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PRODUCT MANAGEMENT

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MR. STEVEN I. SCHREIBER: At the Product Development session, Isadore Jermyn declared: "The product development actuary is dead. Long live the product management actuary." We are going to discuss the product management actuary and the product management process. We are going to first look into the internal/external monitoring of the environment and how that monitoring leads to the generation of ideas, and consider how those ideas are affected by distribution, marketing, and organizational issues. Next we are going to discuss the setting of assumptions, how to get different areas of your company to work together, and ways to bring the product to market as quickly as possible. Finally, we're going to discuss how to manage business once your company places it on the books. We also will discuss those vanishing premium policies for which premiums have not vanished. We are going to discuss each of the five agenda topics separately. After the panel presents their thoughts on each topic, we will open up the floor to discussions and questions.

MR. JOHN C.R. HELE: I'm in marketing at Merrill Lynch in our Insurance Group. Some of you may be saying, "I didn't know that Merrill Lynch was in the insurance

business." That is one of our distribution and marketing challenges, selling insurance products through a large financial services firm. We are getting much better at it. Last year we sold over \$40 million of annual premium life insurance through our agency, Merrill Lynch Life Agency. We sell between \$1 to \$2 billion a year in annuities, and we have a \$13 billion life insurance company. Ranked by assets, it is the 24th largest insurance company in America. So, we are getting much better at it, from a Merrill Lynch standpoint, and we are moving along the distribution and marketing curve to try to sell insurance products through a different distribution system.

I'm going to cover, in a very general sense, an approach that you can take to look at distribution and marketing. I'm going to talk about some examples of successes and failures both inside and outside of the insurance industry, and discuss some core strategies that you will want to consider when you think about products and how to implement them. I'm not going to give you a step-by-step, analytical approach to it because it depends very much on your company, the products you are marketing, the specific industry you are in, and a lot of other factors.

What I hope to do is to get you thinking about some questions that you will want to ask; some questions you can take back to your firm that can help you develop successful products.

This may all seem quite simple, but I want you to really try to think about it. Baseball seems like a very simple game. The players just know the rules, and you watch somebody bat, but to be really good at it, they videotape the batters, they do computer analysis, they analyze the swing, and you practice and practice it.

I hope you will think about each of these steps and all the responsibilities when you develop a product, because it's the total of all the things that you do that defines your product. It's not just the pricing or a feature, it is everything that you do; and a prime example of this is Disneyland. Disneyland is not just a theme park, it's everything that they do, from keeping it clean to making it a happy place. I think that they are an excellent example of product marketing.

In the traditional way of marketing, you come up with a product generally because somebody thinks of it in the home office, or some competitor comes out with a new product, and you decide that you have got to have it. So, you design it, price it, and give it to your distribution system, and your distribution system then takes it to the market. This is how automobiles were designed in the 1950s and 1960s. Detroit decided that you will have a car. They gave it to their dealers, the dealers sold it to the consuming public, and the public bought it. It worked fine. They did have a few spectacular failures. The Edsel is a great example of what seemed to be a great idea, but nobody wanted to buy it.

I think you can apply this model to all sorts of ideas that may happen in your firm; for example, somebody from the top says we've got to get into the long-term care market. We will design a product, price it, give it to our distribution system and see if they sell it.

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A second approach to marketing is to do some analytical market research to find out what our customers really want to buy. Many firms do this now, to help define what the product is. We determine what market we will sell to: the middle income segment or people that drive a certain car and live in a certain geographic region, and then we decide that these people need long-term care insurance. Since we happen to sell products to the same client base, we'll develop the product, price it, and develop our systems. Then we'll give it to our career agency force who has been selling life insurance for 25 years, and they are now supposed to start underwriting long-term care risk. This is a common approach being followed now by some insurance companies. They do a great deal of market research, and try to find products for the market. However, the first approach, product driven, is still much more commonly found today.

A third approach that you can take is to listen to your distribution system. This is a relatively new approach in marketing theory. It tries to leverage off the strengths of your distribution system. If you think about what an insurance company is, you really have a bunch of licenses, you have some administration that most people can copy, and then you have a distribution system. As one wise old actuary said to me years ago, "There are three key success factors for being in the insurance business: distribution, distribution, and distribution, because that is the core of who can take your product to market." You can talk to your distribution system people and try to figure out what else they may be good at selling. Can you then develop that product and get it to the market?

It seems easy and very simple on paper, but actually it is pretty complex, because the salesmen don't always know what else they can sell if they have been selling one thing the same way for a long period of time. Many times they will tell you that they just need more competitive products, that they need you to cut the price, or that they need you to raise their commission and cut your profit. They don't always think in terms of differentiating from the rest of the competitors.

It is extremely important to understand what your distribution system can sell, but it's very difficult for your distribution system to change markets. I know because at our firm we changed the names of our stockbrokers to "financial consultants" almost 10 years ago. They were "account executives" before that. I would say we are a good portion of the way to becoming "financial consultants," but it has been 10 years, and we estimate it will be a while before we really get them to where they need to be in terms of profiling and looking at the total client base.

In summary, you have got to try all three approaches, and you have to be successful in all three. You have to be able to manufacture the product profitably, you have to be able to administer it, you have to be able to distribute it. You have to spend money to get your distribution system to really understand it. You have to do market research to make sure the clients want it and need it and that you are in that market. Very few firms do all three very well, and it is a difficulty encountered not just in the insurance business, but in all business, across the board.

PRODUCT FAILURES

Now, let's talk about some simple, interesting examples of where one of these factors was out of sync. Do you think Coke really checked out the market when they

changed the formula to the new Coke? Who did they talk to in deciding to change the formula of Coke? I don't know who they talked to, but it started with somebody with a great idea back in Atlanta in the home office. Now Coke is a great marketing organization, one of the best in the world. They recovered beautifully from a colossal marketing mistake; and now they have two versions of Coke, maintaining all of their market share. They didn't talk to the market because the distributors spent a lot of money to make the change, and the distributors didn't want to change over.

You can probably think of a few other examples where the distribution issues were not fully considered. You have a lot of companies that decided to get into the variable insurance business. Let's say their primary form of distribution was in the brokerage market. There is a fundamental problem in using the brokerage market when you are selling variable life since you have to have a broker dealer. Your salesmen who had been selling guaranteed returns for years had never sold with a prospectus before. They never had to explain the products to their clients. It is very difficult to change, and you can see it in the results of the number of companies that have variable products. Only a few companies like Prudential and Equitable are selling a lot. These two companies spent a lot of money and effort to train their sales forces to be successful in this market.

Another example in the insurance industry is universal life. Distributors said, "We've got to have this product, the clients are buying it." So, the firms rushed out with the product, but they could not administer it at all. How many clients do you think were lost because of bad service in universal life? You could probably never go back and sell to them again. The clients called in and could not get an answer because the computer system wasn't there. It is almost impossible to ever get the lost customer back, and the lost customer will tell all of his friends what a lousy job you have done. It's no wonder that the insurance industry keeps falling in terms of consumer rankings. I think you should all try to read *Monitoring Attitudes of the Public*, a recent ACLI publication. Insurance is on a downward trend, life as well as property/casualty insurance. That's very serious because it's the lost customers that are very hard to get back.

Socks and Stocks

Sears, the largest financial institution in America, was one of the largest retailers. They own Dean Witter, a very large, successful stock brokerage firm. It did all sorts of market research. It found out that clients that shop at Sears also buy a lot of mutual funds and investments and got a great idea to set up a little booth in every Sears store, and on the way out people would buy mutual funds. It had the distribution, and it had it well-staffed and well-trained. Your market is there every single Saturday. Well, what happened? Why didn't that work? Do you think about your mutual funds when you're buying your lawnmower? In fact, do you really want to buy a mutual fund from somebody that is also selling you a lawnmower? The market perceived it to be different. When people walk into a brokerage office they want the nice leather chairs and the professional investment advice and a guy in a nice suit. That is what the market was looking for. So, you have to be very, very careful when interpreting market research. You have to understand when, how, and why people buy.

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Mix 'n Match Men's Suits

Another example is the Levi Strauss Company. Levi Strauss was one of the largest apparel makers in the United States. It had manufacturing capabilities galore. It had a great sales force that covered almost every single store across America. It decided to move up market and get into men's suits. Levi Strauss did all sorts of market research. It found out that the clients were looking to buy a lower cost suit. So, it came up with a great idea: mix and match men's suits. Why not have a whole series of suits for which you can pick a top in one size, and pants in another size. It produced a whole line of suits and decided to use its same sales force. It was a total failure. The salesmen could not speak in the language of the suit buyers. So, Levi Strauss went out and got a whole new set of salesmen, and it still didn't work. What it missed in the market research was that people like getting their suits altered. They didn't want to have a suit like everybody else. Suit buyers want to be unique, but all the market research didn't figure that out. There are two fundamental lessons to be learned from that example. First, the distribution system could not change to a different market or to a different wholesaling network. It had to get a whole, new distribution system. Second, despite all the market research, it missed a fundamental issue which was why people buy this product.

Another marketing example. Why do kids want these \$150 basketball shoes? What is Nike selling? What is Reebok selling? They're not selling shoes, they're letting you be as good as Michael Jordan. How much will a 12-year old pay to be a better basketball player? They are selling the chance for you to be a better basketball player.

So, when, how, and why people buy a product is important.

GICs

Now let's talk about guaranteed investment contracts. Insurance companies wanted to gather assets. They thought they were in the money management business, and insurance companies have been losing money management business for years. So, they decided to get into the GIC business. They sold to individual investors a lot over the years and managed their money in whole life insurance policies. So the companies figured that they would manage pension money, and give investors a fixed return just like they do in whole life. However, there are fundamental differences now that you're in a totally different market. How many people here have taken all their money out of their local bank and moved it into a slightly higher paying mutual fund? You could get a better rate by going somewhere else, but have you done it? No. Has everybody refinanced their mortgage? You would make your money back from all the fees you pay in three or four months. Has everybody refinance their mortgage? No, because there's a propensity not to do anything. Well, suppose you're a pension fund manager whose fiduciary responsibility under ERISA is to get the best return for your client. You get sued and you go to jail if you don't do the best job for your clients. Now, do you think they're going to exhibit different behaviors when the insurance company rating starts to go down? There are totally different characteristics between individual investors and pension fund managers.

What did the insurance companies do with all that money? Invest it in commercial real estate, along with every other insurance company in America. For example, we've got a seven-year mortgage. We can get all the money back in seven years,

interest only. No problem. We're perfectly matched. I don't know about your companies, but we've had one mortgage payoff this year. Every other one's been refinanced. They're all investment grade, though. A mortgage is always investment grade until the day the guy comes with the keys. So, you try to refinance and string it out a little longer, and you just hope that these sophisticated pension fund investors are not going to find out you may have a little cash flow problem or liquidity problem.

I contend that insurance companies could have made a lot more money by borrowing money from the bank. They could have gotten a nice floating term, and invested in stocks or whatever they wanted to do. It's the same thing. Then the insurance company would not have all the infrastructure costs and the only commission cost would be asset transaction fees.

PRODUCT SUCCESSES: INTERACTION THINKING

Now let's talk about some great successes. Everybody says you learn from your mistakes. Well, that's the hard way because you can always find a way to do something wrong. Why not study those who are really good? What are they doing in marketing? What are they doing in distribution? It's very applicable to what we do in the insurance business.

Let's talk about the Sony Walkman. Sony is a very large firm. When the Walkman was invented, Sony had a great distribution system for audio products. Sony was specializing in miniaturization of electronics. The Sony transistor radios that came out in the 1960's were cheap and small. Well, those cheap, little radios are now a multibillion dollar corporation, but how did Sony come about inventing this thing? Did it do the market research? Did its distributors say, hey, we've got to have this? No. Mr. Morita, the chairman of Sony who built the firm after the war from scratch, pulled together a group of people and said we have to build electronics, and we want to miniaturize. That's what we're going to be specializing in. It had miniaturization, and it had distribution for audio products. It didn't decide to get into miniaturization of technical instruments for F19 fighters. Even though similar technology could be applied to it, they didn't have the distribution system, but they did have audio. Mr. Morita came home one day and his son was home listening to rock music very loudly. He wanted to listen to his classical music. He took out a piece of paper, cut out a box, took it into his engineers the next morning, and said we have to build this. We have to build this because I cannot stand another day of listening to that music, and your challenge is to build this product. No market research. See, some of the problem with market research is it's very hard to do on a product that's not in the market. Sony had the distribution. It had the technical expertise to do the product. It was a challenge, but it did it, and it could distribute it. You can have a great product, but if you can't distribute it, you don't have anything.

Department stores are having a rough time. Sears is now the second-largest retailer in America. Macy's is going under. But how many people are going to The Gap? Why do you shop there? What is it in its product that makes you want to buy? Is it distribution? What's distribution? It's location. Where are those stores located? In malls that you would probably be at anyway, but there are a lot of other stores in the mall. Why is The Gap selling way more than anybody else? Is it the help? You can usually get help and they're not too pushy. Did you ever walk into a big department store? You can't find anybody. They had some cost accountant say, " We've got to

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save some money. Let's get rid of the guy who is at this cash register." What else is it about The Gap? The prices are very reasonable, and they're saying The Gap is successful today because of the recession that's on, and people are more cost conscious. The Gap was successful before that. It's doing better now, but it was successful before that.

What is it that it's selling? It sells great quality clothes, good value, good help, easy store layout – it's not too big, and not too small – and they always have something new. Every time you walk in there is something new, and it appeals to grandmothers. Baby Gap is a store for grandmothers and grandfathers. And you know what you do? They have little socks that cost \$5. Imagine what the mark-up is on that. Do you think The Gap said to their actuaries, "What does it cost for the thread? What does it cost for the design? Well, price it out; we could sell it for \$1.50 because we build these in Singapore." No, no, no. It charges \$5 because it is The Gap, and you will pay for it. Then what does it do? A little later when they want to turn over their stock, the item is on sale the next time you walk in, and what do you do? You buy one thing on sale, and you buy another thing full price. I do it every time. I go in there thinking I'm going to save money, and I spend more money there than I would spend at a normal store because I buy twice as much. The Gap knows their customers, and the salespeople are not too pushy, but they're always there. You can always try something on. It's all very calculating.

Let's move onto the last example, 3M, which is an engineering company. That's all it does. It makes things. It creates things. Then it figures out if somebody has a market for it. No market research. It just invents things. Once there was a 3M engineer trying to invent a new glue. His task was to invent the strongest glue ever made, glue that will always hold. Well, he failed pretty miserably because he found out the glue won't even stick to paper. You put it on, it stays, but you can rip it off. He went to his distribution people and said, "This is great! We can invent these little notes, right? Stick them on paperwork and take them off." He took it to the head of national sales, who said, "No one will ever buy that. What would you use it for?" The engineer didn't know what to do. He took some money provided by 3M for research and development projects, built a set of Post-it notes, and gave them to the Chairman of the Board's secretary. The Chairman of the Board kept getting these great little notes with little scribbles on it that could be torn off. Well, they ran out in a couple of days. So, the engineer sent more, and the secretaries were all talking, and they all wanted more on the executive level. Then he ran out of 3M's money and stopped giving the secretaries the notes. The Chairman asked where these great notes were? And finally the product, the failed glue, was brought to market. Now we have stacks of them in our offices. We attach Post-it notes to fax machines and everything else. Just imagine what the profit margin is. 3M has a saying in all their businesses. It's called the 3M Margin. It won't do a business unless it's assured of earning 20% return on investment, after tax, and they pay 45% tax rates, not 34%.

PUTTING IT ALL TOGETHER

How does one understand distribution? Distribution strategies are market specific. To whom are you going to sell? When do they buy? How do they buy? Seniors buy differently than the baby boomers. You have to understand your market. The industries are very different, too. Life insurance is different from health insurance. The products are different even within sectors. Term insurance is bought by different

people from whole life. Sometimes they buy the same way. And also the location is different, which is really unique. Study where things are sold and how they're sold. Sometimes we think America is this wonderful, homogeneous mass. Not at all. Try to work the same way with the customers and clients in New York City and Wichita, Kansas, and I guarantee that you are in for the biggest eye-opening day in a long while.

I think it's very important when you develop products to really understand that you're going to be up against much more price competition in different markets, locations, and industries. You've got to really think about that. The traditional distribution strategies for insurance run from career, brokerage, insurance brokerage, to property/casualty and direct mail. They are all pretty established and all on a general industry trend that is on the downside. You have lots of companies competing for a shrinking market. Total sales adjusted for inflation are down. Whole life is down. It's the big trends and the slow ones that people always miss, sort of like the baby boom.

I contend that it'll be the emerging distribution strategies that are going to be the toughest to deal with. These, by the way, are the dangerous people. It's these emerging ones that can come at you from the side and be very, very dangerous. Coke certainly has a great challenge in fighting Pepsi, but perhaps Coke's and Pepsi's largest challenge would be if people stopped drinking cola and start drinking Perrier water. That's the long-term risk, and that's what you've got to think about. We're not yet at the point of selling insurance through stock brokerage firms, but we're working pretty hard at it. Banks just somehow can't seem to get their act together on this, but if they ever do, it's going to be very, very powerful because they have clients right there, and when they're talking about their loans, they're reviewing their whole financial situation. When is one of the only times you get a complete profile of clients? When they fill out their mortgage applications.

Financial planners. IDS is one of the most successful companies in America. At Merrill Lynch, we view IDS as one of our biggest competitors. Direct advertising. Hey, the largest mutual fund company in the world uses direct mail advertising. We could be here with all the security analysts in 1962, and Ned Johnson would have been on stage talking about how he's going to sell mutual funds through direct mail. He's going to have phone lines going all night, and you'll buy all of your mutual funds directly from him, and he'd tell you that he will have \$140 billion under management in 30 years. Everyone said this guy is crazy.

Cable TV. We have the Home Shopping Network. Why not home insurance network? It's not that far off. And CPAs have got the whole financial situation. They can certainly sell the insurance.

The key to marketing and distribution is to differentiate your product from everybody else's. Your universal life has got to be different. If you get into the game of just cutting the price, you're no different. You're just cheaper. Then your only chance of success is to be the very lowest cost producer. You've got to experiment. It's very costly, but you have to do it, and when you find something that looks like it's working, invest in that business big time.

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And you've got to get rid of failure. This is very hard for corporations to do because the standard thinking is, well, it's business. Why would we withdraw that policy, that line of business? It's only selling a little bit, but it doesn't hurt anybody. Yes it does. It's confusing to the clients. It's confusing to your distribution system. It's clutter, and you have to minimize clutter. Your company is spending time in annual filings and whatever else they're doing to worry about that dumb old little product (whole life, guaranteed return) that you don't. It's taking away from focus. Nike only has air shoes and successful variations thereof. They didn't keep their old line just because it would sell.

So, what is it in summary? It's positioning your market. Your advertising lets people identify with what you have. The sale is the presentation, the buying decision, a lot of factors, but maybe primarily reputation. Have you ever seen a Wal-Mart ad? Wal-Mart's the largest retailer in America and they don't run ads. Honda doesn't do much advertising either. Their customers sell their products. So, I believe the buying decision is many times based on the company's reputation.

MR. WALTER N. MILLER: In addition to the advice you've given us that we should find out what other people are doing, we should also find out what's bad and don't do it, which I think some of us have heard before. Another of your cliches was drop failures. How do you do that with a life insurance product? You can stop selling it, but you've got to keep administering it, and disgustingly small amounts of it for years, and that is really expensive. How do you drop a failure in this business?

MR. HELE: I couldn't agree more that to come up with a lot of products is very costly long term. Do you really price in what it costs if you have to drop it, if it doesn't work? The projections are always going to be wonderful, but if the product isn't, the cost of keeping all of these old policies around is very expensive. However, to keep on selling it can mean that it takes away from focusing on where you're really going, where you have a product that you can get some margin in. Maybe you can sell them another product. Can you go back to those people that bought the old product and sell them something again? The best client you have is one that you've already sold to, but I agree it's a very costly process.

MR. SCHREIBER: You talked about the difficulty of getting your distribution channel to change. You can't teach somebody who has been selling one thing all their lives to sell something else. Some companies have thought that they would start a new distribution channel to try and sell the products instead of trying to get their main distribution force to change. What do companies need to do to make that approach work?

MR. HELE: Selling through another distribution channel sounds easy. It's not that simple. I think more cost and time need to be factored in than we've been use to factoring in because a lot of times it just may not work well, or you may not meet the projections that you are looking for in terms of your original pricing assumptions.

MR. ALASTAIR G. LONGLEY-COOK: Aetna has spent a fair amount of time and effort trying to get independent property/casualty agents to sell life insurance, and I know some other companies who also have. I agree with John. It's literally impossible because of the culture differences. Think about your typical property/casualty

agent; people walk up to them and buy insurance. Think about life insurance; they have to bend somebody's arm to buy it (the old cliché about it being sold not bought). Well, think about how a property/casualty agent feels if he is suddenly told he has got to twist arms. He is not going to do it, and, in fact, many years of trying to get him to do it with the strong push-type of incentive has not worked very well. I think what finally got property/casualty agents to start getting interested in life insurance was fear. They realized that the property/casualty business is in bad times and likely to stay there, and they had better diversify. But it wasn't Aetna telling them that, and it wasn't any incentives we had. It was environmental change, so I think trying to get a distribution system to radically change direction is extremely difficult.

Aetna has tried many different organizational structures -- I'm sure your companies have -- and I want to talk about some of our approaches, what has worked, what has not, and where we are today.

If we go back before 1981, Aetna had a fairly traditional holding company structure with a corporate office and various large divisions represented by large companies or pieces of companies. We had a large life division that handled life, annuities, and individual health with auto, homeowner's, and commercial property/casualty in separate divisions. That type of structure is certainly product-driven or product-cluster-driven. We had further hierarchies of departments -- actuarial departments and marketing departments -- within each major division.

Around 1981, we decided to get market-driven, as many others did and as John mentioned. Those were the days of one-stop financial shopping. It sounded like a good idea at the time, so we created the Personal Financial Security Division, which was meant to deliver all the personal financial security needs an individual wanted, be that life insurance, annuities, auto, homeowner's, individual health, or whatever. There was also a Group Division and a Property/Casualty Division. It was very market oriented. What seemed like a good idea did not work for many reasons, but for many reasons we moved onto what is now our current structure -- strategic business units (SBUs).

Instead of a line or a profit center it's an SBU. So, we have SBUs for life, auto, homeowner's, group health -- there are about fourteen in total. There are a number of advantages to that type of structure. It's very focused. One of the disadvantages of clusters is you tend to have loss leaders. You might have, let's say, life, annuities and individual health, and individual health just somehow doesn't get the attention it deserves. I'm convinced that any structure can't focus on more than two or three things at once, so you end up with the fourth or the fifth in line getting less attention, and maybe has the fourth or fifth best managers.

The SBU structure encourages focus on each and every line. It also requires each one to be accountable, to be profitable, and if you're not, then the capital will be spent somewhere else. Those are the positives. I would say the negatives are that you end up with less ability to interact between those SBUs. You end up with less synergy, and you create all kinds of problems for, say, the corporate actuary or the CFO or anybody who's trying to make sure that 14 different areas are all doing the right thing at the right time.

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The traditional structure that we had for some time was made up of large divisions with a division head over large departments – an actuarial department, marketing department, systems department; each were totally separate.

Within each department you had true pyramidal hierarchies, vice presidents, assistant vice presidents, all the way down; sometimes getting from one rung on the ladder to the next higher was based more on seniority or who you knew than actual abilities. Clearly this type of structure tends to slow down processes. It's not customer focused, and a lot of things get lost in the translation between senior management and those who come up with the ideas or do the work.

So, the traditional structure is expensive, slow, and not customer driven, but there are some advantages. Every time we move on I think we give up something. One thing we give up is mentoring, and I think that's particularly important in our profession. If you have a lot of different SBUs and you throw new actuaries into each one, these new actuaries may be reporting to a marketing officer who might be running the SBU. When do the new actuaries get the guidance they need? Consistency of treatment is also a problem. How do you maintain consistency and flexibility between those different SBUs? You would think that the newer structure I discussed was more flexible, but on the other hand, larger divisions do allow allocation of resources to the right place at the right time. I think you can achieve that within modern structures with resource pools, but you can't lock everybody into different cells and expect to achieve flexibility.

The head of the strategic business unit leads the new structure that we've implemented. We do not have an actuarial department anymore. We have research and product development. Sales and underwriting would be other departments. Research and product development under this scheme handles not only the product development but also the marketing strategy, valuation, and the research associated with the product. We then have the actual development of products broken down by teams that are assigned to a particular product or a particular product cluster. For instance, Team 1 might be all universal life-based products. Team 2 might be all interest-sensitive whole life products. Team 3 might be variable and term, for instance. This sounds like something that can only be done in large companies. Aetna is very large, but the life SBU is not all that large. The team might, in fact, only be a few people, maybe even two.

PRODUCT CHAMPION

A product champion is in charge of each team. That's a term that has slightly different connotations to it than product manager. It really emphasizes the concept of being an advocate for the product and truly handling that product from conception all the way through product development, pricing, introduction, in-force management, and finally taking it off the shelf and replacing it with something new. So, you have accountability in the product champion. They literally own the product, and I think that is a very important concept. When you literally own something you take certain pride in it and really work hard on it. I don't know how many of you have experienced something where you had an idea, and you were championing it, and it was moving forward, and then you changed jobs, and the idea just died because you weren't there anymore. It really takes somebody to push these ideas through. So, there is accountability, ownership, and a lot of teamwork involved.

Obviously, you need a lot of matrix management in terms of strong ties to sales, market research (which is within the same department in our structure), and systems. Very strong teamwork is required, and if you don't empower the people involved to work in teams as opposed to going up and down the ladder, it's not going to work. Strong understanding of the market, the customers, the distribution channel, and the competitors is needed. It is probably better if this person is not an actuary. In fact, a lot of companies that have product champions choose somebody with a marketing background. You then have to deal with problems about pricing and the financial end and how you guarantee that the product champion is making sure that product has financial discipline attached to it. Having an actuary there helps, but is that person really going to be customer-focused and handle all of the matrix management that's needed? Is that person really a true manager or is he or she going to concentrate on pricing and neglect the rest? I think those are problems. Clearly you want somebody who can do all of the above, and that's hard to find.

The reengineering of our area was done in an interesting way. We created a task force, told them to go away and come back and tell us how to reorganize the whole department. They came back and told management how to reorganize, and, with the exception of one or two small things, it didn't need a whole lot of selling.

Chart 1 shows the schematic they showed us. Here's the way it is today. It looks like a spider's web but it is how we get products developed. It's a lot of back and forth but it's not all that bad in my mind.

CHART 1
Product Development Schematic

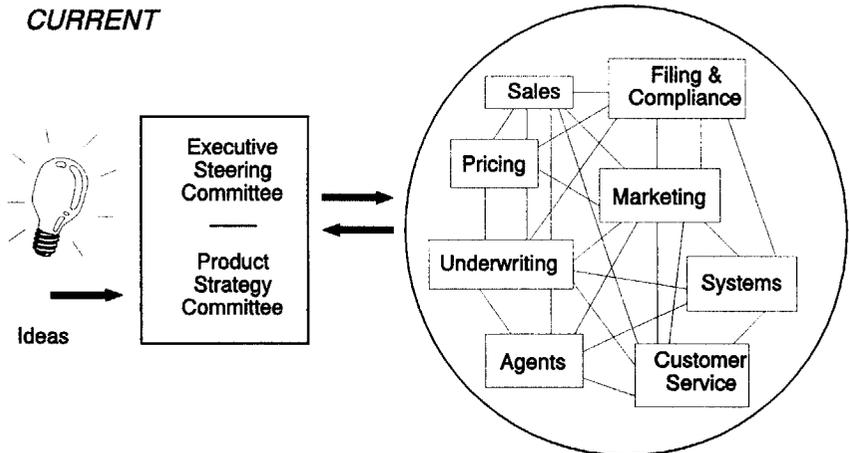
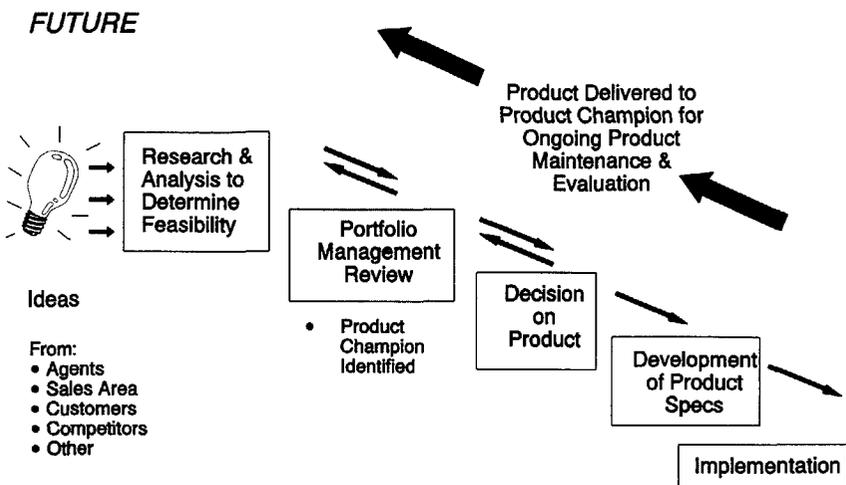


Chart 2 shows kind of an idealized way it's supposed to work going forward, more linear in terms of the product champion managing this process from conception all the way down through review, decision, development, and implementation. The idea is

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given back to the product champion, and that person continues to own and manage that product going forward, but that wasn't what sold me. I think what sold me was this idea of ownership, this idea of accountability, and the idea of being customer focused.

CHART 2
Product Champion Managing the Development Process



What are the disadvantages? Again, there are the issues of mentoring, consistency, and flexibility. One way we've solved that for now is to have, unfortunately, another level: an actuary who oversees the three product champions. That, in my opinion, does solve that problem, but I would say that long term it's probably not the best way to do it. You would want to have those product champions grow into the role and have other ways of making sure that things are consistent and flexible. You would have a separate pool of resources that can be allocated in one particular time, but, if you empower, you've got to truly empower. However, make sure that that doesn't mean that they can do whatever they want.

MR. SCHREIBER: How do you measure the quality of the job that that product champion is doing?

MR. LONGLEY-COOK: I think it's particularly difficult if you're thinking in an actuarial view in terms of just the financial end of this. Clearly you've got to put some emphasis on sales. The goal here is to develop, implement and manage products that sell well and stay on the books. On the other hand, that can't be the only goal. So, you do have to have a profit-center-type management where you're measuring not only the sales but profitability of the product and, most importantly, the ability of that person to develop and work in teams, and work across lines in this matrix type of management. It's a big job, and ideally you would have somebody who is in charge of a large product line who has a lot of experience and who you can trust to do a

really good job. I think as we get into this type of structure, particularly in smaller companies or smaller areas of companies, there's a certain amount of growing that needs to go on until we can get there. I think we need to be a little patient with that.

MR. SCHREIBER: Another question I have deals with handling the relationship among the different product champions. Each of those product champions owns their product, and they are then going to be competing for shelf space with your distribution force to get their products sold. How do you handle that relationship? Maybe one product champion thinks if I cut my profit margin a little bit, then I can make my product more attractive, and then I'll get more shelf space for my product.

MR. LONGLEY-COOK: I think it helps to have a variety of different distribution systems. For instance, at Aetna we have not only career, and independent property-casualty agents but also brokerage general agents, and we are entering some other areas. It helps to have a variety of distribution networks so that different products can fit different distribution networks, and then they're not all fighting for the same shelf space. I also think there is a role that management plays in terms of making sure this hangs together, and you don't end up with squabbling. You want the champions to be fired up. You want them competing in constructive ways, and I think that is one of the major responsibilities of management in that kind of environment.

MR. HELE: I've seen it work even if you have the traditional structure, but you tend to forget about who reports to who, and you simply form project teams to make it work. Again, it's difficult because you have to get people thinking out of their traditional line and block organization. So, going to the product champion works much better, but it's difficult to manage.

MS. ANNE M. KATCHER: At the Equitable we have had these product managers or product champions since about 1984. That structure, even though there have been a lot of changes around those people, has always stayed intact, and it seems to work very well. The product champions do not have financial accountability in the sense of being responsible for the bottom line earnings, but they're within an organization that does have that responsibility. Sometimes there is a niche product that you decide you want to come out with, and you want to get it to market very quickly. Often a separate project team will be put together with just four or five people who focus on implementing that product and getting it to market quickly to reach a certain market window. Then the product manager will get the product when it is implemented, but usually the product manager is involved in the whole process from the very beginning.

MS. TIA GOSS SAWHNEY: It seems to me that the SBU approach has a certain isolation associated with it. Every product is a fiefdom. The previous speaker said the best customer is the current customer. How do you as an organization treat the customer and the products the customer buys as a whole entity instead of each SBU treating them separately?

MR. LONGLEY-COOK: Every time you change, you get some improvements, and you lose something. I don't think there is any perfect organizational structure. I'm sure there will be a discussion at the Society of Actuaries' meeting in five years, and we'll all be up here talking about some new way of doing it. It'll have different

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advantages and different disadvantages, and the main people who will make money out of that I guess are the management consultants. But we struggle on, and I think we gradually learn. I think the individual SBUs really do bring focus, and in terms of where Aetna is today that's an advantage. Other companies may not need that or find that hurts them in terms of working for synergies. In individual life we basically market to fairly upscale estate planning or business preservation type of cases, whereas our annuities are sold basically in qualified markets to teachers or health care workers. Is there synergy there? No, not really. So, working in individually directed SBUs works very, very well. There are other situations where we might want that cooperation, and I think again it is the role of senior management to make sure that the SBUs do work together. Different approaches work for different companies at different times.

To offset the loss of communication, you must encourage the SBUs to talk to each other and work together. I think, again, it's a parallel with what management is doing with the product champions. The more we empower people, the more we give them in the areas of accountability and responsibility, the more management needs to play the role of coach, making sure that the players work together as a team. It's a different style of management. I think it's difficult for senior management who is used to a more autocratic role to adjust to this new role of trying to get these different areas working together.

MR. LAWRENCE SILKES: Do you still have only one systems department, where everything is subject to the priorities of that systems department or have you overcome that problem?

MR. LONGLEY-COOK: We do have individual systems departments within the SBUs. We also have a corporate systems area that works as a separate company. The trouble when you're dealing with corporate overhead or corporate structures is that they end up without accountability. The way we structured that is as if the corporate systems area were a consulting firm, and then the individual SBUs buy services from them. We then can buy services from the corporate area or from somebody else. I think that is the only way you bring that accountability. So, we do have some local expertise, but we also have the corporate area which you obviously need. You don't want every SBU building its own system when you can create synergies and build off work that has already been done somewhere else. So, you need the corporate structure, but if it's all up there, then again you don't have the local accountability.

PRODUCT LIFE CYCLE

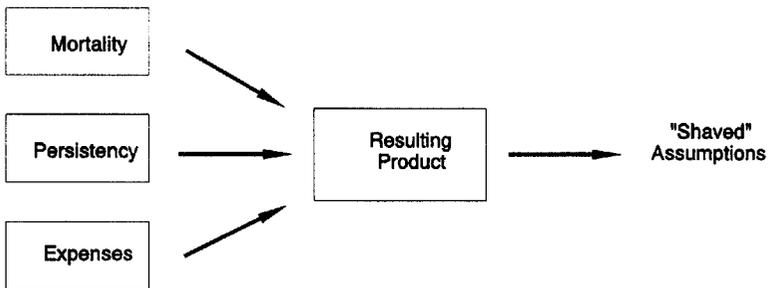
Sometimes I feel that the products we are asked to come out with are wanted quickly with disregard for quality. So, how do we do that? Well, let's look at the traditional approach, which I call the linear approach to product development.

You have a sign-off on the concept. Maybe three vice presidents sign off, and that takes about four months, and then you have pricing and product development. That may take another six months, and then you have filing, and then at some point you have final specs, the things that systems wants before they do any work.

There is an alternative. The overlap theory did not work in terms of justifying unisex pricing, but it does work in terms of a shorter product development time. You start pricing before the concept is dry or finished. You start the filing process before you finish all the pricing work. We have various stages of specs, and you come up with what you need to get systems started, and you revise it. Product development is a very dirty business. It's messy. There is a lot of running around. There is a lot of creative tension.

Let's talk about how we actually do the pricing. Chart 3 is our traditional method where we start with assumptions, we do some research, and we trend it and adjust it and come up with the resulting product. We then take that to the sales area, and they say they can't sell it, it's garbage. So, we go back and we shave the assumptions. Clearly that is creative, not positive tension. All of us have tried to avoid that type of approach. Some of you may use macro pricing or some other way of trying to get a picture on the total. The method we used is reverse engineering.

CHART 3
Traditional "Bottom-Up" Method



With the reverse engineering method, you start out with a product you need. You have to spend a lot of time on market research to find out what is out there. I don't mean demographic studies and those kinds of things which may be important. You have got to find out where the products are, where the distribution is, what is really needed, what is the cutting edge of where you're going? Then you back into what mortality, persistency, and expenses you need. That sounds exactly like what we are taught not to do, but you then take those assumptions and manage the business to them. For instance, in terms of mortality maybe you go to a preferred underwriting status, and you make sure that the underwriting department knows exactly what you need to achieve, and you hold them to it, even if the most important agent calls up and demands an exception. Persistency is a little more straightforward. Maybe you go with higher surrender charges. The one I really want to emphasize is expenses. We adopted an approach that I encourage everybody to do. Many of you do it now. You need to figure out what expenses you can afford, and you manage to those expenses. We have a discipline that is close to being bloodthirsty. You have to do it. It requires very difficult decisions, but otherwise you are not going to survive. Your competition is no longer the large mutual company down the street. It is a very lean

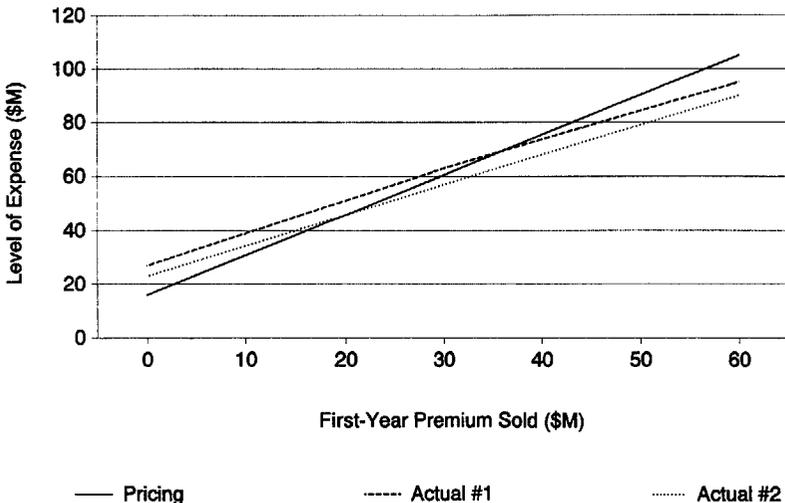
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and mean operation, be it a small stock company or another investment institution, and you don't know what it's going to be next month.

In order to manage the expenses, bring them into a software spreadsheet. You don't need a big system to analyze this. Then run your pricing versus your actual expenses under different scenarios. You can use it for strategic planning in terms of what new distributions you want to get into and how much those can sell. Or, use it on the micro basis in terms of literally managing a department, figuring out how much underwriting can spend this year based on sales.

There are a couple of things you can do. One is to reduce expenses, and things are okay as long as you can achieve that reduction of expenses. The other thing you can do obviously is to make your expenses more variable. A number of companies have moved towards more variable expenses particularly with regard to distribution, and one of the reasons for that is clear from Chart 4.

CHART 4
Pricing Versus Actual



The more variable those expenses are, the less you are caught in a bind if sales are not up to expectations. The negative to that is that if you sell twice as much, you are not going to achieve economies of scale. This is a more defensive type of management, I would say, than the more aggressive approach where you really do want fixed expenses, so if you sell two or three times as much, you get all kinds of economies of scale, and you can build that into the product and get more competitive, or pay the shareholders more. Our approach at the moment has been to move significantly towards more variable expenses in order to protect us on the downside because we do see a very competitive market.

MR. HELE: What I'm going to try to talk about here in project management, as opposed to the process, are the overall things that you really need to focus on when you are trying to get a product to market. My remarks presume that the product has been priced and handed off. Those final specs are done. What are the important aspects that you have to worry about to bring this product to market? Where are you going to spend all of your management time?

You will spend most of your time trying to manage systems people, in trying to get this product to market. It's always an endless loop; you have the product people speaking to the systems people, and you say can we have this feature? How much will it cost? And they keep saying, well, tell us the exact product specs, and we will tell you exactly how much it will cost. You keep going back to the product people and saying I want to do the cheapest thing. What is the fastest thing to do? Tell us exactly what you want. It's very difficult to handle. The systems people have a hard time adapting to being out of their linear process.

System is the single biggest cost to corporations. The systems people always have the same answer, though. Of course, we can do that. We only have two caveats: it takes time and money. I think that you've got to really spend a lot of time managing that part of the process.

The second most time consuming section is legal. Interestingly enough, this would have ranked way down on the scale a little while ago. Legal is now very complex at the state levels. It's not a very easy process, and to get to your large markets, New York, New Jersey, Pennsylvania, California, it's a very long, detailed process. So, I think you've got to think about what is being approved in those states, what you can get approved, and just how long will it take you to get it to market.

The third area that I rank is the training of your sales force. I talked a lot about distribution, letting them really understand the product. It's interesting to note some companies will spend a fortune on developing the product, on pricing it, and not let the guy who designed the product go out into the field because they can't afford the airfare to have him out in the field to talk about the product. Who is going to get the best feedback? The person who designed the product, the product champion. He should be doing road shows, nonstop.

I rank investments down the scale line and some people may disagree. There is not really a lot you can do in investments because when Merrill Lynch, our capital market side, is out selling your company a new "whizbang" investment, they are knocking on your neighbor's door at the same time. There is not a lot of differential advantage in investments unless you are willing to take more risk. If you're willing to take the risk, if you're willing to mismatch, there is a reason why you get 120 over Treasuries for some type of investment when an A grade corporate bond is getting you 80 basis points over Treasury. There is a reason for it. You're taking more risk. All the mutual fund managers end up pretty close to one another over the long haul, in insurance products you are investing over the long haul.

Moving down the scale is valuation. It used to be relatively straightforward but I think with the valuation actuary being implemented, cash-flow testing will be more frequent.

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The project management of getting your products to market is going to have an impact. Accounting is ranked way down because GAAP can always tend to show a profit if you just capitalize all these development costs. Statutory is becoming more interesting these days with guarantee funds and all of the impact of statutory accounting. Risk-based capital is having a much bigger impact, too. So, it's still something that you have to worry about when you're bringing out your product and making sure it's all set up and everybody knows about it.

We're going to talk a little bit about the investment strategy. From your whole investment world your company usually has a policy, an overall policy that is rarely changed, approved by the board, and that sort of sets your universe from which you can choose. From within there you can do your exact strategy. In dimensions of your strategy I rank quality, liquidity and price volatility. Quality. What margins are you putting in your products for default? What are your workout capabilities if you want to get into high-yield bonds? If you want to be in commercial mortgages, can you really manage them? And what about your image? Can you really afford to be in these types of lower-quality investments?

Liquidity. Public or private bonds? If you're selling GICs, you may have to be liquid when people come knocking on your door. Liquidity is the factor that is not talked about a lot but will become increasingly important.

Price volatility I group in durational mismatch and convexity. Do you want to be in equities, the call provisions of your assets, the refinancing, the mortgage-backed securities that you may be buying that are all going to be refinanced in the next two years. That is the price of your assets in terms of price volatility. You have to get together with your investment people, but I contend that there is not a huge differential over the long term when you look at all the asset managers and the resulting dividend scales. Short term, you can have a higher dividend scale this year than somebody else because they lowered first, but over the long haul you are going to end up pretty close to one another.

When you want to implement your project, when do you involve everybody? I say at the beginning. The most important thing is that everyone has to be involved in order for them to understand what the goal is. You have got to have a common goal. You have to build a team, and you have to get everybody involved. Even if they may get involved three or four months later, I think everybody has to understand when you want it by Wednesday, what that means to the corporation. Why is it important to have this out by next Wednesday? If they understand, people will start thinking differently to get the job done.

You have got to monitor. What gets monitored gets done. Weekly reporting is critical for a project that you are trying to get done in a few months. You have got to make it so clear when something is behind schedule. Big, black marks that come to the front of the report, not buried three pages back. You have got to bring it to the attention of senior management. Who does it? The product champion has got to be in charge. Somebody has got to drive the process and report on that process on a regular basis.

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This may be a little different, but I believe you have got to start at the end. I know this sounds crazy. When you explain this to systems people, they have a hard time with it. You have to work backwards. We put a man on the moon in 10 years because somebody set a goal that we had to be on it before the end of the decade. They worked backwards from 1969, from Apollo 11, and they had it all figured out when we had to do it. It didn't go as planned, but they still hit the end goal.

Deadlines are very important. To be first is a competitive advantage. Your pay scales have to reward hitting the deadline. If you don't, you won't get the right behavior. You do have to be flexible, and you have to anticipate change. Nothing will ever go as planned, but you can still hit your goals. My general axioms are that it will take you twice as long to do something as you think it's going to take you. It's going to cost you three times as much, and it will take your sales force 10 times as long as you think it should for them to get used to the product before they start selling it. See if those apply in your company.

MR. MICHAEL E. DUBOIS: This may be getting into Anne's next topic, but I'm wondering when you build into the process the ability to monitor how the product is doing afterwards?

MR. HELE: I think you have to know what you have to hit, the assumptions that you have to try to achieve and that each department is trying to achieve. The first step is knowing what those are and communicating them. Anne will speak about how you go about doing that later.

MR. SCHREIBER: Alastair, you talked about managing business to achieve assumptions. Specifically, with regard to mortality, how do you quantify the effect on your mortality? How will your mortality change by the changes you implement in your underwriting practices?

MR. LONGLEY-COOK: I think that is almost impossible. I think you can fool yourself in terms of what you can measure. We obviously are very aware of the fact that your changes in mortality are going to take many years to show up. By then you may be into a whole new set of underwriting guidelines, and so what are you measuring? Are you measuring what you are doing now? Are you measuring what you did maybe 10 years ago? Maybe even longer. All you can do is reach a good understanding with the underwriting department in terms of what tolerances they can handle. I think underwriting departments are very good; they do what they are told. I think we're all aware of situations where underwriting departments have been managed by people who say "Make it easy to do business with our company," and so they do. Or if you say stick to the rules, they will. If, however, the important agent calls the SBU head and says, "Hey, you have got to make this exception," and the SBU head calls the head of underwriting and says, "Make the exception," then forget it. All agreements are off. That doesn't mean to say the underwriting department can't be flexible, but it has to be controlled flexibility in terms of measuring and getting from the actuaries a feel for where they can give and where they can't within the profit margins. But no, I don't think that lends itself to a really detailed mortality rate type of analysis. It's more upfront understanding and then monitoring by management to make sure that exceptions aren't being made or the rules or the understanding isn't being tossed aside.

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MR. CARY O. LAKENBACH: In your product champion operation, is there ever an assessment of the ability of your distribution system to sell what they are asking you to develop?

MR. LONGLEY-COOK: I think that is another difficult area. I guess I always get a little frustrated when people talk about measuring performance. I think it's very important to do, but I think it's very difficult to do. In some areas you can do it very well, like expenses. I think it's very difficult in other areas. How much did they sell based on what you produced, and did it make a difference? Salespeople are notoriously visionary in terms of what they can do if you can only give them that special product, and so one has to be careful in terms of predictions (and I think one of the problems with a macro pricing type of approach is that it is based on the assumption that sales projections based on different product pricing levels are accurate). The trouble is that even if the sales department literally knew, they can't control the environment. They don't know what's going to happen three months from now or six months from now when your product comes out. Maybe the environment has changed, and that product is no longer what people want. We do an assessment. We do a lot of talking to our distribution people. We really go out of our way. For instance, we're just entering the brokerage market, and before we did that we spent a lot of time talking to brokerage general agents to find out exactly what they want. I think we're going to be reasonably successful in terms of meeting that desire. You have to do a lot of upfront communication before you plunge ahead, but to apply actuarial discipline to that process I think is very difficult.

MR. JOHN W. HADLEY: In working backwards from the ultimate deadline, there is a potential pitfall in that you can tend to set up an unrealistic schedule without necessarily recognizing that it is unrealistic. There is a potential to say, okay, we've gotten to the point where the product has to be fully defined, so cut off all discussion. You go to the next step and say, okay, we have to have the pricing done, so cut off discussion. You can get to a point where suddenly the rumbling gets loud enough that the problems are recognized, and you have to go back to the beginning because you didn't fully develop all the problems that there were in defining the product or in pricing it or whatever else. How do you avoid that trap?

MR. HELE: The trick is to add in enough fudge factor to anticipate the change. Better to promise June 1 and make it than to promise people January 1 because not only will your sales force say these people can't get anything done on it, but the project team feels like they have failed. Think about your timeline and let it be realistic. Maybe eliminate some other projects you may be working on in order to hit the deadlines.

MR. LONGLEY-COOK: Usually what happens is the first person – the marketing strategy person – misses his deadline by a week. No big deal. We've got six months to get this out. Then the pricing actuary misses his deadline by two weeks, etc., all the way down the line. In one respect you need to follow John's advice and pad the schedule. In addition, you need to manage that process because morale destruction occurs when these employees really feel put upon. So, you need to stay on top of it. I tell the filing people and the systems people I want to meet a deadline because I think everybody should work toward a deadline in terms of getting the product out. But if you get to a point where you're not going to make it, let us

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know, and let us know early, not late. We will reset it or change it or adapt, but I think in terms of managing the process, have pity on the people at the end of the assembly line.

MR. HELE: That is very much the point. Starting at the end, you work your way all the way back to the beginning, and you start to understand how important those early deadlines are. I think you would be amazed if you change your compensation schedules to reward people for meeting the deadlines. Why not have that pricing actuary work all weekend and take the next week off in order to meet his deadline? The deadline is important.

MR. LEROY PRUITT: In setting your fixed deadlines, how do you balance doing it right with doing it by the deadline?

MR. HELE: The best thing to do is let the people set the deadline as opposed to management dictating it. Take what they decide and put a fudge factor on it. If the people make their own deadlines, I think you will find it will be far more successful in the long term, even though it may be a later deadline than what the senior executive or the CEO wanted. It will be much more successful.

MR. PRUITT: I personally am in a situation where systems sets the deadlines, and our development time is sort of scrunched into what they leave. You can't do it right in that time. What would be your suggestion to handle that?

MR. LONGLEY-COOK: I think to a certain extent you need to do a little bit of awareness heightening in terms of what the real world demands. Systems departments are notoriously insular in some ways, and I think you need to say to them if you can't do it in that time frame, we'll find somebody who can. You would be amazed how many people are out there who can do it a lot faster. Now, that doesn't mean you tell them to do things they can't do, and you do have to rely on their judgment. Maybe by bringing in some outside help and adding to what they do you can improve things. They will be willing to work with that if they understand that is what needs to be done. I wouldn't let them set the deadlines. I think you need to get their input and the input of other people (the pricing actuaries and filing specialists) and then try and reach agreement. I think you need to prioritize what things are really important and what are not. When we introduced our latest universal life product in four months, it was not complete on day one. There was a rider that came out a month later which it would have been nice to have had on day one. On the other hand, if there is something that we know is just not right, we stop and reassess. Is it a big problem or a little problem, and to what extent can it be fixed later, or do we really have to fix it now? I think the most important thing that needs to be done in managing this process is figuring out the priorities. What is a big problem and what is not? You clearly do not want to get a lot of junk out there that is not going to perform right. That is just an embarrassment. You might as well not do it at all, but if you can get the product and a rider comes later or an enhancement comes later, sometimes that is doable.

MS. KATCHER: You've got your product designed, priced, and implemented. Sales have begun. Now you've got to monitor the progress and explain the financial results to management, not wait until five years down the road. This is where in-force

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product management takes over. You may have a separate area that handles this function or, for many small companies, you may do it all.

In our area we have one person – I am responsible for traditional products, the product champion, product development, and the in-force management. I have to be able to look at all these different aspects and make sure that they're integrated. You ask, now what? Many of the things that I'll go through may seem like common sense, but under the pressure of deadlines and trying to get answers to management we often forget to focus on basics and start to look for elaborate solutions or keep our heads buried in minute details. There are many things you need to look at, and the emphasis will vary depending on the product. For example, the investment return or investment spread is critical for an annuity product but has much less importance for a YRT product. It is important for the in-force product manager to work with the product development actuary so that they understand the sources of profit in a product, what the key elements that need to be monitored are, how to get the information, and when to do it.

Expenses are always important no matter what the product. You must know your assumptions and you must know any of the reductions in current expenses assumed in pricing. If marginal assumptions are used, you must make sure that you don't allocate overhead to that product in your financial analysis. Expenses should be examined as part of the quarterly financial analysis and in more detail annually as part of the budgeting and planning process. There is a study done by the Life Office Management Association (LOMA) that I have found extremely useful in analyzing expenses on different bases and for different components.

Investment results are another key item. Monthly review of cash flow, asset purchases and sales, turnover, new money and reinvestment yields should be analyzed. Constant communication with the investment area and the portfolio manager for your product is very important. They need to know on the liability side what is happening with sales and persistency, especially if a large case is expected. You need to have them start looking for suitable assets for that purchase. You also need to know if assets are available which will meet the strategy which was set for the product. If not, you need to work with the portfolio manager and decide on which alternative strategy you might want to follow. For example, if sales are going gangbusters, and you've set a strategy of a certain duration of bonds, and they're not available, you need to decide whether you want to change your duration, whether you want to purchase mortgages, lower quality bonds, or just leave it in cash. Certainly any of these decisions will affect the yield, duration and the quality of your portfolio.

The distribution of business. If all the cells are priced to achieve the same return, then looking at this data may be of more help just from a pure marketing standpoint. Usually, however, the profits are skewed by age or other demographics, and they need to be monitored. You also want to keep track of both the number and the average sizes of policies, especially if you're trying to grow out of an expense problem. You must also pay careful attention to sales by product, especially if one product is priced on a marginal basis, and it turns out that that product is comprising 80% of your sales, and you had planned for it to comprise 10% of your sales. Look at monthly sales reports produced by the financial and marketing areas. Another good source of information is the valuation area. They often get quarterly database

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extracts from the administrative systems to calculate their reserves, and there's a lot of good information in there for in-force management actuaries and product development actuaries.

The next item is persistency. Persistency is usually important in achieving target returns and keeping down unit expenses. Information is usually available from several sources. If your company contributes to annual surveys such as the Life Insurance Marketing and Research Association (LIMRA), you can access those data and get up-to-date information on your own products to compare to pricing, and you can also look at your peers' results to see if you're reasonable. Agency departments usually keep persistency statistics by agent to develop eligibility for various types of compensation bonuses. Look at quarterly financial results to monitor general trends and alert management to problem areas. Then work on getting your persistency rates on an annual basis that you can use for future planning. Also, keep particular watch on blocks of business that may become vulnerable due to wearing off of surrender charges. Certainly small companies should also be concerned about persistency since it can affect your reinsurance rates and relationships with those companies.

Mortality and morbidity. These are similar to persistency in the sources of information that are available and the timing of studies. They're usually done annually, and you can look at the intercompany studies, but often the data is stale by the time that you see it. It's more important to monitor trends in your financial results and also to communicate with your underwriting areas, your medical directors, and your claims people. They usually can give you some idea about early warning signs that won't become apparent for quite a while in the financial results, and if you reinsure a large portion of your business, the reinsurer usually has very good data systems that are set up for monitoring the business. You also must be aware of any special offers such as guaranteed issue which have been made, and you must know how these have been tagged for future analysis.

In setting credited rates and dividend scales for life and annuity products there's an ideal of how the process should go, and then there's the reality that what we have to work with is often far from the ideal. Since investment gain is often one of the most important elements of profit, and product competition has resulted in a greater focus on investment yields, it has become imperative for the pricing actuary and the investment manager to make sure that they are on the same wavelength. The investment manager needs to have a good working knowledge of insurance products, and the pricing actuary needs to have some knowledge of the characteristics of the different investment options, and with all the changes both in the product arena and types of investments available, I think that's getting to be more and more difficult these days.

The ideal process would provide for:

1. constant communication with the investment area,
2. detailed quarterly asset reports by segment and investment year groups (if you're on an investment year method),
3. quarterly forecasts of cash flows by product and segment that reflect current trends and are updated for emerging results,

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4. competitor credited rates equal to five-year Treasuries plus a reasonable spread, and
5. a crystal ball to project future trends, interest rates and policyholder behavior.

I think the first three are achievable and I hope the fourth item will be, too.

At the Equitable we have a process in place that has evolved over the past three to five years as interest-sensitive products have become more important and a larger portion of our portfolio. The portfolio manager and the actuary discuss investment results on a monthly basis for life products and even more often, possibly even weekly, for the annuity products. They look at new money yields as well as updates for turnovers, purchases, and sales. They look at each investment category and discuss gross yields, investment fees, default assumptions and net effective rates. For in-force assets they also get information on both realized and unrealized capital gains. In addition, we look at the mix of assets and see how it compares to our target strategy with respect to duration, quality, liquidity, and convexity, and we use this information to set the rates for the following month. Each quarter, we look at investment results by segment which includes actual performance compared to plan, as well as an updated forecast for the remainder of the year based on our year-to-date investment performance and changes in expected cash flows or investment strategy. Cash flows are updated every two weeks, and in the life area we review them on a monthly basis as we get actual data for the previous month. We also provide forecast updates on the liability side so that they can update the cash flows. The investment area will have a better idea of what is going to be available for asset purchase.

There also is a close watch kept on the cash position, and with a lot of the solvency concerns today I think this is something on which more investment portfolio managers are focusing. Too much cash will depress your yields, while too little cash may force you to sell assets at a loss. Finally, the actuary should discuss alternative crediting strategies with management, including the effect on surplus, cash flows, sales and earnings. The effect on GAAP and Statutory can be quite different, so if you're a stock company, you really need to look at both.

The process for dividend scales is longer and a lot more detailed. For our 1992 scale I have about a foot worth of files, and those are just memos that summarize all the analysis that was done in my area. For each pricing assumption, we look at the experience for each block of business for various risk classifications. For example, we look at mortality experience and update our dividend mortality table to reflect the emergence of AIDS claims on in-force business and the effect of new underwriting rules and what effect they might have on new sales mortality. This year we also did quite a bit of work on the DAC tax changes. We not only looked at the profitability impact but also spent quite a bit of time with the marketing area examining the effect of proposed changes on the vanish characteristics of the policy, since that has been used as a marketing technique. All this work is summarized in an actuary's report and also in the disclosure of dividend practices, Schedule M, attached to the annual statement.

Another issue that is facing many in-force product actuaries is the subject of vanishing premiums. Vanishing premiums were extremely popular (and still are) with universal

life and other interest-sensitive products when interest rates were high. The traditional products found a way to mimic this in product performance by using dividends applied to paid-up additions and sometimes adding additional paid-up additions riders to vanish the premium. Now, this may not seem to be as much of a concern with annuity products, but when high interest rates come down that reduces the retirement income that was illustrated on deferred annuities, and so the annuity people should have similar concerns. Today we have lower interest rates, higher expenses in the form of the DAC tax, and higher mortality due to AIDS. If we adjust policy performance to reflect all that experience, we no longer have policies that vanish after five, eight, or ten years. We've got policies that could stretch out as long as 15 or more years in terms of required premium. This result can have a negative impact on persistency as well as repeat sales. It also causes clients to question the company's credibility and image, but if we continue to use our at-issue assumptions, our profits disappear. So, what can we do?

First, we need to get a sense of how severe and how extensive the problem is. We must first compare old versus proposed values. We should look at the vanish year, and the effect on long-term cash values and projected retirement income. Second, we should compare the impact on earnings of any rate actions that are proposed versus possible policyholder behavior in the form of increased surrenders and loans. For example, if you have a large block of UL business where surrender charges are running off or annuity business where the bailout provision is going to come into effect, the earnings impact of increased surrenders may actually be higher than having a lower investment spread, and this is something you have to test, and you have to be able to present the results to management so that they can make an informed decision on what to do. Third, make sure that you look at what is happening on your new business side. Consistency in rate setting is important not only for both customers and salespeople, but also the company's integrity. Finally, don't wait until the last minute to get the marketing people involved. They may have some creative ideas to deal with the need to make changes while still preserving your business. And that leads us to taking corrective actions.

Your company has decided to lower the interest rate or the dividend scale and wants your help in preserving the business. Several alternatives should be considered:

1. Try to get more premium. Even though the premium vanish year may be increased, it may help to get additional premium in the contract now with a strong marketing effort, to lessen the longer term impact.
2. Consider allowing lower face amounts. Although this is not the most desirable alternative, it will allow the company to keep the policy on the books, especially at older ages where the level of insurance protection required may have decreased, but the unit profits are still quite favorable for the company.
3. Upgrade offers and replacements. It may be advantageous to provide a transfer to a more up-to-date policy which may provide for policyholder flexibility and the ability to keep that business on the books. Of course, a carefully thought-out cost benefit analysis should first be undertaken since the implementation costs may be prohibitive; you'll still have to administer those few policies that don't convert.
4. Allow many small policies to roll over into a single contract. You may be able to provide cost savings in the form of face amount banding or lower policy

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fees, and that will allow the customer to keep their values going on a contract, whereas if they had three or four small policies, the policies would run out.

And, despite the stellar performance of variable funds, in reality policyholders often allocate a large percentage of their premium to the fixed account. Market value adjusted fixed options and zero coupon bond funds as separate accounts are becoming more popular as a fixed account alternative and should be considered. You could add them to existing products, and if you've got the ability to move money slowly out of a fixed account, then that would be another alternative solution. Finally, the company should focus on programs that encourage persistency, such as longer term persistency measures for agents. We're in the process of implementing a 10-year persistency measure, and the first year commissions for new sales will vary depending on the agent's long-term persistency results. Another concept that companies have been trying to do, and it's very slow in coming about, is flatter commission scales.

Now let's move on to variance analysis. Monthly reports provide key parameters by product such as sales, renewal income, death benefits and other payouts, surrenders and loan activity. We compare against last year and plan the results, and we then determine causes for any extreme adverse deviations and explain them to management.

On a quarterly basis, we look at full GAAP and statutory reports by product. Some companies actually do monthly reporting. Our reports are presented in a gains-by-source basis which helps us in getting back to the profitability of different products. We look at, first of all, the investment spread, separating out the regular investment income from capital gains and losses and policy loan activity. Second, we look at the premium spread which usually includes premium less increase in reserves. We also then look at the insurance risk spread, which is separated by the death benefit spread or mortality spread, the morbidity spread for our disability products, and the surrender spread. And finally we look at expenses, including our overhead, and then we usually try to separate out any miscellaneous items that may include reserve adjustments or some miscellaneous expense charges.

Another source for variance analysis information is our product databases. These took a lot of time to put together but have really enabled us to do some quick analyses when we're trying to understand what is happening with a particular product or a particular market. These databases are linked to our administrative systems, updated at least monthly and then downloaded to PCs. We can access data on an on-line basis via a modem, and we can set up spreadsheets to analyze different pieces of business, whether it be for a particular agent, a particular state, a particular product or policy year. It's very helpful for flexible premium products and variable products, where we can analyze things such as partial withdrawals and fund allocations.

And the last thing I want to talk about is projecting future trends. These are some general items that should be considered when trying to determine future financial results and things that you can use to incorporate into your one-year, three-year or five-year plans. First of all, you should talk to the market research area. They often have current information that may help you gain some insights into what's happening

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in the market and things that you can expect to see down the road. You can just consider most of these items in a broad sense. You can't really put any probabilistic or dollar values on them, but sometimes they are helpful. It's good to look at agent surveys that may give you some idea of what products will be growing in the future. Certainly many of the demographic studies that were done predicted the growth of annuities that are taking place right now, and I'm not sure people took them into account in their five-year plans.

Talk to the people who are designing the new products. If they're working on particular products, find out more information on what the market window is for these products. Is it a long-term product? Is it a niche product? What's the sales potential of the product? Is it something that they think is really going to take off or is it something that is just going to be for a small group of agents? And what are the risk factors inherent in the product? Are they planning to offer products that are going to have guaranteed issue? That's something that you need to take into account in your mortality assumptions. And finally, other items that could impact the earnings are the capital needs for the particular products and the break-even year. If that's going to change substantially from the products that you now have, you can't use just a trend analysis to look at future years' earnings.