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GIC ALTERNATIVES AND SYNTHETICS -- WHERE WE ARE AND WHERE WE'RE HEADED

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- What type of new products are out there?
- What are the rewards?
- What are the pitfalls?

MR. ALLAN MING FEN: I do investment management of so-called GIC funds at Fidelity within our 401(k) group in Boston, and I've been there six years. Prior to that, I worked at John Hancock Life Insurance Company in its group pension GIC operation.

David Salvin is managing director at Bankers Trust in New York. David has been there for six years. Prior to that, he was at Certus, a GIC manager on the West Coast. Prior to that he worked at Aetna Life Insurance Company in Hartford. David's group at Bankers Trust has really pioneered the new generation of GIC alternatives, particularly synthetics. They also pioneered the business of bank investment contracts (BICs). He's going to talk more about the synthetics and give us some details about the structure and the considerations from the perspective of a nontraditional issuer; that being Bankers Trust.

Daryle Johnson is the senior vice-president at Pacific Mutual, heading up its pension department. Pacific Mutual has been one of the two or three insurance companies that have gotten in and have been successful with alternatives, particularly the synthetic GIC market. That has much been the exclusive domain of the banks and, in particular, Bankers Trust; but Pacific Mutual and Daryle's group is giving David and Bankers Trust a run for their money. Daryle will give his view on the alternatives and information on separate accounts as well as synthetics. He will compare them and compare them with traditional GICs from the perspective of a traditional GIC issuer.

Murray Becker is president of Becker & Rooney, a GIC consulting firm. Murray has been heading up his own firm for more than five years. Prior to that, he worked at the firm of Johnson & Higgins as a consulting actuary specializing in the GIC market. Murray is really a pioneer in the field of GIC management. In the late 1970s and early 1980s, he helped start the GIC business, promoting the evolution toward competitive bidding and investment management and away from a single-company kind of structure that many plans had. Murray will give the buyer's perspective of the alternative market.

* Mr. Salvin, not a member of the Society, is Managing Director of Bankers Trust Company in New York, New York.

I'll start off with an overview of this market and give some general information on what we're talking about. I'm going to discuss the different types of alternatives, primarily separate accounts and synthetics, in particular. I'll talk about the structure of those products. I'll talk about the all-important issue of benefit responsiveness, which is really why this whole GIC market exists. I'll talk about investment management and comment on the market – the size and the growth of the alternatives market.

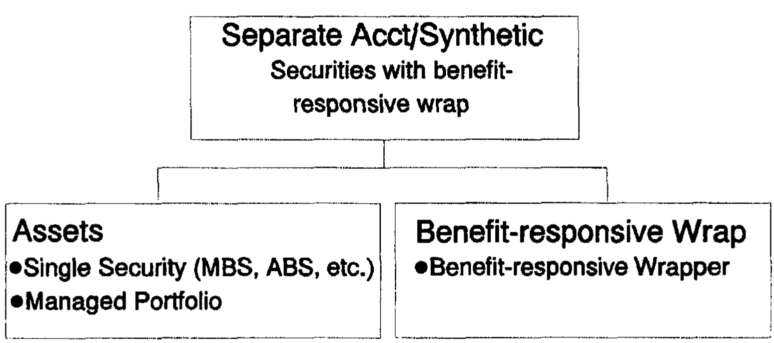
Again, the two major types of alternatives that have been the most popular are the separate accounts and what I call the true synthetics. In the separate-account structure, the insurance company owns the assets, although they are segregated and protected from the general account in terms of exposure to credit risk of the general account. The insurance company issues a benefit-responsive separate-account contract to the plan, and that is the plan asset.

In the synthetic structure, the plan actually owns the securities, whether it's a single security or a portfolio of securities, and a third party – a bank like Bankers Trust or an insurance company like Pacific Mutual – issues a benefit-responsive wrapper contract.

Chart 1 is an illustration of that structure. It's bundled in the separate-account structure. The investment side of it, on your left, includes either a single security or a portfolio of securities that might be actively managed. The benefit-responsive wrapper agreement allows you to account for this bundle at book value.

CHART 1
GIC Alternative Structure

- Separate Account – Bundled Investment Management and Benefit Responsiveness.
- Synthetic – Unbundled, Wrapper Issuer is not the Investment Manager.



In the separate-account structure, those are all bundled into a separate-account insurance contract. In the synthetic structure, the plan actually owns the assets, selects a manager or selects the asset, and then contracts with a third party to issue a benefit-responsive wrapper that ensures book-value accounting – the ability to account for the contracts at book value because these are usually marketable securities.

Here is a quick review of the importance of benefit responsiveness and book-value accounting. Again, book-value accounting is the reason why the GIC business exists and is so popular. To account for investments at contract value, recently the AICPA and the FASB have issued an exposure draft that states that these assets have to be fully benefit responsive. That means they can accommodate benefits provided under the plan like death, disability, termination, retirement, and transfers to other options at book value. There's no penalty if an employee withdraws money for one of these reasons.

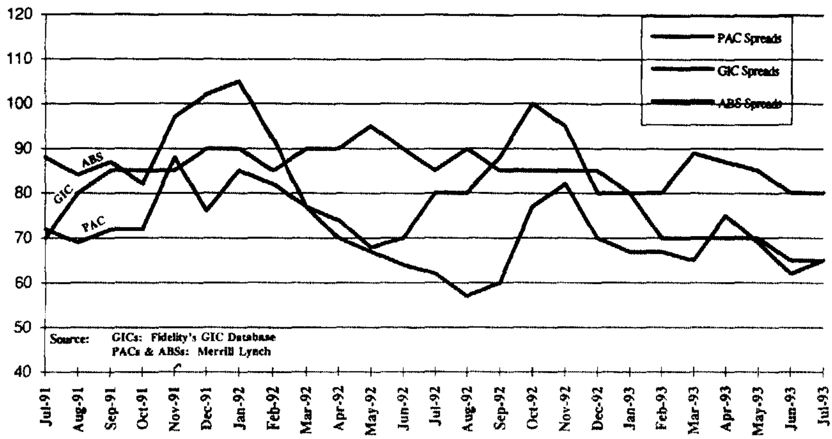
It's important to understand that it's the availability of this, no matter how remote the likelihood of any contract being accessed for benefit withdrawals, and not the actual utilization, that is important. It doesn't have to be utilized as long as it's there in case liquidity is needed. The contracts do not have to provide for book-value payments for employer-initiated events of, say, plan termination, layoffs, and those kinds of things. The exposure draft is scheduled to be implemented effective plan years beginning after December 15, 1993.

On the investment management side of this, again, there are really two different types of synthetic or separate-account contracts. Those are the natural maturity or buy-and-hold-type contracts in which more often than not it's a single security, like a mortgage-backed security (MBS), a planned amortization class (PAC) bond, or an asset-backed security (ABS) that is bought by the plan. Generally, these aren't traded or actively managed. They are just like GIC contracts that are held to maturity. That's not always the case, however.

Typical types of assets, as I mentioned, are PAC bonds, asset-backed securities, and structured notes, which, after you wrap them, have many similarities to traditional GICs. Once you do wrap them, they are close substitutes to GICs. You can compare them on such bases as rate, maturity, credit, and prepayment risk, for example, and tactically allocate, decide what's the best value on any particular day, and direct your money to traditional GICs, PAC bonds, asset-backed securities, or whatever you feel is the best value.

Here's an example that illustrates the ability to tactically allocate among these investments. Chart 2 shows PAC spreads over treasuries for five-year average-life PAC bonds, traditional GIC spreads, and asset-backed security spreads. These aren't quite apples-to-apples comparisons, because the PAC bonds and asset-backed securities, which are used in synthetic structures, are not net of wrapper fees or, in the case of PAC bonds, the option cost. But it gives you a feel for the changing nature of the relative value between these three assets.

CHART 2
GICs, PACs, and ABSs
Relative Spreads



For example, 1991 was a big, big year for asset-backed securities, at least at Fidelity. Asset-backed spreads were very attractive relative to traditional GICs, and that's changed a lot during the last few years. Lately, if you net out the wrapper costs and option costs, the traditional GICs have been the most attractive. I think 75-80% of Fidelity's placements in 1993 have been in traditional GICs, but this just gives you a general feeling for how the relative values change over time. That's the buy-and-hold synthetic structure.

The other structure is what we call the managed synthetic or separate account structure. That is where you wrap a bond fund, usually a constant-duration bond fund, and often it's actively managed by a bond manager or an insurance company. It has no maturity. It's similar to an evergreen; rates are readjusted periodically to reflect the performance of the bond fund. Immunized bond funds are sometimes used in this structure. You really can't, in my opinion, make the same kind of tactical decisions.

You can't say on a particular day that you have money to invest; that an actively managed bond fund is the best value relative to traditional GICs. It really depends more on a strategic decision. I may not be comfortable with the diversification I can get with traditional GIC investments, so I want an actively managed component in addition. In our experience, we have found that plan sponsors usually set the percentage on the amount of extra diversification they desire. For example, they'll set a percentage of, say, 25% and put that into wrapped, actively managed bonds. This is more aptly described as a strategic allocation.

Chart 3 is an illustration of why plan sponsors often wrap the funds. Not everybody does, but more and more people are accepting the benefits of wrapping these funds. The bars show the performance of the Lehman aggregate index during the last 15 years, ending in 1992. This is an intermediate bond fund. You can see the volatility in performance. The line is the return that would have been experienced had it been wrapped, and this is net of about a 25-basis-point fee. You can see the dampening effect on volatility that a wrapper gives the fund. This is the real reason why GICs have been so popular and why wrapped bond funds are becoming more so as opposed to unwrapped bond funds.

CHART 3
Lehman Aggregate
Wrapped and Unwrapped

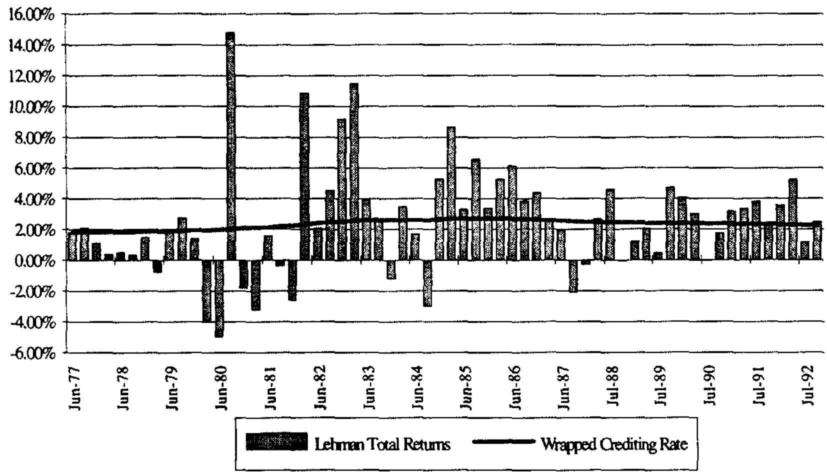
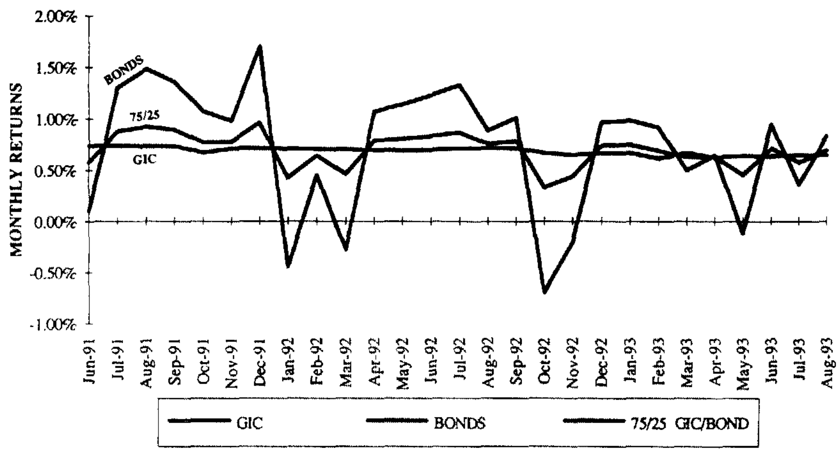


Chart 4 is an example of an unwrapped bond-fund component. The line with the GIC fund performance profile is an actual GIC fund that Fidelity manages. The top line is a short bond fund performance profile. If this plan were to mix its 75/25 GICs and bonds, the result would be the middle line. You can see that will bring in a modest amount of volatility to the fund if it's unwrapped.

To give you an idea of the growth in these kinds of alternatives in the last few years, I did a kind of quick survey of my own and came up with estimates of synthetics and separate-account market share. Right now there is about $8 billion outstanding of the buy-and-hold variety synthetic, and there seems to be less and less of those every day as the prepayments seem to be occurring in the PAC structures. For managed synthetics, there's about $6 billion, and that seems to be growing faster than the buy-and-hold structure.

CHART 4
GIC/Bonds
Mixed Portfolio
Comparative Returns



On the separate-account side, it's heavily weighted toward actively managed funds with no maturities. Many large insurance companies are in this business and have been successful in it. You add that all up and you get, during the last couple of years, about $30 billion maybe out of $70 billion that's been invested. So 40-45% of the new money invested during the last couple of years has been in separate accounts and synthetic structures.

If you assume the outstanding level of GICs and other products of that type to be $200 million, you're at about 15% of total outstanding assets, and that's from almost zero two years ago. This hopefully gives you a little overview.

MR. DAVID J. SALVIN: I guess it's fair to say that all of us who work in the GIC market have gotten a little bit of a wake-up call during the last few years. For those of us who are sellers of products or investors in these products, the alarm bell has gone off. We've been slamming it a few times to make it quiet down, but the fact is, we've been awakened to a brand new day. I think the question right now, referring to the title of this session, really isn't where we're headed. It's a question of, most importantly, where we are right now.

Where we are, and this is going to be the theme of my short talk, is that we have had it. We've really almost reached a conclusion of a movement in the GIC market in which the investment considerations have come almost 100% to mirror those of other forms of investing, primarily in bonds. The tenants of bond investing that everyone has held dear for so long -- liquidity, industry diversification, ability to manage credit risk, and a number of other risks -- have finally been available to be put into action in this GIC market. Really, that's the state of the art of where we are.

The issue now really is how to use these new tools that are available to the investor and the seller. That's the main theme.

Where are we and where are we headed? I want to cover four major topics. I just want to touch on four issues that are out there in the GIC market. It's certainly not exhaustive, but it's a few things that you can hang your hat on. Then I'll just come back to a few technical points that may be of interest. I want to touch on these four points because they're sort of, from where I sit, the major controversies, if there are any, in the GIC market today.

They are (1) ownership of assets and ownership of contract; (2) benefit responsiveness and how that is and how that's manifested; (3) contract forms and legal considerations; and (4) who the manager is and who the wrapper is; are they different firms, are they the same, and what are the considerations that are involved when you're thinking about wrapper versus manager?

The first point is ownership of assets. The distinction, first, we should draw is that typically in separate-account products issued by insurance companies, the assets are owned by the insurance company. With bank-type products such as synthetics, the assets are owned by the plan, or by the plan's trustee as trustee for the plan. That would be more accurate. Is one better than the other? I don't know. There are no answers to any of these controversies. What are the balancing questions?

In separate accounts, yes, title to the assets is an issue. I don't think it should be a big one, but it is an issue to some plans, to some plan sponsors, and to some managers. On the one hand, you avoid some ERISA questions concerning plan assets. On the other hand, clear title to the securities is an attractive part of a synthetic-type product, but you have issues there of custody expenses. The plan still doesn't own the assets. The trustee owns them and that's something you shouldn't lose sight of.

One clearly isn't any better than the other, but the ownership issue, especially if your objective for going into synthetics is to eliminate insurance company or bank credit risk, becomes important and, I think, in some cases, more important than it should be because you have a little bit of an ends/means inversion. The motivation for going into these products should not solely be credit diversification, but we'll get back to that. If it is, this question obviously becomes considerably more important. I just also want to mention briefly that there is a third type of GIC product, which is a repo. It essentially allows any firm of any credit standing to borrow money in the GIC market. The credit considerations become less, because the borrower posts collateral equal to at least 100% of the amount that it has borrowed. If the issuer disappeared with the money, the lender, the plan, could take title to the collateral. We don't have time to get into it, which is fortunate, because I don't really understand these products other than to say that there are numerous issues revolving around the ownership of assets and ownership of collateral and bankruptcy rules. When you're talking about ownership of assets in the repo product, it's a major consideration.

On point two, benefit responsiveness, the tension or the controversy here is generally between benefit responsiveness, which is nonexperience-rated, and participating or experienced-rated benefit responsiveness. For those who don't know, the main question is, in the event of a withdrawal, who bears the risk of that withdrawal, the possible gain or loss? In a nonexperience-rated benefit-responsive-type product, the issuer will make the plan whole for any losses that are incurred as a result of that withdrawal, and the issuer will also make a gain if that withdrawal occurs in a favorable market environment.

In an experience-rated or participating product, the insurance company -- and that's typically the issuer, although banks can have experience-rated products -- will fork over the money initially or collect the windfall initially and then will either recover or pay back to the plan that amount over time in the form of an interest rate crediting adjustment. Which is better? There's no answer, but the considerations here are, as a seller or as a buyer of these products, how do you see your plan, how do you see your book of risk?

We work for issuers of this type of product, and I think a keen awareness of what this withdrawal risk is going to be like in the coming years is important. What I'm saying is, from the way we look at it, withdrawal risk is going up substantially due to a number of market considerations, which we can perhaps touch on later. Primarily, the risk of the issuer is important in deciding between the experience rated and the nonexperience rated. The plan obviously is going to be very sensitive to this because of what it means in terms of performance characteristics of the investments.

Point three, and this is probably the greatest area of distinction between banks as a group, as issuers of this type of product, and insurance companies, is the form of the contract. I think it's fair to say, and I don't think I'll get any argument, that when banks have products of this type, the contracts are longer, they're more complicated, and they are much greater in detail. Is that better or worse than the insurance company form, which is generally shorter and is mute on a greater number of subjects? I can't say. I know what the customers think. They clearly like the shorter form. I don't know the reason for that. It may be because they're used to seeing that form from insurance companies during a period of years, but in any event, that is clearly favored by the market.

I think the way we're going to go, though, in that area is toward more detail in contracts. Again, continuing with that theme of evolution toward this detail market, that is a documentationally more complete market. If you buy my theory of moving in that direction, you'll see documentation evolve also in that direction. You can't leave out the fact, though, that insurance company contract forms are filed and approved and all that. The amount of change that's possible on that side is obviously limited by state regulators or federal regulators, as the case may be in the future. Obviously under contracts you also have to consider ERISA issues. Again, there is the trade-off of detail versus the ability to deal with the contract.

Let me just touch briefly on point number four, the wrapper manager. I think this is an area that's going to get increasing attention in the future. Some of these products, the wrapper and the manager, are with one firm, or they are affiliated, and in some products they are separate. Which is better? Again, I don't think there's a clear answer. Let me just hit on a couple of trade-offs. Let me backtrack. The key difference here is, is there a discrepancy between the interests of the plan and the wrapper at any time? If there is, how are they resolved?

That usually finds its way into the contract form, so arguments for having affiliated firms usually is that contracts are much easier to deal with. They're shorter because you don't need to lay out what happens if this kind of controversy occurs. There's unlikely to be any controversy when it's all affiliated firms. The processing is smoother, the information flows are smoother; it's all in-house and fees in some cases could be lower because there's a bundling of products and size efficiencies and all that. There are strong arguments for having affiliated managers and wrappers.

There's one major argument for unaffiliated firms. To the extent that the financial interests of the two sides are different, they should be represented by different unaffiliated firms. That's really the essence of that controversy right there.

I want to touch on, as issuers, what the risks are that you may be undertaking if you're going to have a synthetic or a separate-account-type GIC product. Everyone is obviously focused on the interest rate risk. If the bond market goes up in yield and goes down in price, what is the magnitude of the risk that you are looking at? What's the volatility on bond prices? What's the volatility or risk of participant withdrawals being so great that there's actually a withdrawal from this product?

Going into that, there are a huge number of things. Obviously this is not a how-to session, but just look at the portfolio side. It's not just a question of duration and price volatility. You have to look at a huge number of factors just on the portfolio side to determine your risk. You have to look at the convexity in the portfolio. We have wrapped portfolios in which the manager calls it a medium-term duration but is really buying one- and two-year treasuries and long bonds. That has intermediate duration, but it has serious convexity. How much?

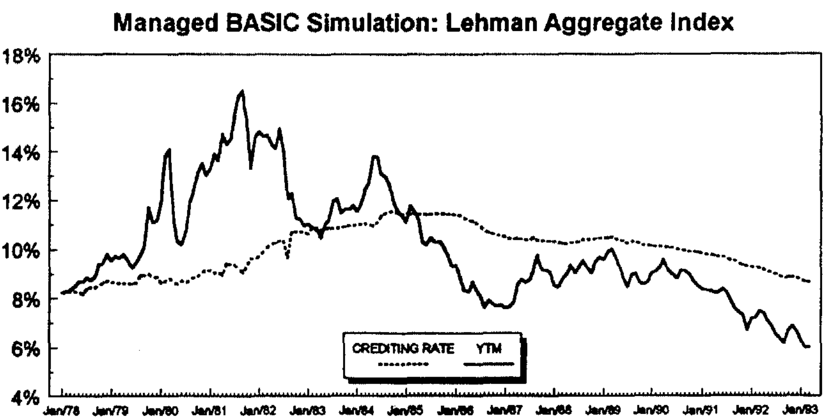
Working optionality into a portfolio is easy now. Before you had to do it by buying mortgage-backed bonds or callable bonds. Now you can do it directly through swaps and structured notes, and there are a number of ways of loading up the boat with optionality risk. Credit risk is manifested in two ways. First, obviously, is what's your industry diversification, your diversification by issuer, etc.? Second, which I think people don't pay enough attention to, is what are the insurance companies in that portfolio that make up all of the illiquid credit risk or most of the credit risk in the portfolio? The withdrawal rate is obviously linked to the perception of the insurance company's credit quality and you can't ignore that.

Liquidity is also a consideration, but here I take the opposite stand. I say that liquidity really is something you can give up in these portfolios. Insurance companies have been doing this very well for a number of years. These GICs cannot be redeemed. You don't need liquidity, so you can buy illiquid assets. I think the managers under these kind of products have an opportunity to buy more illiquid assets than they've been doing because, again, withdrawal rates are stable. They're low and predictable and here's a good opportunity that you don't need 100% liquidity in the asset side of your portfolio.

We, of course, run our own simulations. Chart 5 goes back 15 years. This looks at it a different way. What has been the yield on the Lehman aggregate index? That's the solid line. If you had that wrapped, what would have been the crediting rate formula?

Well, according to our product, obviously it's much more stable. What it really is very close to is the crediting rate on a portfolio of GICs if you just bought sort of regularly at a three-and-a-half-year duration all through time. It just reinforces the same point that we were talking about before, which is smoothing of returns, smoothing of yields.

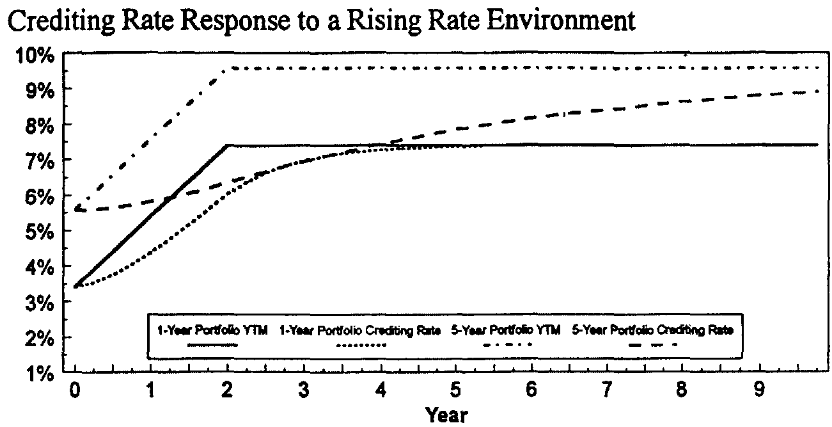
CHART 5
Stable Value



The broken line on Chart 6 is what the aggregate participant book value would have been. The solid line is the market value of that same portfolio. The interesting thing is they never get all that far apart.

The lesson for this is that there are two conclusions. For a plan sponsor, it is not facing a whole lot of credit risk to the wrapper. To the wrapper, although the percentage difference between book and market can be small -- and a lot of times, on this graph in particular, it's a positive difference -- you multiply that times a $10 billion book, which is what we're getting close to, and you're looking at a real significant benefit risk, I think. Again, that's something that's been overlooked.

CHART 6
Managed BASIC Simulation



Note: 1 and 5 are portfolio durations

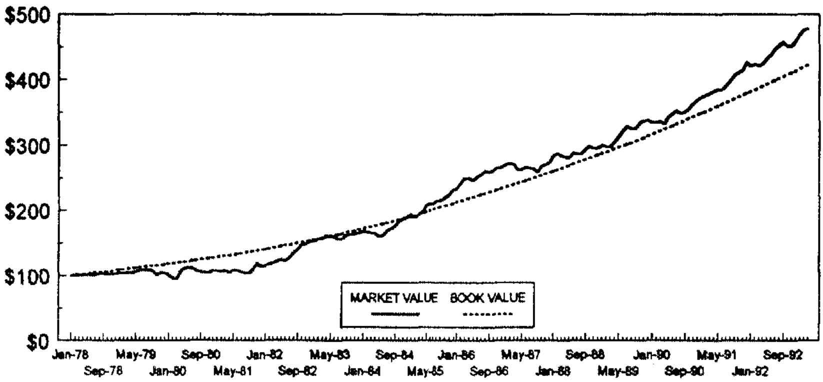
Chart 7 illustrates the conflict between short term and long term. If you go with long-term bonds, you push out the yield curve and you get a better yield, and that's represented by the two lines. Let's say interest rates shoot up from today's level of 5.5% to 9.5%. The five-year portfolio crediting rate line represents what that crediting rate is going to do during that nine-year period. It's going to follow slowly. The alternative is a one-year portfolio that shoots up 400 basis points. The crediting rate follows much more closely, simply illustrating the trade-off between duration, which gives you higher yield but a longer trailing average period.

Finally, I want to discuss the changing nature of the market during the past few years. I think our experience really typifies what's been going on in the GIC market. We really started in business in late 1987 with the BIC products, which are just like GICs. We had good growth for a couple of years, and we haven't done much in the 1990s really with the BIC products. As that started to dry up, we started the development of beginner's all-purpose symbolic instruction code (BASIC) product, which is a buy-and-hold synthetic. We started development of that in the late 1980s, rolled it out in 1990, and that has had excellent growth. About $4.75 billion is outstanding right now.

As that was maturing and gaining some credibility and competition, we rolled out the managed version of that same synthetic, which is now at slightly more than $3 billion. I think our experience here shows the sort of two-year life cycle of new product development. It also says that we are getting more and more competitors in the managed synthetic area, and it's probably time to do something new.

CHART 7
The Smoothing Effect

Managed BASIC Simulation: Lehman Intermediate Government Index



MR. DARYLE G. JOHNSON: As a way of background, Mutual Benefit and Executive Life were a couple of situations that, in my mind, really wrote a chapter in the history of the GIC business. Now, those two companies probably had a little bit in excess maybe of $5 billion on a combined basis of GIC funds. That probably is on the order of maybe 4% of the total GIC market; so $5 or $6 billion was a significant amount of money, but they certainly didn't have an overwhelming market share of that business. Nevertheless, plan sponsors took those two situations as a very serious warning and really have changed the GIC business, I think, probably forever.

The result has been a proliferation of separate-account GICs, synthetic GICs, and GIC pooled funds. Now, today sponsors are looking to protect their GIC portfolios. Really, most sponsors are calling those stable value funds, but are trying to protect these funds through diversification, through separate account segregation, through the arrangement of third-party guarantees, and by the outright ownership of the underlying assets.

I've put together something here that I call GIC product dimensions. There are really three dimensions to this. The first is fixed and variable maturity.

The second is the nature of the asset ownership. In the case of a traditional GIC, the assets are in the general account of the insurance carrier. In the case of a separate-account GIC, of course, they're in the separate account. In the case of a synthetic, the plan sponsor has direct ownership of those assets. The third is fixed, indexed, and participating interest credit.

If you think about a synthetic GIC, the typical form of that today is one that's being actively managed in which it does not have a fixed maturity but an evergreen nature to it or what you might think of as a constant-duration-type managed product. The synthetic GIC would have a constant duration or variable maturity. It's a participating-type product in which the interest rate is reset periodically to reflect the actual performance of the underlying asset portfolio, and it's one in which the plan retains direct ownership to the assets. Just by way of example, that is where a typical synthetic would fit.

A little bit on some of the trends today. Plan sponsors are reducing their exposure to traditional GICs. According to the research that I've seen, the data would be about a year old, but 25% of plans currently are reducing their exposure to traditional GICs. That's expected, within a year, to jump to about 40% and, during the next couple years, to increase to 60%. Plan sponsors would be reducing their exposure to traditional GICs, and this trend is most prevalent among large plans, of course.

Many plan sponsors today that are buying traditional GICs will consider, of course, only top-rated carriers. Selection decisions today are being made, not just on the basis of what the interest rate is, but on many other factors like credit ratings, asset quality, liquidity, investment guidelines, and things of that sort. Again, some recent research indicates that 50% or more of all defined-contribution (DC) plans are going to shift assets away from traditional GICs. The data I have indicates that 75% of plans that have assets of more than $150 million are going to do so. Again, there is a definite shift taking place among large plans.

Separate-account GICs have achieved some market acceptance, but they are getting less penetration than synthetics. About 16% of plan sponsors are using separate-account GICs for their stable value fund, whereas about 32% of the sponsors are using synthetics, at least among large plans.

A few years ago, synthetics were in what I would call the trial stage. Bankers, of course, were pioneers in this business. If you had asked me six months ago who was in the business of writing synthetics, I would have said just a couple of banks and a couple of insurance companies. If you had asked me maybe a month or two ago who was in this business, I would have said a few banks and maybe three insurance companies. Today I'm aware of at least half a dozen insurance companies that are in the synthetic business.

In my mind, synthetics are definitely moving from the trial phase to the acceptance phase. Of course, the growth in synthetics is being fueled here by a number of items: concern over insurance company credit risk, desire for more diversification, and lack of comfort with separate-account GICs. Many sponsors still have questions and don't believe that a separate-account GIC is, in fact, separate. Then a lot of sponsors, of course, prefer to really have control of the underlying assets themselves.

For any of you thinking of getting into the synthetic GIC business, Table 1 is something I put together. It's based on my fairly limited experience with this, but it's what I see as the critical success factors in the GIC business. The first column lists the factors. The second column is traditional GICs. Many things are very important there if you're going to be successful at this business. They would include expenses, having a good credit rating, being good at asset/liability management, and being good at managing the underlying assets.

When it came to such things as product design and investment track record, you didn't really need that to be successful in the traditional GIC market. You needed a good credit rating. You needed a high interest rate that you were guaranteeing under your contract. If you had those things, you could write some business. If you brought in the money and you did well at managing it and you did well at asset/liability management, you could be successful.

If you move to a separate-account GIC from a traditional, a couple of things happen. First, the credit rating becomes less important, because you're now dealing in a separate account in which you have segregated assets as opposed to the sponsor being, in effect, a general creditor of the company. Also, the investment track record becomes extremely important. If you're going to be in the separate-account GIC business, you'll need to have a good track record because that's what sponsors are buying. They're buying the underlying investment performance and they want to participate in the actual results that the portfolio is going to generate.

TABLE 1
GIC Critical Success Factors

Critical Success Factors	Traditional	Separate Account	Synthetic*
Expenses	■	■	■
Credit Rating	■	▇	▁
ALM	■	▇	▁
Asset Management	■	■	□
Product Design	▄	▇	■
Underwriting	■	▄	■
Investment Track Record	□	■	□

Relative Importance
■ → □
High Low

*Assumes nonaffiliated manager.

If you move from separate account to synthetic, you'll see that I've only got three windows that I consider to be totally critical: expenses, product design, and underwriting. They're really sort of linked together, but my sense of this business is that the margins you can get on synthetics don't include much of an allowance for any mistake; so you had better be very good in the design of your product. You had better be very good at underwriting the kind of business that you're going to wrap, and you had better have a very efficient operation, or you're going to have a hard time making a go of it with the margins available in the synthetic business.

Regarding product design, there is benefit responsiveness, buy-and-hold versus actively managed, frequency of credited-rate resets, experience rating of gains and losses, and maturity. These are all very important things that go into the make-up of a synthetic GIC product.

One of the things you have to be very careful doing is underwriting the plan in terms of its cash-flow history, what kind of competing investment options there are, whether there's going to be tiered structures and buffer funds involved, and things of that sort. In the past, in the case of the traditional GIC, this probably made up 100% of what you were underwriting when you were quoting on a traditional GIC. I would say this makes up about 75% of what you're doing on a synthetic GIC. This is still important, but it's not the only thing that you have to look at.

In addition to underwriting the plan today, on a synthetic GIC you have to underwrite the investment manager as well, because somebody is going to manage that portfolio and you're going to have exposure to risk. Things you need to be looking at include investment objective, investment style, quality of investment strategy, investment policy guidelines, experience with DC plans, and what not. Again, I could only share with you my experience.

My sense of this business is that synthetics have opened up the GIC market to all the fixed-income money managers in the country. There are hundreds of them. We've been approached by quite a few, some of whom we are not interested in wrapping. They really don't have a well-thought-out strategy. You have to question the quality of what they're trying to do. They don't have any track record or experience with running DC money and what not, so it's really important in the synthetic business to underwrite the investment manager. In my mind, when you're doing the underwriting, it's about 75% underwriting of the plan and about 25% underwriting of the investment manager.

As I mentioned earlier, there are many sponsors today who still don't think that separate accounts are separate. There is status in insolvency. There is surplus in separate accounts. There are some sponsors who, because they don't really believe it about the separate nature of the separate account, will insist that you maintain some sort of surplus in the account so that you always have assets equal to 102% or 103%, or whatever it is, of the liability.

Regarding frequency of true-ups, often sponsors will want you to test the assets and liability of the separate account on maybe an annual basis or maybe quarterly, or monthly. We've even seen requests to test it on a daily basis, and I've heard of products and carriers who indeed say that they do that. They're testing assets and liabilities on a daily basis and, to the extent the assets are deficient, they transfer money over from the general account to true it up.

Many things are related here to separate-account issues. Regarding separate asset custodian, I'm aware of carriers who do use a different custodian for the separate-account assets. Separate-account assets are still held in the name of the company, but some sponsors feel better if the custodian of the separate-account assets is different from the custodian of the general-account assets. Many things are related to separate accounts.

Synthetic GICs are not simple. There are many things people don't understand about them. They're quite complex. We did some research in this area and we found out that there were sponsors who couldn't name the various products that are out there. Many sponsors are familiar with Bankers BASIC product, but some sponsors could not name their products. Sponsors don't understand the products. Many sponsors think that synthetic GICs ought to yield as much as traditional GICs, but have higher quality. It just doesn't really work that way. There are many things that sponsors don't really understand.

Many sponsors that are fearful of buying traditional GICs, when they go out to get their feet wet in an alternative-type product, are often looking to invest in a low-volatility low-duration-type style to reduce the volatility that the portfolio is going to have. When they do that, they're giving up a lot of return. David already made the point that what sponsors need to be doing is going out on the yield curve to take advantage of higher rates. That's what makes synthetics attractive today. It enables sponsors to do that and get book-value accounting by adding the wrapper on that. Quite a few sponsors are just using short-duration strategies, and I think it's going to translate into low returns for participants.

In the future, initially, we're going to see a proliferation of products and more diversity in terms of the offerings that are out there in the marketplace. Eventually we'll see some product simplification. I'm not sure how synthetics with affiliated asset managers or synthetics with nonaffiliated asset managers are going to shake out. Again, we've done some research on this. Pacific Mutual happens to be a company with a whole series of money-management subsidiaries. We talk with sponsors about using us for the book-value wrapper and using one of our subsidiaries for the portfolio manager. We found that about 15% of the sponsors liked that idea, but 30% preferred to deal with a nonaffiliated asset manager. Actually, the preference is to use our wrapper, but to hire some independent firm to manage the money, I think for the reasons that David actually addressed.

Will there be a migration back to traditional GICs? I don't want to be totally pessimistic about the traditional GIC market, because they're not going to go away. There are definitely some trends that are in place. People are moving to alternative-type products. But when you look at the decline in market share for traditional GICs and then couple it with the increasing rate of asset growth on defined-contribution business, you'll find that the traditional GIC market is not going to go away. In fact, it probably isn't even going to decline. It's losing market share but, with asset growth, the asset base of traditional GICs is going to remain generally stable. It's not all bad news for the traditional GIC market.

MR. MURRAY L. BECKER: I'd like to address both of these topics from the employer's side, and I must say I have a little aside. I've been involved in designing insurance company products for insurance companies as a consultant and also as a representative of buyers. I generally think that there's a tendency among actuaries to figure out what they can do and then foist it on the buying public when, in fact, it's really better to ask what the customer needs, what the marketplace wants, and then figure out how to provide that and make money while doing so.

Let me start with what the marketplace is for synthetics versus GICs, what the customers' needs are, what the attitudes there are, and what's important and what's not important. First, plans have objectives. They don't always recognize what the objectives are. With respect to our clients, we always establish objectives and say "these are our objectives and we'll do investing to meet those objectives." The objectives that we propose to our clients are, first, that they manage the GIC facility and their plan to produce ongoing employee satisfaction, regardless of where interest rates turn out to be in the future; and, second, that somehow or other, because this is a long-term, investment-oriented program, that they produce significant, real rates of return above inflation. These are the two established objectives.

I have four reasons for the role of synthetics and separate accounts. First is to provide, and this was the driving force, diversification away from the general account of insurance companies. Second, for those who think bonds will do better than GICs, is to be able to bring bonds into a portfolio, yet retain book-value accounting. Third is to deal with the issue of the dilemma that plans have been facing ever since the debacles of 1991. That is how to have a portfolio of high credit insurance companies, while at the same time showing a lot of diversification as we deal with a dwindling supply of AAA-rated insurance companies.

One way to resolve this dilemma is to siphon off 20% or 30% of the portfolio into something other than the general account of insurance companies; then the remaining percentage can have a much better balance of both high credit and diversification.

The final advantage, which I think was overlooked by many plan sponsors in their rush to diversify, is if you're going to take additional risk by getting into participating-type arrangements, you somehow or other get reward for your risk and you improve the rate of return. Synthetics and separate accounts in many instances should have, as an objective, a better rate of return that may be then available in the GIC marketplace, if that's possible.

I'd like to also cover, in stronger terms, our feelings on the conventional GIC product. We think the conventional GIC product is very healthy and in many ways superior to many alternatives. You have a known interest rate for a known interval of time. You have a predetermined maturity schedule. You can manage that maturity schedule. You can ladder the maturity schedule. You have no difficulties in providing benefit responsiveness. If you need withdrawals for plan benefits, you take them. You're within the cash flow of the insurance company's general account. In a synthetic, where withdrawals are needed, somebody has to find an asset, sell an asset, hold cash, or do something else to provide liquidity.

Finally, we think that at this point it's clear that there's negligible credit risk if you're dealing at the cream end of the insurance industry. The alternative products, and we've characterized separate accounts and synthetics as fairly viable alternatives to be considered side by side, should do one of two things for you, if not both. One is they should give you improved credit and diversification with little rate give-up. If you can get that, that's a reason for doing it. Two, you should have a better rate of return to go long with the increased risk that you're taking.

Regarding the issue of separate-account versus wrapped synthetics, I think we're going to see a trend that's mixed instead of going in one direction. The employers, beginning in 1991 and in an atmosphere of semiparanoia, naturally felt that there was a great advantage to the plans owning the assets. If the wrapper provider went down the drain, the plan would own the assets. It wouldn't have to deal with a bankruptcy judge, it wouldn't get involved in interpreting the separate-account law of the state, and it wouldn't have a period of suspended animation that now characterizes the take-over of an insurance company. There would be no delays and no issues. Because the entire original move was motivated by a credit paranoia, this seemed to be a driving force.

The advantages of a separate account versus the synthetic, though, are beginning to emerge. First, as was mentioned, there is an advantage to one-stop shopping that should translate economically into a lower cost. In a synthetic, three parties are being paid. There is the wrapper provider with its profit margin, a bond manager who expects to charge the same kind of bond management fees that are collected in managing pension assets, and then finally there's a custodian someplace getting paid three or four basis points, or whatever, just to hold the assets. You put that all in one-stop shopping and you ought to get a lower fee. We look for a lower fee as an advantage to a separate account. You have the convenience of a single party.

Finally, in looking at the state law in three major states, and I'm sure there are probably other states, but singling out New Jersey, Connecticut, and New York, the state law seems to be very clear on maintaining the separateness or integrity of separate-account assets. The law deals with guaranteed separate accounts as opposed to the original separate-account laws that didn't deal with guaranteed separate accounts but were contemplating equity-based separate accounts. There was always some concern among plan sponsors and their lawyers about whether a guarantee from a general account would taint the independence of a separate account.

In the laws of the three states that I mentioned, not only does the law contemplate a guaranteed separate account, but it actually says that, to the extent the assets in the separate account are insufficient to meet the guarantees, then the difference is considered a policy with respect to the general account liabilities. You could actually come out of a separate-account default under some circumstances with more than the market value of your assets, which is not true in the case of a synthetic.

I might say that, as a general proposition, when you get into separate accounts or synthetic products in general, in the end you're going to get whatever the bonds in the portfolio deliver minus the fees. We certainly know that the present value of your investment, whether the wrapper is taken into account or not, is really the market value of the assets and not the contract value. If contract value happens to be greater than market value, it's because interest rates have risen and you are going to, if the wrapper continues for its life, have that difference rectified by receiving an interest rate below current rates.

If the wrapper provider goes under, the value of your investment is the market value of the assets for the same reason, so the real value of your investment is not sensitive to whether the wrapper provider is solvent. You do have an inconvenience if the wrapper provider goes down the drain, because you may end up having to value the assets at market at that moment, but it's also possible under the proposed AICPA guidelines to continue book-value accounting. You can simply find a new wrapper provider to just step in and put you right back where you were before.

When I find that I go through these issues with our clients, and if they perceive an advantage in a separate-account product on its merits, then the fact that the separate account owns the assets rather than the plan is not a decisive factor, and our official position is that we are neutral and don't favor either approach.

To comment briefly on buy-and-hold versus managed synthetics, the original buy-and-hold synthetic product still exists and has a lot to recommend it. Under this kind of product, you typically have a single, high-credit security. It's usually a Freddie or a Fannie, something that the plan feels doesn't require diversification; you've got a government agency guarantee, and that's held to maturity. Originally, the providers took the prepayment and extension risk out of the deal. Today's version of the product usually takes the extension risk out of the deal, but the plan accepts a small amount of prepayment risk.

Usually the provider will find a PAC bond that has very little prepayment risk, and sometimes these products deliver an interest rate that's very close to what you can get in the GIC marketplace from a high-quality insurance company. So at that moment in time, a plan is willing to give up perhaps five or ten basis points to have diversification outside of the insurance industry without having to take on an apprecia-ble other risk to replace the credit risk. That product is around and there will be providers for it. We will keep buying it and many other plans will keep buying it.

The managed products are obviously much riskier than GICs, and yet they're being bought on a fairly large scale despite the fact that they are riskier than GICs. The marketplace started out with a very irrational notion that the only risk that's bad is credit risk and all other risks are worth taking except credit risk. The plan's accepting in a synthetic or a separate-account product a degree of uncertainty that you don't have to take. You can buy a GIC and you can get an interest rate for a fixed period of time. Why should you get into something in which you have no clear idea what the interest rate is going to be two, three, or four years down the road?

Just to accept the uncertainty, in my opinion, requires a premium above the GIC. Now, that doesn't mean that it requires a premium up front. It doesn't mean that it requires a projected yield to maturity that is better than GICs. It just requires a judgment on someone's part that at the end of the day you did better than you would have with the GIC, perhaps because you believe that the active manager can add enough value during a period of time to deliver that kind of result.

In addition to the uncertainty, there is significant risk in the portfolios in the underlying securities. Again, because the marketplace started out with the notion that credit risk is bad and all other risks are not bad, the bond-management community responded by loading up the portfolios with mortgage-backed securities of various forms, a lot of PAC bonds, and some mortgages that are just mortgage pass-throughs, without any particular attempt to deal with the issues of prepayment and extension risk. There's a limit, in my opinion, to how much of that risk ought to be taken by a plan, but you've got those kinds of risks.

If you're not going to receive a significant premium over GICs for taking that risk, our view is, why bother? There's a bit of a counterrevolution going on today; particularly there's a degree of discomfort in the investment community with mortgages turning out to be less wonderful than everybody expected, because none of the models predicted the amount of prepayments that have actually occurred. Everybody said that people would not prepay their mortgages unless there were really massive drops in interest rates. Of course, there have been massive drops, but there has also been lesser drops and every one seems to trigger prepayments. There's a reaction that maybe that wasn't such a great idea.

The role of the wrapper is not clearly understood, and I'd like to just comment on that briefly. The wrapper, whether it's a separate-account wrapper or whether it's a synthetic wrapper, does more than give you book-value accounting. What the wrapper does is magically transform adjustments in principle to adjustments in interest rates so that a plan can do things with a book-value wrapper that it would never do owning the assets without a wrapper.

The bugaboo credit risk, for example, can be taken with a wrapper, whereas you wouldn't take it without a wrapper. You wouldn't buy a low-credit insurance company no matter what the rate was, because the constituency in the defined-contribution plan wouldn't tolerate a credit loss that affects account values. But if it's a lower-end, investment-grade bond and it gets downgraded and is sold at a capital loss, that simply lowers the interest rate in the future. That's a tolerable event in the wrapper and that's a risk that you can take.

I sort of like to merge into the kinds of risk that you can take. You can certainly take prepayment and extension risk with wrappers, although from the point of view of a stable-value, GIC-type portfolio, prepayment risk is much more attractive because that only occurs in an environment of falling rates; whereas extension risk damages you when you can least afford it. You can take credit risk in corporates that you wouldn't take in GICs. You can hold longer bonds than you would hold in an unwrapped portfolio. You can take the type of risk that Dave Salvin was referring to, which is the experience-rating risk that the plan would get if withdrawals occur in environments of changing interest rates.

We view risk as having two elements that should be tested by the plan sponsor. One is that you should get paid for the risk and, two, that you can live with it when it occurs. If both those tests are met, then the risk is worth considering. It shows up in my outline, but I had mentioned earlier that the credit risk in the wrapper is negligible. That is not understood by the plan sponsors, so it really has to be explained to them.

Typical with synthetic, if you get into a situation where there's heavy risk in the mortgage securities, there could be some credit risk in the bonds, and the employer is hung up on the credit rating of the wrapper provider. In the end, this has very little effect on anything, and the chances of losing money on the wrapper provider are a tiny fraction of your chances of losing money on any of the investments that are being made.

What should the employer do? I'm finishing up with risk management, a topic we're all comfortable with as actuaries. One is to buy the low-risk, buy-and-hold synthetic whenever it's there. It's hard to buy. Whenever it's there, close to GICs, jump in and buy it. Two, keep using conventional GICs. There's nothing wrong with them. Buy them until something comes along that defeats them in competition. Otherwise, don't buy them. Stay disciplined with that.

Point three, ration the aggregate risk of any one kind. We have a general rule of thumb that we don't want more than 15% of the portfolio exposed to any one kind of risk. If we have three or four different bond managers, all taking prepayment and extension risk, we'd want to look at the segments of the portfolios, add them up, and make sure that we don't have too much in that type of risk. If the plan is large enough, diversify with multiple managers and not a single manager. Examine risk in the context of a defined-contribution plan and its objectives. This refers to the kind of point where, if you can take prepayment risk and not extension risk, you can take more of it. If you have equal degrees of both, you're going to want to take less of it.

Then you have to adapt to the nature of the providers. Wrapper providers have thin profit margins. The way I see it, their entire margin is a profit margin because a wrapper provider should take zero risk. The nature of that business is if you want somebody to take risk, you buy a GIC. If you want to take the risk yourself, don't try to foist it on the wrapper provider. What the plan should do is self-insure the risk to the maximum extent. Make sure that the wrapper provider is not asked to take either investment risk or withdrawal risk. The plan can very well assume those risks and you get a more economical cost.

MR. VICTOR MODUGNO: I have a question on counterparty risk. Do you care if the wrapper provider is, let's say, triple-A, single-A, or unrated? What should the pricing difference be, if any, between, let's say, a triple-A wrapper and a single-A wrapper?

MR. JOHNSON: The client cares. Naturally, the better the credit, the more comfortable the client is. We probably would have a problem with a single-A wrapper provider just on appearance's sake, but we would not make much of a distinction between a double-A and triple-A wrapper provider. Our general view would be we'd have to explain to the client why the creditworthiness of the wrapper provider is inconsequential when the fundamental collateral are the plan assets and the fact that we're dealing with a low order of risk. We'd have to go through the argument that I stated earlier.

I have to say that when clients hire us as a consultant or a manager, they accept what we say to them as being factual and unbiased; whereas when you're trying to sell something to that same client, you may have a tougher road to hoe. If your arguments are valid, they should work.

MR. MODUGNO: Just looking at Bankers Trust, it has this $10 billion portfolio of synthetics. If interest rates shoot up, you're saying there's no risk in, let's say, buying another synthetic from Bankers Trust.

MR. BECKER: At some point, if a plan has all its business with Bankers Trust or any other single-wrapper provider, the plan begins to get uncomfortable, despite what I said. My argument there, and I happen to have at least one client in that situation, is that this comfort is for other reasons. The wrapper providers want terms in the contract to make sure that under no circumstance does the wrapper provider lose money. These terms will vary from one contract to another and, to a certain extent, put a constraint on the employer's investment flexibility. Therefore, having some diversification among wrapper providers for contract terms is an advantage, as I see it.

MR. MODUGNO: Allan, does Fidelity have any restrictions on the wrapper provider or the amount it will put with any one?

MR. FEN: Yes, we do, although they aren't as strict as for GIC issuers. Again, it's kind of like Murray said. It's something you're concerned about, but if a wrapper provider fails, it's not close to the magnitude of a problem if an issuer of a GIC that you're holding fails. There's a good likelihood that you could probably replace it. Even if you couldn't, you know you have to sell your assets at 95 cents or mark them to 95 or 90 cents on the dollar; but you wouldn't have to go through a Mutual Benefit or an Executive Life kind of workout. It's just not nearly the risk that you take with the underlying assets, whether they be GICs or corporate bonds.

MR. BECKER: I have just one further comment. I've seen a legal opinion that I didn't mention in the integrity of separate accounts. The basic opinion said that separate-account assets are plan assets under ERISA and, if that's the case, then under federal law they could only be used for the exclusive benefit of plan participants. Even if the state law created a problem in an insolvency situation in a separate-account product, the federal law would then override.

MR. FREDERICK S. TOWNSEND, JR.: Is the NAIC attacking synthetics wrapped by life insurance companies?

MR. JOHNSON: Well, the New York Department is looking at it, and it has some concern with what's being done in New York, but I'm not aware of any NAIC activity. The NAIC has a task force and is looking at synthetics generally, but not from the standpoint of whether it is okay.

MR. TOWNSEND: Okay, but it could lead to that.

MR. JOHNSON: Oh, it could.

MR. TOWNSEND: I can understand a market for synthetics opening up because of the principle of diversification, somebody getting away from being 100% in traditional GICs, and the popularity of synthetics inversely related to the creditworthiness of life insurers. If so, now that the creditworthiness of life insurers has presumably improved during the last two years, would there be a market shift back to traditional GICs? I ask that of the entire panel.

MR. BECKER: In a rational world the answer would be yes. I think there's been a momentum generated into getting into more synthetics. I think that the plans have sort of target notions of how much they would want to put in synthetics. While we endeavor, and probably many others endeavor, to make sure that synthetics are used only when they clearly offer advantages above GICs, we're still in this changing mode. I do think that before the full impact of the improved creditworthiness of insurance companies is going to work its way down to the client level, we're going to have to see upgrades from the credit rating agencies. I don't know if they even remember how to do one.

MR. JOHNSON: Fred, my comment would be like I touched on in the presentation. I think the money managers are driving the demand for synthetics. I can tell you that we're getting many requests for a wrapper, but not from plan sponsors. It's from money managers who are trying to get into the DC business. They see this as a huge opportunity. I think that's what's driving the demand.

MR. FEN: I don't think it's going to swing back. I do think traditional GICs are still a viable product, even though they really had a long life here relative to other products, but I think it's part of the natural evolution. In the 1970s, there were immediate participation guarantee contracts with a single issuer. Then consultants and managers were diversifying portfolios in the 1980s. People recognized that this was an investment portfolio, diversification was an important thing, and pooled funds and synthetics are part of that trend. I think they are a permanent part of the landscape. I don't think that a few years of stability with the insurance industry is going to change that.

MR. BECKER: Just one other thought. The drive in the synthetics is really disproportionate on the larger plans. A plan with $50 million or $100 million of GIC-type assets can't get into these riskier synthetics for economic reasons. There just isn't enough money that they would be willing to allocate to an uncertain product with an uncertain return.

MR. TOWNSEND: A last question refers to something we haven't lived through before. We're in a sharp downturn in interest rates, which hasn't ended yet, unless last week was the bottom. What happens to traditional, separate-account and synthetic GICs if a 10-year treasury hits 4% or 3%?

MR. BECKER: We would actually be more concerned with the opposite of that. If interest rates continue to fall, none of these plans will have very much in the way of a problem, because for a long time they're going to be delivering to participants much higher interest rates than they see in the outside world. If interest rates continue to fall, we will see more and more success of unwrapped bond portfolios. People have forgotten that bonds don't do well when interest rates rise.

There are many people in the bond market today who are guilty of what they used to criticize the stock market for; these folks have never seen a bear market. They have never seen interest rates rise. There are people in plans who just think that there's no problem with bonds, because of how well they've done. They look at the history of the last ten years, which is a history of steadily declining interest rates with just a few blips on the up side.

I think rising rates and what will happen if interest rates rise is the real issue. I think if interest rates rise and rise sharply, there will be actually an expansion of both the GIC marketplace and the book-value-wrapper marketplace, because the plans have decided that bonds are better. Many plans think bonds are better than wrapped products and people ought to invest in stocks anyhow, and they'll give them a choice of a money market fund or a bond fund. Forget about these complex products called GICs. The only thing that will interfere with that force will be rising interest rates.