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**MID-SIZE AND LARGE GROUP
MEDICAL ISSUES (25+ LIVES)**

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Panelists: DAVID A. HARVEY*
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JOHN C. LLOYD
Recorder: THOMAS L. HANDLEY

- Managing the underwriting cycle -- are we more cautious this time?
 - Industry
 - Individuals
 - Demographics
- Are we effectively managing risk? Multioption situations?
- What are we doing to control costs?
- Financial arrangements offered to control or shift risk
 - Administrative Services Only (ASO)
 - Minimum premium
- Effect of Resource-Based Relative Value Schedule (RBRVS) on provider fees and plan costs

MR. THOMAS L. HANDLEY: I'm a principal with the Miller Group. I'll be the moderator and the recorder for this session. We decided to approach this differently. We want to try and discuss the topic from some different angles than what we traditionally do at some of these meetings. And, to get some different perspectives, we have two panelists from outside of the Society of Actuaries. It's always nice to hear people from outside the Society tell us how they tend to look at things. I know, as actuaries, we can get set in our ways. So hopefully this will give us something different.

So, without further ado, I'd like to introduce our first speaker, John Lloyd. He's a fellow of the Society and member of the Academy. John is Vice President and Pricing Actuary for the Associated Insurance Company. He's responsible for pricing and product development activities for life and health lines, and the Associated companies include traditional group health, individual A&H, Medicare supplement, payroll deductions, HMOs, and many other managed-care products. The annualized premium for all of these lines is in excess of \$2 billion. For those of you who are not familiar with the Associated Insurance companies, they started life as Blue Cross and Blue Shield of Indiana, but have since, through mergers and acquisitions, added quite a few other companies. They don't act at all like your typical Blue Cross and Blue Shield plan.

MR. JOHN C. LLOYD: Our focus, at least as we chose to accept it, was to discuss how we do a better job of managing our business during the downside of the

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underwriting cycle. This seems to presuppose that we don't have to manage the upside, but we'll ignore that implication.

If you are looking for a sign that we are beginning to go into a down cycle, you might look for parallels in certain natural phenomena. One of them is the appearance of this topic on the Society meeting agenda. Like migratory birds banding together in the fall, group actuaries periodically begin to gather and discuss the down cycle. Based on outcomes, others have also suggested the analogy of lemmings gathering together to induce each other to leap over a cliff.

This could be a mercifully short presentation by noting a method of managing the coming down cycle which is becoming fairly common. You find somebody who thinks your block of business is worth more than you do -- and you sell it to them. Based on the assumption that I like my job the way it is, however, we'll work from the standpoint that there are things I can do to retain business and manage profitability.

One approach is to examine the characteristics of past underwriting cycles. By noting contributing factors of those cycles, you can hopefully find elements that can be better managed in the next cycle. Much of what I am going to discuss is "motherhood and apple pie" to many of you. However, on the night before battle, primitives often gathered around the tribal bonfires to reinforce common cultural themes. It doesn't hurt actuaries to reiterate things we all ought to do during the down cycle.

One of the fundamental questions should be, why do we have up and down cycles? Economics tells us that any supply and demand market theoretically has cycles in it. Somebody makes a lot of money. Somebody else notices and develops more of the product. With more product, you eventually get price competition. With price competition, sooner or later less money is earned. Finally, the supply goes down in response to reduced profits. You now have a cycle.

The requirements of the economic theory are as follows: numerous buyers and sellers; a fairly homogeneous product that can be easily supplanted; minimal barriers to getting in and out of a market; and a competitive marketplace -- one in which information about prices is readily available. All these are present in group health insurance.

I like one model for this theory, actually a Samuelson theory related to hog prices, called the Dynamic Cobweb Theory. I like it because of the visual image. Most marketing people would like to categorize actuarial thought processes in terms of cobwebs. The theory says that today's price determines tomorrow's production. This characterization applies because we do have that kind of advance commitment in health insurance. By the time we allow for pricing analysis, delivery of rates, and rate guarantees, we are basing tomorrow's production on past profitability.

One of the things to drive home, however, is the cause-and-effect nature of the underwriting cycle. A cycle doesn't just happen to you; it is created by your actions. Some of my material comes from our own Board presentations -- presentations done specifically to illustrate that point. This is needed to prevent management "around the cycle" instead of management "of the cycle." We all get comments like, "You should

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be making more than your forecast for next year -- it's an up-cycle year." The bottom line is based on our actions, not on things that will happen whether we've taken action or not.

An insurance-specific version of the economic cycle is as follows:

- losses show up, but they are a delayed recognition because incurred claims liabilities take a while to develop;
- at some point, however, you know you've lost money -- actuaries rule now, and we raise rates;
- losses begin to slow -- the market contracts -- hopefully you've fixed the right risks and you are now in better shape;

however,

- health care costs, the things being priced, are also variable;
- while you're managing your prices, something changes and the underlying costs improve;
- actuaries still reign, rates remain conservative, money is being made -- all's right with the world;

however,

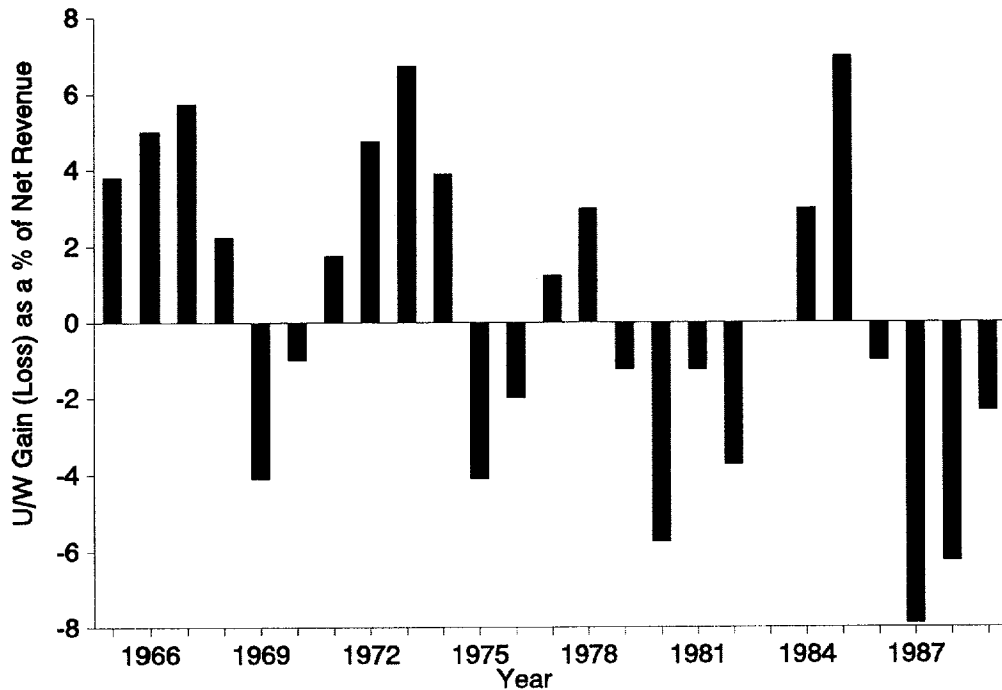
- with profits -- the market expands, and the marketing area comes back with "the actuary overreacted again";
- prices begin to drop in an effort to regain market share; profits begin to return to historical levels;
- at some point, however, you cross under the level of underlying costs . . .
- recognition is delayed . . .
- the cycle starts again.

Looking at our own block of business by referring to Chart 1, we can look for the "three up and three down" pattern for the six-year cycle. The discussion of cause and effect comes to bear here. In our own case, we've had "four up and two down" and, unfortunately, "two up and four down." These patterns are the result of causes, internal and external, which create the effects -- not an automatic six-year pattern.

In the 1960s and mid-1980s, we benefited from actions taken by Medicare. The government first absorbed some of the costs of the elderly, and later gave us diagnostic related groups (DRGs). The move to DRGs helped our own hospital utilization in the 1980s.

Following the favorable outcomes of these two periods, regulators became more conservative. It was hard to get rate increases approved in the 1970s on regulated blocks. You also had regulation of the overall economy. The federal government implemented wage and price controls for its Economic Stabilization program. We experienced a very favorable impact when it went into effect and a very bad down cycle when controls were removed.

AICI Underwriting Gains/Losses



1972

PANEL DISCUSSION
CHART 1

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The last two cycles we have experienced have been basic price-driven, push-pull economic cycles. These were worsened in the 1980s by our aggressive pricing of PPOs and the splitting of our risk pools with resulting adverse selection via our HMOs.

Attempting to isolate some of the factors I've just discussed, the first causal item is the setting of pricing trend. As I mentioned earlier, the underlying medical CPI is itself cyclical. Looking at Chart 2, if you compound the ups and downs of costs with utilization changes, you get some pretty dramatic changes in historical experience.

Pricing trends require a projection of these costs pretty far into the future. Because you are projecting something that is innately variable, you have inevitable errors in estimation. This is combined with the delay in discovery of the errors due to the nature of fully incurred claims cost, as discussed earlier. You therefore have a complex problem setting trends.

The second factor in setting pricing trend, however, has to do with the competitive forces at work. Even if we were perfect at guessing trends, there is market inertia working against using those trends. If no one else is moving to a higher trend, marketing will always challenge your pricing. This is compounded by companies with a market-share focus that allow losses in membership counts to determine their pricing trends.

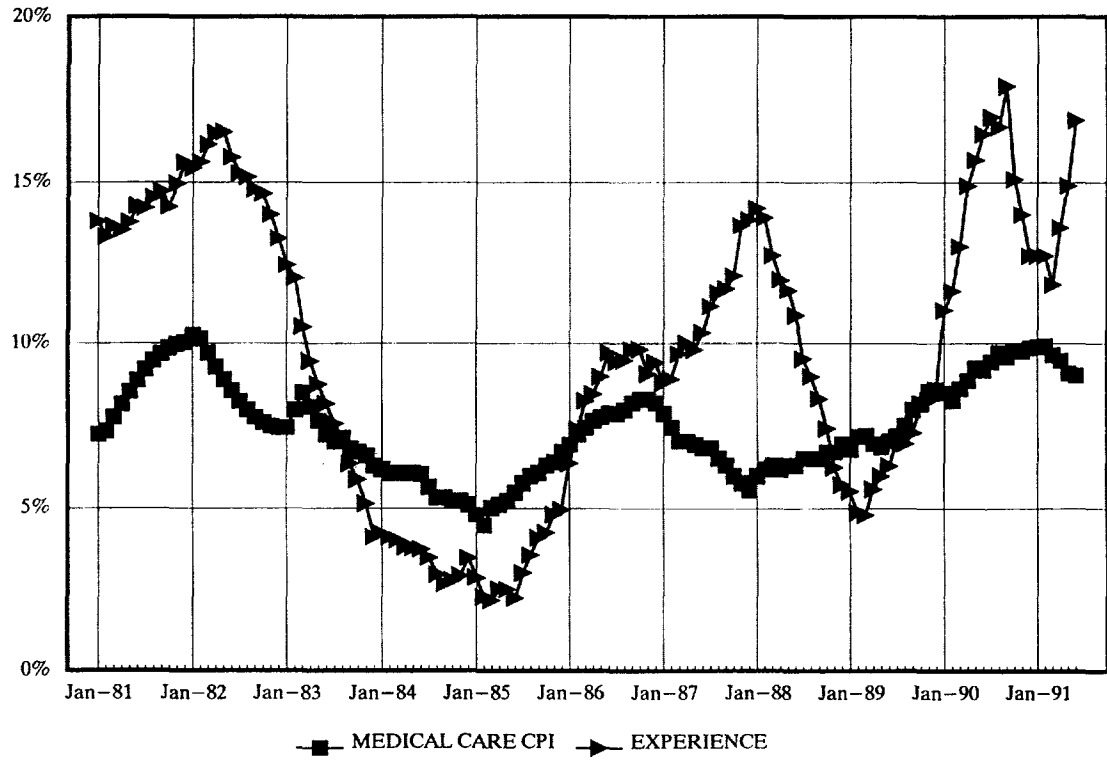
Lastly, we have isolated third-party influences. These include providers and their response to DRGs, fee schedules by the federal government, regulators through the rate review process and mandated benefits, and market response to the overall economy. These external factors may not be manageable, but their impact should be anticipated.

Given those factors that we can control, how do we improve our performance? One area in which a lot of people have come a long way is improving systems and data collection. We are not as reliant on standardized hard copy reports we used to get from our mainframes. It's now a PC-driven world in which we can do a lot more analysis if you know what your data look like.

A second area to improve management of pricing trend is the search for leading indicators. Most of the analysis of data is historical – you are looking over your shoulder in the traditional actuarial manner. I've always had an indicator of my own – the cyclical employment opportunities for group actuaries. I've never investigated it, however, because I was not sure whether it was cause or effect and was afraid to find out. Seriously, there are a number of trend models and econometric models available now. While not perfect, they can enhance your own analysis.

Third, you should never discount market intelligence. This can come from your competitors, your providers, or the government's actions. It is hard to factor this into your pricing. It's not analytical. Because it's not based on "real numbers" it's not real fun for actuaries. We therefore tend to discount it. It is also a root cause of the underwriting cycle if we let the competitive aspect of price setting override our own data and inclinations. Still, there is a great deal of information available if you can find a way to standardize it.

CPI VS EXPERIENCE TRENDS



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PANEL DISCUSSION
CHART 2

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Finally, you must state your pricing strategy up front. You must give others a response as to where you think you are in the underwriting cycle and why your rates reflect that position.

Besides the technical side of actuaries bettering their trend estimation and pricing, we need to manage the competitive forces in the marketplace. This can be done by better communications, aggressive risk management in product design, and general awareness of pricing strategy versus results.

Better communication is not limited to the traditional actuarial versus marketing conversation. Most of us have a Managed Care staff working in the provider community. These people need to be brought into the discussion of future trends. Additionally, many of us have governmental affairs units, or even some connection to units processing governmental claims. In general, we now have available a wider set of disciplines in our organizations that should be brought into the pricing discussion.

Insurers have also done a great deal in the way of risk management for some of our blocks of business.

Through design of benefit plans, we now have shifted some risk to the employees. Employers have picked up some risk through different financing arrangements. Using other carriers, you can carve out specialty coverages like transplants. Sometimes this also involves networks of specialty providers. Contracts that create risk sharing with the providers are now common.

A recent survey from Employee Benefit Plan Review indexed the premium per employee ratios for different plan designs. Using a basic health care plan as an index of 1, Comprehensive Major Medical plans came in at 1.7. Administrative Services Only contracts showed a ratio of 2.2. Managed care plans (I'm not sure of the categorization) were graded at 2.5. Finally, the highest ratio of 2.7 was given to minimum premium plans. Here we have a case of benefit content rising as risk is shifted to other entities.

You also need to articulate not only your pricing strategy, but where you think you now sit in the cycle. I borrowed a theory from Kevin Dolsky, which is probably apocryphal, called the "Boiled Frog" Theory.

It seems that if you throw a frog into a pot of boiling water he will immediately attempt to jump out. However, you can put a frog in a pot of cold water, gradually turn up the heat, and eventually boil the frog. Many of us sit here "frog-like," waiting for a magic moment to declare a change in the cycle, while things change around us. If you're not being regularly observant, watching your underwriting changes, and managing risk through contracting, you can get caught short.

Part of our job here was to provide an assessment of where the current market stands. In general, I think it can be categorized by conservative trends, a contracting (as opposed to expanding) market, the enhanced risk management I've already mentioned, and better systems usage.

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Right now, I think we're seeing fairly conservative trends compared with emerging experience. There has been some tail-off in the experienced trends, but no one seems inclined to recognize it in pricing trend. Part of this reflects anticipated price increases compared with current experience, but another part is related to general conservatism.

It's a contracting market in the sense that many people are bailing out. It's also harder to find competitive stop loss rates compared with the situation a few months ago. As I mentioned earlier, there are more risk-sharing agreements being reached among the insurer, employer, and provider.

As I also mentioned earlier, we have better systems for monitoring our experience. My own company can now produce a monthly financial report that tells us how we're doing by the end of the first following work week. Availability of PCs for scenario testing and "what-if" work makes this analysis even more valuable. This hardware is also valuable because it enhances your ability to put the analysis into terms other people can understand and act on. Finally, I was asked to list some factors we should anticipate for future developments. Some near-term events for which we are preparing include the following: (1) increased use of point-of-service products; (2) resource-based relative value schedules; (3) diminished profit potential relative to past cycles; and (4) the need for better client communication.

With multiple-option benefit plans, we now have a great tool for increased risk sharing. Since most plans involve some degree of managed care, the employee makes the choices between increased benefits and decreased access to managed care. Through these plans, we give employees a better indication of the real value of their program.

Another feature on the near-term horizon is the change to RBRVS reimbursement of physicians. I'm sure most of you have heard of this; it's Medicare's attempt to find another way of reimbursing physicians on a scheduled basis. This has different implications for us, however, than the last change of the Health Care Financing Administration (HCFA) -- DRGs for hospitals. In DRGs we had a change in both price and utilization in the sense that HCFA set a unit price for a fixed set of services. We all benefited as inpatient utilization was cut back in response to the DRGs.

RBRVS, however, deals only with price. Unless you have something in place to deal with your own utilization, you will get a typical cost shift. Providers will attempt to recoup lost revenue as one element of the payer community cuts its payment. It's likely you will see the reemergence of fee schedules as one response to this pressure. There will likely be a good deal of piggy-backing on the HCFA schedule both as a defensive measure but also in recognition of the fact that a big player like HCFA has gotten providers to accept scheduled reimbursement.

One noted pattern recently written about is the declining profitability of group health. If you note on Chart 3, we see a disturbing pattern. Summed over three-year periods, we have been making less money in the "up" cycle and losing more in the "down" years.

Underwriting Gains/Losses (3-yr. Summaries)

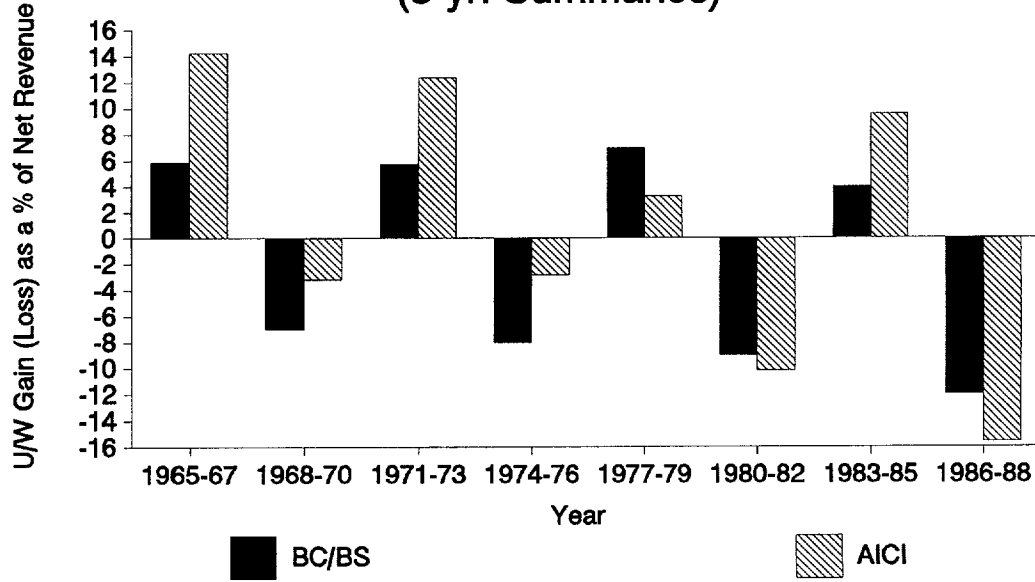


CHART 3

PANEL DISCUSSION

One of my recurrent themes here has been the shift of risk to other parties via our plan designs. With diminished risk, however, comes a reduction in the opportunity for reward. It is reasonable to expect less profitability in up years. Hopefully, we have traded that for less volatility in the loss years.

Regulation is also a problem impacting this profit potential. Those of you who have tried for an individual A&H rate increase have probably noted that your pricing is never in sync with the timing you'd like to see. Small group, a profitable line for most over the last few years, is under legislative scrutiny. Every state legislature will be considering regulation that will cut that profit potential. Additionally, standardization of Medicare supplement coverages is now underway and will likely diminish profits in that market.

The move from underwritten to ASO plans causes the profit potential to drop to an expense-based issue rather than risk assumption. Finally, our HMOs have been forced from community rating to individual account experience rating by larger employers. This cuts some of the historical profitability out of those plans as well.

Given that optimistic prospect, what do we do to respond? One thing is to better manage your down-side risks. Primarily, I would once again suggest better communications. Our firm has a strategic plan based, in part, on Alvin Toffler's theory of "power shift."

Basically, he views the traditional power tools of money and organization as "old power." This is giving way to "new power" in the form of information. One analogy used is the Soviet Union's collapse and the attempt at recapture of centralized control. Once there were Xerox and Fax machines, you couldn't put everything back in the box.

Our challenge is to communicate the information we possess to our clients. The technology to produce better communication is now readily available. Those of you who know me would not be surprised to hear that it was only last week that my secretary finally goaded me into finishing my talk. The tools are now there to reach into my PC in Indianapolis from our office in Dallas, convert the PC graphics into 35-millimeter slides, and send them overnight to my house the next day. With that kind of weaponry, you can spend your time on analysis, not the logistics of delivery.

We know more about health care delivery and costs than anyone else. Explaining the true price and the economic tradeoffs is essential. We need to stop acting as the intermediary that shields our client from these tough choices. Hopefully, you then develop an ally who helps give you the price you need, understands the tools to manage cost, and works as a partner.

MR. HANDLEY: Those comments about the underwriting cycle and trying to manage it and observe it have reinforced my feeling about my role as a health insurance actuary. I know when I started in the business 20 years ago, you looked at the prior experience and pretty much followed your mathematical formulas, trying to pick out what the trend was. But with the way the market has changed, with HMOs and PPOs being players, and with the multioption products in every group, our role has evolved from just being pure actuaries to being almost health or health-care

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economists. We have to know a lot more about our business than we did 10 years ago, or even, for certain, 20 years ago.

Our next speaker is Dave Harvey, a Senior Vice President with Alta Health Strategies. Dave's primary responsibility is with Marketing Management for Alta. He received his B.S. degree in Business Administration from the University of Missouri. Dave has also completed the Certified Employee Benefit Specialist (CEBS) designation. In addition, Dave is a Course One CEBS Program Instructor, and Chair of the Symposium Planning Committee, and Past President of the St. Louis Chapter of the International Society of Certified Employee Benefit Specialists. Dave will try to focus on some of the more group-specific issues.

MR. DAVID A. HARVEY: I wanted to cover, briefly, four quick items: multioption plans, cost controls that we're seeing, financing arrangements, and briefly, RBRVS.

Let me start out with the multioption arrangements. I think, perhaps, from a historical standpoint, it would be helpful to review how we got to where we are today. In the early days, everybody had a traditional indemnity plan, and then in 1973, Congress, in their infinite wisdom in the United States, felt compelled to pass the HMO act of 1973, which promulgated two basic models of HMOs: the individual practice association and the staff model. Those two tended to be at opposite ends of the spectrum, the traditional indemnity plan and the HMO at the other end of the spectrum. As time went on, PPOs tended to develop, and they developed from insurance carriers, from HMOs, or from providers; and like HMOs, they tend to have varying discount formulas that they will contract with their providers. Frequently, on a hospital side of the equation, you see discount formulas that are either predicated on a percentage of bill charges, a DRG reimbursement, or the one that we're seeing most commonly is a per-diem allocation. It simply provides a reimbursement to the provider on a per-day charge as a function of the services rendered by the provider. I would submit to you that what's going on is that the lines are becoming somewhat more clouded than they were a few years ago. A few years ago, it was pretty easy to distinguish between an HMO, a traditional indemnity plan, and a PPO, if you would, in the middle. In fact, what's happening is the PPOs are starting to look like HMOs, and the HMOs are starting to look like PPOs. HMOs are indeed coming out with point-of-service options, and PPOs have been successful in many markets in negotiating and marketing what are called Exclusive Provider Organization (EPO) subsets, basically, a smaller network, with deeper discounts, that looks, feels, touches, and smells just like an HMO.

As was previously alluded to, what are we seeing in this regard? Certainly, the old black box idea of the community-rate HMO is gone the way of the buggy whip. Today, consumers are increasingly requesting experience rating, utilization reporting, alternate financing mechanisms, so that again, the traditional HMO, as was envisioned when the Act was first passed approximately 18 years ago, no longer exists. Some examples of multioption arrangements out there in the marketplace today are really distinctive. Certainly, right up at the top of the list, that's gotten a tremendous amount of publicity, is that which Allied Signal negotiated with CIGNA, I believe, about two years ago. They call it their Health Care Connection, and their statistics are most impressive. It is basically an arrangement, in essence, that put CIGNA on

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risk for three years. And, in deference to the traditional method of determining your rate structure, providing a three-year guarantee for health care was an interesting undertaking. I think, in 1990, I was just reading before I got over here, they are running around \$2,450 per employee per year average claim cost. And I think that they had estimated that the average is somewhere around \$2,800-2,900. So, to date, anyhow, in the second year of the program, it's running incredibly well for Allied Signal. Again, however, it's an example where the risk is being borne by the carrier, and it's the carrier's responsibility to manage those costs effectively.

Xerox, on the other hand, simply uses an arrangement with multiple HMO throughout the United States, and does not contract directly with the HMOs, but rather contracts with an HMO manager. And it's the manager, in various areas of the country, who is responsible for selecting and determining the most appropriate and cost-efficient HMO. Likewise, certainly, is what Baxter Health Care has done, as far as the development of Primary Care Networks (PCNs). It is perhaps distinctive to their organization because of the demographics of where their participants are located, but a PCN, is sort of an offshoot of an HMO except it doesn't have the historical risk-transfer mechanism behind it. Suffice it to say that what we're seeing generally throughout the country is that the point-of-service options, from the HMO perspective and the PPOs that are offering EPO subsets, as I alluded to earlier, the lines between the two are becoming very clouded, and it's becoming very difficult to distinguish between the two as HMOs begin to do more in the way of alternate financing.

Let me just move forward quickly on item two, cost controls. As a general overview, what did we see? If, in the 1980s, the typical employer responded to the inflation rate in the health care delivery system by using a shotgun, if you'll allow me that analogy, of adopting deductibles, copayments, employee contributions, adopting utilization review, adding on HMOs and PPOs; I would submit to you that in the 1990s, the employers are operating on a much more rifled approach. In the 1990s, I think what we're seeing is a greater emphasis on data and data analysis. What we're doing is on a much more targeted basis. We don't want information, necessarily, on how did the plan do. But rather, how did the plan do against what should be expected. What sort of normative information exists out there that can tell me where I am seeing any aberrations in the plan that perhaps need tighter scrutiny? Quality of care indicators is an issue. If historically we simply went out and contracted with PPOs or an HMO, employers are becoming increasingly concerned about the credentialing process. And how did we go about determining the providers within those various networks? The infection rate, the morbidity rate, and a function of the number of procedures that are performed at a facility were reviewed. If a particular facility is performing heart transplant procedures, employers are increasingly becoming concerned, how many? What's your success rate? How long does the patient live after the procedure is performed? Targeted analysis, that can be done on a location or a procedure-specific basis, is the very specific rifled approach that we're seeing in the 1990s that was not the type of analysis that we historically noticed in the 1980s. As John alluded to, a lot of that is due to the advent of an explosion of PC-based programs, and it's made a tremendous impact on our ability to examine data and determine really specific information.

If, in the early days, utilization review was very confrontational in nature, I would submit to you now it's progressed to the point where it is utilization management.

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It's much more of a cooperative venture. We're no longer trying to beat up providers to get them from five days' to four days' length of stay. It's much more of a cooperative arrangement as far as determining the appropriateness and the quality of care for the patient. Large case management has become a significant element in a cost management strategy in that, typically, 20% of your claimants will cause 80% of your claim dollars. I think if anybody's seen any statistics lately, obviously, the impact of premature births and the technology that exists today to keep a very-low-birth-weight infant alive, at a significant expense, is a significant concern on the part of a number of employers. Therefore, the logic says, can we determine who the high-risk pregnancy cases might be and can we adopt costmanagement strategies to determine not only who they are, but to do what we can to help the mother carry the baby to term. Obviously, psychiatric and chemical dependency programs, Employee Assistance Programs, utilization data, and certainly outpatient utilization management are important. Somebody once said that containing costs in health care is sort of like squeezing a water balloon. You squeeze it at one end and it bulges out at the other. If, in the 1980s, we were very successful, I think, in ratcheting down inpatient costs and inpatient utilization, it's not surprising that it's bulged out at the other end, namely, the outpatient side of the equation. So, therefore, we need the ability to look at the appropriateness of outpatient procedures, particularly in the light of changing technology. We no longer have CAT scans anymore, we now have Magnetic Resonance Imaging, and I think the latest one is Positron Emission Testing, which is all very good, but it's also very expensive. Lastly, under the cost controls would certainly be wellness, which is becoming increasingly popular. Centers of excellence deal with contractual relationships that employers have with certain facilities to do very specialized high-risk procedures. For example, in St. Louis, Barnes Hospital happens to be one of the five or ten facilities that will be utilized by various organizations for heart transplants. They've got a documented success rate, they've had a documented number of procedures that they go through each year. So, you've got a significant track record that you're working off of.

However, if all of these are oriented toward the health and welfare side of the equation, where would you say the thing would be going in five or ten years? And sometimes, within my benefits counterparts, it comes as an item of concern, but I firmly believe that at some point in time we will definitely have 24-hour coverage, medical and worker's compensation integrated. I think traditionally we found that most employers have been, while frustrated, fairly confident that they're doing what they can do to control their health and welfare plan costs. If you ask them about their *worker's compensation exposure, and their blood pressure goes up, they become very flushed in the face, and it's a very disconcerting item.* There are too many, I would submit to you, logical overlaps between worker's compensation and group medical. Yet culturally, I think, within our industry and yours, we've always somehow separated those two items. And I think at some point in time, the marketplace will demand that we totally integrate those two functions as it relates to administration, provider networks, case management, utilization management, and certainly a logical successor, to combine the excess risk policies. Why don't we go out and purchase excess risk policy under your self-insured worker's compensation, and then go out and buy stop-loss insurance on your medical? It seems to me there's some natural economies of scale there.

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Quickly, let me shift to number three, the financing arrangements. I borrowed something from, I think, Tom Peters a few years ago, and that is TNSTFL. That's an acronym that we frequently see tossed around, there is no such thing as a free lunch. As John pointed out, too, the underwriting marketplace has gone through some significant changes, the up cycles aren't quite as up any more, and the down cycles are down further. And part of that is attributed to the fact that employers have increasingly gravitated to a traditional, noninsured arrangement, such as a minimum premium or an administrative-services-only arrangement, and hence margins, and obviously, some cash flow, has gone out of the carrier community. It's not surprising, therefore, that many employers have gravitated to some arrangement other than a traditionally insured. If a risk-management strategy says that what you're basically trying to do is manage the frequency and the severity of your expose, medical benefits happens to be one of those that generally has high frequency. You generally have fairly high claim volume, and traditionally, the average amount of claims is very small per employee. Depending on whose study you read, Wyatt, or TPF&C's, or A. Foster Higgins, employee benefit plan costs for medical, for example, are running somewhere between \$2,600-2,700 per employee per year, up to \$3,200-3,500.

The trend toward administrative service only in self-funded contracts has gone up pretty significantly over the years, and probably will continue to increase. There are a variety of reasons for that. The elimination of state-mandated benefits, the elimination of the premium tax, and certainly the ERISA preemption are very viable issues in that regard. I'd like to tell you that everybody has gravitated to an alternate financing mechanism simply because of cost, but I firmly believe that many employers have gravitated to an ASO or a self-funded arrangement largely to get away from state-mandated benefits. You've got 50 different sets of rules to operate under, and it's very frustrating. Last year, the U.S. Supreme Court heard the case of *Pilot Life vs. Dedeaux*. And in that case, they affirmed that ERISA does indeed preempt state regulation. In that regard, it's somewhat of concern that both Metzenbaum of Ohio and Burman of California have introduced legislation in the respective House and Senate to remove the state preemption issue of ERISA, and bring back all health and welfare plans under statemandated control. If indeed they are successful in this legislation, it could be unlimited job security for all of us. You have to look at it from that perspective. The more complicated we can make this, the better off we are as far as maintaining a livelihood.

Let me just lastly touch base, quickly, on RBRVS. In the event you're not familiar with this, how did we get into this condition in the first place? It's interesting that when we first started with group benefits, we didn't have such things as a usual, reasonable, and customary profile, we simply operated off of a flat-dollar schedule. You had an appendectomy, it's 50 bucks. That's the end of the discussion, we don't care whether you're in New York or St. Louis, Missouri. It's a flat dollar reimbursement. From that, in 1963, the California State Medical Society came out with the Relative Value System (RVS). And from that, we developed the usual, reasonable, and customary profile. And from that, Medicare developed their customary, prevailing, and reasonable schedule. They just changed the terms around a little bit. That particular formula for reimbursing physicians expires December 31, 1991. The HCFA contracted with Harvard to do a study on how Medicare could alter the consumption patterns of physicians through the pricing mechanism. And basically, Medicare was desirous of getting away from the historical customary, prevailing, and reasonable

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reimbursement formulas. Well, their study, the RBRVS, was released and contained in part of Omnibus Budget Reconciliation Act (OBRA) 1989. It's interesting to note that when they released this, in OBRA, they asked for commentary from the provider community. More than 70,000 providers provided comments on what they thought the efficacy of RBRVS would be, and what I have in quotes is a comment from a gentleman within the HCFA who said, "Publication of final-fee scheduling, November or early December." Now, I don't know about you, but I'm in the administration end of business, and if somebody tells me that January 1 I've got a schedule coming in, and you're not going to tell me what the numbers are until the end of November or the early part of December, that might perhaps slow up the implementation process a tad.

At any rate, RBRVS becomes effective January 1 and is phased in over the next four-year period of time. During that period of time, Medicare will pay the lesser of the physician's actual charges, or Medicare's fees. The net effect of this is kind of interesting. And you can obviously tell, Medicare is trying to increase consumption in one area and decrease it in another. Your primary care physicians, and hence, your primary care services, have not, within the medical community, been the glamor industry. Traditionally, in the health-care delivery system, we've increasingly encouraged specialization. In fact, what Medicare is doing is saying, we want to get away from that altogether. We want to encourage people to become the old family physician again. So, therefore, what we're doing is increasing the reimbursements for primary care physicians 15%. Not surprisingly, your specialty services are going down 10-30%. If you want to know how they compute this, unlike a usual, reasonable, and customary profile, or a customary, prevailing, and reasonable profile utilized by Medicare, what a RBRVS or RVS, does is it simply determines a number. And that number is multiplied by a national conversion factor to determine the physician's reimbursement. That's the way an RVS operates. The way you determine the RBRVS is take a look at, first of all, the total work involved as it relates to the amount and intensity of time in providing medical care. It's an important quality. The next element deals with the relative value of foregoing earnings associated with specialized training. That's the formula's way of recognizing the fact that board certification within a particular procedure will take anywhere from three to five years beyond the traditional academic training. The relative value of establishing and maintaining a medical practice is the third component that determines the relative value scale or the relative value factor. That times the conversion factor yields the reimbursement amount. It's a complete departure from, historically, what we might term the usual, reasonable, and customary profile.

Some of the obvious possible effects from this might be, certainly, cost shifting. In other words, as has been assessed frequently, as Medicare continues to ratchet down the reimbursement level to providers, the providers simply up their charges to the private payers. The other thing that can be dealt with largely from a technological standpoint, is the unbundling or upcoding of services. As the providers are perhaps ratcheted down in the reimbursement level, they simply change how they go about their billing procedures, and the net effect is perhaps zero. So, as somebody comes up with a system to beat their game, they come up with another system to beat us. So, it's an interesting challenge.

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MR. HANDLEY: It will be interesting to observe what happens when and/or if RBRVS does get implemented. I know, when I was with Blue Cross and Blue Shield of Kansas City, we implemented a fee schedule that operated very similar to what the RBRVS is. We paid the lesser of physician's charges or the fee level. We tried to be very careful and not tell physicians what that fee amount was, because we knew that if they learned what that was, that's probably what their charge would be. Unfortunately, we didn't have the systems at the time to truly try and monitor and track what actually happened. All we do know is that our costs still did continue to increase on the physician's side, anywhere from 10-20%.

Our next speaker, Jeannette Herrmann, has a very interesting background. She received her undergraduate degree in economics and political science from Yale University. She has a Master of Arts in Law and Diplomacy from the Fletcher School of Law and Diplomacy at Tufts University. She currently is a financial economist at the Chicago Board of Trade, the oldest and largest futures exchange in the world. Her product development work is focusing primarily on insurance futures. In addition, Jeannette is no stranger to the health care market. In the past, in the health care data arena, she worked as project manager at Interpretive Data Systems, where she brought together financial and medical information systems for hospitals. I have worked with some hospitals in the past, and that is no easy task at all. So, Jeannette is going to be telling us about a very new concept. Some of you may have read about it, but she's going to tell us about the health care futures product that the Chicago Board of Trade will be coming out with very shortly.

MS. JEANNETTE HERRMANN: It's an unusual degree, I will grant. Fletcher is a school of international affairs, and my research has to do with managing risk in international markets. That's what brings me to the Board of Trade, and that's what brings me here. I hope I can tie together some of the pieces that John and Dave have started with. In particular I hope I can help with John's reference to your search for leading indicators, for trend.

The Board of Trade is designing a financial instrument, a health insurance futures contract, that will help people in the health insurance market to manage the risk of changes in underwriting profitability that arise from unexpected volatility in trend. It's a new concept for the Board of Trade. We're doing three lines in insurance to start with, all fairly short-tailed, two are property/casualty -- one is auto physical damage and the other is homeowners. I'm going to focus on our instrument in the life/health line, which will be a group health contract. What I'm going to do is give you a brief overview of futures contracts, define the health insurance futures index that we're creating, and then work through a very simple example that'll show how you, as actuaries, might use the futures contract to manage underwriting risk.

A futures contract is a standardized agreement to buy or sell a commodity or financial instrument at some time in the future at a price agreed on today in an organized futures exchange. It is essentially a financial instrument that allows users to lock in a price. You're trading changes in price -- no principal ever changes hands. We usually settle with offsetting payments.

Let me give you an example that some of you may be more familiar with: corn. Board of Trade's history lies in agricultural contracts. (It's certainly not where our

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biggest markets are now, our biggest markets are in Treasury bonds, and some of your organizations may use those bond contracts to manage interest rate risk.) But if you think about corn, the corn that we trade at the Board of Trade is number two yellow corn. It's a benchmark. Not everybody grows that corn, or trades that corn, but people understand how their corn relates to that benchmark price. So what I'll be talking about is an instrument, an insurance futures contract, that'll give you a benchmark, your leading indicator.

Futures contracts serve two very important economic functions. The first is price discovery. The price that's reflected in the futures market, that's the result of an *open-outcry auction*, reflects the expectations of all participants in that market. I think of a futures market looking like a giant funnel, where all the information comes in the top, and out the bottom comes a price, which reflects the combination of everybody's expectations of what the benchmark or index in this case, will be worth in three months or six months.

The second is a risk transfer function, which speaks to what you've been talking about in terms of risk sharing. In corn, let me stick with that example for a minute, you find farmers and bakers who both want to lock in a price. They want to focus on their jobs, milling or growing corn. They want to lock in a price. On the other side are the investors, who are interested in speculating on the way corn prices will move. Those people are risk takers, and they're an important part of the market as well.

What I hear from insurance companies is that your health underwriting results are largely subject to trend risk. You were talking about the uncertainty and the volatility in trend. That's exactly what we hope to be able to help you with. Trend changes, or volatility, arise from changes in both prices and utilization, among other things. People tell me stories about 1987, when there was a big increase in utilization. Was it because there was an increase in malpractice awards, maybe an increase in the amount of defensive medicine getting practiced? Were there changes in Medicare reimbursement that caused some unbundling of services? People also pointed at 1980, and talked about the price increases then; some people blamed Reagan's elimination of Carter's voluntary effort program. Whatever these explanations might be, there are lots of things in the economy as a whole that cause changes in trend. These are the sources of risk that futures markets can help organizations manage.

Let me tell you about the index that we're creating. It's a benchmark. As I said, it's not designed to capture the entire market. It's meant to track one homogeneous section of the market very clearly. It's a claims index, standardized to premiums. It will track the underwriting profitability of group health policies, and provide a basis for cash settlement of the futures contract. As I said, no principal changes hands in our markets. It'll be an index, like the Dow Jones or Standard & Poor's. Futures traders express their expectations in the market about where that index will be at some time in the future. You'll use it to lock in a national trend level -- it'll be a national index. The index will be based on a pool of policies. I'll tell you how we're going to create that pool, and how we're going to track the policies in the pool, by telling you about the mechanics of this index.

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First of all, we're talking now with insurance companies who will be giving us information on the policies that they write. No insurance risk changes hands here -- strictly data. The criteria for carriers contributing data represent the recommendations of Tillinghast, the actuarial consultants who helped us design this index. We ask that they've had at least five years' experience writing group health insurance; that they have a Best's rating of A minus or better, if they're not a Blue Cross/Blue Shield plan; that they wrote at least \$25 million in group health premiums in the year prior to the formation of the pool; and that they're not in rehabilitation, or liquidation, or for that matter, in anticipation of such a notice. Beyond these criteria, we've been very specific about the kinds of policies that we want to track.

Eligible policies must provide fully insured health indemnity benefits. They have to cover 25-500 group members, employed by a single employer. We will stratify this pool so that it will stress the smaller end of that market. We will track policies with a one-year policy term with a stable premium, which is why I can call this a claims index, standardized by premium. We want policies that take effect at the beginning of the pool formation month. We'll form pools in January and July. Finally, we want policies that provide rich but not unusual benefits, with a maximum deductible of \$500, and a maximum employee coinsurance of 20%. Tillinghast tells us that these policy criteria put us squarely in the midst of a fairly traditional indemnity business. It's a well-understood market where we can get started.

Coopers and Lybrand, the pool managers for this project, will collect data from carriers and select from among the policies on which information is submitted to form a pool that they, in their actuarial judgment, believe is representative of the national market. It will have a minimum of 10 carriers represented. No single insurer will represent more than 15% of the pool. The minimum pool size is \$100 million of annual premium, or 1,000 policies at inception, and it will be balanced with regard to group size, demographics, and cost area. Based on the information that they collect, Coopers and Lybrand will produce a profile that will give you the information you need to forecast claims for the pool. (Some people tease us: it's the Full Employment Act for actuaries.) We'll publish a profile that will have lots of information on group size, on demographics, on geographic representation as will some outline of the benefit plans that are represented, so that you'll be able to forecast claims. We won't disclose information that would compromise the confidentiality of an insurer, or obviously, of a policyholder. We'll tell you which companies are contributing data, and what percent each represents in the pool, but that'll be the extent of it.

On a monthly basis, we'll update this information. Carriers will tell us claims paid each month, premiums earned, number of employees covered, and dates of policy terminations. You'll be able to track, on a monthly basis, whether experience is as expected and whether there are any changes to the pool that you need to consider. We'll publish this monthly information as well. On a quarterly basis, we'll settle the futures contract. On a daily basis, this contract will trade in a pit at the Chicago Board of Trade. It's interesting; if you're in Chicago, it's a fun marketplace to come and watch. On a daily basis, traders get out there, and buyers and sellers yell out their orders, settle on prices -- agree to buy and sell from each other. Every night, the Board of Trade Clearing Corporation does what we call mark-to-market; they adjust the margin account that you've posted. In futures, margin is a performance bond. The margin that you've posted with your broker will be adjusted, credited, or debited,

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daily to reflect daily futures price changes. It's a fully liquid market; you always know where you stand, and at any time you can get in or get out of any position – assuming that there is, in fact, a liquid market, which is what we expect.

Let me define the index and the settlement price for you. I've told you about the policies that we're collecting, and the way that Coopers and Lybrand will form the pool. The index will reflect the aggregate experience in the pool, as added up by Coopers and Lybrand. The index value will be defined as \$100,000 times one minus the quotient of paid claims divided by premiums earned. This is before reinsurance offsets and after coordination of benefits. Sometimes I'll talk about this as tracking the complement of the loss ratio or tracking gross underwriting profitability. Let me tell you about a change we've just made. Those of you I've talked to before have heard something a little different in the past. We met with experts from the insurance industry in September. Their recommendation was that we run off claims a little longer. Paid claims will now reflect claims incurred during a quarter, and paid within three months following the end of the quarter. Essentially, the contract that settles in September will reflect claims incurred from April through June and paid from April to September – there's that three-months runoff on each quarter – and premiums earned during the quarter, from April through June. It'll look very much like an incurred loss ratio for the quarter. It'll be based, though, on the hard number of actual claims paid. We expect 90-95% completion at the end of three months.

Let me go on and describe how you, as actuaries or representatives of insurance companies, would use the contracts for hedging. What kind of risk transfer, of risk sharing, can you do in our market? Hedging is the practice of offsetting the price risks inherent in any cash market position by taking an equal but opposite position in the futures market. It's sometimes confusing. What's an equal but opposite position, and what's your cash market?

$$\text{Index Value} = \$100,000 \times \left(1 - \frac{\text{Paid Claims}}{\text{Premiums Earned}} \right)$$

The easiest way to explain it is to say that you have a liability in your loss reserves. You've, in some sense, "bought" some claims. The opposite position: you're going to sell futures contracts. This index will track that liability, as represented by a national pool.

Let me work through an example (Table 1). Let's assume that you're going to make an actuarial forecast about second-quarter results. Your company has written \$10 million in premium or expects to earn that during the quarter. You expect to incur \$8 million in claims. By the end of September, you expect to have paid 90% of your second-quarter incurred claims, which gives me, in September, what I'm going to call an expected paid loss ratio of 72%. The profile that we publish will allow you to make the same analysis for the pool. Let's assume that you expect a 70% loss ratio for that pool, let's say, roughly \$70 million in incurred claims on \$100 million in premium. For simplicity, I'm going to use that same 90% completion factor, and a paid loss ratio, then, that multiplies out to 63%.

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TABLE 1
Actuarial Forecasts
April-June

	Company	Pool
Incurring Claims	\$8,000,000	\$70,000,000
Premium Earned	\$10,000,000	\$100,000,000
Claims Paid as % of incurred by end September:	90%	90%
Paid Loss Ratio (September)	72%	63%

You're going to compare your book to the pool. The critical question you want to ask yourself: What correlation do I expect in changes in claims between my book and the pool? It's really changes that matter: 70-72, as compared to 80-82.

It doesn't even have to be one to one, but for this example, I'm going to use a one-to-one correlation, a perfect correlation, for simplicity. It's not critical. The math gets a little trickier, but it's not imperative.

Based on your analysis of the pool, you can forecast the index price. You forecast a 63% paid loss ratio for the pool. Your forecast for the index would be \$100,000 times the complement of that paid loss ratio, therefore \$37,000.

$$\begin{aligned} \text{Expected Index Value} &= \$100,000 \times (1 - \text{Paid Loss Ratio}) \\ &= \$100,000 \times (1 - 0.63) = \$37,000 \end{aligned}$$

Now, that doesn't necessarily mean that you could buy or sell the contract at that price in our pits. The actual price there reflects collective expectations. I've made the simplifying assumption, for this example, that everyone expects the same price. We can relax it, but I've kept it simple. So let's assume that everyone expects the same price, which means you could sell futures contracts in our market for \$37,000. Now, briefly, let me tell you that you would want to sell 111 futures contracts. The way I've calculated this is to divide the premium written in the pool by our contract size, \$100,000 in premium, and multiply the quotient by the percent of claims that you'd like to hedge, divided by the percent completion in claims payment that you find at the end of the futures contract period. Essentially, I'm hedging the tail on claims, after the three months' runoff.

$$\begin{aligned} \text{Number of Contracts to Sell} &= \\ &= \frac{\text{Premium Written}}{\text{Contract Size}} \times \frac{\text{Hedged claims}}{\% \text{ Complete}} \\ &= \frac{\$10,000,000}{\$100,000} \times \frac{1.00}{0.90} = 111 \end{aligned}$$

Now, if you could guarantee that your company would only have \$8 million in claims, you don't have a problem -- and you wouldn't need us. But in fact, you can't

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guarantee that. There are shocks, so what I'm going to do is apply a shock to my example. Let me suggest that RBRVS is implemented, and that the system has a dramatic impact on cost shifting and therefore on your claims. Let it happen at the beginning of the quarter that I'm analyzing and cause the company's loss ratio to go to 85%. You expected 80%; it's going to go to 85%. You're going to pay an extra \$500,000 in claims that are incurred during the second quarter. Again, for simplicity, I'm going to say the pool's also going to jump five percentage points, from 70-75% loss ratio. I'm going to stick with my 90% completion factor, and say that by the end of September, the paid loss ratio is 67.5%. Therefore the index value and settlement price at the end of September, reflecting the 67.5% paid loss ratio in the pool, will be \$32,500.

$$\begin{aligned} \text{Final Index Value} &= \$100,000 \times (1 - \text{Paid Loss Ratio}) \\ &= \$100,000 \times (1 - 0.675) = \$32,500 \end{aligned}$$

The actual value will be a result of Coopers and Lybrand's adding up actual policy experience across all the policies tracked in the pool. They'll add up claims paid, they'll add up premiums earned, they'll divide claims by premiums, and multiply the complement of the loss ratio by \$100,000.

Let me recap the example by evaluating this hedge. I've divided Table 2 into two sections, with the futures position on the top and the company's claims experience on the bottom. You've sold 111 contracts at a futures price of \$37,000 in March that reflected everyone's expectations at that time. When you settle your position at the end of September you essentially buy the futures contract at \$32,500. That's a change in the futures price of \$4,500 per contract, which, by the way, through our mark to market system has been paid to you, day by day, as the futures price moved over the period that you've held the position. I can then multiply that \$4,500 per contract gain times the number of contracts you've sold, to demonstrate that your futures position has a gain of \$499,500. On the cash side, it's quite straightforward to see what happened. You expected to pay \$8 million in claims, in fact, you ended up paying out \$8.5 million. You're \$500,000 worse off than you expected. You can see that in this example, your futures gain of roughly \$500,000 has offset your worse-than-anticipated claims experience.

TABLE 2
Evaluating the Hedge
Futures

Contracts Sold	Futures Price (March)	Final Settlement Price	Futures Change	Futures Gain/(Loss)
111	\$37,000	\$32,500	\$4,500	\$499,500

Second Quarter Claims

Expected Incurred Claims	Actual Incurred Claims	Claims Gain/(Loss)
\$8,000,000	\$8,500,000	(\$500,000)

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Let me review the simplifying assumptions that I've used here. I've assumed a one-to-one correlation of percentage point changes in the company's loss ratio and the pool's loss ratio, a one-to-one correlation of changes in claims. It's not a critical assumption but rather a simplifying one. I've also assumed shared expectations about both claims and timing of payments, and therefore, prices in the market. In fact, people come in with different expectations.

The people we expect to see in the market, the hedgers, will be insurance companies; reinsurers, providers, and self-insured employers. All of them are exposed to changes in trend. The key for hedgers is to analyze the correlation of changes, what you expect your position to do in comparison to the pool. On the speculative side, investors are interested in this contract because it gives them direct exposure to health trends and insurance company operating results. I hope that you will find that it gives you the leading indicator on trend that you want. I hope that you will find that it gives you the hedge, the risk-transfer mechanism, that you need.

MR. HANDLEY: Are there any questions out there for any of the members of the panel?

MR. JOHN P. BURKE: Someone within my company suggested that there isn't an underwriting cycle, but that our earnings cycle is related to the trend variation, the health care cost variation. And, in fact, your examples mentioned some of the shocks to the system that caused your underwriting cycle profit shifts. Has anybody, on the panel or elsewhere, done some analysis that shows, if you take out the health care trend variation, that there is an underlying underwriting cycle?

MR. LLOYD: I don't guess that we've specifically done that. I mean, it's kind of hard for us to isolate whether you missed your price because of an external factor versus your pricing assumptions that you made going in. So, other than to identify timing, the sequence of events, where you see certain things happen at certain times, and given the benefit of hindsight, they appear to be causative. We really haven't done anything other than that.

MR. HANDLEY: I have one question for you, Jeannette. I noticed the pool is set up only for indemnity plans. Did you give some consideration to including some of the managed-care, particularly HMOs. They are ideally designed, at least they'll have a stable premium, being community rated, etc.

MS. HERRMANN: We've thought about it, and people asked us frequently to do other segments of the market. We need to start with something that everyone understands, and something that's homogeneous. To mix indemnity and capitation plans in one index, I think, would make it really hard to analyze, at least that's what actuaries have told us. I think that our next contracts in health insurance will probably speak to something like either a capitation program or perhaps retiree medical benefits. We need to start somewhere, and this seems to be a homogeneous, well-understood place to start.

MR. MICHAEL R. GROSS: Couple questions on the futures contracts. I read that one of the reasons for a delay in implementing was that only one insurance company wanted to participate in submitting data. I'd like your input as to why that might be.

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Second question is, it seems to me that, for some of the smaller users of these contracts, area variations would be very important, and what kind of thought was there to perhaps having regional contracts as well as national?

MS. HERRMANN: The delay didn't surprise those of us on the inside much at all as this is a very complicated project. We've been working intensively with Coopers and Lybrand, and with carriers over the summer, to define this index precisely. In September, which is when that article hit the press saying that we were delaying our launch date, we met with industry experts in Chicago to review the work that Coopers and Lybrand had done over the summer. It's very hard to ask carriers to sign up to give you data until you actually can tell them what data you need, as I'm sure those of you I've talked to understand. So, the delay really has to do with getting the data defined clearly. We find now that carriers do have a final set of recommendations from Coopers and Lybrand, which we got as of about the first of October. We find that it's going along quite smoothly, quite well, in fact. It's a lot more straightforward, and we don't expect any problems after this.

With respect to your second question on regional indexes, we will be able to tell the market, as a whole, where the policies are located, by region. Or, in what kinds of cost areas, whether high- or low-cost areas, the bulk of our policies are distributed generally. When I think about doing, perhaps, four different indexes to reflect, perhaps, four regions, I need to wonder, is the experience, the trend experience, radically different in one region or another, or is there a predictable relationship between the changes in trend in one area and the changes in another. You find, in our other markets, that people do cross-hedges, for example, corn with wheat. Those move, in fact, quite closely. And I think it's much easier to talk about one clear national number, and you understand your relationship to it. I think that's why we're doing a national index. When we talk about more contracts, they'll be in other areas with different kinds of risk.

MR. ROBERT B. HARDIN: Can you give us some sense of what extra expenses a large employer would have to expect to entail in order to use some of these hedging devices you're talking about?

MS. HERRMANN: Sure. You'd need to, first of all, pay for those actuaries or economists to forecast the claims for the pool. I can't speak to that expense. But, in terms of our transaction costs, they are negotiated with your brokers. For institutions, I understand that those range from \$10 to maybe \$30, \$40, per contract, per what we call a round term, which is getting in and getting out of the market. So, what we observe in the Treasury contracts, in the other contracts, is that this turns out to be probably the most efficient way of managing risk in a market when there's a liquid futures market. It's a very cheap way to transfer risk. The actual transaction fee that you negotiate with your broker generally has a lot to do with the volume you do with that broker.

MR. GARY J. MCCOLLUM: I have a question for Dave. I'm very ignorant about the RBRVS system, but one item that surprised me is the national conversion factor. Does this mean that, for the same service, a physician in Boise, Idaho would be reimbursed the same amount as a physician in Los Angeles or New York City?

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MR. HARVEY: That's a good question, and in looking through the material that was contained in the Harvard study, that's reflected in the third element in the equation, the relative value of establishing and maintaining a medical practice. That's where the RBRVS takes into account the fact that, perhaps, office space is more expensive in Manhattan than it might be in Boise. It does not, obviously, fully reflect that. But it is a way of constructing the formula that does take into account some regional variations in expenses. Does that help?

MR. MCCOLLUM: I have a question for Jeannette, also. I'm having trouble following the whole concept, but as I understand it, this index really isn't measuring trend, it's measuring claims ratios over time, which might be related to trend. Is that correct so far? Is this – looking at changes in claims ratios?

MS. HERRMANN: The advantage of using policies that all take effect at the same time, that have an expected one-year rate stability, is that you fix the denominator of that index. So that over the course of the year, what you're really seeing are just changes in claims.

MR. MCCOLLUM: Well, I'm thinking to myself of some strange scenarios, I guess, where maybe one of the contributors to the index thinks they're about to enter a very competitive market, and as a result, intentionally underprices their products to raise the claims ratio. They then invest on margin on the index, let's see, going up, so that by selling a losing product, they're going to make a bunch of money.

MS. HERRMANN: I wish them luck. I must say, we do a fair number of these index contracts. We do, for example, a municipal bond index, where we poll brokers on prices. And, every so often, somebody thinks that they can corner it, and they tend to lose their shirts in the process. But let me say, we've got several safeguards here. One, no carrier will represent more than 15% of the pool, so that your chance to really have a big impact is pretty muted. The other thing that's going on here is that we'll tell you which carriers are in the pool. So, if you have an idea that a carrier's doing that, you can use that information to trade. When you analyze the pool, that's one of the pieces of information you'll have, is whose policies are they, in a gross sense. If you know that carrier ABC is 12% of the pool, and you know that carrier ABC is using predatory pricing practices, well, make your hedge accordingly. Estimate your index value accordingly. That's what's so wonderful about futures markets, is that they really do take all available information, and it pumps through that pit, and is reflected in the prices that people are willing to buy and sell at.