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Session 159OF Adjusting to the Goldilocks Economy

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Panelists: NOEL J. ABKEMEIER
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Recorder: ROBERT P. CLANCY

Summary: The economy is just right—low interest rates, low interest rate volatility, low credit spreads, no more recessions, flat yield curves.

But can anyone make money in a “good” economy? What is the outlook for products, fees, and competition in a world of low interest rates, low inflation, lower tax rates, and more tax-sheltered savings accounts? What about the potential for deflation?

A panel of experts explores some of the challenges created by this Goldilocks environment for investment managers and product developers. These challenges include:

- *How will it affect insurance product demand?*
- *Margins?*
- *Ability to absorb expenses?*
- *Nonforfeiture minimums?*
- *Selection of attractive investment classes?*

Mr. Robert P. Clancy: Six months ago, the organizers of the meeting thought that a session on the Goldilocks economy seemed like a good idea. But now, especially these last two weeks, there might not be many people who would argue that the economy is going along at just the right speed. So the speakers today have adjusted

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their observations to take account of the recent changes in the economy. Most importantly, they're still focused on the problems and challenges that insurance companies have in trying to make money in an economic environment like this.

I will keep my remarks brief because we have three distinguished speakers, all with interesting and diverse backgrounds. Our first speaker will be Bill Cheney, who is going to provide the economic backdrop and outlook. Bill is the chief economist at John Hancock. He is responsible for macroeconomic and financial forecasting as well as any application of economic analysis to other company business. His impressive educational background includes both Oxford and MIT, and, prior to his experience at John Hancock, he gained some consulting experience with D.R.I. McGraw Hill.

The second speaker will be Joan Trapnell, who will be discussing some investment strategies to make money in this environment. Joan is really a good sport filling in on short notice for the originally scheduled speaker, Brian Walters. Joan is a colleague of Brian's and is very familiar with the material. We're very fortunate to have her, especially considering her background. She's currently a senior vice president at United Asset Management (UAM) Investment Services in Boston. She's responsible for coordinating investment services at UAM for insurance companies. UAM encompasses some 50 companies worldwide, so she sees lots of interesting, and I suppose not so interesting, styles and strategies. She has 20 years of investment experience in the insurance industry, including a stint as chief investment officer at Connecticut Mutual.

Our third speaker is Noel Abkemeier, who is going to address the liability side of the picture; he will focus on adapting insurance products in the current environment. Noel is a principal in the Chicago office of Milliman & Robertson. He specializes in the design and pricing of equity-indexed annuities (EIAs) and life insurance products. He's been involved in regulatory requirements for EIAs because of his involvement on the Equity-Indexed Products Task Force of the American Academy of Actuaries. Prior to his experience at Milliman & Robertson, he was involved in the establishment of Glenbrook Life and Annuity Company, a company that has become a leading player in the institutional annuity and insurance market. With that I will turn it over to Bill.

Mr. William Cheney: As Bob said, six months ago the idea of talking about the Goldilocks economy seemed to make sense. The U.S. seemed to be quite impervious to what was going on in the rest of the world, even though there were troubles rolling around in many places. But, frankly, Goldilocks was the wrong image even then. It was not the case that the U.S. economy was not too hot, not too cold, but just right. It was actually "too hot not to cool down" (to quote Cole

Porter). The only question at that point really was what was going to do the cooling down. The image that goes along with Goldilocks is the bears—the bear market. That was clearly one of the things that could indeed slow the U.S. economy.

But as I said, earlier this year (and even more if you go back a year), it felt like the best of times for the U.S. economy. And, of course, if it's the best of times and you have a number of trends going on that are really not sustainable, it can only get worse, and so it has. We have financial crises rumbling around the world, coming closer and closer to home, causing a bad case of stock market jitters (and I think jitters is about as mild a term as anybody would choose), and much more talk about recession. There are question marks about what's going on with inflation, and even talk of deflation, though I think that's a highly unrealistic fear. Going forward, there's still more chance of higher inflation than of deflation.

All these fears have us thinking about how the U.S. economy has moved from the earlier state of bliss to the current turmoil. The bottom line is that we're looking at many trends that are unsustainable:

- The unemployment rate has been falling for years.
- Interest rates keep heading down.
- Profits keep increasing their share of GNP, in turn driving rising price/earnings (P/E) ratios and stock prices.
- As U.S. consumer spending steams along, the U.S. trade deficit gets wider and wider.

We know these are all things that cannot go on indefinitely. Economists are good at this—at pointing out trends that cannot go on forever. (This is all at the macro level; at a micro level, I've seen analyses of traffic patterns, for example, showing declining riders per car. You know that's a trend that can't go on forever.)

But this isn't always helpful because unsustainable trends can go on for much longer than anybody expects—a recurring theme in this expansion. We know, for example, that the U.S. unemployment rate and Japanese interest rates are both bounded below by zero. They cannot go down forever. But obviously both went down far longer and further than expected.

Back when the U.S. unemployment rate was about 6%, many of us were saying the economy would slow down soon because the Fed wouldn't be comfortable below 6%, yet we had another two years of what I would consider above-trend unsustainable growth. And I guess it's still true that the trend in U.S. P/E ratios has been unsustainable over a period of years. They cannot just go on up. They may

not be logically constrained in the same way that unemployment can't get below zero, but, in practice, confidence cannot go up forever.

The steadily increasing U.S. trade deficit is another important dimension of this story of unsustainable trends, which bears on the longer term outlook for the current environment. There probably is some level at which a deficit is sustainable, but it can't go on increasing indefinitely. And if (perish the thought) foreign investors at any point decide that they don't want to go on increasing their holdings of dollars, we may actually have to run a surplus—which could lead to some fairly wrenching changes in the U.S. and the world economic environment.

So we're looking at unsustainable trends, which have been surprising us repeatedly; predicting turning points is clearly the trick here. When are all these trends going to turn around?

I've been getting interested recently in what's been called behavioral finance, the study of psychology in finance. One of the lessons that I have taken away is that it's really important to try to be one step ahead of the market, and one step ahead of what's going on in the world. It's not that useful to be two or three steps ahead: If you identify value stocks five years before anybody else does, you lose your shirt while you're sitting in stocks that don't go anywhere.

The same thing is true for predicting the economy. It's certainly true that the unemployment rate in the U.S. cannot go down forever. But if you predict based on that insight and it continues to go down for another year, you've really missed the boat. You need to be just one step ahead of events (and other analysts) rather than many steps ahead.

Most forecasts are wrong at turning points. But that still doesn't mean that it's possible for these trends to go on indefinitely. I think this is something that we have to hammer home. I'm not an actuary, but I think with your training in probability you probably understand better than the average person what happens to subjective assessments of the probability of various changes taking place during a period in which those things haven't happened. For example, the longer you go without an earthquake, what does that say about the probability of an earthquake? Subjectively it reduces the popular impression of the probability. Objectively, it may leave it the same, and may well increase it.

The same kind of thing goes on with the economic earthquakes that we're talking about—things like the ballooning trade deficit and changes in the pattern and trends of economic growth and financial markets. One can keep predicting that U.S. P/E ratios are heading in an unrealistic direction. One can keep on accurately pointing

out that the share of profits in the economy cannot go up indefinitely. But if you keep making the prediction that the stock market is going to turn down, and it doesn't for two or three years in a row, the general tendency is to start discounting that prediction. In fact, the longer we're wrong about these kinds of predictions (when I say "we," I speak as a member of the economic and financial forecasting fraternity, most of whom have been saying much the same things for a long time), the more people believe that we're permanently wrong. That's a mistake.

You can look back 10 years to 1989 and think about the rationalizations that were prevalent then about Japanese P/E ratios. They weren't worrying about measly 20 or 25 P/Es, they were talking about 60 and 100. There were plenty of people who would tell you that they were fine, that there was a good reason for them.

As I said, the longer you go without these turning points happening, with people like me failing in our predictions, the more people will believe the outlandish stories of why the world has really changed and it's different this time. It very rarely is.

So the bottom line is that the U.S. economy is going to slow down. The fact is that employment has been growing faster than the working age population—that is the corollary of the declining unemployment rate. So unless something discontinuous happens to either productivity or immigration, the economy will definitely slow down. Maybe it's doing it already; we don't have conclusive evidence on that. Really the only questions are, exactly what will make it happen, and will it be a hard or a soft landing? Will it be a slowdown to a sustainable rate of growth, or are we going to crash into another nasty recession? I think we're already seeing all the usual suspects in terms of what is going to cause this slowdown:

- We have a global crisis that is hitting the U.S. manufacturing industry and cutting demand in the economy.
- We have a profit squeeze; rising wages and no pricing power across most of the economy is squeezing profits. That was fine for a while, as momentum seemed to keep things going, but it's starting to hit hiring and capital spending.
- And we have losses in the equity market, which can affect consumer confidence and therefore consumer spending.

Any or all of these things can slow the economy. They're all happening to some extent, and it may be that the economy is already slowing. There are a few signs out there. But despite all the gloom and doom in the media, it isn't clear at this point what's going on. The Fed recently decided that the risks are more on the downside than on the upside, and I certainly agree with them. But the data are not at all clear. The housing sector has cooled off a little in the last couple of months,

but it's still at a level that would have been an all-time record until this spring. Consumer spending has looked a little iffy over the last couple of months, but a couple of months doesn't make a new trend. And the issue of whether consumer spending will be cut back because of volatility or losses in the stock market seems to me very questionable.

Most of the good analytical evidence on the size of the so-called wealth effect, how much perceived increases in people's wealth cause them to go out and spend and therefore keep the economy going, is very mixed. In particular, there's no good statistical evidence at all from a period in which stocks are held as widely as they are today and the market goes down. One of the key lessons from behavioral finance is that people don't react the same to gains and losses. A casual rule of thumb, which seems to apply across almost all experiments in this field, is that people experience losses about two to two-and-a-half times as intensely as gains.

There's a science of offering people bets and seeing what they regard as a fair bet. Most people are willing to bet on a coin toss where they can lose \$100 versus win \$250. If you offer them less than \$250 they won't accept the bet. There's a good reason to think that the statistical evidence that's been gathered on how people react to gains in the stock market may be irrelevant to how they will react to losses. But we just don't know how large a loss it will take to get people to stop spending money, and that clearly is the whole nub of how hard the U.S. economy could be halted by the financial markets.

So what's the conclusion in terms of experiencing a comfortable slowdown, the pause that refreshes, versus a crash landing into a recession? The first point to realize is that the U.S. economy is starting from growing too fast, so some degree of slowing down is exactly what you want. The mere fact that we're having a slowdown is not the source of danger or something to be upset about. As I wrote months ago, Alan Greenspan is ready to ease in a serious economic weakness; he's already done so twice. It may not be enough; you never know until it's too late, but certainly he's demonstrated that this is part of the current policy outlook. So we get a recession only if the Fed doesn't see it in time.

There is a footnote here: he didn't see the last recession in time, which might make you wonder about the odds on this occasion. But in fairness, the last time we had a recession there was a question of seeing Saddam Hussein coming too, which I don't think could reasonably be expected of Alan Greenspan. My conclusion is that I would give about 30% odds on a recession during the course of the next year. Even that might be on the pessimistic side; I still think the odds are seriously against actually getting into a recession. I think we're much more likely to end up with a soft landing than an actual downturn in the macro economy.

What are the implications for financial markets of this degree of slowdown or recession probability? Clearly we're going to be looking at more defaults in fixed income markets. We're going to be looking at lower equity values, and we've had some of that already. And certainly on a risk-adjusted basis you have to be more frightened of equities than we were back when I was putting together this presentation.

A real estate crunch is possible too; we're definitely starting to see a slide in real estate values from the optimistic peaks of the summer. I just saw a story in Boston that the city may have missed the boat in terms of redeveloping its waterfront. Suddenly all the bids are evaporating and the negotiations are getting tougher than they would have been if they'd concluded them even three or four months ago. And certainly anybody who tries to sell commercial real estate can see there is a price slowdown in process.

A weaker dollar is also a corollary of this outlook. This has other implications, not merely higher inflation, but higher interest rates. One point that I would make, however, on the overall environment for the business of insurance companies is that when the economy slows down you get lower headline growth of every economic variable.

I've frequently tried to figure out what drives the life insurance market or the annuity market, and I've never figured out good macroeconomic correlations, but over the long term, aggregate nominal personal income is probably about as good a measure as you can get. Aggregate nominal personal income is going to slow down; it's already doing so a bit. It may or may not be a real sea change at this particular moment, but it's going to slow down. Two things are going on:

- The real economy is slowing down, so real personal income is going to slow down.
- This time around, inflation is lower than it's been in most of our working memories.

If you combine minimal inflation (we could even have a couple of quarters of deflation) with a slowdown in real income growth, nominal personal income could be going essentially nowhere over a period of a year or two. This will certainly make almost everybody's business projections look lousy. We tend to assume that the overall environment within which we are swimming and within which we are getting our premiums is expanding; it always has within recent memory. Even in the worst recent recession, we had enough inflation for the nominal magnitudes to be rising. That might not be true this time around.

If you read the popular business press, there are plenty of people arguing that we're heading into Armageddon, with a rerun of the 1930s just around the corner. I think this is extreme and extremely unrealistic. When we at John Hancock try to analyze the appropriate prices for default risk, there's always a question of whether to factor into historical analysis the default experience of the Great Depression. I always argue that we shouldn't, because I don't think a rerun of the 1930s is a worthwhile probability to look at. However, when you really look at the economic history, the best analysis of what caused the Great Depression is policy mistakes.

When push comes to shove, there is no limit for how bad government economic policies can be. If you want an example, look at Japan. Japan has had more or less a 10-year recession and is not yet getting out of it. All of their problems are self-inflicted. It's not as if we're talking about a country that's broke like Korea, which ran out of foreign currency. We're talking about a country that has enormous wealth and has chosen to do the wrong things (at least according to us, if the objective is to grow the economy).

So maybe I'm wrong to rule out the possibility of policymakers getting every single thing wrong. I think the odds are very slim. It seems to me quite clear, particularly in the democracies of the U.S. and Western Europe, that when the economy turns downward it's politically relatively easy and the pressures are relatively intense to do the right thing—namely ease up on monetary policy, cut taxes, and spend money. Those tend not to be hard things for democracies to do. This is one reason why I don't think that everything will go wrong, but it could happen.

There's another view out there, of course, the enthusiasts for which have been laying low in the last month or two. I'm referring to the "new era" school of economics, the idea that we're moving into an era of high productivity growth that will solve all problems; the pie will grow so fast that all the problems of who gets how much, profits versus labor income, will be solved. There are some good anecdotes. Every now and then Greenspan even cites some of them in his testimony before Congress. The new era would trump my prediction of a slowdown, but basically there's very little evidence; it's a leap of faith.

So the bottom line is really that the outlook for the U.S. economy is a boring, old, soft-landing story. The soft landing means the economy slows down a bit. We could get a recession, but, if we do, it will be a fairly mild one. We're probably talking about inflation a little bit higher than it is now because of some temporary factors that have been holding it down. For interest rates, given a little bit of higher inflation, a little bit weaker economy, the range we're in now is not a bad one to be anticipating into the future. There are arguments about the potential for extremely

low interest rates going forward, but I think this is a fairly low probability event up there with general collapse and Japanese-style deflation.

I will stop at this point and turn things over to the specialists who are going to talk about how to make money. I have a feeling that's really what you are all here for. I'll be here for questions, if any come up later.

Ms. Joan Trapnell: I wish we had some immediate solutions to how to make money in this environment. Unfortunately, as Bill has indicated in some of his comments, it's not quite that easy. I will look at three approaches, however. One is very familiar to insurance companies. The second is familiar, but not as frequently applied, to general account investment management. The third approach is almost "futuristic," relative to the current practice for insurance companies, but it is widely accepted for other institutional portfolios. It represents possibilities over the next five years for adaptation to insurance company accounting and regulatory constraints.

The first approach is to continue to search for maximum spreads in the traditional, high-quality bond market; however, that is becoming a woefully deficient strategy to cover expected profit margins and even certain minimum liability guarantees (chart 1). Even with the dramatic widening of spreads that we have experienced over the past three to four months, nominal yields are at historic lows for recent periods. We are, and are likely to stay, right around 5% for Treasury yields. And, on a risk-adjusted basis, even the wider spreads are not attractive. Witness the problems in the high-yield market of late.

The second approach has received considerable attention in various other meetings this week. It is an attempt to develop investment strategies that look at total returns of general account portfolios rather than current income alone.

The problem we see with the current use of traditional total return strategies is that they do not adequately recognize liabilities and corporate objectives or constraints. In their most frequent use, total return models are only two-dimensional, forcing liabilities and corporate objectives to be expressed in terms of only two variables: projected return and tolerable volatility of returns.

Total return does not have to be that flat and static a tool. Since the beginning of the 1990s, pension funds have been using three-dimensional total return models that have more robust and realistic benchmarks relative to their liabilities.

Part of developing the benchmark is to define the "third dimension" of risk—the acceptable tracking error of returns and volatility of returns relative to the

benchmark portfolio behavior. This third dimension can incorporate a number of insurance company objectives.

The third approach I planned to present today goes under a number of different names—most commonly, “portable alpha strategies” and “market-neutral strategies.” I think that in the insurance general account environment the “nontraditional spread approach” is a better label.

This approach admittedly has a long way to go in terms of acceptability and implementation by insurance companies. But given that predictions calling for a rapid upturn in yields or spreads are quite scarce these days if not nonexistent, I think that new approaches should at least be looked at as some very serious food for thought as we go into the next decade.

Market-neutral and portable alpha strategies have been practiced for about 10 years by hedge funds, and that raises some eyebrows in the insurance company community. But not all hedge funds are the high flyers we have seen in the press of late. After all, what most hedge funds set out to accomplish is a certain level of absolute return. And, strangely enough, that is what most insurance companies aim to do.

We also need to recognize that market-neutral strategies are not necessarily derivatives-based programs nor equity-based programs. At base, they are strategies that select securities from a given market or markets—fixed or equity, U.S. or international—with the objective of eliminating the risk of the market or markets entirely and leaving only the excess return on the securities themselves: the “alpha.” The “portable” aspect of the alpha is attained by seeing the alpha as a spread above a given market benchmark, fixed or equity.

Hedge fund market-neutral results over different periods of time have been impressively consistent in adding return over the Standard & Poor’s index (S&P), which is the most common benchmark to date. And the weak correlation of returns to various traditional benchmarks underscores that the excess returns can indeed be seen as portable to the benchmark environment and more appropriate to your liabilities and other objectives without adding to the volatility already inherent in your benchmark portfolios. You can take this “nontraditional spread” and put it into any number of different asset programs targeted toward a number of liabilities.

The S&P has been by far the hardest benchmark to beat when implementing market-neutral strategies over this decade. Just a 10% portfolio exposure to an S&P market-neutral strategy would indeed add a significant amount of return over each of the periods of time plotted while simultaneously reducing risk.

Of course, there are risks in market-neutral programs. First of all, the returns are solely determined by manager skill. Success is dependent on the manager's security evaluation process and the manager's skill in creating a truly market-neutral portfolio when all securities are seen in a portfolio aggregate.

Short selling, in all aspects of its implementation, also presents a risk, especially in the small cap arena.

And, of course, a market-neutral strategy for insurance companies has a large number of regulatory, rating agency, accounting, and risk-based capital hurdles to overcome. Ideally, to address these specific insurance company concerns, the strategy is implemented via swaps.

What I wanted to bring forward today, however, was not the next hot swap or structured note deal, or even a number of specific implementation vehicles. What I hoped to do was invite you to think about market-neutral strategies and portable alphas in your own company environments. With your own potential swap counterparties, I want you to think about tailoring approaches that might really add spread in this period of such low nominal yields and such frustration over sources of adequate current income.

Mr. Noel J. Abkemeier: So now we go to part three of what happens when you don't have Goldilocks, as I view it. I believe that we are dealing with economic turmoil. A month ago, we had low interest rates and the potential for even lower rates. Interest rates have moved down twice, so it is happening. There was a flat yield curve, although movements in interest rates have taken away a little bit of the flatness. We are getting some lowering at the short end, so that might help us out a little bit in one area. Bond spreads in the last months have increased, Treasuries have fallen, and corporates have not moved to the same extent. Inflation is low. There have been decreased equity values and we have an uncertain future. We've seen high volatility in equity markets; actually the volatility itself is a very volatile number right now.

We will consider what's going to happen from different viewpoints—from potential customers, from current customers, and from insurers—and we will also consider what the insurer might be able to do about it. We're going to look at the various markets. We'll look at fixed yield products, variable products, and equity indexed products. Also, we'll look at them from the perspective of a potential customer and a current customer.

First let's look at the fixed yield product purchasers. To them, current low interest rates are unappealing. Because of the yield of fixed annuities, sales results show

that in the last six months people are not rushing to buy them. The variable market has been so attractive that it's taken away the potential of the fixed market. But even within the fixed yield market, as interest rates go down, customers don't come to the insurer. Customers are hoping for increased yields, so they hold back thinking that maybe later rates will go up and that they'll buy at that time.

The flat yield curve that we have seen this year has made it possible for banks offering CDs to have fairly attractive products because the one-year rates have held up fairly well. At the same time, insurers have found it so much more difficult because the longer rates have neither been competitive nor provided an advantage.

If we compare the interest rate environment of 1998 with what we saw in 1993 when interest rates also were lower, five years ago we had a fairly steep yield curve. A one-year yield was 3.5%. As a result, if a bank was offering a 1-year CD, they were working off that very low basis, while at the same time the insurer may have been investing for five years or a little bit longer and realizing a 150-basis-points higher return. Consequently, the insurer was able to take this higher long-term yield and put it into an annuity product with reasonably attractive annual crediting while the bank was stuck with the low yield in their CDs. So, at that time the insurers had a way to compete in the market with banks. Today that has been difficult because the one-year return has been fairly strong and the CDs can compete better.

The recent move by Greenspan to lower short-term rates by 50 basis points will rule in favor of the insurance companies, although the differential still is not immense between the short and the midterm. And as rates go down, sales, which have been low, will probably keep going lower until they hit some kind of important turning point.

For existing fixed policyholders, there aren't very good alternatives. They have a product, and, if it's an investment year product, they will be getting returns that are more favorable than what is available in the market right now. They'll stay with the product, and, as a result, persistency should be quite good now. We saw this in 1990, 1991, and 1992. When interest rates fell, persistency rates were good. Now is the time when, for fixed products, they should be persisting. Of course, when interest rates rise in the future, that's the challenge for the insurer. There are always the high-spike lapses when interest rates go up, and the insurer must be ready.

In the variable product arena, with the choppiness that we have seen in the market, purchasers cannot be sure what's going to happen. Sales of variable annuities (VA) through the first two-and-a-half quarters of the year seem to be continually going up. I think we're seeing softness now, and we may see more softness in the coming quarters as people are not sure what they're getting into. It's a combined concern of

whether they are going to lose money or whether equity products are going to be stagnant. This causes people to feel that investing in VAs may be like putting money in a mattress for a while. As a result there's a chance that the VA contract purchases could contract.

We saw in 1987, when the market had its shock, that VA sales dropped a lot. Sales are still soft. Existing VA policyholders are afraid of future slides. They will be impatient that their investment isn't growing. They've gone through several fantastic years and it's going to be hard for them to adjust and say, "I'm happy with what I had and I should be comfortable that I'm not losing it now," but people always want a bit more. You have the potential for increasing lapses, as people want to lock in the gains they had and perhaps redeploy their investments in some fashion that offers less risk of loss.

It's been a very bloody time in the equity-indexed product arena. The primary concern right now is that volatility for options has gotten very high. If we look at where the equity-indexed product market was two-and-a-half years ago in the early part of 1996, volatility was in the range of 15% for the S&P 500. In the tail end of 1996 it rose to 18%; in the middle of 1997 it got up to 21%; and on October 27, 1997, it hit 40% and then settled into the mid-20s. As we got into 1998, it's been in the 24–26% range. A couple of weeks ago it was in the range of 38–39% volatility, which is fantastically high. As of yesterday we were seeing 32–33%.

But the result of all this is that the high volatility has caused the cost of hedging options to go through the roof, which drives the participation rate or other form of index participation in the products quite low. At the same time, the falling off of interest rates has reduced the amount of money available to utilize for hedging purposes with an equity-indexed product. And it has the products squeezed between two sides. There is less money to spend on the call options, so the unit cost of the call options has gone up. As a result, the participation rate that a company can offer today is perhaps half of what it was a year ago. Customers do not get overly excited looking at this. The upside potential may not be attractive enough for them to purchase the products.

Insurers have seen fixed product sales sliding for years. Actually, fixed annuity sales in 1997 were at the same level that they were in 1989. There has been a little wiggle in sales in the interim, but basically nothing has happened with the sales for quite a few years, and the prospects are that they will slide even more with the lower interest rates that we have right now.

Another risk for the insurer is that the interest crediting could bump into minimum guarantees. Products that have been sold in the last few years have tended to have

guarantees in the 3% range, and, as a result, we are not yet down to the guarantee. I don't think we're going to bump into those. But some predecessor products were sold with 4%, 4.5%, and 5% guarantees, and there's a risk that some of those are going to be hit as interest rates continue to fall.

After interest rates rebound, and they're bound to do that sometime, the insurer is going to be facing market value losses. We hope that there's good asset/liability management to protect against some of this, but basically that is a risk that is going to come. The insurers will have to be prepared.

In the VA market, during the last few years there have been more and more company entrants. If you want to be successful, you do have to hit the critical mass of assets under management. VAs are different from other products in your portfolio. They have to be able to stand on their own feet in hitting critical mass. If the sales of the product start slipping, a more recent entrant may have difficulty getting that mass and may have to exit the market or merge, turning their portfolios over to another insurer.

Also, during the rapid growth of VAs in the last few years, companies would have been issuing policies with a certain expectation of account value growth as a basis for amortizing their acquisition costs. A company may have thought that account values would grow at 8% or a similar level after blending together various accounts, including the money market part. Then, as the market went up 30% or 35%, the account values would grow immensely.

The mortality and expense (M&E) charges that accrued to the benefit of the insurer grew far beyond expectations and, as a result, the insurer had not only enough money to amortize the acquisition cost but a lot of money to retain as profit. At the same time, the benefits within products were enriched and some insurers narrowed their M&E charges, perhaps feeling that things would continue to go well forever. However, as the equity markets may move more slowly in the future, you may find that accounts aren't growing as rapidly as before and there won't be enough flow from M&E charges to fully cover acquisition expenses. The result is that with slow growth in the fund value, the bottom line might narrow on the products.

Finally, from the insurer's viewpoint, the EIA business is young. Anybody who's in it is a fairly recent entrant. There is a risk that a given insurer won't get its equity-indexed portfolio off the ground. Imagine you're in the market today and your participation rates have been forced down quite low and the cost of any options you're buying is going through the roof. What do you do? When you're in a fairly new line, it's an interesting question. Do you follow your mathematical logic and all the quantified answers that tell you to lower your participation rate and risk not

selling anything? Or do you say, we just can't afford to be in the market and step out for a while at the risk of not getting back in?

This happens to be a difficult time for equity-indexed products. Everything went against them in the last year and a half. I think they'll survive, but they're living through tough times right now.

But there are ways an insurer can respond to these challenges. In relation to fixed yield products, market value-adjusted (MVA) annuities represent about 4% of the market right now. It's not an enormous segment, but it sure is handy to offer such products so that when interest rates do bounce up later on, there is a market value adjustment to help protect against the market value loss for the insurer. Of course, with the MVA product there should be a potential of offering slightly higher yields to the customer. If the customer stays around for the long run, he or she benefits and the insurer benefits. Also, when interest rates are low, what does the customer want? The customer would like some expectation that they will get a good return in future years.

Interest-indexed products, of which there aren't many in the market, can provide that to the customer. But there's no free lunch. The interest rate you initially give to the customer is going to have to give up something in order to finance the caps that are needed for an interest-indexed product. But the point is that such a product could present to the customer the possibility that when interest rates rise their benefits will also go with it. The insurer also will have to plan a retention strategy for traditional fixed-interest products for the time when interest rates rise.

You all should be planning a retention strategy for all circumstances, but this is one that is certain to come. When you're in a low interest era, the probability of needing a retention strategy is much higher than under any other circumstances. When insurers have the opportunity, many will widen their profit margins during the time that interest rates are low, storing the necessary margins so they can cover some aspect of their retention strategy later on.

Finally, there is the possibility, which Joan has talked about, of investing a bit more aggressively but more wisely to enhance your return. Of course, if you do that you must understand what you're getting into. If you're taking an approach of going to somewhat lower quality, you had better understand the default rates that you're getting into. As spreads over Treasuries have widened a bit, keep your eye on whether that's a fortuitous phenomenon or whether underlying it is an increase in potential default so it's really just a false improvement that is available to you.

In variable products the kind of concerns that I was citing from a customer's viewpoint relate to whether customers will lose money if they stay with the contract. How can customers be sure that they're going to be in better shape at the end of the day than they were at the beginning? There are a couple of strategies that can address these concerns.

One of them is to emphasize the availability of the fixed options. You don't necessarily have to tell customers immediately to put money into the fixed option; you don't even have to care if they do it in the long run. Much can be gained by conveying the message to customers that there is a fixed side in your product such that if the equity side starts to get soft customers can put their money in a safer position until they might want to put it back into the equity side.

Another option, and many companies are doing this already, is to offer guaranteed living benefits on VAs. Guaranteed living benefits came into the market about a year or a year and a half ago, possibly as the VA response to EIAs. I don't know if that's the primary driver, but it was an influence toward offering guaranteed living benefits. These benefits are bringing some comfort to the VA purchaser at a time when there is the risk that equity values may be going down. These benefits can be attractive both on new sales and on existing products, so a purchaser can come in comfortably and enhance their persistency by having such a benefit. These benefits are coming rapidly into the market. Just as EIAs were the new product wave of 1996, I would have to say the wave of 1998 and early 1999 is going to be guaranteed living benefits. There is a very strong interest in them.

There are several varieties in the market. One variety, the guaranteed minimum accumulation benefit (GMAB), is a benefit that after a period of time, such as 7, 8, or 10 years, offers you various guarantees—that you will get back an amount of money that may be not less than a little below what you invested or an amount equal to what you invested or a small amount of growth. As a result, you may be guaranteed to get back 90%, 100%, or 110% of what you invested. That kind of benefit has a cost of around 80–100 basis points a year. So it's fairly expensive when you contrast it with the M&E charges in the underlying VA contract, but it may be something that responds to a customer's need and be the right price for him or her.

The guaranteed minimum income benefit (GMIB) is something that is far less expensive. Such benefits in the market have costs of 25–30 basis points a year, so it's far less expensive than the GMAB; therefore, it's far easier to incorporate into the sale of a product. It is something that can give comfort to people, particularly because in the future we feel more people will be looking toward VAs for income.

Historically, there has not been much income purchased with VAs. Part of that is due to the age of the product and the age of the purchasers, but as the American population ages and the baby boomers age, we think there will be more people looking for income benefits from VAs. This kind of GMIB could respond to their desire to know that they will have at least a certain amount of income.

I would like to make a brief comment on how a GMIB works. It will guarantee that at the time that you annuitize, which may be limited to 10 or more years down the road, that the amount of money applied to annuitization will not be less than a certain amount. The amount applied to annuitization tends to be the same formula or a similar formula to what is used for the GMIB. So if a company has a GMIB that is growing 5% or 6% a year, their GMIB base might be growing that same 5% or 6%. The amount that is projected as the minimum floor will then be applied at either, depending on what the company specified, the guarantees within the contract or far more expensively at the current single premium immediate annuity rates that are applicable at that time. The bottom line is that the customers are assured that when the time comes to take an income there will be an adequate amount applied to it, and, in some cases, they will know the exact income that is guaranteed as the minimum.

Finally, there is another possibility with which not too much has been done yet—the guaranteed minimum annuitization floor, also known as the guaranteed annuitization payment floor. Under this kind of benefit, the guarantee is provided to customers at the time they begin taking a VA income that the income itself will not fall below a certain floor, maybe 85%, or 90% of the initial payment. Customers know that there may be a little bit of downside, but not much, and they can draw some comfort from that.

In the realm of equity-indexed products, in the short term an insurer can turn to different designs to cope with the high volatility that's being experienced right now. If a product design has a long-term benefit, the ideal way to hedge it is to buy an option coterminous with the guarantee. So if there's a seven-year guarantee, you buy a seven-year option. If you buy that today from Wall Street, you're going to be locking in seven years of high volatility. That could be a very expensive option, and it could create a product that doesn't look extremely attractive to the customer.

One way to address this problem is to offer annual reset ratchet products. These are products in which the benefit is a ratchet benefit; secondly, the participation rate is redetermined each year, and the renewal participation rates will be driven by the cost of the options at the time that the year is beginning. If the wind blows at your back, the volatilities, which today are 32–33%, may be in the low 20s in a year or, if you're really lucky, may fall below 20% a year after that. This will allow you to

offer customers a higher participation rate in later years. Customers will have to live through a year of unexciting participation, but they have the satisfaction of knowing that when volatility softens their benefits can get better.

Another semisolution is offering point-to-point products as opposed to high-water products, because a point-to-point product minimizes some of the optionality in the product. When you have a high-water product, there's a certain amount of option cost incurred each year—some flooring each year—whereas in a point-to-point product you have a give-and-take each year but you finally settle only at the end; so there's a mild advantage of point-to-point products over high-water products.

Regarding company risk, an insurer can look at the question of whether, in a case where a long-term option would lock in a lot of high volatility over a seven-year period or so, there is some way to buy just one year of high volatility and then hope for better news in future years. There are strategies called replication in which you use a basket of puts, calls, and futures to replicate a call option. You could buy that position, get through a year, and hope that at the time that you extend your hedging, in the subsequent years, volatility will be more favorable. If insurers are able to reduce costs in this fashion, they could either accrue some benefits to themselves or they could actually convey additional benefits to their policyholders in these later years.

But if you get into any of these alternative hedging strategies you very, very much need to understand your strategies. Make sure that your investment department understands them well and is conversant with the topic and perhaps with Wall Street too.

And how does this all end? Part of the problem with fixed-type products, comprised of both the regular fixed annuities and EIAs, which are clearly fixed products too, is that there will be a point where, if interest rates remain low and customers stay away from buying annuities, customers will realize that they must do something with their money. At that point I think you will find some people going back to fixed annuities even when interest rates stay low. At some point they have to do something with their money.

In the area of equity products and variable products, the insurer that has some kind of response to deal with the downside risk is going to put itself in a better position than its competition. There is another solution for fixed return products, and I alluded to it before. Interest-indexed products can put you in good stead with your customers. Now all we need to do is to watch what happens the next few years and see what really works.

Mr. Clancy: That finishes our prepared remarks this afternoon. Are there any questions that people would like to direct at the panel?

Mr. Paul J. Heffernan: I have a question for Noel about the guaranteed living benefits. On the GMIB a crucial assumption seems to be the rate of people who are going to choose annuitization when the time comes around. How do insurers get a handle on that, since it may be a much different rate versus a general annuitization rate for VAs?

Mr. Abkemeier: There isn't any simple solution, and you start off with two schools of thought. One school is the people who say, well people don't annuitize very much. Only 2% of the money gets annuitized and that's going to happen with this product. The other school of thought is that although this starts off as a floor of protection, people who buy it will view it as an investment option and will exercise that option when it is deeply in their favor. The answer to how people are going to use it isn't easy.

The inclination of companies or actuaries, as I see it now, is to come up with their best estimate of the utilization function as a function of how much in the money they are. So, if this GMIB is only 5% in the money, maybe it's not going to have any great utilization. If, in fact, it is 50% in the money, you're going to have maybe 50% utilization of it. It is a bit of a guessing game, and it feeds into the area of how do you hedge this thing? If you're trying to hedge it with put options, it raises a real question of how many put options do you buy. You're going to have to just use your best judgment on that. If you're not hedging it—if you're going naked—then it's again the quantification of how bad is bad and how good is good, depending on how much it's utilized.

Mr. Peter D. Tilley: I have a comment for Noel and a question. The comment is that the Investment Section Council is going to be submitting its topics for the next spring meeting in a couple of days. One of those topics is going to be the risks of these living benefits on variable products, so stay tuned for the next spring meeting to see whether there's any difference of charges for these benefits to the customer and the cost of the benefits.

The question I have is on EIAs. You mentioned the annual ratchet products. Maybe we just don't have enough experience yet, but I wonder if there's anything seen so far with people who went into annual products a couple of years ago when the participation rates were 80% or 90% and have had to renew at participation rates of 50%? Is there any kind of backlash coming from the customers on these if they've gotten long-term surrender charges in these contracts?

Mr. Abkemeier: I do not know if there's a backlash yet. But as you said there are products that came out at 90%, and I'm not sure how low they are now. Two things happen when you're renewing your customers' contracts. Their renewal rates are driven by the long-term interest rate that was applicable at the time they purchased the contract, although their renewal rate can also be driven by the volatility at the time that they're renewing. So as new business participation rates have gone down very steeply, renewal participation rates, if the company is handling them on a new money basis or an investment year basis, won't have plunged as much as the new rates have.

But as to what our customers are doing in response to it, I do not know. There are only two or three companies that have offered EIAs long enough to have experienced this, and I cannot comment on what their situation is. Good question though.

CHART 1
HISTORICAL YIELD CURVE

