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BALANCING PRODUCTS

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- o Is product diversification an answer to asset/liability matching?
 - What products offer balancing potential?
 - How do you analyze balancing?
 - Acceptance by management?
 - Surplus implications
 - Effect on claims paying ability ratings?

MR. PAUL-ANDRE BRISSON: I'm Vice President of Investment Planning at London Life Insurance Company in Canada. We will be looking at liability diversification and how this may help in your asset/liability management work. Particularly, we will be looking at what kinds of products could be used for balancing, the implications on surplus, and we'll get some insights into Moody's approach to rating life insurance companies.

To help us do this, we have three speakers: Dick Robertson from Lincoln National, Harry Miller of Milliman and Robertson, and Robert Riegel of Moody's. The recorder for this session is Saloon Tham of London Life.

First, we will have a presentation from Harry Miller, who is an Associate Member with the Houston office of Milliman and Robertson. His areas of expertise include financial forecasting and reporting, mergers and acquisitions, new venture analysis, and design and pricing of insurance and other risk-sharing programs. Harry will review many aspects of the questions being asked these days by looking at some of the products that offer balancing opportunities and how balancing might work in specific examples. Then, we will hear from Dick Robertson who is Executive Vice President and Chief Financial Officer of Lincoln National Corporation. His responsibilities include financial reporting, investor relations, tax compliance, corporate actuarial, and financial planning. Dick will be talking to us about some ways of balancing products, and some of the challenges associated with it.

Finally, we will hear from Robert Riegel who is Senior Analyst with Moody's Investors Service and is responsible for a portfolio of life insurance companies. Robert will discuss Moody's life insurance financial strength ratings and implications that asset and liability structure have on Moody's rating.

There should also be some time at the end of the three presentations for you to ask questions. So, at this time, I'd like to call on Harry Miller for the first presentation.

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MR. HARRY R. MILLER: To me, balancing is that part of the strategic management of the liability portfolio that seeks to minimize the total risk faced by an insurance organization through the use of liability diversification.

Now, let's examine that definition in detail. The first part refers to the strategic management of the liability portfolio, which implies that product balancing is not an operational concept that can be applied piecemeal in a company. Rather, it should be part of the overall strategy of a company and applied from a global perspective. I'll have more on this point later.

My use of the phrase "liability portfolio" versus "product portfolio" in the definition is intentional. Liability balancing can and should look beyond just the insurance products in the company, and should include all of the liabilities of the organization such as products, debt, taxes, etc. You can look at liability balancing at any level of an enterprise, but I think you need to address the question at the highest practical level.

For example, if you have a holding company owning multiple insurance companies, the holding company would be the proper perspective from which to look at liability balancing. This allows you to cut across the organizational structure to include all insurance lines, debt instruments, tax liabilities, and noninsurance lines, as appropriate. This global perspective is important, since as you all are aware, insurance organizational structures are often driven by legal, tax, and regulatory concerns, rather than by logic. Your goal in liability balancing is to get to the real bottom line.

The second part of my definition concerns minimizing the total risk faced by insurance organizations through the use of liability diversification. We all recognize that there are many types of risks and many ways to manage risks. For example, you can seek not to accept some risks, through either the underwriting process or by simply not selling a particular product. You can also reduce risk through loss control programs or by spreading the risk through reinsurance. Such liability balancing is only one of the tools available to management in their overall risk management strategy.

So what are some examples of product balancing? One example many people are familiar with is the use of deferred annuities and immediate annuities or structured settlements, whereby investment gains on the immediate annuities can offset surrender losses on the deferred annuities in a period of rising interest rates.

Another example might include the use of life and annuity products to offset mortality rates. If mortality rises, the mortality gains on the annuity line will serve to offset mortality losses on the life line. Another interesting example concerns leveraged buyouts, or LBOs. For those of you not familiar with LBOs, typically in an insurance enterprise, a holding company will be set up that will borrow money from a bank in order to purchase a life insurance company. The cash flows from the life insurance company will pass through the holding company to repay the debt. In LBOs, the interest rate on the bank debt is often stated as the prime rate plus a spread, so that if interest rates go up, the interest rate on the bank loan goes up. Here, you would want assets backing the insurance liabilities in an amount equal to the bank debt to be invested in assets that would also fluctuate, that is which would be invested in assets yielding the

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prime rate plus a spread. This example illustrates how liability balancing needs to cut across organizational lines, such as the combination of holding companies and insurance companies versus just the insurance companies, and how liability balancing and asset/liability matching can often blur in the real world. It's not a line that's clearly drawn where you can separate one concept from another.

How does balancing work? One potential impact of balancing can be seen in an example from a New York Regulation 126 filing (see Table 1).

TABLE 1

Market Value of Statutory Surplus at End of 10th Year
(In Thousands)

Scenario	Immediate Annuities	Deferred Annuities
A. Level	470	2,041
B. Rising	(199)	438
C. Falling	1,355	3,750
D. Pop-up	224	1,539
E. Pop-down	884	2,611
F. Rising/Falling	755	2,243
G. Falling/Rising	112	937

Here, we are looking at two product lines: deferred annuities and immediate annuities. The assets are invested primarily in GNMA's. I show the market value of statutory surplus at the end of the 10 year, and the results are shown under the seven interest scenarios defined in New York Regulation 126. Looking at the results for the immediate annuities, we see a \$199,000 shortfall in scenario B that would suggest that an additional reserve would need to be set up. But, as you see, the deferred annuities line more than offsets the negative results of scenario B's immediate annuities and eliminates the need for any additional reserves.

So, we've looked at what product balancing is and how it can help in a specific situation. The situations where it can be applicable are many and varied; we'll talk about a few later. So, how does management feel about the idea of product balancing? I think the answer depends on the proper presentation of the concept. If you simply say to management, "Hey, to reduce our overall risk, we need to sell \$80 million worth of structured settlements," I don't believe you're going to get a very positive response from most insurance company management. You need to keep in mind that many times you'll be facing an inherent bias against or reluctance to utilize some of the products involved in balancing strategies.

For example, the marketing chief may not feel that the field force is effectively suited to selling deferred annuities. Even if this is true, and not just a knee-jerk reaction on his part, you could still accomplish your balancing strategy by reinsuring the necessary annuities. So, you need to be open minded when you're approaching this concept and look at all the various opportunities.

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Thus, to be successful, I believe the concept of product/liability balancing needs to be presented as a tool to manage risk.

The concept of product balancing as I've described it may run afoul of some "cherished" notions in insurance companies such as asset segmentation and surplus allocation by line. This is due to the global perspective of product balancing that implies aggregation of results versus segmentation. But in my mind, this conflict should arise only if the concepts of asset segmentation and surplus allocation have not been fully understood and applied properly. That is, asset segmentation and surplus allocation are tools used to implement management strategy, much the same as product balancing. Therefore, they should be complementary rather than conflicting tools.

It's important to realize the uniqueness of each situation that you will face in an insurance company. Each company is different, and the results that you wish to achieve by product balancing will vary from company to company. The product-balancing strategies used by Lincoln National, for example, to implement their strategies may not be appropriate for another company, and often will not be. And there are many different goals that you can work towards using a balancing strategy. For example, you can use it to manage the mortality risk, the tax liability, or the investment risk of your company. It is a tool that can be used in a wide variety of circumstances. You need to look at the uniqueness of each situation, and of your company's situation. What are the hot buttons of management, what are their worries, their concerns, and how are they addressed them.

So, what products offer balancing potential? A good question. Probably a question many of you came here to get answered. Unfortunately, the uniqueness of product balancing makes it hard to give a blanket answer that is suitable for everybody. I don't believe the full creative ability of actuaries has been tapped in examining the question of designing liability vehicles that can be used to implement a balancing strategy. Let me throw out some ideas that can get you thinking, and as I indicated, our other panelists will also throw some out and perhaps we can generate some discussion later.

In general, products that offer balancing potential are those that react inversely to specific stimuli. Keep in mind that liability balancing potential can and often does cut across lines of business as well as insurance and noninsurance operations -- recall the LBO examples mentioned earlier. As another example, we have a client that sees balancing potential in terms of his insurance and consumer finance operations.

Some insurance products that can provide balancing potential include the following: deferred and immediate annuities, life and annuity products, long-term disability and life products. In the health area, an example would be hospital income and long-term care products can provide balancing potential.

It's important not to limit your thinking, but to explore all the potential product combinations available in your specific circumstances. You might even want to expand into specific products designed to offer hedging capabilities. For example, could a reinsurer structure a hedge product for the AIDS risk? And, if so, do you think there would be a market for that?

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In Great Britain, for example, taxes were paid on investment less expense-related. So, there were a lot of strategies developed to balance investment income-related products and expense-related products. If you could design an appropriate strategy to balance your investment income and your expenses, you could effectively reduce or eliminate your taxable income. I understand, from an historical perspective, although I was fortunate not to have practiced under the 1959 Tax Act, that similar strategies existed under the various phases of the 1959 Tax Act.

In my previous example, we stated briefly how balancing might reduce overall surplus. One of the benefits of product balancing in this area is reducing the total surplus requirement by reducing the total risk of the insurance enterprise.

In summary, product balancing offers many companies a meaningful tool for risk management. It can be an important part of the strategic management of a company while fostering a global approach to risk management. Product balancing is another dimension in the equation of asset/liability management. Much has been said about asset/liability matching, and actuaries are hearing more and more of the asset/asset matching concept. But the liability/liability matching concept has been somewhat ignored lately, perhaps because it's so familiar to actuaries. It does not necessarily involve a lot of new techniques. It involves some new thinking.

Is product balancing the answer to asset/liability matching? No, but it is an important piece of the puzzle, and like asset/asset matching and asset/liability matching, it should be a part of the total management toolbox. This concept offers some excellent opportunities for actuaries to explore, to apply their creative skills to examine new ways to utilize this effective tool.

MR. RICHARD S. ROBERTSON: Let me talk about the same subject from a similar perspective, and it's similar in many respects, but perhaps by talking about it from a little different angle, it might help underline some of the things that we need to do when we talk about management of liabilities.

The advisability of matching assets and liabilities became very strong about 10 years ago when we first began to see substantial fluctuations in market interest rates, and in values of bonds and other fixed income investments. Prior to that time, we had generally been quite successful by investing relatively long and allowing our liabilities to be whatever seemed appropriate at the time.

The credit squeeze of the late 1970s and early 1980s demonstrated the kind of problems that that kind of strategy can lead to in insurance companies. It also led to serious problems in other kinds of financial institutions. We learned that while we may have thought we had retirement annuities, under extreme duress these annuities became very short term, and we had the problem of trying to fund significant surrenders on our annuity portfolio with market values well below what we were carrying them for on our statements.

The first thing we learned from that process was that we should tailor our investment strategy to track as well as we can to the obligation we have to our customers. So, our

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first response to developing matching strategies was to change our asset management strategies to follow the kind of strategy we had been following with respect to our liabilities.

What can you do to improve the structure of your liabilities to allow a more flexible or more attractive management process of your assets? I'll present about three or four different concepts as to how that might be done.

Probably the best example and the one that we pursue most clearly involves the immediate/deferred annuity concept. And in particular, in our case, we have two operations that complement each other very well. One is our guaranteed investment contract (GIC) portfolio, where our liabilities are typically relatively short, 3-5 years in most cases, subject to detail quantification, where the buyer generally is sophisticated and is therefore in a position to move funds in a way that is most attractive to the customer, if in fact we have not managed our company in such a way as to protect ourselves from such movement. So it's become quite clear that we and everybody else needs to develop an asset management strategy very close to what we've been providing in the way of customer guarantees under our GIC portfolios.

The problem that such a strategy involves is that we're generally working with the short end of the yield curve. Most of the time that means we're unable to provide the kind of investment returns that buyers could get if they could work with the entire yield curve. One product that seemed to suit us quite well in balancing this kind of guaranteed investment responsibility was the terminal funding pension immediate annuity program, whereby nonrefundable immediate annuities payable for the life of the annuitant are purchased for people who are retiring from pension plans, or where pension plans have terminated.

This line always, of course, becomes relatively long. In fact, one of the problems with such liability is trying to find investments that are sufficiently long and where there are not undue risks of having investments called away from you to protect yourself from decreases in interest rates. This is the kind of thing that matches very well to the GIC portfolio, and we have done that. But in so doing, we have had to address the kinds of practical and management problems that Harry just described. It's not as easy to develop ways of balancing these, in particular, measuring and assigning a proper responsibility and accountability for getting the balancing properly done.

Like many companies, we are a profit center company. We have a group of individuals who are responsible for the profitability of our GICs. We have another group of individuals who are responsible for the profitability of our structured settlements, of our other annuity programs, and of our terminal funding cases. It is important that we organize ourselves this way in order that we have accountability for financial performance.

If the investment market shifts in such a way that one of these key segments is penalized, it doesn't help the management of that segment to realize that their cousins one floor up or one floor down are having unexpected profits as a result of this shift in investment markets. We have to have some internal way of taking the profits, at least notionally,

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from those who are getting them, and using them to offset the losses of those who are being penalized by the market.

A major challenge to corporate management is to develop tools that do this properly and in a way that is fair and that will accomplish our other internal objectives. To a significant extent, we have been able to maintain our investment segmentation program and combine it with ways of dividing specific assets between the two profit centers, so that the long-term cash flows of the assets are assigned to the immediate annuity area, and the short-term cash flows of the assets are assigned to the GIC area. This is essentially internal coupon stripping, although it can get more complicated than that. There are still a number of issues involving pricing, allocation of investment income, administration, decisions to sell assets, or decisions to place assets with other investments. They're all solvable, but this adds to the complication of running a business that is already quite complicated.

There are a number of other programs involving the management of liabilities that allow us to better tailor the liability side of the balance sheet and allow more flexibility on the asset side. The classic example from outside the insurance industry involves the use of adjustable rate mortgages by savings and loans and other lenders. This is one of their responses to the credit squeeze of the 1970s and early 1980s. They, in essence, replace a long-term fixed dollar liability with a liability that, if not short term, at least the costs of that liability tend to vary as investment markets vary. It has been an imperfect vehicle for the savings and loan industry, but it appears that, together with other changes that were made, at least it will solve the matching problems of that business. As you read about the problems of the savings and loan industry, you'll notice that matching is not very high on the list. Credit problems are the things that are giving them trouble now, plus just out and out basic mismanagement.

Another example, this time from the insurance industry, is the introduction of surrender charges on our interest-sensitive products, both life insurance and annuities. Now, it may be that our primary motivation here, in most cases, is to recover commissions on products that are sold on what is essentially a no-load basis. But it is also quite true that by installing those surrender charges, we have introduced a significant aspect of protection against our customer taking the value of those annuities and placing it in a more attractive vehicle, at least as long as the surrender value protection is there. That protection is proving very, very effective in a number of situations in today's economy.

Of course, this too is not new. There is a very comparable process in the banking industry: the penalties that are introduced for early withdrawal under certificates of deposit have many of the same elements.

In both cases, the protection is by no means complete. Surrender charges typically run out after a period of time, and as the business ages, we are left with a block of business that has little or no protection against immediate withdrawal of funds. Moreover, surrender charges are limited, and they're not specifically designed to protect when the protection may be needed most. We need the protection when interest markets are most volatile. Surrender charges provide the most protection during the early policy

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years. Nevertheless, it is a major help in allowing us to evaluate the volatility of our liabilities.

There is a great deal that we can do in the marketing area to manage our liabilities. Many of us are especially wary of offering interest-sensitive products in markets where there is reason to believe that the money will move quickly when markets change to even moderate degrees. Products controlled by security brokers, for example. Security brokers are people who earn their living by moving money from one kind of investment to another. They're very good at it, and if they're selling insurance products, many of us have had plenty of experience to demonstrate that they're very good at moving money out of insurance products into other products or from one insurance product into another. So many of us concluded that one way to manage the volatility of our liabilities is to offer products such that no more than a tolerable amount of our investment assets are exposed to a particular market segment that might have reason or ability to move that money very quickly.

There are also a number of things we can do from a strategic perspective. There are many products that we offer that don't possess the kind of liability volatility that is present in many of our interest-sensitive products. Offering variable annuities or variable life insurance, for example, where the return to us is primarily a fee, where the customer bears the investment risk.

Harry talked about LBOs. We haven't got that particular issue to concern ourselves with, but I do concern myself with how well our liability structure as a company, or holding company, matches up with the asset/liability management we are following in our insurance operation. There are limitations here. We cannot solve our problems of being too short in our operating companies, in our asset portfolios, by having long liabilities in our parent company. We cannot balance liabilities of the operating companies without extended liabilities in the parent companies. What we can afford to do is to avoid getting hit in both areas at the same time. To avoid having substantial cash demands on our operating company. At the same time, we're finding our financing costs at current levels accelerating, because too much of our debt is either short term or is on a floating rate basis.

I'd like to touch on pricing and reserving. One of the problems that we have in managing our companies is our pricing and reserving models. They rely far too much on averaging techniques and don't recognize the volatility of markets and the provisions we need to protect ourselves in these volatile markets. Take the default risk, for example. All of us recognize that investing in high-yield bonds carries with it both a higher default risk and, if the market is reasonable, it will pay us for assuming that default risk. Thus, it is reasonable, as long as it is not carried too far, to expose part of that portfolio to the kind of default risk that is present in the high-yield bond market. The challenge is that we must realize that part or all of the spread between a BB bond and a AAA bond represents charges against a default that probably will happen over the term of the loan.

We have seen far too many companies that wrote interest-sensitive products that invested their monies in high-yield securities and then failed to recognize that they need

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to hold back part of the return on those high-yield securities to pay for the losses of that part of the investment that will default. Not only does that money have to be held back, but there must be some reserves established so the funds are available when they're needed. Not only can you not credit your customer, you can't report them in your earnings as well and pay them out to your stockholders.

Our reserving techniques generally are not sophisticated enough to allow us to do that. Actually, I'm perhaps being too cruel; the mandatory securities valuation reserve has been around for a long time, and, in fact, that was an early attempt by our industry to set aside the risk premium in investments and to make it available at such time as the risk premium might be needed. The problem is that too few of us really recognize what we're trying to accomplish there. Perhaps more importantly, that is a very crude tool, and one that has not kept up with all the changes in our products, our investments, and other operations.

We don't do a very good job of pricing and reserving for options. Most of our insurance products contain options: surrender options, withdrawal options, cash refund options, conversion options. Some of them we've studied. We've looked at guaranteed insurability options, for example, over the years, and have done some very elaborate modeling, and we've come up with some good ways of handling those. But until recently, we have not done a good job of pricing and evaluating the surrender options in our products. We've tended to give it away. Even if we find that you can't put a proper price on a product to be competitive in the marketplace, at least we each know what the cost of providing that option is. So that we know which products really are profitable for us and which are not.

There are models available that will help us evaluate the potential costs of the various options; some of these options and techniques that are available for evaluating options perhaps are derived for application in other areas, and they have to be adapted. We need to do more research in these areas. But the basic tools, if not immediately available, at least can be made available with some modifications. We need to develop techniques for setting aside the amounts of money that are available that are being charged to these options, so they're available when the option is called.

The last area that I want to talk about is the concept of diversification. As insurers, we know that the best way to protect ourselves is to diversify our risk. We do that within the products. We also need to do it across products. We need to manage our company so that a loss in one single area or in a group of related areas will not cause so much stress on the company that it will break the company or even prevent us from doing *some of the things we want to do strategically.*

If you look back at the companies that have gotten into trouble in the insurance business, almost invariably you will find that they are putting all their eggs in one basket. They chose to take one principal area of risk and eventually that particular area of risk came home.

You cannot run a financial institution without taking a risk. The purpose of insurance is to take risks from our customers. We could not invest all of our assets in short-term

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AAA investments. We would not be doing a service to our customers and moreover, our competitors would eat us alive. What we must do is the same thing we do when writing insurance. Manage the risk, and keep track of how much risk we are taking in each specific area. There are good models available so that you can test what will happen in the company under different scenarios. You make those tests. You determine how much money you could lose under reasonable assumptions if things go badly in various directions. You look for ways that you can produce gain some place else in your operation that will offset the losses that might occur if the bad things happen. If you're investing in junk bonds, make sure you've got a strong anchor in the AAA area. If you're putting a significant commitment into GICs, make sure you've got some longer-term business that will carry you through if the GIC market goes to pieces.

In the long run, proper management of the risks through quantification analysis modeling and diversification is the way that we can best serve our customers, our stockholders, and, of course, the employees and others that we have for our companies.

MR. ROBERT L. RIEGEL: I'm going to start off with a little background information on Moody's financial strength ratings and then I'm going to talk about our rating approach and how products are affected by our ratings. I will focus most of my talk on capital adequacy and our risk adjusted capital ratio (RACR), which basically assigns risk factors for different product lines and asset classes.

"The financial strength rating is our opinion of the relative financial strength or weakness of insurance companies. It is intended to summarize Moody's opinion concerning the ability of insurance companies to meet its policyholder obligations and claims."

This is a definition of our insurance financial strength rating. It was actually called the claims paying rating up to a year ago and then we changed the name, primarily for marketing reasons. We currently rate about 70-75 life insurance companies for their financial strength. We started about four years ago, and it was basically prompted by the interest of financial intermediaries in the GIC market.

Table 2 shows our rating symbols and our one-word definitions for financial strength ratings. These ratings are set within the same framework as Moody's corporate bond ratings. The first four symbols are investment grades, starting at Aaa down to Baa, and we have qualifiers of 1, 2, and 3, with 1 being the highest and 3 being the lowest.

TABLE 2

Moody's Insurance Financial Strength Ratings

Aaa	Exceptional
Aa	Excellent
A	Good
Baa	Adequate
Ba	Questionable
B	Poor
Caa	Very Poor

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The Ba through Caa categories are noninvestment grades. Actually, there are gradings below Caa, Ca and C, but we do not have one-word definitions to characterize those.

Chart 1 is our distribution of most of the 70-75 life insurance companies we rate right now. As can be seen here, the industry can be characterized as a Aa credit, and within the financial institutions group that Moody's rates, which includes banks, savings and loans, and thrifts, the life insurance industry is probably the strongest.

This year we split the industry into two peer groups. One is individual life writers and the other is annuity and pension writers, and this distinction was based on the reserves. If the company had 50% or more of its reserves in individual annuities and group pensions, it was classified as an annuity writer. If it had more than 50% of its reserves in individual life or group life products, then it was characterized as an individual life writer. As can be shown in Chart 2, there are no credits less than A among the individual life writers. In comparison, among the annuity/pension writers, (Chart 3) there are a couple of Baa and even one Ba, which is the company out in California. We definitely see a distinction between the annuity writers and the life writers, with the life writers being a stronger group of companies.

Let's move on to our approach and framework in setting our ratings. First of all, we take a long-term perspective. Our ratings are intended to apply to the longest liabilities on the balance sheet of a company; it could be 30, 40, or 50 years. As a result, we don't focus in on short-term change in a company's operations. We don't look at quarterly results in stock companies and change our ratings based on those results. Similarly, if a company is diversifying its product line, we're not going to be moving up or down a rating based on its entry into new products.

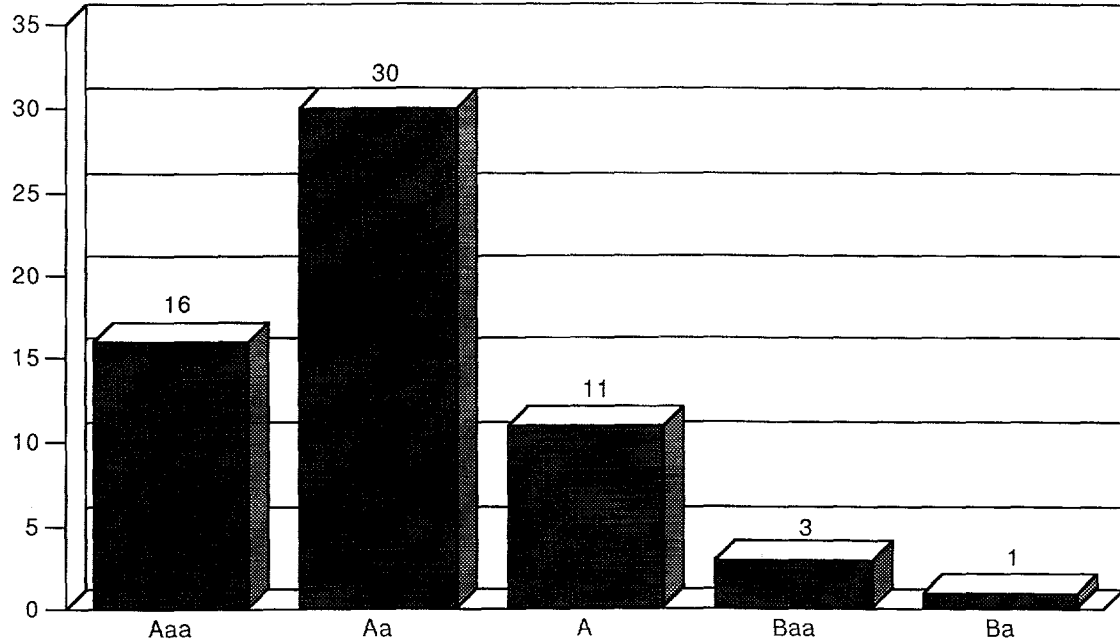
The second fundamental rating approach is that we tend to take a conservative and pessimistic outlook. This is because we're bond analysts, and an insurance contract holder, similar to a bond holder, has only the promised principal and interest payments to look forward to. There's no upside potential. As a result, we focus on downside risk with companies, not the upside potential. We treat all risks independent, and we don't give any credit to the covariance of the risk.

The third fundamental rating approach is both qualitative and quantitative in nature, and it's actually more qualitative than a lot of people think. We don't have threshold levels that put one company into a certain ratings category.

Looking at Table 3, the first quantitative element is capital adequacy and I'm going to pass on that for now because I will talk about it later.

Asset quality is probably the primary concern of Moody in today's environment. Dick mentioned that savings and loans have a credit problem and we think the life insurance industry does too. In terms of the economic outlook in the recession we're in now, there's not one life insurance company that's not going to be hit somewhat by junk bond holdings or commercial mortgage holdings.

MOODY'S INSURANCE
Financial Strength Ratings



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CHART 1

INDIVIDUAL LIFE WRITERS

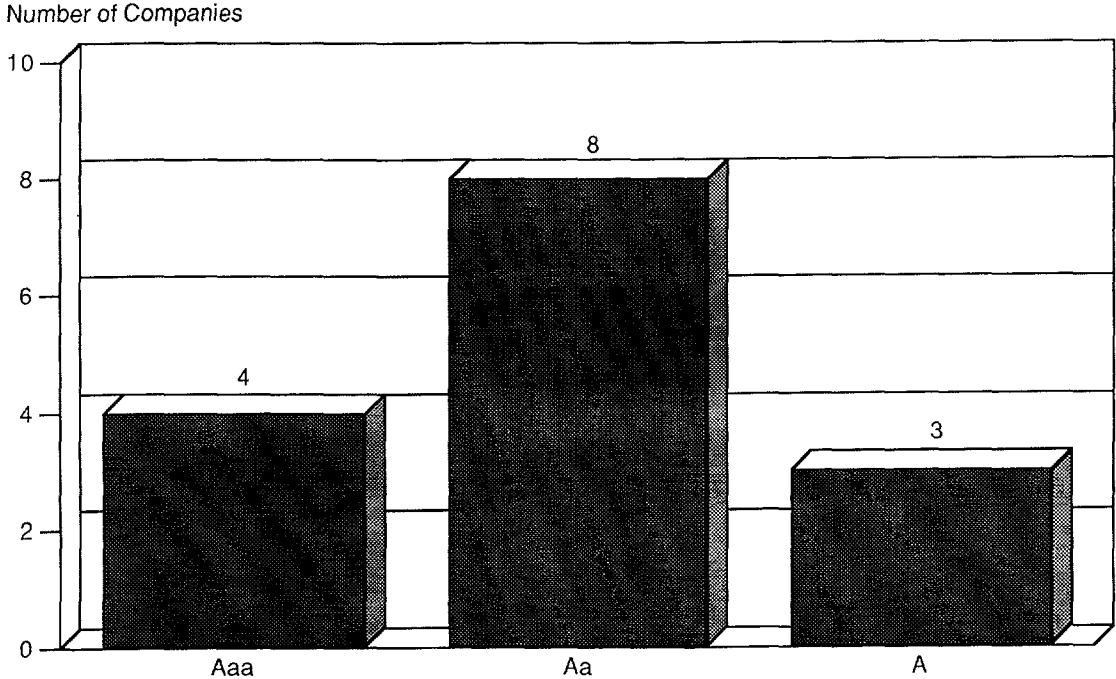
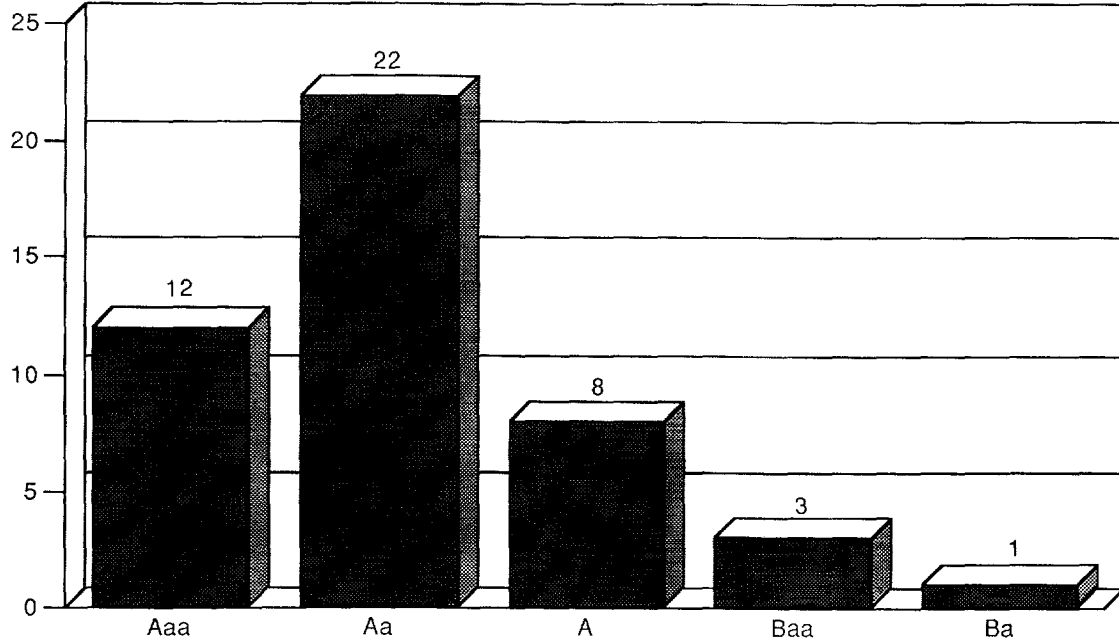


CHART 2
BALANCING PRODUCTS

ANNUITY/PENSION WRITERS

Number of Companies

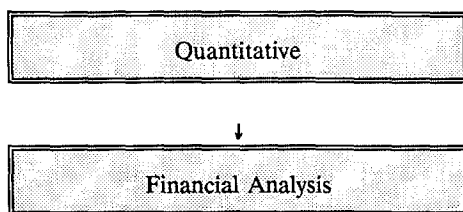


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CHART 3

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TABLE 3



- Capital Adequacy
- Asset Quality
- Profitability
- Liquidity/ALM
- Holding Company Financial Leverage

For profitability, we look at both statutory and GAAP profits. We look at sustain ability of profits, not just short-term results.

We've seen significant improvements by companies in the area of liquidity in asset/liability management. Ten years ago, there were life insurance companies that were very badly mismanaged, and a few of them got hurt with the GIC segment. Right now, there's not all that much that differentiates companies in terms of asset/liability management. Many companies use software vending systems, and the jury is out in terms of immunization and duration, convexity effects. Not too many companies are having problems now.

The last one, holding company financial leverage, that just sets a framework within which the parent company's rating, be it an industrial company or an insurance holding company, will influence the rating of the life subsidiary. An example of this is Allstate Life, which just recently had a downgrade because of Sears' problems in the merchandising group.

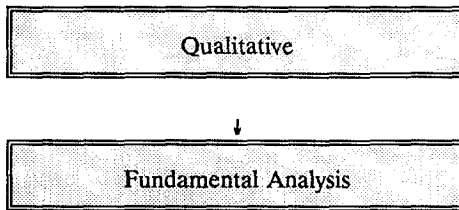
Looking at the bottom of Table 4 first, those three elements -- the economic environment, competition within the industry and within other financial institutions, and regulations -- are really paramount to our ratings. They set a good positioning for the industry before getting into the specifics of the company.

The first five elements of qualitative analysis are very important; probably product and distribution are the two key ones. In terms of products, we really are looking at how a company adds value.

We view a lot of the annuity products that we've discussed such as the structured settlements, GICs, and pension closeouts as commodity type products, with little value enhancement on the part of insurance companies except maybe for economy to scale. We look at where a company adds value, and that is the key element in our analysis.

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TABLE 4



- Management
- Product
- Distribution
- Value -- Creation
- Franchise
- Economic Environment
- Competition
- Regulation

Moving on to capital adequacy, in our risk adjusted capital ratio, we look at two types of capital. Statutory is obviously a solvency based conservative measure of capital. Economic capital, sometimes can be defined by GAAP capital, but it also can sometimes include other elements such as unrealized gains, the value of subsidiary companies, conservative reserves in terms of interest rates and mortality tables used, deferred acquisition costs, and franchise values. We look at three ratios in measuring capital adequacy. The first one to look at is the capitalization. The second one is adjusted capitalization. The third one is risk adjusted capital ratio.

The capitalization ratio is simply the statutory surplus plus the mandatory security valuation reserves, and any mandatory realty valuation reserves companies may be holding, divided by risk assets, which is generally picked up as general account assets, but some companies have risk products in their separate accounts.

The adjusted capitalization ratio adds in one half the dividends reserved in the numerator and subtracts out policy loans in the denominator, and this ratio is always greater than the capitalization ratio.

The risk adjusted capital ratio is the actual capital, including MSVR (mandatory securities valuation reserve), divided by the bench mark, or required capital. I sat in on a session with Bob Callahan, who said New York is in the process of adapting or working out a risk-based surplus measurement similar to the one that we use.

Risk components of our RACR: The C-1 risk component of mortgages is broken down into current, delinquent, and in process of foreclosure. For equities: We use 25% for unaffiliated common stock, 100% for affiliated common stock. There are other factors that I haven't mentioned in terms of cash and short-term investment, but these are the key ones. For the C-2 risk component, for individual we take 25% of the tabular cost, as shown in the analysis of increase in reserves. We take 10% for group health premiums

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and 25% for individual health premiums. The C-3 risk component is based on reserves. We take 1% for group annuities and GICs, 2% for individual life, and 3% for individual annuities.

There isn't any differentiation among the types of products, which is an issue that a lot of life insurance companies have brought to our attention. We are working on improving our formula, but you must realize that it has to be based on all public information as published in the statutory statements, so there are limitations on what we can do (Chart 4).

Chart 4 shows most of the 70-75 companies we rate and their RACRs for 1989. I think I left out two companies that were actually above 1,000% because it would have distorted the graph somewhat. As can be seen here, the industry generally is above 100%, and 100% means that the company has enough capital for its written exposures. There are four companies, over to the far right, who are below 80%, and that's where we would tend to be concerned. The trend in the RACR over a three- or five-year period is almost as important as the absolute number. So, we'd be more concerned about a company that was 160 and came down to 110 over five years than a company that had been in the 85-90% range for five years at a stable level (Charts 5 through 7).

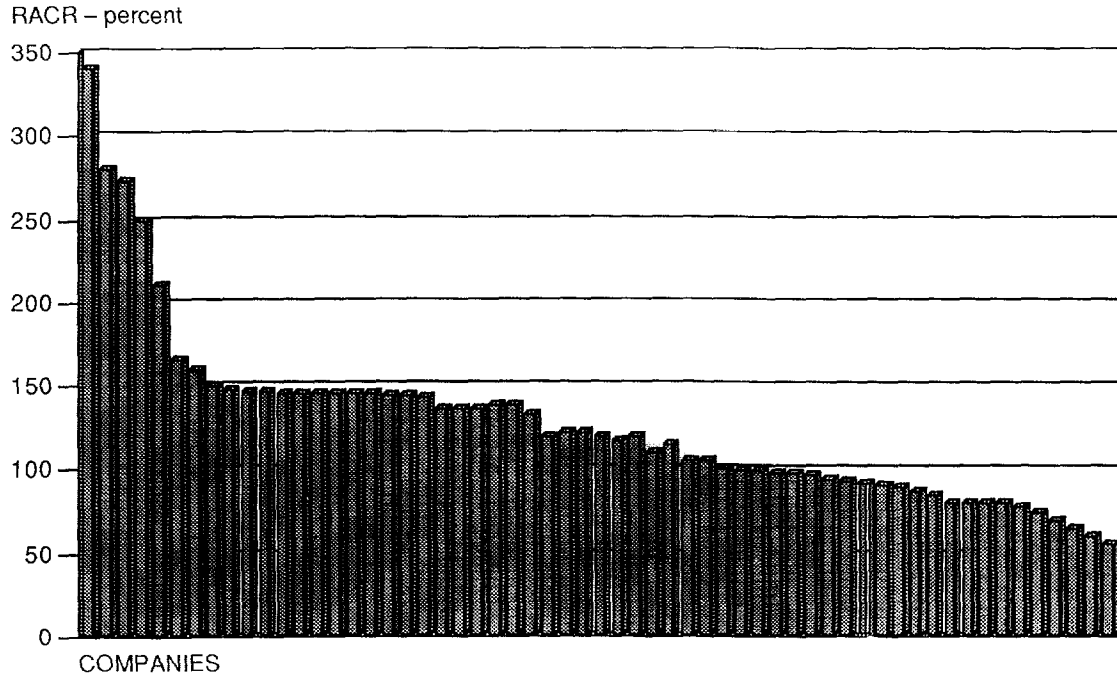
Chart 5 is the RACR for the individual life writers. It has been around 120% for the last five years. That's in contrast to the next graph, Chart 6. There hasn't been a significant decline. In contrast, the annuity and pension writers have some of the more significant decline in the last five years, and are down around 105%, which is significantly lower than the life writers.

I included this graph, Chart 7, just to see if there was any correlation between our RACRs and the ratings. I'm not sure if there are any conclusions here. The Baa category is not statistically significant because there are only three companies. I guess you can come to the conclusion that the Aaas are much better capitalized than the Aas and As, although there's really nothing that shows significant differences between the Aas and the As.

There are complaints about our RACRs. Regarding 100% required capital for common stock investments in affiliates, many companies have overcapitalized subsidiaries. Some companies are concerned about gradings of other rating agencies and to maintain capital requirements within their standards, and as a result, our standards, they're well over capitalized. Our way around that problem is to do a consolidated RACR, in which we take the required capital with the parent and the subsidiary, and subtract out the parent's investment in the subsidiary. The second point is that all the companies have seed money in their separate accounts, and there's really no risk in that seed money, and we hit it with 100%.

A lot of companies have set up subsidiaries to do mortgage pass through deals, mortgage backed securities, and really the investment in that subsidiary is excessive. We do make manual assessments. Finally, some companies have inactive subsidiaries that are just shell companies waiting to be sold.

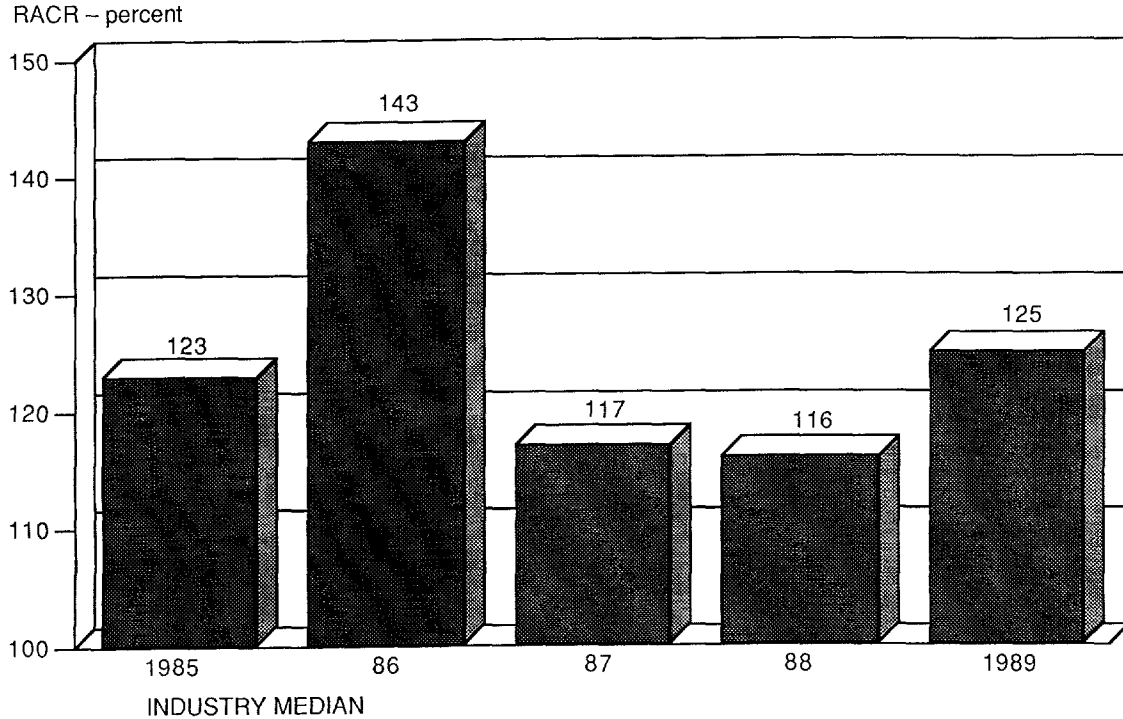
MOODY'S RACR



2672

PANEL DISCUSSION
CHART 4

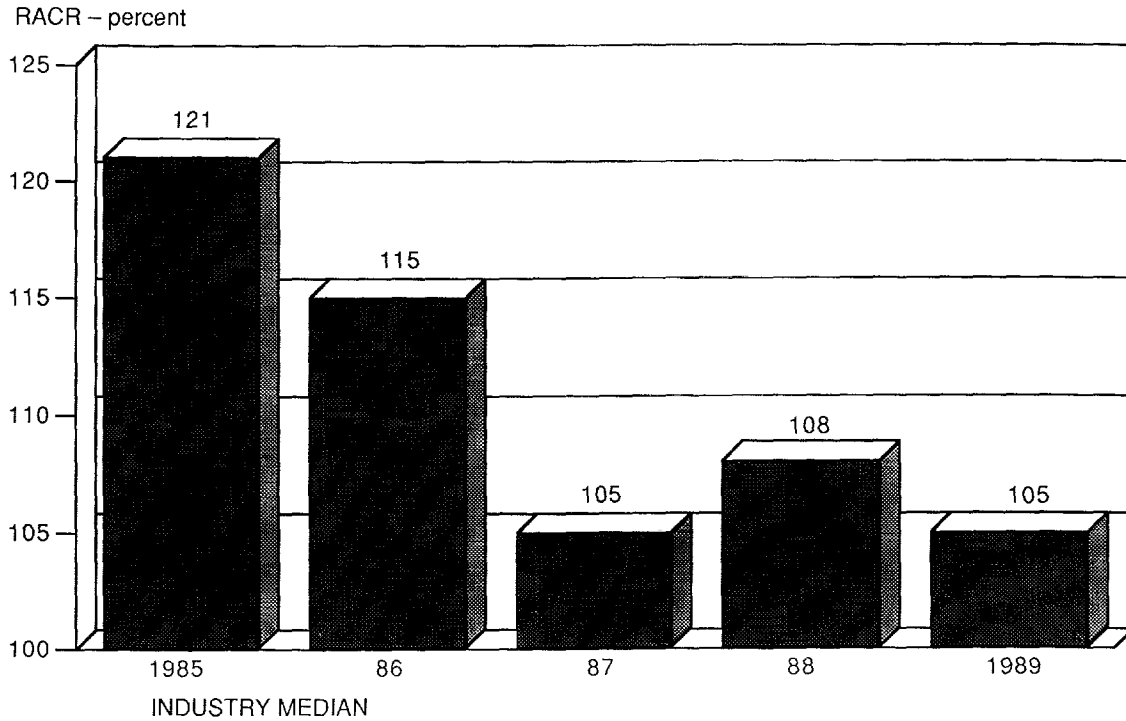
RACR FOR INDIVIDUAL LIFE WRITERS



2673

BALANCING PRODUCTS
CHART 5

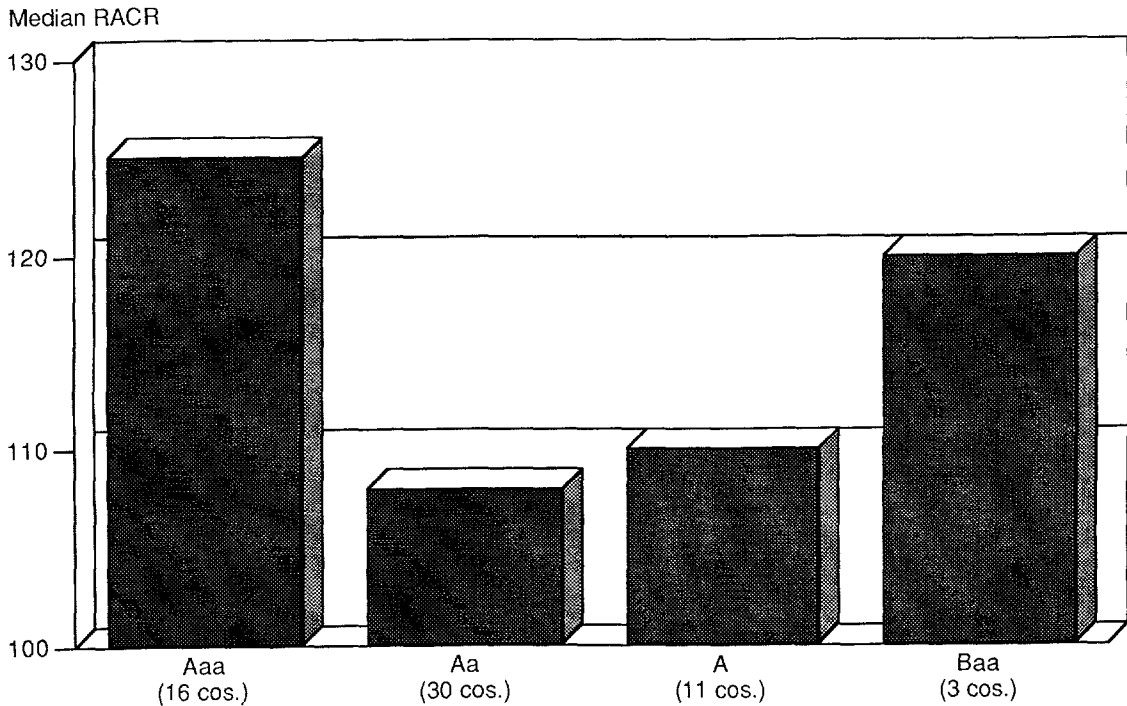
RACR FOR ANNUITY/PENSION WRITERS



2674

PANEL DISCUSSION
CHART 6

MOODY'S RACR BY RATINGS



2675

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CHART 7

PANEL DISCUSSION

Another complaint is on our C-2 risk factor for individual mortality risk. As I said before, we take 25% of tabular costs, and a lot of people have used, in their internal benchmark formulas, the net amount at risk. And the situation may change at the start of 1991. It's still being discussed now.

Another complaint is that we don't recognize for administrative service only, or a minimum premium plan's premium equivalent, or business carried out in affiliates for managed health care. We only take the premiums as reported on page five of the statutory statement.

Another complaint is that our C-3 risk factor doesn't differentiate by types of pension liability, so a GIC will get 1% of liability just like an experience rated defined benefit plan, and obviously you feel there are differences there, and that's where the qualitative aspect of the rating comes into play.

Finally, we give no ratings for separate accounts. Some companies give a .25 or .5% of separate account assets just to assess it for some risk components. That's another thing we're discussing and may implement next year.

One more: our outlook is conservative and pessimistic and as a result, we don't reduce our required surplus formula for balanced products. I'd like to make a few more points on this. One is that in terms of diversifying product portfolios among annuities, we really don't see much benefit; we see a greater potential risk exposure by companies; for instance, a company that has a large GIC and deferred annuities block could start selling structured settlements and pension closeouts -- we really view those as commodities-type products. And although the theoretical risk reduction under the cash flow scenarios may make the company appear to be better off, we're really concerned about the profitability of those products. A lot of companies, in order to make adequate profit margins, have gone to higher-yielding assets in the noninvestment grade bond market or in commercial mortgages. And, as a result, we're really concerned about the C-1 risk component in these types of products. There is some benefit to diversifying along broader product lines, for instance, individual life and individual annuities, or individual life and individual health. Also, there are some benefits for multi-line companies with property casualty and like operations. For instance, the group life, group health cycle and the property casualty cycle have historically been counter-cyclical, and there is some risk reduction benefit in companies that are in both lines of business.

MR. ALAN J. ROUTHENSTEIN: I'm from the Insurance Strategies Group at Merrill Lynch Capital Markets. I recently attended a seminar in New York given by the Institute for International Research, which had a panel discussion having three different members from the different rating agencies. The panelists together agreed that they accept, on an ad hoc type of basis, when companies demonstrate to them that they're doing asset/liability matching techniques better than they might have done in the past, to consider that information in improving their ratings. Is that something that you agree with? And tell us a little bit more about your thoughts there.

MR. RIEGEL: Yes, improvement in asset/liability management would be taken into account, but given the long-term nature of our ratings, I'm not sure if a company comes

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to us and says, "Look what we're doing now, this entitles us to an upgrade." It may not necessarily result in some rating action. In terms of asset/liability management, we obviously look at what companies are doing on an internal basis to their annuity and interest-sensitive portfolios. We also look at the Regulation 126 filing in depth for companies licensed in New York.

MR. PAUL H. LEFEVRE: Mr. Riegel, I was surprised, in your list of complaints that when you looked at the C-3 risks, the complaint that you mentioned was that you don't look at different types of annuity or pension liabilities. It would seem to me that the bigger question would be that you seem to concentrate on only one side of the balance sheet. You look at the asset side from a C-1 risk, and you look at the liability side from a C-3 risk, and something seems to be missing. I don't know how you can quantify the aspect of the asset/liability management, but that seems to be the basic issue with the C-3 risk, not what type of liability you have. I would say a mismatched GIC could be just as bad as a mismatched individual annuity.

MR. RIEGEL: I agree with you. The C-3 component is really designed to reflect options in those products. For instance, we've had a lot of questions on why individual annuities had 3% and the group pensions only had 1% in the formula, and that's basically because of surrender options in the single premium deferred annuity (SPDA) products that aren't present in the GIC products or a pension closeout product. In terms of coordinating the C-1 and C-3, we do take that into account in the grading analysis of the company, but it is hard to quantify and we do companies' internal reports, we get the Regulation 126 filing, and we try and assess what risk exposures to changing interest rates the company is open to. But that is very difficult to quantify. It's almost easier to do each one separately on a quantitative basis, and then try to bring them together on a qualitative basis, which is what we do.

MR. B. JOHN MANISTRE: When you were talking about the balancing of GIC liabilities and terminal funding, you talked about the fact that the problem with GICs was that you were essentially forced to go rather short in yield curves if you didn't get a yield that you liked, and by taking a combination of GICs and terminal funding, you got something that was longer, so you could, say, invest medium for both, as opposed to some short and some long. Aren't you really, though, just robbing Peter to pay Paul in doing that? Why shouldn't you just give a better yield to the terminal funding, or conversely, file the profit into terminal funding and simply say the GIC isn't working?

MR. ROBERTSON: That's certainly a risk of any balancing strategy. Whenever we're balancing two products, we want to avoid the danger that balancing means basically taking a profitable product and sinking that profit into a losing product. We don't want to do that. I guess that might be one of the things that most concerned me about Harry's observations about how, when you balance, you cannot use all of the management tools that we've developed to try to avoid this. If we're doing our job properly, though, we should be properly evaluating the cost of the assets we assigned to each of the products.

If in fact we have appropriately allocated the investment income between the two without trying to have one area subsidize the other, then it is at least theoretically

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possible to avoid the kind of subsidization that you described. What we are really trying to accomplish is not to shift the average cost of the product, but to have one product in essence buying an option from the other that serves them both well, and thereby create value for both products.

Incidentally, I do not agree with Robert Riegel that GICs and terminal funding and immediate annuities are commodity products. They can be, but any company that is selling those products in a market and expects to do so on a successful and profitable basis is going to have to find a way to get out of the commodity market, and I believe it's possible to do so. Appropriate balancing of two of these products is one way to add value, and it's one way to move yourself away from the commodity nature of the market. The danger, as you suggested, is that you will just be subsidizing one of the two products at a cost to the other.