There's basically a 10% charge on the reinsurance ceded. It also picks up a charge for other balances. The balances it doesn't pick up under credit are agents' balances, because basically you already take a statutory hit for agents' balances over 90 days overdue. But there is a charge on the other components. The major point on the credit risk is the reinsurance.

The next point is the off-balance-sheet risk, which includes noncontrolled assets and relatively minor items. There are about three or four components that fall into this, and they receive a 1% charge.

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The last two items here are the gorillas relative to the formula, and they are the loss reserve and the premium charges. These produce on a combined basis, I believe, 60–70% of the charges for RBC (before covariance).

With respect to loss and loss-reserve components, there are a number of modifications that are made here. First of all, with respect to the loss and loss-adjustment expense (LAE) reserves, there is a reduction for claims-made business. This will be refined in the next year or so, as the claims-made information is made available, as a result of the refinements in Schedule P. Second, there are reductions for the recognition of loss-sensitive contracts, contracts written on a retrospective basis. Obviously, because additional premium can be collected if losses develop adversely, assuming that you haven't reached your max on the retro plan, there are some offsets to the risk associated with adverse development.

Then finally, there are concentration adjustments. I really should call these diversification adjustments. In the RBC covariance formula, which we'll see in a minute, there is a diversification adjustment, which basically says if you write more business and if your reserves are more evenly spread, you can reduce the amount of charge associated with the loss reserves. For example, if you write one line, there is no diversification and it's a full hit. If you write two lines and they're equal, it's a 15% reduction before covariance. If you write 15 lines and equally reserve for all 15 lines, it makes out at 28% reduction. So the diversification factor allows an initial reduction to RBC for the fact that there will be some offsetting between lines as adverse development occurs.

Those are the major components of the formula. If you haven't received a package, the NAIC has handouts that they can easily send to provide you with the detailed calculations, and also all the factors.

All of the discussion so far has been pre-covariance. After you've gone through the major calculations, the next part is to apply the covariance calculation. This basically has the effect of reducing the charge. It reflects the fact that not all of the components should go down at the same time. One other item I should mention before I leave this table is that the toughest calculations, particularly in a complicated company, are in the asset component. There are many numbers and calculations involved. You can structure a spreadsheet to do all these calculations simply. The work is in the asset charge because you have to break out your bonds into the different components, and you have to reflect downstream subsidiaries if it's a vertical company. If it's a large, vertical organization, you have to calculate the RBC of each of the subsidiaries and work your way up, so it's not a trivial calculation on a very complicated company. In fact, we were requested to do a RBC calculation on a very complicated company, and our proposal to do it for them was \$40,000. Most of the fees were associated with the asset side because you have to go into the investment subsidiaries, find out what they do, what kind of assets they have, and apply the proper charges. This requires a significant amount of work.

Once you calculate all these charges, you then go through the final phase of the RBC formula, and that is the covariance and the adjustment of 0.4 to get to the authorized control level. I will explain briefly what each one of these are in additional tables. Basically, the assumption here is that each component is independent. That's not

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exactly the case. There are covariance elements here. To try to keep the formula practical and simple, we grouped the categories and made the simplifying assumption of independence. This adjustment was something that the actuarial advisory committee did get approved by the regulators. It produces anywhere between a 10% reduction to as much as a 35% reduction to the raw calculation.

MR. RALPH S. BLANCHARD III: You notice in life insurance, it has C-1 through C-3.

MR. KIST: Right.

MR. BLANCHARD: In the RBC formula below we have R-1, R-2, R-3, R-4, R-5.

$$\text{Authorized Control Level RBC} = .40 \times \left\{ RO + \sqrt{(R1)^2 + (R2)^2 + (R3)^2 + (R4)^2 + (R5)^2} \right\}$$

MR. KIST: Don't forget zero.

MR. BLANCHARD: And R-0, which is a separate category. AM Best has a model and I believe they use B's. So you have C's, B's and R's, depending on which model you're using.

MR. KIST: After you go through the covariance formula here, the 0.4 factor is the adjustment that gets you to the authorized control level. The 0.4 factor, I believe, was a sizing factor. They figured out how many companies they felt should fall under regulatory control. That 0.4 gets them to about 4-5% of the industry.

The NAIC October formula resulted in 7-8% of the industry being affected by some regulatory action. The modifications that were finally made in December brought that down to about 6%. This 0.4 is going to be adjusted upwards over the next two years. The 0.4 is for 1994. In 1995 that will increase to 0.45, and then it will settle at 0.5 going forward. That is the same factor that is currently in the life formula.

Briefly, the components of each of these items: R-0 is the RBC component of the investments and affiliates, common stocks, preferred stocks, and bonds. It also includes the ownership and the alien affiliates and other smaller items: noncontrolled assets, guarantee for affiliates, and contingent liabilities. R-0 is outside the covariance formula. So if you're thinking of buying a subsidiary, the RBC of that subsidiary comes directly up, without being affected by the covariance.

MR. BLANCHARD: My understanding is this is supposed to be only U.S. P/C subsidiaries.

MR. KIST: Not according to the last release of the formula.

MR. BLANCHARD: But I think that's a typo.

FROM THE FLOOR: I talked to Elise just about two weeks ago and she said the last change was to include all subsidiaries. It's just affiliated insurers, but it is U.S., non-U.S., and life.

MR. BLANCHARD: So that's a change from what was voted on in November?

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MR. KIST: I think it wasn't clear in November, and I'm not going to speculate as to what was voted on or not, Ralph. But I think that the current definition includes alien carriers also.

FROM THE FLOOR: You're right.

MR. BLANCHARD: Things have changed from what has officially been approved then.

MR. KIST: The next item here is the R-1. We separated the charges for fixed income from equity. This is the RBC associated with the fixed-income component. Generally, R-1 is a very small component for this industry. The bond charges are small. The general charges associated with it are relatively small. Very often this gets walked away or significantly reduced after the covariance component.

The second item, R-2, falls into the other part of the invested assets, the equity component. The charge reflects common stock, real estate, other invested assets, aggregate write-ins, and the asset concentration adjustment.

R-3 is basically 15% of the credit RBC risk. Initially, that was 100% of it, but in the November release, credit was combined with loss reserve. But then in the final position, it was set up as being 15% of the credit RBC.

R-4 picks up your loss and loss-adjustment expense reserve component, which is the large one. It also picks up the growth factor, which I didn't comment on. There is also an RBC charge for growing companies, which is based on gross written premium for the group, and it applies both to reserve and premium components. Finally, in this R-4, you also pick up 50% of the credit RBC component.

Finally, R-5 is the written premium adjustment, and picks up the premium-growth charge in RBC. That basically covers what is in the covariance and how the covariance is calculated.

One item that you should be aware of if you're going to be taking any hard look at this, the covariance component has a significant impact on which charges are important for you. So for example, if you had two elements of the covariance formula and RA and RB were a ten and a one, you can see the results of squaring and taking the square root. Basically, the ten wins out and there's nothing left of the one. Similarly, if the RA is still ten and now RB is five, more of it gets picked up, but still the smaller component gets reduced significantly. Now if you have two elements that are about equal size, you can see then that there's a much bigger impact. The point that I'm trying to make is if you take a look at the components of your company and you're trying to minimize RBC, you can't worry about selling some stocks and bonds if they're only producing 3% of the precovariance charged, because that's getting wiped out. The big pieces, the loss reserve and the premium, are going to affect you the most. I point that out for you so that if you are looking at your RBC calculation, you're aware of the impact of the covariance.

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Based on the last formula, this is a distribution of where the charges are. Loss and loss reserves are 41%. Premium is about 26. For a combined impact of about 65%, assets at 21.3, and as Ralph pointed out, the asset charge includes R-1, R-2, R-3.

MR. BLANCHARD: R-0.

MR. KIST: Excuse me. R-0, R-1 and R-2. Half the credit is R-3.

I'll add two quick items here because I do want to turn this over to Ralph. The various RBC levels are defined as follows. The authorized control level (ACL), which is the level from which all the other action levels are determined, is at 0.4 of the RBC calculations. The authorized control level allows the regulators to go in and take actions. It's not mandated, but it would allow them to take some regulatory action.

Company-action level is defined as two times the ACL or 0.8 times the RBC calculation. At this point, action required is that you go to the department and talk about your own company's plan for getting capital and improving your RBC. You're likely to get a higher degree of supervision, but they're not required to come in and audit, or do anything additional other than receive your action plan to improve your capitalization.

Regulatory-action level, which happens at 1.5 times the ACL or 0.6 of the RBC calculation, is where the regulators have to take a greater step. They have to come in, take a look, and perhaps do a financial auditing of your company to see if it's worse than it looks. Also, the company still has to come up with an action plan, but the regulators have more requirements on them to go in, kick the tires, and look at the company. They may also issue corrective orders at that time and require you to make changes in the company operations. At ACL, the regulators have the option, at that point, to take over the company.

Finally, mandatory control level is at 0.7, or 0.7 times 0.4, about 0.28 of your RBC calculation. At that level, the regulator is required to take over the company, or move in to begin a control situation.

Those are the various levels. Realistically, until the model law is passed, there's nothing the regulators can do. The purpose of this is to enable regulators to get into the company while there are still assets left and, hopefully, rehabilitate more companies so as not to go through a liquidation and guarantee fund situation. The model law was passed in December. At that time, they held back on requiring it for accreditation.

MR. BLANCHARD: Was it passed?

MR. KIST: I thought it was approved, but it wasn't approved for accreditation at the meeting. In any case, there's a model law that is presently out there that basically began the life model law and was modified for property and casualty and life combined. If you have seen the life law, the new law is quite similar to that. It requires the insurers to file by March 1, it defines what regulatory responsibilities are, and it establishes the minimum capital level. The formula is not in the law. The law refers

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to the RBC instructions and calculation, which is outside the law. So the RBC can be modified each year without having to go through and change the law each year.

With that, I'll turn to Ralph and let him go over some of the strengths, weaknesses, and other issues relative to the formula.

MR. BLANCHARD: From the beginning, some of us believed that creating RBC standards was an impossible task. But we went ahead anyway and soon discovered that we were right.

Originally, I was going to concentrate on the weaknesses and the possible alternatives to the RBC formula, but I figured I should at least mention some of the strengths. First, the RBC formula is better than nothing. RBC provides a minimum capital level based on risk. The old, minimum capital standard was to place X million new dollars in the bank, and then write whatever you wanted and however much you wanted.

The new standard is better than that because it reacts to risk. If you write more business, you need more capital. It does cover most major risks, including reserve, premium, asset and credit risk. Most people feel that, after covariance, reserve and premium risk are the big risk items. And most people feel that the three pieces of assets, R-0, R-1, R-2, are relatively secondary in importance.

Probably the most important thing this RBC formula starts is the thought process going in the right direction. When I started working on RBC for the P/C side, I went to see a couple of presentations on the banking side, and the feedback from those people was that when the banking industry first started the process, everyone got all excited, all these companies created all these models and had grand ideas. Then they saw what came out and they were extremely disappointed. But they had spent the time thinking about the right issues in their own companies, and they got the thought process going in the right direction.

If people start thinking about this not as a final answer, but as a thought process going in the right direction, there is a lot to gain from it. However, it's a big mistake just to manage a company based on the NAIC RBC numbers, because it wasn't designed to run a company and be held up to a prudent company standard.

Some people wanted a "prudent company standard," i.e., the level of capital a prudent company would hold. But wisely, the formula avoided that. The problem with the NAIC RBC formula is that if a company has capital below a certain level, it's euthanasia time, mandatory asset seizure. Imagine if you had a blood test where if someone fails, it's euthanasia time. How many false positives would you want to have? You failed that test; you must be ill. You must be dead, but you're out of your misery. RBC takes assets after the capital falls below a certain level. That's very dangerous. You have to be right. You don't want to have too many false positives or too many costly seizures of assets.

So those are the strengths. RBC is heading in the right direction, but it currently does not have the right answer.

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Now on to the weaknesses. First, catastrophe risk is ignored. The Academy Advisory Committee tried to quantify the risk, but you can't squeeze out of a yellow blank enough information to determine the catastrophe risk load. You can't look at page 14 for California and find out how much of that earthquake exposure was in L.A. versus San Francisco. You can't look at the Florida page 14 and figure out how much of that Florida exposure is on the coastline and how much of it is inland. You can't get a handle on the direct exposure, and you can't determine the efficiency of the reinsurance program.

The reinsurance program is an integral part and you don't have that information currently available in the yellow blank. So the feeling was that catastrophe risk was just too complicated a beast to model using a yellow blank. Or as some people call it, the yellow apparel; it is aptly named. By the way, for those who aren't aware, for P/C companies, the annual statement is yellow. I say that because the life blank is blue.

The second weakness is that reserve strength is ignored. The model doesn't care whether you have an absolute ton of reserves that are three times what's expected, or whether your reserves are bare. It assumes your reserve levels are right, so a company isn't giving any credit for having strong reserves. We tried, but we couldn't design a way to fix that problem with a black box for the 2,000, U.S. P/C companies. So you're left with a black box that discourages reserve strengthening.

If you strengthen the reserves, not only does the formula ignore how strong they are, but it hurts you. It hurts you because, number one, it applies a factor to the higher reserve level to indicate that you need more capital. Not only does it increase the base you applied the factor to, it also increases the factor.

There's an adjustment to incorporate individual company experience in the reserve-development factor. If a company's reserves go up, the thinking is that the company's reserves will probably always go up, and the reserve development factor is increased. Therefore, it gives you a higher RBC charge and, you increase reserves and reduce surplus. The RBC ratio numerator will go down and the denominator will go up, so the formula discourages reserve strengthening.

Remember that reserve risk is the biggest risk in the formula. Table 2 shows what the net impact of the factors by line is for a company that used industry-average experience.

As you can see, there's a big swing between a 28% charge for products liability, a 10% charge for miscellaneous lines, and an 11% charge for workers' compensation. The reinsurance lines aren't here, but I think the reinsurance lines hit the 30s. So if I had \$100 of products liability reserve, I'd have an RBC charge of 28. For \$100 of workers' compensation reserves, I'd have an RBC charge of eleven. If I do need to strengthen my reserves, where do I strengthen them?

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TABLE 2
RBC REPORT CARD RESERVE RISK FACTORS

Line	Risk Factor
● Products Liability	28%
● Other Liability	27%
● Medical Malpractice	
–Occurrence	27%
–Claims Made	21%
● CMP	21%
● Homeowners	18%
● Commercial Auto Liability	17%
● Personal Auto Liability	16%
● Two-Year Lines	13%
● WC	11%
● Special Liability (Ocean, Marine, etc.)	10%
Range	10–28%

FROM THE FLOOR: Special liability.

MR. BLANCHARD: Special liability. Why are these wrong? I feel that some of the reserve factors are too strong and some are too weak. If you take the reserve risk charges and take the premium risk charges that are there, you can run what the numbers would look like for a model line company with no asset risk, but with a normal level of reinsurance. When I do that using aggregates and averages data for the underlying reserve data and reserve to premium relationship by line, these are the implied premium surplus ratios for a company that has the minimum capital required; not a prudent level, but a bare, minimum level. I think those are wrong. It's a gut reaction. Part of the problem is the long tail lines get tricky. Commercial liability lines were risky in the 1980s. Are they going to be in the 1990s? They weren't in the 1970s, so that's the big question.

MR. KIST: Ralph, I think it's a little bit like a flood plan analysis. The 100-year flood plan.

MR. BLANCHARD: Right.

MR. KIST: You don't build on a 100-year flood plan, and perhaps these levels are very similar to that worse-case situation.

MR. BLANCHARD: My gut feeling is that the relativities are just wrong. They just don't seem to make sense.

Back to the weaknesses. The next weakness is that reinsurance security is ignored. The charge is 10% for all reinsurance outside your U.S. affiliate structure. So if I buy reinsurance with General Re, which is an A-rated company, the charge is the same as reinsurance with Brother Joe down the street, who charges the same; it's 10%. Riskiness with an A-rated reinsurer is different than riskiness with some small, B-rated or marginal reinsurer. Also, if I happen to have a full letter of credit up to the policy

limit, that's totally ignored. People who write captives don't like this at all. People who front for captives get hit hard because they get a charge, even though they have no risk. If you front for a captive and get full collateral for the policy limit, you get a charge as if you reinsured with no collateral. There's no reflection of collateral.

And when you add all of this up, everything seems to hit along commercial lines, since commercial lines tend to use reinsurance more. Reinsurers are hit and commercial lines are hit harder. In fact, I took the line ratios and added everything up, based on what a typical commercial lines company would be, and also what a personal lines company would be. And I got implied premium surplus ratios for the formula.

For personal lines, the minimal standard is at a 5.8 premium-to-surplus ratio. That's a very weak, minimal standard. State Farm testified vehemently against the proposed formula because they felt it was too weak, and companies would think they're way over-capitalized and that they wouldn't get any rate increases as a result. Several commercial lines companies also argued against the formula because it was too hard to commercial line insurers. And how many times do you hear three trade associations all agree? Alliance, All, and NAll all agreed that it was a commercial-line bias because the maximum premium-to-surplus ratio for a commercial lines operation was 2.7, versus 5.8 for personal lines. That forces commercial lines writers to be down to the ones, whereas a personal lines writer could get by under RBC with a premium surplus ratio of around three or four.

MR. KIST: Ralph, I would also argue that what you're missing here is a charge for environmental. That has been totally ignored in the formula.

MR. BLANCHARD: This exists whether a company writes environmental or not.

MR. KIST: That's true.

MR. BLANCHARD: My understanding of why people weren't as upset that reserve strength was ignored was that now there's an actuarial reserve opinion. "We'll rely on the actuaries. You don't need a black box to make the reserve right, because there will be an actuarial reserve opinion, which makes sure reserves are set correctly." That's also how they decided to handle other issues, like environmental or other inestimables. I believe one company talked about some kind of lawsuit advertising exposure, and that was their inestimable. So they're relying heavily on reserve strength, on the actuarial opinion to handle reserve strength issues and inestimables. But the fact of the matter is, whether there's any environmental or not, general liability is hit hard. Commercial lines are hit hard and commercial lines factors are severe.

Let's go to more of the weaknesses. One size of a black box doesn't fit all. That is the inherent difficulty that makes the RBC approach impossible. They're trying to design one black box to measure the required capital for every one of the 2,000, U.S. P/C companies. There are some companies that write only stop-loss group health on a claims-made basis; you can't get a shorter tail than that. If the insured hasn't told you by December that there's going to be some money to pay, that's it. There's no need for a reserve other than the fact that it takes a while to cut the check. That line

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is coded to other liabilities. So you're applying charges to this kind of a company as if it were writing asbestos or environmental.

There are companies that write horse mortality, which also goes into the liability lines. There are all kinds of companies out there that write all kinds of different things. And once you start looking at them, you find that you can't write one black box that will work for everybody. This formula doesn't allow you to step back from the model. There's no judgment allowed. So a black box, almost by definition, does not work everywhere.

The RBC formula is also difficult to calculate. One person talked about how he had hired two consultants, and there was one investment banking firm that calculated his RBC; and he said he got three, different numbers from them. He probably paid good money for each of those answers, but they're all different. It is a royal bear to calculate for the assets.

The RBC formula also is only meant to be used for determining whether a company needs help. It's not meant for ranking. It's not meant for rate-making. Various versions of the model law have tried to put in provisions restricting its use to identifying troubled companies, and not allowing its use for ranking or rate-making. It's still going to be misused. All you need is the numbers to be published in the yellow blank, and someone's going to produce this nice, big article to sell to the newspaper on which companies rank the highest. The only reason they haven't done it now is that it's so difficult to calculate.

MR. KIST: The other problem with the misuse is that the NAIC can't regulate everybody. For example, they can't regulate the SEC. They can't regulate the auditors. They can't regulate outside parties. They can't regulate investment bankers looking for acquisition targets. We have clients that the SEC has asked for their RBC calculation, and our clients are refusing to provide it to them. We're asking them, as auditors, for the RBC calculations; or alternatively we calculate the numbers for them, based on our knowledge of the formula. RBC will be, for example, an issue of a going-concern opinion. If the RBC calculations suggest that the regulator might come in next year, you may not get a clean opinion until we find out that the regulator is going to give you a pass for the next 12 months. There's a lot more in the arena that this is going to affect. I don't know that everybody has fully recognized this.

MR. BLANCHARD: One of the other examples of misuse is that some people want to use this for internal management. An example of how that's going to fall flat on its face is in bond business. The bond business is lumped with all the other two-year lines. Bond is placed in the factors with auto physical damage. Auto physical damage, if you remember, may be written at an eleven-to-one premium-to-surplus ratio. If you want to use RBC as an internal standard to write bonds, you're using the same capital level as writing auto physical damage. To me, they don't seem to be comparable risks. So there are certain parts that the formula took shortcuts on, because it wasn't necessary for identifying troubled companies among the 2,000 companies. But that is not the case if you try applying it to a profit center. So I think that's one of the misuses.

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Finally, state exclusions; the formula is not going to apply to everybody. It won't apply to title insurers, financial guarantee writers, or small, single-state insurers. It's going to probably carve out most of the bed-pan mutuals that are there now. I'm not sure if that's optional or automatic.

MR. KIST: Each state commission, I believe, has the choice. But I'm almost positive that it will carve out the bed-pan mutuals, and the county mutuals, and other similar companies.

FROM THE FLOOR: Also the mortgage guarantee companies will not be required.

MR. KIST: Yes. There are going to be some that are going to be taken under a wing and going to be excluded. But from an industry viewpoint, if you're competing, you don't want someone in there to be exempted from a rule that you're faced with.

MR. BLANCHARD: So now that you have the weaknesses, what are your other choices? What alternatives are out there? The NAIC wisely treats RBC as one in a series of tools. One tool it has had for a while is the set of IRIS (Insurance Regulatory Information System) ratios. These are ratios like premium-to-surplus, premium growth, and reserve development related to surplus. IRIS ratios are not going away, and they will still be used to identify companies.

Next, there are other contenders in producing an RBC formula. Because the NAIC formula took so long, Texas made their own RBC formula and is still using it. I believe the Texas regulator has the option of adopting the NAIC formula instead of what they currently have, but it's not guaranteed that they're going to do that. Hopefully they will, but right now you have at least one other regulatory RBC.

A.M. Best has its RBC calculation out there, and tries to handle most of the major weaknesses of the NAIC formula. A.M. Best will actually shock the answer they get for certain catastrophes. For reserve strength, they will do a calculation of what they think your reserve should be, and then judgmentally apply it to their black box reserve evaluation. An advantage A.M. Best has is they can always call you with questions and ask for more data, if they need it. They also reflect collateral and other security on reinsurance. You can vary the factors for reinsurance by reinsurer strength. And the other advantage is, whether it works or not, theirs is designed to rank. I believe they will be publishing their rankings this spring; so that may be more important to look at than an NAIC ranking.

MR. KIST: Ralph, I think the A.M. Best model is geared toward the prudent-surplus level versus the minimum-surplus level.

MR. BLANCHARD: Yes. They actually have a standard as to where you are on their model versus a rating, a ranking, etc. Standard & Poor's (S&P) published something last month about that formula, but I haven't seen it yet. I know there's someone from S&P here.

There are other financial ratios to be considered that can be found in financial textbooks or the Chartered Property Casualty Underwriter (CPCU) financial program. One, for example, is the debt-to-equity ratio.

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An extra tool that could be used is cash-flow testing or dynamic solvency testing. The Alliance came out with their alternative, which was not adopted as a replacement, but is still an alternative. Dynamic solvency testing or cash-flow testing will probably get a better handle on solvency than any strict, single number of black box RBC calculations. Those are the major alternatives that are out there to use.

MR. KIST: I have one more point I want to go over with respect to outstanding issues and where we are going from here. One item that Ralph didn't mention, and I think those of you that sign property and casualty opinions should be aware of, RBC could make your life a bit more complicated, because actuaries must sign off on gross and net reserves. In the past, if we were comfortable that the net reserves were OK but the gross reserves were inadequate, we would go to the accountant and say, you need \$3 million more. Increase the gross and ceded, let it flow through and we're done. What are the implications under RBC? Well it's not going to be as easy to put in that \$3 million, because you're going to have a 10% charge against that additional ceded incurred but not reported (IBNR). There is a potential conflict relative to the actuary signing opinion, particularly if you feel the gross reserve level has not been adequate in the past.

Where are we standing right now? First, the Actuarial Advisory Committee recently reviewed a package of detailed RBC instructions from the NAIC Working Group. We provided the NAIC with 15 pages of suggested improvements, modifications, or corrections to the instructions. I'm not sure when, but the NAIC will certainly distribute a document to provide you with detailed instructions.

Second, the Academy Advisory Committee has finished a proposal on interest-rate risk. This is not available yet for public distribution. It is being voted on this week by the members of the committee, and with approval it will be to the NAIC Working Group by Friday or next Monday. The NAIC Working Group will have a document on interest-rate risk and the recommended approach towards incorporating the interest-rate risk charge into the formula.

The next item deals with the claims-made factors. The Academy Advisory Committee hasn't been asked to review the claims-made factors as much as suggest the documentation that should be incorporated as part of the RBC calculations. So we are reviewing what kind of documentation we want to have, relative to the reduction for the RBC charge.

Another item presented to the NAIC Working Group is, should expense ratios and loss ratios vary by type of company in the premium charges for national writers, regional writers, state writers, direct writers and agency companies?

Next, for those of you that know both the life and P/C RBC formulas, the life formula includes a trend test, so that if your RBC calculation is trending down, you might qualify for regulatory action at a 2.5 ratio versus a 2.0 ratio. We don't believe the trend test is appropriate for the property and casualty calculations, but the regulators have asked us to revisit this item. We are currently reviewing whether a trend test should be included in the property and casualty RBC calculation.

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Next, reserve discounting. This is really an outstanding issue not so much as to something that could be done with it, but there was a major change relative to RBC as the last go-around. There was a change to what a permitted discount is, and basically, only life indemnity claims may be discounted; the medical associated with those claims cannot be discounted. I would think many carriers out there have been discounting medical, some have been discounting allocated loss adjustment expense (ALAE), and many carriers may also have been discounting at higher rates than permitted by regulatory authority. And I think the reserve discounting definition will be tightened, particularly for RBC.

The other point here is that the change in the discounting has two impacts on an RBC calculation. First, the discount that is no longer permitted goes back into the reserve, so workers' compensation reserves will now be increased and have a higher RBC charge associated with them. Second, surplus has to be adjusted down by the amount of the medical discounts that will no longer be permitted. This surplus adjustment does not have to be done all in one year; there's a five-year transition period, with the surplus adjustment increased 20% a year.

There will be two lines in the annual statement. The first will be the authorized control level, and the second will be the adjusted surplus. The adjusted surplus will be the surplus adjusted for discounts and also any asset valuation reserve (AVR) adjustments in life subsidiaries that you own in the P/C company.

Those are basically the major items that the Academy Advisory Committee is currently reviewing. I don't know what's going to happen with interest-rate risk. The formula that was presented to the regulators is not simple. We tried to make it as simple as possible, but it's about three to four pages of calculations. If the proposal is adopted and accepted, I expect you will see interest-rate risk being incorporated in the 1995 formula. At this point in time, there will be no changes to the 1994 formula. Interest-rate risk and potentially a trend test will be in the 1995 formula.

Are there any additional items that I haven't thought about or included here that you might add?

FROM THE FLOOR: A couple of items. First, about a year or so ago, I read that the decision of the size charge was deferred, not eliminated. There are some companies for which the size charge would have been the single, biggest factor. Also, the unearned premium charge for companies like warranty insurers would have been very significant. Now they have almost no charge. What's the current status of those charges?

MR. BLANCHARD: First, the size charge. I suspect it was eliminated because there's strength in numbers when it comes time to lobbying. Also, I believe that a lot of the small companies are already being identified, so why hit them with another charge?

Second, on the unearned premium reserve; this is a problem where you design a formula for 2,000 companies, and there's a couple that slipped through the cracks. For most companies, this unearned premium reserve issue is small or it doesn't exist. So the decision was because it's near zero for almost everybody, in fact it would be

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zero for just about everybody, you just wrap it into the premium risk if you feel there is need for a charge.

As far as how the warranty is concerned, that topic did come up. But the way the formula works, auto warranty gets added to where?

FROM THE FLOOR: Other liability.

MR. BLANCHARD: Other liability. Well, there isn't any unearned premium reserve risk for most companies for other liability. How do you distinguish auto warranty from other liability? So yes, it's being missed. But UPR was wrapped into written premium because it just didn't amount to anything. And where it did, it was because of some odd failure in the numbers because of bizarre values. And for the auto warranty people, they just didn't pick them up because you can't break auto warranty other liability from other auto liability.

MR. KIST: Let me add something on the size charge. I spent some time looking at the size charge. I asked Bob Klein of the NAIC for detailed information by company. I don't know the names of the companies, but basically I received each of the charge components for the 2,300 companies. Thirteen hundred of them had size charges, and a significant number of the small companies were failing RBC because of the size charges. In fact, close to 200 companies, almost 10% of the sample, failed RBC because of the size charge. I think part of it might have been the structure of the size charge. It's extremely unlikely, in my opinion, for the size charge to be resurrected, and there would be a significant ground swell asking why it should be applied. And clearly, it would affect virtually every one of close to 700-800 small county mutuals. Many of them may also be exempted by the single state.

FROM THE FLOOR: One other quick thing; with the 1993 Annual Statement we saw for the first time the claims made broken out for medical malpractice, other liability, and products liability. But the only thing I've seen so far in terms of there being an adjustment for claims-made business in the RBC formula was from medical malpractice. Is there going to be some type of credit for the other two pieces?

MR. KIST: Basically, the NAIC sent out a survey to all companies last year to try to obtain claims-made data. The data that was sent back to compile was garbage.

MR. BLANCHARD: Yes.

MR. KIST: If we could have had decent data, we would have attempted to make a distinction between claims made and occurrence for products and other liabilities. Because you have enough carriers out there that you can separate medical malpractice occurrence from medical malpractice claims made, we have at least the ability to make an initial estimate for medical malpractice. You will see columns for products and other liability claims made as we get the additional data.

MR. BLANCHARD: One of the other problems is that claims-made contracts are usually used because the coverage was so risky that you had to do something to reduce the risk. So data was bad, and when we did look at, the claims made was

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riskier than the occurrence. Why? Because the really risky stuff gets written under a claims-made form.

FROM THE FLOOR: Yes. I think in medical malpractice there might be a legitimate reason for a downward adjustment because you have the same exposures, but now they're all just re-shifted to their coverage form. But under product liability and other liability, you might have moved that guy with that real risky product from occurrence basis over to a claims-made basis, and that doesn't necessarily mean that product is less risky now.

MR. KIST: That's a good point.

MR. BLANCHARD: Yes. Next time, hopefully, when data comes in, that's cleaner and more voluminous, we'll take another look.

FROM THE FLOOR: I think you stated something about 5% of the companies would flunk.

MR. BLANCHARD: I did not say flunk. Potentially some regulatory action.

FROM THE FLOOR: Did anybody do an analysis of characteristics of those companies that failed this test?

MR. BLANCHARD: The NAIC did a great deal of analysis, but they only released some to the public. They looked at the size of the companies, the investment rating, and the examiner's parity rating.

MR. KIST: They probably looked at the individual companies, too.

FROM THE FLOOR: They did not provide us with the individual line data.

FROM THE FLOOR: That's one of the things that popped into my head when you pointed out, what appears to be a weakness in the formula, as to what it does by line of coverage. What then went through my mind is, in those companies that failed, are there specific characteristics of types of coverage that those companies sell primarily, or anything like that?

MR. KIST: The NAIC may have looked at that internally, but they didn't share that externally. As Ralph said, they did share the A.M. Best ratings those companies had, and I think, what was one B company actually selling to . . . ?

MR. BLANCHARD: I can remember. We have one member from the working group itself right here, but he stayed very silent.

FROM THE FLOOR: But in general, they also look at the different examiner classes, no concern to high concern; and those carriers that fell into the regulatory action level also had a high correlation with those that were already being considered for some regulatory action. It's not going to catch everybody.

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FROM THE FLOOR: I would think that there would really be a high correlation. *There was one that really hit me between the eyes, where you basically almost don't put a six-to-one, premium-to-surplus ratio. I think 20 years ago, a regulator that saw a company with a six-to-one ratio would be a little bit worried.*

FROM THE FLOOR: That's why I suspect that the three-to-one may still exist more.

MR. KIST: Well, you almost have a three-to-one, premium-to-surplus ratio on the commercial lines.

MR. BLANCHARD: There's more risk in commercial, on average, if you ignore homeowners' catastrophe risk and mandatory offer rules of earthquake in California, and obvious things like that. But generally, you think of commercial business having more risk. So I'm not arguing the ranking; I'm really arguing the relativity. And I know there is concern as to what kind of company should fail and what kind shouldn't. I know that many companies failed using the October formula that didn't expect to fail. And a lot of them were very vocal about it, and that's why certain changes were made; because certain ones who were vocal about it who failed in October, didn't fail in November.

FROM THE FLOOR: The other question I had was with respect to the model law, or any modifications that might actually be passed.

MR. BLANCHARD: *The model law is a huge issue that should be mentioned. The lawyers testified almost as much as the actuaries did on the model law at the November hearing. They were worried that the model law would be unconstitutional in certain states because it delegates authority to this outside body. The feeling was that certain states would not allow that. The formula that actually fails you is under the NAIC, and not under the state auspices. So there's a question as to whether it could be passed, or if it will be constitutional in some states.*

FROM THE FLOOR: But the same kind of argument could have been made, presumably, against commissioners making use of the NAIC blank. All of the states have been involved somewhere along the line, as companies have to file financial information, with the state commissioners. The commissioners, in turn, require the NAIC blank. But what I was really going to ask, in the law itself, does it specify a particular NAIC formula? You said the formula itself wasn't in the law.

MR. BLANCHARD: No, it's not.

FROM THE FLOOR: Does the model law make specific reference to what is actually going to get used?

MR. KIST: Yes. It does refer, I believe, to the RBC instructions and calculations, which are outside of the law for the specific purpose. There will be annual modifications to the formula. The annual factors in the formula will have to be updated. They don't want to have to go through and try in 50 states, who are three years behind, to approve the changes. So they identified the actual calculations and instructions to be outside of the law.

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FROM THE FLOOR: So an individual commissioner of a specific state couldn't monkey around with that formula and come up with his own, unless the law got changed.

MR. KIST: Oh, they can do anything they want.

FROM THE FLOOR: Yes. They can do anything they want outside the law, but he wouldn't be able to make use of that law.

MR. BLANCHARD: Yes. If they passed the law, they couldn't do anything about that. The only question, though, is that they currently determine how surplus is calculated in the state. So technically, you'd still have 51 different RBC ratios.

FROM THE FLOOR: You mentioned Texas. With the current flack going on between New York and the NAIC, do you have any reading as to whether New York might suddenly get rebellious on this thing?

MR. BLANCHARD: I doubt it, because they're the leaders.

FROM THE FLOOR: I don't think so.

MR. KIST: The chair of the NAIC Working Group is from New York.