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THE NEW RISK-BASED CAPITAL REQUIREMENT -- MORE GOOD THAN HARM?

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Basic knowledge of the RBC requirement will be presumed.

- Is the framework (of basing the formulas on simplistic application of the C-1, C-2, C-3, and C-4 risks) reasonable?
- Will this be effective in stanching the proliferation of RBC formulas by the regulatory bodies?
- Which lines of business are treated relatively badly by the formulas?
- Is there realistically anything that can be done to prevent company comparisons and rankings?
- What are the administrative problems faced by the regulators in the oversight process requirement that this will create?

MR. EDWARD L. ROBBINS: The best way to get into this is to tell you how the idea for the session arose. About seven months ago, I was at a session of the Society of Actuaries Continuing Education Committee, and people were absolutely fuming at how unfair the new risk-based capital formulas appeared to be. They had three general areas of complaint. First, there were elements that were critical to a company's economic well-being that didn't appear to be accounted for in the risk-based capital formulas. Second, they felt that companies may be forced to adopt long-term strategies that were completely unintended by the rules. Third, some felt that the relative weighing of the factors was inappropriate. This was the process that produced the idea of an advocacy session at a Society meeting. An advocacy session on these issues might give some experts in the area a chance to really vent their spleen, and critically analyze the risk-based capital concept as it is taking shape. It just might serve as ammunition for future change for the better in the evolutionary refinement of the risk-based capital formulas.

Steve Sedlak is vice president, corporate actuary at Nationwide Corporation in Columbus, Ohio. Steve is a member of the Risk-Based Capital Task Force, which is an advisory group to the NAIC. Steve will take the actuarial high road, and he will give us some quantitative examples of some of the impacts of risk-based capital.

Fred Townsend is currently president of Townsend & Schupp. His firm issues private credit ratings on life insurance companies for buyers of GICs and for distributors of annuity products. Fred has a monthly column in the *National Underwriter*. I'm sure many of you have read it. Fred was formerly a general partner in a member firm of

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the New York Stock Exchange, and he has agreed to be one of the major gadflies with his presentation. He's going to hit some of the major weaknesses in the formulas as he sees them.

Herb Goodfriend is a guest speaker. He is the director of insurance analysis at KPMG Peat Marwick. Herb is a regular contributing columnist to A. M. Best. He also has a TV program that many of you may have seen, called "The Premium Dollar Today," on the USA channel. He's been following the insurance industry for more than 30 years as an analyst. Herb will be speaking from the perspective of the capital markets.

MR. STEPHEN A. J. SEDLAK: I've titled my presentation "RBC – More Good, Small Harm." This small variation on the actual published title for this discussion will tip you off as to my opinion on this issue. I think I have some good reasons for this. On the whole, I think that risk-based capital (RBC) is a positive development, and a good job was done considering the complexity of the issues that were involved. Many of these issues could be very conflicting, such as capital needs and sources, scarcity of capital, the regulatory issues of defining solvency, potential federal regulation that is now on the horizon, and insurance department and examiner workloads. In addition, technical issues of defining the risks and the formulas that should actually be used in quantifying them, as well as the need for simplicity, were all problems that had to be dealt with.

First, there are some advantages of the RBC. It replaces the outdated 19th-century standards that were in existence. These standards were not correlated very well with the risks, especially in today's market. These standards are not responsive to growth. They're flat things that just stay in place. There are many of state variances.

There is also the issue of the several formulas in Utah, Wisconsin, New York, and Minnesota. Texas was proposing a formula as well, but I don't know if it's actually been adopted as a regulation. Yet, I think we were facing a formula glut. The RBC will help to alleviate that problem; at least I believe that it will. The RBC also gives regulators the improved ability to deal with troubled companies. It sets levels that are more risk- and size-related. It provides a better early warning so that regulators are less likely to find the cupboard bare when they have to step in and rehabilitate a company.

Additional advantages are that the RBC should increase overall solvency and, hopefully, it ought to reduce guarantee fund costs as well. The RBC should increase recognition of capital use in pricing. However, this does definitely have a cost. I've got a fairly simple example that is intended to demonstrate this. Consider a nice straightforward single-premium deferred annuity, not intended in any way to be typical of what's actually being sold. The premium is $10,000. The contract is qualified for tax as a pension product; therefore, we have a pseudodeferred acquisition cost tax. There is no surrender charge, so we can avoid having to consider statutory/tax-reserve differences. It carries a commission and other acquisition costs of 6% of the premium. There are no other expenses for simplicity (although we know there will be some). Withdrawals are 10% in years 1-5, 20% in the next four years, and then total cash-out at the end of our pricing horizon of ten years. The profit goal is 14% after tax at a 34% corporate tax rate (we're not going to anticipate the Clinton

administration just yet). We'll start off with 134 basis points of interest spread and an interest credit of 8%, which results from 9.34%, of net yield.

At any rate, this process yields a present value at 14% of $602.26 before tax, and $397.49 after tax (it's just a straightforward multiplication in this particular example). The acquisition costs are, of course, 6% of $10,000, or $600, so we're close to our 14% profit objective. Now, however, let's add some RBC. Because we have no surrender charge, we'll have a C-3 component of 2% of the fund. The C-1 component is assumed to be 1.5% of the fund. This is fairly low, and the C-1 factor can get much worse if asset quality is reduced. Finally, our C-4 risk is 2% of premiums. Now, the present value at 14% maintaining this level of RBC is $137.02. This extra cost is about 34.5% of the after-tax value of $397.49 (that's close to the tax rate only coincidentally). This means that 34.5% of the spread is required just to maintain the RBC. This translates into about 46 basis points of additional spread that's needed. Alternatively, it means only 9.64% return, considerably below our 14% goal.

Now in actuality, things are going to be much more complicated. Because the RBC was designed so that roughly 10% of companies would have a lower surplus than this RBC value, if you want to have early, good results from rating agencies, you may want to use even more risk surplus. I think the 100% RBC, or so-called company action level, is akin to a grade of D minus. It's kind of like having to explain to your faculty advisor what you'll do to avoid being expelled from school. Now, if we examine some RBC multiples in this process (Table 1), we'll get the following answers:

TABLE 1
SPDA Example

% RBC	0%	100%	150%	200%
Return	14.11%	9.64%	8.87%	8.38%
Extra BP (of spread to earn 14%)	–.5 BP	48 BP	72 BP	96 BP

You'll notice that the extra basis points needed are a fairly linear kind of a function. The way that the return falls off, however, is definitely not linear. That's due to the fact that as you approach your earnings rate, the level of reserves (in particular, the RBC effects) tend to become less and less relevant.

Now, for some possible pricing actions, one is to accept profitability below the pricing goals. Another is to just simply ignore RBC in the pricing process altogether. Unfortunately, either of these is no action at all and is like an ostrich putting its head in the sand. Another action would be to increase your asset yield by lengthening maturities or reducing quality. However, either of these actions may be destructive. Reduced quality also may increase the RBC and actually result in a worse situation from a pricing standpoint. Some other possible pricing actions are to reduce commission and/or other expenses, reduce interest credits or other benefits, or increase other charges. However, these actions may be harmful to competitiveness.

Now some may criticize the RBC as producing a disadvantage in pricing, but I disagree. I think we should always use recognized risk surplus somehow in our pricing process. If not formally by other kinds of risk margins, or by conservatism in our assumptions, in some way we should recognize the fact that we don't have a free ride. We can't maintain business that is essentially much more risky than a normal investment without having to hold additional capital. It's also the case that true risk capital may very well exceed the RBC levels for many companies. As a result, RBC would not really be a limiting factor in the pricing at all.

Another thing to consider is that one way or another, most companies do hold risk surplus. I think that some of the studies that were done by the RBC advisory group showed that surplus was correlated with company size. As was pointed out earlier, the group found that the level of surplus tended to go up relative to the RBC for smaller companies who ostensibly have a greater proportionate risk. This also recognizes that you've got to pay to play, which is sort of a variation on what I just said.

If risk surplus (or risk capital; I'm using the terms interchangeably) is not reflected in pricing, you end up with a suboptimal return. You get the same yield on capital as you would if you had not written any business, yet you do have a greater risk unless you can figure out a way to write risk-free business. Risk capital becomes a drag on overall company return objectives if it's not reflected in the pricing, unless, of course, your company's return objective is the same as the rate you could earn on the assets. But, such an objective implies you don't need to really bother to write new business. Also, your ability to support a long-term growth is definitely reduced if you don't price for risk capital. Finally, I think that the concept of risk capital should be recognized in appraisals as well. It's a very similar issue, only now you're pricing a huge chunk of business rather than individual policies that are being sold.

Now there are some potential disadvantages. It can be argued that RBC ties up too much capital. I don't know if RBC by itself is going to cause this to the extent that it represents capital we want to hold anyway. But, there are other requirements that may interact with the RBC, and cause more capital to be tied up than you would have otherwise. One of these is the adoption of requirements such that when GAAP accounting requires you to recognize an additional reserve, then statutory accounting follows, as was the case with *SFAS 106* and, also, reserving for guarantee fund assessments. Also, the "greater of" reserving requirements that seem to be emerging as part of the valuation actuarial concept could result in an increase in reserves, and an additional increase in RBC when the risk to the company itself had not actually changed.

Now there are some other potential disadvantages. Ranking of companies by RBC has been mentioned frequently, and I think the underlying fear here is that of runs on the companies being provoked by fear of inadequate capital. The RBC is not really designed for the particular purpose of really putting relative evaluations on companies. It's designed as a regulatory early warning. But, the fear is that it may be problematical. Is this a yawner, or is this something to really be concerned about? I've got a few reasons why I don't think that this is going to be of much concern. A number of formulas are used by rating agencies and states that are fairly well available, although they're not applied to the entire universe of companies in most cases. But, there

doesn't seem to have been much evidence of any runs on the bank provoked by these formulas. The publication of insurance regulatory information system (IRIS) factors, when Joe Belth unearthed them, is another case in point. Here some industry numbers are related to solvency, but I don't know that their publication did that much harm. I'd be curious to hear if anybody knows of some companies that were harmed by some of these events. Finally, there are "roll-your-own" ratios, the things you see in the newspaper periodically, that cause you to suddenly get calls from various parts of your own company. *USA Today* did a set of these not too long ago.

What's in the future? The RBC may still evolve, and the advisory committee has not been disbanded. The intention of the NAIC is to maintain the formula except for major important changes so to not twiddle it year by year by year, as might be feared. The prime objective is enhancing the ability to distinguish weakly capitalized companies.

Here are some current projects that are being pursued: (1) revise mortgage factors based on industry experience; (2) schedule BA look-through; (3) asset/liability liquidity; (4) concentration of liabilities; (5) reflecting pricing flexibility in RBC; (6) swaps and derivatives; and (7) tier-2 capital (e.g., subordinated debt).

MR. FREDERICK S. TOWNSEND JR.: I assume that everybody has some degree of familiarity with risk-based capital and what's been going on, so I'll offer some observations on risk-based capital and the impact that I think it will have on life insurance companies. I will touch on some of the issues that are outstanding.

There are action levels that will be taken. The RBC ratio simply divides adjusted surplus by risk-based capital requirements and, depending upon where the ratio comes out, certain steps may occur. Essentially, the steps start below 100% (the company action level), where a company submits a plan. Below 75%, there may be a corrective order. A company, however, can try contesting the order. Below 50%, takeover by the state is optional. The company, however, can try to contest that. Below 35%, takeover is supposed to be mandatory.

The question in my mind is, what's the corollary to this? Suppose a company is above 100% of the company action level. Can it go to court and argue that states shouldn't be permitted to suspend sales for the company. Regulators shouldn't be permitted to issue a corrective order until it is below 75%. I don't know what the corollary is.

I spent 25 years on Wall Street. I'm used to reading shareholder reports every year. One of the key pages in a shareholder report is a management discussion of what happened in the last year. I had urged that there should be one more level that requires a management discussion between 100% and 125%. If your ratio is above 100% but is going downward, you may have to perform a trend test. Depending upon the results of that, you may be required by your domestic department to do something.

Management discussion, rather than being optional, should probably be mandatory for the industry. Not so much because outsiders want to know what's going on, but I

think it wakes up management as to potential problems within its own company. If a purpose of RBC for the regulators is not only to identify weakly capitalized companies, but also to get companies to recognize that they may be sliding into a perilous situation, I think a management discussion should be mandatory at some point.

We have a standard universe at Townsend & Schupp, our so-called Libra universe of the 100 largest companies in the life industry ranked by assets, plus 30 other annuity specialists and GIC writers. Those 130 companies constitute 84% of industry assets. Table 2 shows the distribution of the 130 companies by our approximation of the NAIC risk-based capital formulas at year-end 1991 and year-end 1992. The percentage distribution is in the far right-hand column.

TABLE 2
Distribution of RBC Ratios for 130 U.S. Life Insurers

	Number of Companies		% Distribution	
RBC Ratio*	1991	1992	1991	1992
>200%	45	54	35%	42%
175-200%	19	27	15	21
150-175%	24	21	18	16
125-150%	22	17	17	13
100-125%	12	6	9	5
<100%	8	5	6	3
Total	130	130	100%	100%

* Ratio to company action level.

Companies have been working very hard in 1992 and will continue to work hard in 1993 to push their RBC ratios up. I don't know what their formal goals are. We show the industry average at 172% now, up from 162% last year. Many companies are probably reaching for a magic number of 200%. We can see that in the top two categories over 175%, 50% of the companies were there at year-end 1991. Now 63% of the companies are there. Probably 65-70% of our universe will be above the 175% level at year-end 1993.

You'll notice the paucity of companies down at the lower levels. Companies under 100% shrank from 8 to 5 in the last year. Companies in the trend test area shrank from 12 to 6.

Note that in our approximation, we don't give credit for cash-flow testing, so those companies that would pick up a few points from meeting the cash-flow testing requirements could move up one or two notches in Table 2.

Eleven companies are in the lower two categories. By year-end, I think that will be down to six. What's the profile of a company that's under 100%? Five companies are there, one of which just came out of conservatorship, so it is still going to be there at the end of 1993. The second company is a health insurer that was acquired in a leveraged buyout (LBO). The company would normally be an AA-rated company. Its former parents stripped out capital each year to meet the principal and interest

requirements in paying off the debt, so it will probably still be there. Two other companies are SPDA writers with a heavy mix of junk bonds and mortgage loans. That's why their ratio is under 100%. They're also highly leveraged because they're SPDA writers. One of the two companies has a publicly held stock parent that has infused money in the past two years. It will probably make an infusion this year to bring it over 100%. The other company is owned by a mutual company that believes it doesn't have any more money to put into it, and has put it up for sale. The fifth company just announced in *The Wall Street Journal* that it just raised several hundred million dollars in capital and increased its RBC ratio from the 85% level to the 110% level.

Six companies are in the trend test area. One is in conservatorship and will still be there, but it is above 100% now. The second company just came out of conservatorship and will probably still be in that range at year-end 1993. Two companies went into conservatorship with a ratio exceeding 100%.

The other four companies in the trend test area are brand name companies. They're in the top 20 in the individual life business, but they have 31-46% of their assets in mortgage loans and real estate. That's a heavy penalty in an RBC ratio test. One has a publicly held parent company that's infused hundreds of millions of dollars in the last two years. I'm sure it will put cash in this year to push it above 125%. Another company just merged its privately held investment management company into a publicly held investment management company, which will increase its surplus by several hundred million dollars, pushing it over the 125% level. Two other companies are mutuals. One's close to 125% and may or not make it without doing a deal. It is trying to sell one of its operating divisions. And the final company, I think with a modest reduction in dividend scale, could generate enough extra earnings to push above that level.

The action levels are probably 25 points too low. Companies A and B, which I won't name, had their sales suspended by their domestic insurance departments and were then taken into conservatorship. At the time their sales were suspended, their ratios exceeded 100% with this formula. Company C just had its sales suspended a year-and-a-half ago, at which time, and continuing today, its RBC ratio exceeds 100%. Company D has a 2% capital ratio. Its junk bonds are eight times its surplus. If we had an interest rate spike, and the value of the junk-bond portfolio went down 12%, it would have no surplus. Do you know where it is? It is not under 35%, it is not under 50%; its RBC ratio is close to 75%.

Now I think much of the focus of RBC was on companies with quantum drops in surplus: the Executive Lifes, the First Capitals, the Mutual Benefits. This formula is good for a company that's bleeding to death, and there is time to stem the flow of blood. But I think the measures have been placed a little bit too low, and I'll offer some more commentary on that later.

I've broken the distribution of RBC requirements down by C-1, C-2, C-3, and C-4 risk. (See Table 3.) It's interesting to me that when I think of risk in the life insurance industry, I think of health insurance underwriting and I think of life insurance underwriting. But insurance risk in 1991 for 130 companies was only 15% of the RBC aggregate requirement. At year-end 1992, it's only 13% of the total RBC

requirement. Asset risk in both years is two-thirds of the RBC requirement. Throw in interest rate risk, and the two are nearly 85% of the RBC requirements.

TABLE 3
Distribution of RBC Risk Components for 130 U.S. Life Insurers

RBC Component	Amount (In Millions)		% of All Risk	
	1991	1992	1991	1992
Asset Risk	44,384	45,473	66.8%	67.4%
Insurance Risk	9,900	8,683	14.9	12.9
Interest Rate Risk	10,390	11,475	15.6	17.0
Business Risk	1,786	1,838	2.7	2.7
Total	66,460	67,469	100.0%	100.0%

For what categories are the requirements very heavy? Equity in affiliates has been a heavily debated topic. What the committee has done, I think, is very reasonable. But there are company-specific issues, the exceptions to the rule that incur heavy penalties for certain specific companies. They've been quite vocal about it, and that committee is somewhat handicapped. I think it has taken a reasonable course in the way that it has treated the subject.

People believe that the RBC requirement for common stocks is very heavy relative to the factor applied to other asset classes. My personal view is that the factors are penalizing companies for the volatility of the stock market. Factors should be lower if you're just concerned about this asset being carried at a current value. I think junk bonds and mortgage loans should have higher factors relative to common stocks, because they're carried at a value that is not representative of what the market value may be, but a publicly held stock is always carried at current market value.

Regarding junk bonds, what we did with the asset-valuation reserve, and RBC is similar to the asset-valuation reserve, has lowered the factors for high-quality bonds and raised the factors for low-quality bonds, but it's sort of a passe issue. The industry unloaded 16% of junk bonds in a liquid market in 1991 and a third of that percentage in 1992.

Problem mortgages in real estate carry heavy RBC requirements, as they probably should. This will be a factor that makes management work overtime in some of our major mutual and major stock companies that have large mortgage loan and real estate departments. Maybe the factors are too low on nonproblem mortgages and real estate.

Some companies say they don't have much of a problem with mortgage loans, that their delinquency ratio is 4%. I say their problem is not 4% of their portfolio. Their problem is the 96% of the portfolio that is reported in good standing, the balloon mortgages on commercial loans that are backing GIC short-term maturities.

Schedule BA assets have a heavy penalty. I guess these are going to be broken down. They're going to see through Schedule BA and put these assets in the proper classes, which will help.

Health insurance carriers are treated much like property and casualty companies. A rule of thumb often used for PC companies is that you should have $1 of capital for every $3 of premiums, and this is about where the RBC committee came out.

Regarding liquid annuities, there's a heavy penalty for contracts surrenderable at book value, a lesser one for contracts surrenderable with a surrender charge, and so on down the line.

Company overreaction? Yes. Whether it's the prices of securities in the stock markets, or real life reactions to other situations, the pendulum swings to extremes in both directions. Right now, I think companies are going too far to an extreme. Some companies are sacrificing sound, long-term strategic decisions in favor of short-term actions that beef up the RBC ratio, but actually hurt the company in the long term. These short-term actions are discussed below.

Some of the moves that are being made realign corporate structure because of that equity in affiliate question. Vertical structures are being changed to horizontal structures. Subsidiaries are being dissolved in many companies. Many subsidiaries were set up for special purposes, often asset investment related, and they're being dissolved because there's less penalty to have it consolidated in the parent than to be carried as equity in an affiliate.

Companies are selling common stocks, because they believe the factor is too punitive. In fact, at the same time that they are selling common stocks in their investment portfolios, they are emphasizing why their customers should buy variable products. Now where's the logic to the two?

Collateralize junk bonds and mortgage loans. Take your single-B and triple-C bonds, put them into collateralized bond obligations (CBOs), and convert them into AA-rated instruments. The same goes for mortgage loans. We're going to see people putting mortgage loans into real estate investment trusts (REITs) this year and unload mortgages from the portfolio.

Sell or reinsure blocks of business. This has been going on. I think part of it is a good move. Companies are realizing they should beef up their critical lines of business, like a Phoenix Home Life merger, and sell off ancillary lines that maybe were there as an accommodation to agents. They don't make any money on them. They lose money on them, and they're going to have to put up high RBC requirements if they keep them.

Change product design. One of the two largest annuity writers in the U.S. has just written to group policyholders and offered to exchange surrenderable contracts for nonsurrenderable contracts at an increased interest rate for extended maturities, just to alter its RBC requirement.

The audience may not be as interested in this, because all of you are within the life industry rather than on the outside. But, to let you know how some outsiders may look at this, if a company has a high RBC ratio, it's, in theory, a low-risk company from a solvency point of view, but it may have a possible low ROE and be unattractive to investors. Conversely, a company with a low RBC ratio may be a high-risk company, but it may have the same correlating high ROE. The question is, why is the ratio low? Is the RBC ratio low because of the risk that the company is undertaking, or is it low because of capital management? Many companies are subsidiaries of companies in other businesses. Other businesses are accustomed to running on low capital bases and producing high ROEs, and many nonlife companies keep their life subsidiaries at a minimum capital ratio just to maximize their use of capital. So does a company have a low RBC ratio because it's truly risky or because of efficient capital management by a parent company?

RBC really doesn't measure liquidity, to my way of thinking, so we have a run-on-the-bank risk.

Several things can slip through any mathematical formula for target surplus or risk-based capital.

What are two major signs of a company going out of business? Number one is operating losses. I can point to any number of companies that have lost money for five consecutive years, and they've got a great target surplus ratio or RBC ratio. Number two is negative cash flow. If somebody's got negative cash flow for two, three, or four years running, something is going on there, but it's never built into a target surplus or RBC formula.

Treatment of restructured mortgages. Again, what's a sound decision, what's a long-term decision, what's a short-term decision? Many long-term people who have big mortgage real estate portfolios say if there's a problem with a mortgage, it is better to cut it off early and take it over themselves as real estate. But at the time you do it, take a write down. Nobody wants to do that going into risk-based capital. If you restructure it, no matter how lousy the terms, you don't have to write it down. So we're going to see many companies restructure loans, rather than do the smart move of taking loans into the real estate portfolio.

Collateralized mortgage obligations (CMOs) are generally a class 1 or class 2 bond, but they're double-edged swords. You could lose money if interest rates go up. You could lose money if interest rates go down.

Although regulators exclude interest maintenance reserve (IMR) from adjusted surplus, outside analysts will probably add back the IMR to surplus. If you were a consulting actuary for a company that was up for sale, you would ask for a purchase price that includes the surplus, includes the asset valuation reserve (AVR), and includes the IMR. But the NAIC will exclude it from the definition of risk-based capital.

Interest rate risk in RBC could be increased by 50-100% for the run risk. Finally, I think a RBC ratio should be discounted for any history of operating losses that exists in a company.

What has happened to the RBC ratio? The NAIC committee, or subcommittee, started with the New York target surplus formula. When we ran our 130-company universe based on year 1990 results, the New York formula produced a composite ratio of 85%. But it's politically unfeasible to say that the industry has only 85% of the capital it needs. I'm not saying that's a motive; I'm just stating an opinion.

In 1991, the factors had been changed, plus there was strong 18% surplus growth for the industry. So with 18% surplus growth, plus a change in the factors, suddenly the industry composite ratio had doubled from 85% to 170%.

Let's go back. Why do I say the action levels are too low? The mandatory takeover occurs at 35%. What's 35%? It's 20% of the industry average. So your capital ratio has to fall to 20% of the industry average before the mandatory takeover comes into play.

I've returned to the scene of the crime. In November 1992, the NAIC held open hearings at which people could speak their mind on the RBC ratio factors. I had to fasten my seat belt to keep from laughing and rolling out of my chair. The industry says it doesn't want any ratio published, and Terry Lennon says there's going to be a ratio published. The industry then says to only publish it for those companies that fall below 100% (and we all know by now there are going to be very few of them). And Lennon says that can't be done. The industry then says to only publish it for companies with a ratio below 150%. Lennon says that can't be done. The industry then says to only file it in the domestic state, if the domestic state asks for an exemption from the Freedom of Information Act. Lennon said no on that. The industry then says to file it in the domestic state, but not to let any other state in which a company is licensed ask for the report unless it files for exemption from the Freedom of Information Act. So this has been some of the company reaction, namely worry over publicity. You know virtually everybody's going to be above 100%.

The pendulum swings in both directions. Companies are rushing to get to 200% ratios. If you're at 150%, don't make a bad long-term decision in favor of a short-term decision. The pendulum is going to start coming back when people see that brand names in the industry are down at 130% and 140% ratios. You're going to say, "Why have I penalized my investment department? Why have I penalized my policyholders with lousy competitive net costs because I've gone into super conservative investments and I'm sitting with a 220% ratio and major competitors are down at 130%, 140% and 160%." The most conservatively capitalized companies in this industry, State Farm, Country Life, Farmers New World, are going to be over 50% ratios.

Regarding the NAIC blank, the industry did persuade the committee not to publish the ratio, so victory for the industry. We're not going to publish the ratio in the blank. No, we're going to print the numerator and the denominator, but we're not going to print the ratio. And this was still troubling. Somebody might come in at a 95% ratio, so we decided to even cut the denominator in half. We'll express our ratio as a percentage of the authorized control level. So if you're at a 95% ratio, you can say you're at 190% of the authorized control level. I've seen this statement in some proxy statements this year, where companies are now expressing their RBC ratio as a

percentage of the authorized control ratio. One company that has a 120% RBC ratio said that its capital is 240% of the authorized control level. I don't know whether that's making the situation better or worse.

Somebody asked if I was going to publish any ratios. I said it's been a long time since I've taken actuarial exams. I don't know if I remember how to divide anymore. It's been 30 years since I've had to divide, but if I can remember how to divide, I'm going to issue the Grand Canyon report: The Great Divide.

MR. HERBERT E. GOODFRIEND: I won't go into a lengthy "Dissertation on a Roast Pig" [Charles Lamb's essay on the delights of same] about perceptions. These were the good things that were supposed to come out of imputed NAIC scores, either for the life business or the PC business. Life RBC is already locked in cement, but PC is still evolving. It is, of course, interesting that they should say it will not be introduced into regulation. One of the fears, distinctly less so on the life side, because it isn't germane, but on the PC side, is a fear that it would in fact be used as a rate suppressant. That's not the case here with life premium rates. But there are those on the PC, health insurance, and Blue Cross/Blue Shield side (the latter has its own RBC formulas) who believe that it could be used as a rate depressant. But a phasing-in should ease the pain and suffering of companies over a three-year span of corrective surgery, the period to which Fred alluded, and they will be able to dress themselves up. In the doing, they may be better able to prepare themselves to make whatever the corrective steps are, and not have to do it all on one fell swoop.

Obviously, analysts such as Fred, when he was a practitioner, and I always believed that the industry should not view itself as unique; it was merely another area to put capital into, and accordingly, management should be measured by a whole roster of universal indexes to which everybody else had to be measured. But it seemed to us also that the industry should want to measure itself internally, if only for compensation purposes. This should help that, too. I've already alluded to the phase-in, but it should also serve to spur some steps that otherwise perhaps management wouldn't have done unless faced with the ultimate decision. Fred has referred to what those decisions have, in fact, been in recent weeks and months.

We heard Steve Foster discuss the fact, grudgingly, if you will, that, yes, the NAIC reacted to federal pressure. Truly it should get the federal government off its back for the moment, but it will be a fairly relentless campaign. I think they are deluding themselves if they think that mere passage of this phase of enhanced regulation or, indeed, state accreditation, will carry the day for all time. One of the things that is more subtle is we will be able to discern more clearly the course of a management's campaign to move forward. What is, in fact, the action plan if it has one?

The reality can be quite different. One of the things that has evolved is the pell-mell rush like lemmings to be the most conservative investment operative on the block. Everybody wants to have only NAIC Class 1, 2, or maybe 3 security. It is true that the penalty, the "haircut" if you will, on common stocks and others may well be revised downward going forward. Vincent Laurenzano and, to a lesser extent, Terry Lennon (both of New York's Insurance Department) have announced that they would give some consideration to that. Those who get hurt in a period such as this, precisely at the wrong time, are worthy borrowers and venture capitalists who have

depended importantly upon the life insurance business. They're shot down in flames if we carry this to its all-too-logical extent: not merely common stocks but also private placements. Let's hope that they modify that critique. We'll discuss more about common stocks per se in a bit.

Fred discussed the fact that for the first time, companies truly have a plan, or must come out with a plan, for corporate strategy. Their self-queries will include: Am I in the right business to the right degree? Should I get out? Should I sell extant books of business? Should I open the faucet and write more or less? Should I recapitalize? In the doing, an old axiom in the financial business is that the time to get capital is when you don't need it. Husband that capital, and go for it when the financing window is proverbially open. That orifice has been as open as a bay window in the last year. I now show you documentation to the fact that companies have not ignored the route to access capital, even if they didn't perceive that they needed the capital now, because they're afraid of what might lie ahead. They're making that and other decisions after reviewing their alternatives. Is it better to open a business, to acquire a business, or perhaps to get out, which is restructuring?

It would be naive on the part of anybody in this audience, but also regulators in particular, to assume that the information will be merely calculated and available. Indeed, it will be used, sure as little apples by disgruntled employees, by agents who want to get their quotas in for the month, by the marginal innuendo-prone company in the market that has long nurtured a desire to put another company flat on its derriere and, of course, by the media, let alone security analysts who know enough, as I did, to be dangerous.

While this is going on, it is not a fixed syndrome or mandate solely for the NAIC or its individual 55 jurisdictions. Indeed, the rating agencies are taking their own, more Draconian, steps. While they have not yet been published in detail, A. M. Best and S&P are moving quite along, and so the RBC aforementioned score of 150 or, indeed, 170, to which Fred referred, may not be enough in due course to justify an A rating from A. M. Best Company. They are fixing themselves for a conventional mix of annuity and other interest-sensitive products to a "200" level. Of course, they will massage the output to reflect that individual qualitative factors do not delude into believing that a mere passage through of the 100, 125, 150 and, indeed, 175 numerical zones will command much respect beyond the State House, because it will not. I suspect that in due course, perhaps in 1994, you will see scores, if not published by A. M. Best, available on demand as well as by S&P with gradations above that for A or AA ratings. Others will take a different view, probably a little less scientific and a little less Draconian but, nonetheless, purposeful in direction so that each rater cannot be accused of letting things fall between the cracks or parenthetically of what Fred justifiably cited here: namely, setting standards too low so that everybody passes or that overwhelmingly more companies pass than not.

There is an important inconsistency also in prospect. As you know, the life formula is now locked in to be instituted this year for publication in early 1994. In the meantime, on the PC side, the hope is that they will get it passed by its committee this summer for approval in December and instituted by year-end 1993 for 1994 reporting in 1995. That will mean a one-year period during which time life companies that are either owned by PC companies or the reverse, or have sister companies or brothers in

the same or opposite businesses, could well be affected in their capital program formations either negatively or positively by a kind of window for which they didn't plan, and that will be a kind of never, never land.

Nor can one say that just because you have a PC company or a life company that you perceive is well capitalized. Will you be immune to the forces of the marketplace in the PC business, because others are going to be moving in and out, moving their capital around to decide whether they are in the worst end of their business and opening and closing the respective faucets and changing the course of their business, too? If you have a life and a PC company in one layer or another, please take a fresh look at it.

While this is going on, we have the battle for shelf space among other states. They were referred to inferentially before, but Texas and Michigan have their own axes to grind. Texas has, in fact, put its RBC into effect this year. It's not going to cause many problems, but it is another wrinkle from another new kid on the block. State Farm has endorsed what appears to be another credible medium, called SAFE-T, mostly PC-oriented.

Before I show you the impact of how the life companies have accessed the capital market this year and last, I'll give a bit of perspective on what they have done before. Focus on Table 4, life insurance. Rarely until 1986 did the industry think or act in terms of multibillion-dollar sums of raising capital. It was almost heresy or, indeed, anathema to consider raising capital even if you were, obviously, a stock company, or if you were a mutual and were forced to demutualize. The occasions were rare when you could access the capital market in whatever the form. There was one balloon year, but it was quite level in the three or four prior years to the most recent period in question.

The format of that capital-raising, and this is true for all of the insurance industry, not just life companies, was emphasizing issuance of common stock and to a lesser degree, debt (See Table 5). The industry was to issue between $5 and $6 billion on average in total for all forms of insurance capital-raising.

In the most recent period, 1991 to date, the life insurance industry alone raised $1.4 billion from common stock sales (See Table 6). That's more than two or three times what total insurance offerings raised only a few years ago, and debt offerings doubled that. Total insurance financing in all forms was $8.3 billion. That includes multiline companies, portions of which apply to the PC or health sides of their business, but, nonetheless, a substantial, if unidentifiable, portion of this was absorbed by their life operations. It also excludes a couple of "biggies" that are on the horizon. As you know, Allstate is moving forward and is expected to soak up perhaps as much as $2 billion out of the capital markets this summer, the majority of which goes to the PC side of the ledger, but a portion of that will also go to its life business. First Colony will be funding again another layer of important constructive financing; it is doing well. We heard as recently as this week that a major New-York-based mutual life company is going to be financing debt as well. Thus, we're talking about perhaps another $2.5 billion in registration superimposed on this $8.3 billion, equal then to more than $10 billion, two times the average level of all insurance company financings for the past decade.

TABLE 4
Estimated Capital Raised by U.S. Insurance Entities
(dollars in millions)

	1984	1985	1986	1987	1988	1989	1990
Multilines	$485.0	$1,751.6	$2,732.1	$1,800.0	$806.2	$805.8	$226.0
Property/casualty	837.3	2,712.4	2,580.3	692.0	1,819.5	1,118.2	98.2
Specialty/regional	70.5	454.8	1,248.4	452.2	753.6	10.0	231.5
Reinsurance	0.0	398.1	610.4	222.9	102.8	404.8	208.0
Subtotal	1,392.8	5,316.9	7,171.2	3,167.1	3,482.1	2,338.8	763.7
Life insurance	458.0	873.1	6,038.4	2,747.0	2,078.9	2,084.8	1,008.4
Brokers & agents	0.0	177.7	64.2	12.1	0.0	200.0	0.0
Industry totals	$1,850.8	$6,367.7	$13,273.8	$5,926.2	$5,561.0	$4,623.6	$1,772.1

Note: The figures above reflect the sale of collateralized debt, mostly by life insurance companies, and much of it in the Eurodollar market and to other international investors. They do not include very substantial borrowings from banks to finance acquisitions.

TABLE 5
Estimated Capital Raised by U.S. Insurance Entities
(dollars in millions)

	1984	1985	1986	1987	1988	1989	1990
Domestic Public Issues							
Common Stock	$185.2	$2,811.1	$4,575.1	$372.7	$46.1	$23.8	$525.1
Convertible Preferred	0	630.0	586.5	180.5	28.0	22.5	0
Convertible Debt	35.0	312.0	420.0	30.0	10.0	952.6	55.0
Preferred Stock	385.0	1,185.5	451.5	306.5	17.0	254.9	0
Debt	85.0	530.0	3,640.0	3,450.0	2,720.0	901.0	485.3
Domestic Private Placements							
Equity	252.1	174.9	158.6	200.0	270.4	210.0	114.0
Debt	158.5	194.2	563.3	202.0	1,815.9	1,599.2	167.0
Total Domestic Issues	$1,100.8	$5,837.7	$10,395.0	$4,741.7	$4,907.4	$3,964.0	$1,346.4
International Debt	750.0	530.0	2,878.8	1,184.5	653.6	659.6	425.7
Total Capital Raised	$1,850.8	$6,367.7	$13,273.8	$5,926.2	$5,561.0	$4,623.6	$1,772.1

Note: The figures above reflect the sale of collateralized debt, mostly by life insurance companies, and much of it in the Eurodollar market and to other international investors. They do not include very substantial borrowings from banks to finance acquisitions.

TABLE 6
Total Financing in Life Insurance Industry
9/30/91 to Date

Offering	Total Financing ($ Million)	Percentage of Total
Common stock IPOs	$1,419.4	17.0%
Secondary common stock offerings	620.7	7.5
Public convertible debt	190.0	2.3
Public convertible preferred deals	598.5	7.2
Corporate public nonconvertible debt	2,254.0	27.1
Public nonconvertible preferred offerings	985.0	11.8
Private convertible debt offerings	23.0	0.3
Private nonconvertible debt issues	2,231.8	26.8
Industry Total	$8,322.4	100.0%

Now, I'm not going to go into who has done the financing. Those names are listed in Table 7-14, and I've given you a representative group of who the culprits, or the beneficiaries, are, depending upon your view, and by class of security as well. Not everybody wants to use common stock. A number of these are, in fact, multiline companies; parts of the financing were absorbed. It's clearly an age-old argument, should you buy a common stock and hold it, or should you buy something else? I'm not going to go into the pros and cons of the random walk theory or, indeed, the 50-year old Kondratiev curve or Arthur Laffer's views on gold. Suffice it to say that credible witnesses, professors, and practitioners of the art (not science) of security analysis agree that over a secular span (assume it is more than five years and less than 50), or if you were in the property/casualty business, for example, over the imputed life of a cycle, six years used to be the cycle, common stocks clearly outperformed other forms of securities by a significant quotient.

TABLE 7
Common Stock IPOs in Life Insurance Industry
9/30/91 to Date

Issuer	Offer Price	Total Financing ($ Million)
Horace Mann Educators	$18	$252
American Income Holdings	19	86
CCP Insurance	15	105
Equitable Companies	9	392
John Alden Financial	15	110
Life Re	22	233
First Colony Corporation	28	241
Total		$1,419

TABLE 8
Secondary Common Stock Offerings in Life Insurance Industry
9/30/91 to Date

Issuer	Offer Price	Total Financing ($ Million)
Conseco	$57.000	$128
NWNL Companies	36.875	46
Liberty	28.250	68
Integon	25.750	94
Lincoln National	71.250	285
Total		$621

TABLE 9
Public, Convertible, Debt in Life Insurance Industry Deals
9/30/91 to Date

Issuer	Offer Price	Principal Amount ($ Million)
Old Republic International	$100	$100
Horace Mann Educators	100	90
Total		$190

TABLE 10
Public, Convertible, Preferred Deals in Life Insurance Industry
9/30/91 to Date

Issuer	Offer Price	Total Financing ($ Million)
Broad	$13.000	$ 78
Aon	39.125	110
Conseco	50.000	250
Sunamerica	37.000	161
Total		$599

TABLE 11
Corporate, Public, Nonconvertible Debt in Life Insurance Industry
9/30/91 to Date

Issuer	Principal Amount ($ Million)
American International Group	$ 43
ITT Hartford Group	500
Kemper	111
CIGNA	400
Broad	225
Lincoln National	200
Life Partners Group	100
Aon	200
USLIFE	150
American Annuity Group	125
Conseco	200
Total	$2,254

TABLE 12
Public, Nonconvertible, Preferred Offerings in Life Insurance Industry
9/30/91 to Date

Issuer	Offer Price	Total Financing ($ Million)
Old Republic International	$25	$ 50
Transamerica	25	200
Travelers	25	100
Broad	25	125
Primerica	25	300
American Life Holding	25	60
Provident Life & Accident	25	150
Total		$985

TABLE 13
Private, Convertible Debt Offerings in Life Insurance Industry
9/30/91 to Date

Issuer	Amount ($ Million)
Amer Bankers Insurance Group	$23
Total	$23

TABLE 14
Private, Nonconvertible Debt Issues in Life Insurance Industry
9/30/91 to Date

Issuer	Amount ($ Million)
Connecticut Mutual CBO	$286.5
Travelers Insurance Companies	40.0
Prudential Insurance	340.6
New England Life Insurance	9.6
Travelers	300.0
Torchmark	50.0
Pacific Mutual Life Insurance	6.6
Sun Life Insurance Co. of America	201.5
Kemper	50.0
Equitable Life Assurance	205.0
Capital Holding	138.1
Pacific Mutual Life Insurance	23.5
Travelers Insurance Companies	75.0
Kemper	50.0
Sun Life Group of America	150.0
Bankers Life Holding Corporation	25.0
Travelers	25.0
Bankers Life Holding Corporation	200.0
Guaranteed Mutual Life	52.4
Liberty Mutual Insurance	3.0
Total	$2,231.8

We can argue that forever, but there's credible evidence that, in fact, was the case allowing for its risk quotient. The proposed haircut on common stocks for life or PC is 30%, which places it at 15 times the risk quotient of some bonds. I raise the question to you, is that a fair equation? You can say that a 15% charge would be too low, but it can also be that 30% is too high. Perhaps someplace in between is, in fact, the proper place where it should be. It is also quite clear that life companies are singularly less dependent upon the use of common stocks than are property/casualty companies. But there are many state laws that facilitate, and even recommend, as much as 10% of admitted assets or some correlative amount of surplus to be invested in commons, or a basket of commons, including private placements that can be construed to be equity. In fact, there are those who counter Fred's discussions of junk bonds, and this is probably one of the few areas where I will differ with Fred. I am not a devotee, let the record show, of Michael Milliken's school of trading.

On the other hand, guess what the single, best performing class of securities has been in the last two years? Yes, junk bonds, a.k.a. "high-yield instruments." Some insurance commissioners might have served their constituencies better if they had not pressed one or two companies to the wall and forced them to prematurely liquidate their junk bond portfolios. In fact, there's a whole crop of litigation now as to whether those forced transactions that took place at 20, 30, and 40 cents on the dollar were premature and nonobjective. I'm not going to debate the merits of junk

bonds, but clearly common stocks and junk bonds have one thing in common. When all else fails, they are equity, because the junk bond doesn't have anything substantive behind it. But the difference between a common stock and a junk bond in the classic sense is the view that common stocks are demonstrably less risky than a junk bond. It is also clear that commons are being penalized more than category-6, NAIC bonds that are in or near default. Is that justified? I think not. It's also clear that they're being charged three times the category-5 junk bonds, and a proposal has been forthcoming that would lower this to 10-15%. I don't know if that's going to fly or not, but I raise it to your consciousness, because it probably is a better representation of its relative merits than a 30% haircut.

When you buy a security, whether it's common stock or something else, did you buy it as a "one-decision" security to have and to hold from this day forward, or did you buy it for trading, for execution, that afternoon? It can be truly said of most managements these days in the investment spectrum that most securities are currently bought for trading. What is presented to you as an investment manager is somewhat analogous to the New York State and now NAIC cash-flow scenario models. What if the particular variables come to fruition in the next year or two? What actions would you take? For example, if interest rates rise or rachet upward, or the nation goes to hell in a hand basket, wouldn't you sell securities? There wouldn't be much time and opportunity above market to execute orders; hence, virtually all securities today, with rare exception, particularly newly invested cash flow, can be construed to be held for trading and not for investment. The danger is not in the formula or, indeed, the haircut itself, but in obtaining a formula too complex. I cannot help but reiterate the opening line of an article that I wrote for A. M. Best. It is a quotation from Lord Balfour, who said, "Things would have been clearer had they not been explained."

We are now in a low-interest-rate period, which is helping everybody's bond-market holdings. If Clintonian or Hillary economics hold sway, for how long can you expect that interest rates will remain comfortable and in your direction? Probably not over the next two to three years. Then there are the problems as I referred to before: when I have the RBC information and the score, what do I do with it, whose ox is gored and how is it portrayed and displayed? You're going to have a battle within the U.S. House and Senate and, certainly, within the state regulators' domain and the media, as to what purpose RBC is serving. It is being used by people in the minority, in the ghetto, and in depressed areas as pressure valves to get life companies to invest where they insure. You will hear more of this. It is not confined to the PC side of the ledger. Clearly, if company A in Oakland, California derives 1-2% of its insurance from people who live in that depressed region, should it invest 1-2% or more of its admitted assets or mortgage portfolio in the same area? It is, indeed, social engineering, but that's the politically correct era we're in. You can expect to see RBC scores import manipulated as well with the pressures of the times in depressed urban and rural areas.

Table 15 shows where money is going and, clearly, it's not going where optimal yield and optimal balanced portfolios are going. It's going where the lowest "haircuts" are being charged. I won't belabor the point, but there's a lot of liquidity among life companies, and many things are almost equal to cash, quasi liquidity. How long will that continue? Many companies apparently still haven't got the message about RBC. I don't know, but I suspect that if we look at these numbers again by year-end 1993,

you will see a pronounced increase in the high-quality C-1 and C-2 categories and declines in other sectors.

TABLE 15
Net Changes in Assets
(Dollar amounts in millions)

Asset Class	1990	1991	Estimated 1992
Debt securities			
U.S. treasury	$ 6,488	$18,746	$12,049
U.S. federal agency	24,070	39,270	25,216
U.S. state and local	518	682	1,472
Foreign government & international	1,629	−54	4,173
Total government	32,705	58,644	42,910
Corporate: 1 year or less	3,799	−809	12,640
U.S. Corporate: more than 1 year	36,593	37,111	44,518
Foreign corporations: more than 1 year	4,142	4,616	4,427
Total corporate	44,534	40,918	61,585
Stocks	2,870	36,031	22,585
Mortgage loans	15,984	−4,851	−18,758
Real estate	3,459	3,344	3,689
Policy loans	5,164	3,761	5,636
Other investments	2,471	3,393	1,663
Cash	−102	1,076	299
Other assets	1,457	677	1,990
Total assets	$108,542	$142,993	$121,599

Each asset class is the combined total of general and separate account assets.
Source: ACLI

It has also had a profound influence already in the mergers and acquisition syndrome. There are a number of motivations. I won't tick commissioners and the marketplace off, but the advent of RBC could well force upon companies over the next three years insolvencies and rehabs, rest and recreation. It probably will be a fount of revenue for accountants, investment bankers, actuaries, and, of course, the legal profession. But the interesting phenomenon these days is that there are very few deals taking place, particularly of any meaningful size. Where they are taking place is at demonstrably less values than the same merchandise would command if they were taken public in an initial public offering (IPO).

You will see that in Table 16, and that's because, clearly, the IPO market window has been open. It's been tapped beautifully, and there's a willingness and ability to absorb it. Table 16 shows the numbers of deals. Clearly, they've gone down in each of the past three years by category. Look at the life side and look also at the domestic life "cross-border" category, etc. These are examples of what the sellers

are using as their putative motivation. When push comes to shove, most of them want out for whatever reason. They will rationalize and give you a number of different reasons. These are some examples of reasons given in a published sense by those who sold out either books of business or the companies in toto.

TABLE 16
Merger and Acquisition Activity Has Abated Somewhat
Announced Purchase Offers Over $25 Million
(Number of Deals by Categories)

	1990	1991	1992
Domestic			
Property/Casualty	8	5	7
Life	13	8	1
Rehabilitation	0	7	7
Broker	2	0	5
Title	3	1	0
Healthcare	0	6	2
Total domestic	26	27	22
Cross-border			
Property/Casualty	4	1	0
Life	6	4	1
Rehabilitation	0	2	0
Broker	1	2	2
Total cross-border	11	9	3
Total: U.S.	37	36	25
International			
Insurance	17	17	18
Broker	1	1	1
Bank	3	3	3
Other	7	7	1
Total international	28	28	23

Two other ripples that muddy up the waters are AVR and IMR. As you know, there are differences among and between the rating agencies, security analysts, and, of course, the NAIC, on the treatment of AVR and IMR in risk-based capital. This is an issue that has to be resolved much more carefully as we go forward.

MR. ROBBINS: There's been much research on the asset side of the balance sheet for risk-based capital formulas. On the contrary, there appears to be some commentary that the liability side has been subject to a "meat-axe-type" approach, with little research. Despite this, there are many problems that are seen on the asset side. Would someone like to respond to that? Why is there relatively less effort to refine the formulas on the liability side?

MR. TOWNSEND: Just a couple of random comments. One thing that wasn't mentioned is that as part of the movement in keeping up surplus positions of life companies, a number of companies have indicated that they're adopting minimum reserve standards for new business. The RBC formula fails to differentiate between reserve standards that companies are using. And in the annuity lines of business, there are different interpretations of just what the reserve standards are, so you can have a difference in the quality of surplus. Also some companies have substantial surplus relief outstanding that they're supposed to wind down, but I think different states are letting different companies wind down at a different pace. So, again, the quality of surplus might be called into question in a couple of situations. I've already alluded to the run-on-the-bank factor. The most widely publicized takeovers occurred while companies, without marking assets to market value, still theoretically had a positive statutory surplus, but they couldn't stand the run on the bank. There needs to be some expanded recognition of that risk in the RBC formula.

MR. GOODFRIEND: I would observe that even though the NAIC has not grappled with it yet, the SEC and the rating agencies are taking a dim view toward financial reinsurance, particularly as to whether risk has passed, and toward surplus relief. It is also clear that a whole cottage industry of matching assets and liabilities has grown up.

While I'm on that topic, Fred mentioned that liabilities were at last on the premium-to-capital side. Maybe it was he who said three to one is the property/casualty norm. That may be the case in an overt sense, but I think increasingly both regulators and the rating agencies alike are looking at two to one. In fact, that's where the industry is overall right now. Similar norms that might have been considered normal on the life side of six or seven are different now from what they were only five or six years ago because of the quality and sensitivity of this aforementioned interest-sensitive products. The degree to which those bailout rates tend to be ticked off and when. Surrender charges are important and are being looked at by rating agencies and regulators alike.

MR. JAMES F. REISKYTL: Unlike Steve, I've been part of this effort for a long time. Steve's been a fine contributor, or a reactor, to what we've been doing, and we're pleased to have him with us. As to your comment about the liability side, it's an interesting question to put before a body of actuaries, because the liability side, hopefully, is being addressed by actuaries and valuation actuaries in particular. And the risk-based capital structure is built on the concept that the valuation actuary is doing his or her job and, in fact, will establish appropriate reserves and increasing reserve basis where appropriate. The other difficulty, as you surely would appreciate, is that it's very difficult to know what gross premium levels are, what guarantees have been built in the contracts from an annual statement basis. All this should be taken into account when one does an analysis of the liability or reserve.

A couple other little items. Fred mentioned liquidity. We looked at this issue in some depth. Your suggestion on how to solve it sounds like a simple ratio of the interest risk. I've wondered if you've done any analysis to support that conclusion. The committee would be very interested in any workup that you have on that.

I have a correction, or qualification, to make on one slide. The comment was made that all interest-related losses are recognized immediately. That is only correct if the IMR is already at zero. The IMR cannot go negative currently, but if you have a positive IMR, losses will be spread until it goes to the negative position and, in fact, negatives are carried forward to some subsequent year when you may be positive.

I think Fred was very entertaining about his ratios. Not to defend the committee, but to really express the view that I believe is appropriate, the risk-based capital formula -- we cannot emphasize often enough -- was not derived (and, surely, actuaries would understand it's not established) to produce the appropriate amount of capital or surplus of a well-run company. And simply to take ratios of a minimum does not create the proper answer, in my opinion. Maybe by pure and dumb luck it could produce the right answer for any one company, and 200% may be where people are going. But, clearly, we on the committee prefer that people do their own analysis and that actuaries should be doing this work. If that happens to be *X*% of risk-based capital, that's fine, but to start with the idea that it works, we all know how risk works. Risks are not linear, and these formulas were not established with that in mind.

MR. TOWNSEND: Putting some of the humorous comments aside, I believe that it's a more valuable tool than we had in the past. The thing that really doesn't catch is the quantum drop in surplus. In some of the worst examples we've looked at, there's just been a sudden asset write-down or a sudden disappearance of surplus that puts a company in jeopardy. I think that this exercise works best when somebody's bleeding to death, rather than immediately losing a limb in an accident.