RECORD OF SOCIETY OF ACTUARIES
1993 VOL. 19 NO. 4B

HEALTH UNDERWRITING CYCLE

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Is there a cycle? If so, where are we in it? Analyze recent experience, forecast where the industry is heading over the next few years. What will a federal program do to the cycle?

MR. JOHN P. COOKSON: Most health actuaries have heard presentations or seen information about the health underwriting cycle. In recent years it has been studied by a number of organizations. Some say it is coincidence, others say it is dead. We will discuss the history of this phenomenon and many of the issues related to it.

BLUE CROSS/BLUE SHIELD EXPERIENCE

Charts 1 and 2 show the annual history and the cumulative three-year gain and loss histories of the Blue Cross/Blue Shield plans. In order to test the hypothesis of whether the history of underwriting gains and losses is representative of a regular mathematical cycle, we analyzed the reported Blue Cross/Blue Shield results for the past 30-plus years. To accomplish this we calculated the mean of each of the three separate up-cycle and three separate down-cycle years. We then calculated the standard deviation of the actual results around those means and then developed the 95% confidence levels, plotted them over time, and then plotted the actual results within those 95% confidence levels along with the mean (which is the center of the three wavy lines in Chart 3). The interesting results of this analysis are that it actually produces a very good model, at least from a historical perspective. Out of the 33 years of experience, only one year, 1963, is outside the plus or minus 95% confidence limits. On average, you would expect that about two points out of 33 would fall outside the range. If you look at how the points fit, obviously there are some fluctuations during the period, but in general they maintain a good fit within these sinusoidal patterns.

The analysis up to now has been based on the underwriting gain and loss. Chart 4 shows the same analysis for the net gain or loss which includes investment income. We see exactly the same pattern within the plus or minus 95% confidence levels. Every year but one is within the bands. Again, the exception is 1963. In both Charts 3 and 4 you'll note, in looking at the underwriting results in the last two up cycles – 1984-86 and 1990-92 – and even with investment income the last period (1990-92), gains have not returned to historical levels as a percentage of premium. Therefore, the last period was depressed, although still within the confidence levels, relative to the average net gains in prior up cycles.

The graphs almost look like the plot of some chemical reaction or other natural phenomenon producing a regularity of the cycles. However, if you really think about what the health insurance financial results represent, the result is a business.

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CHART 1
Underwriting Cycle
Blue Cross/Blue Shield Underwriting Gain

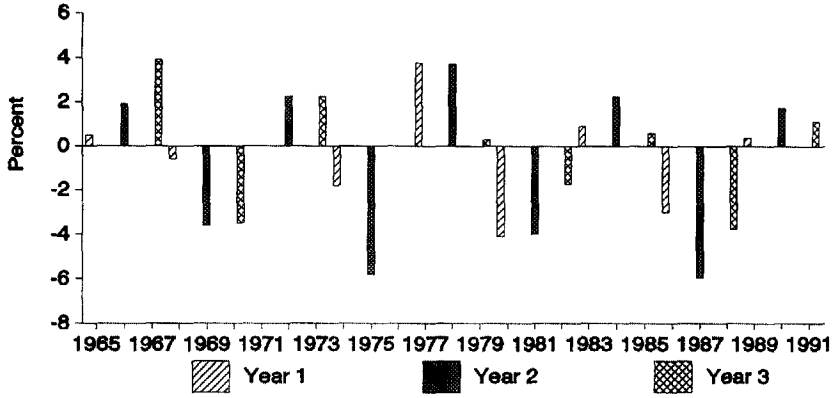


CHART 2
Underwriting Cycle
Blue Cross/Blue Shield Underwriting Gain

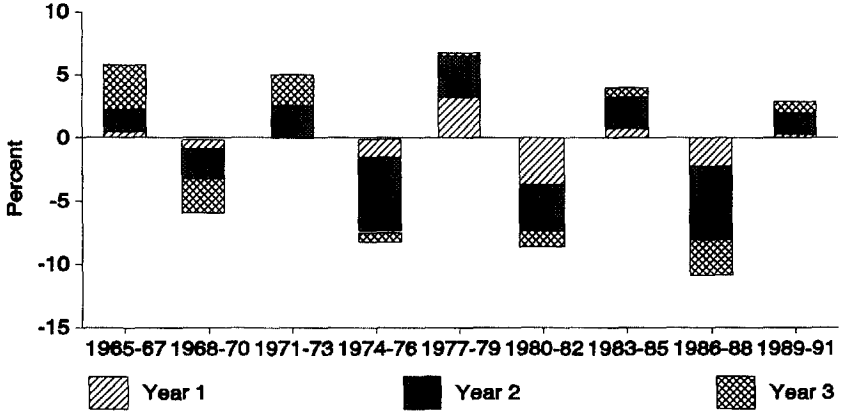


CHART 3
Blue Cross/Blue Shield Underwriting Gain/Loss and Confidence Limits Under Six-Year-Cycle Assumption

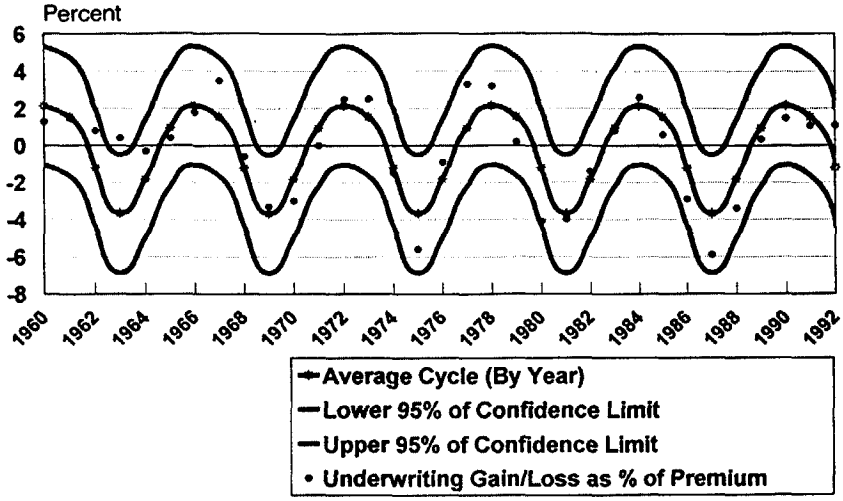
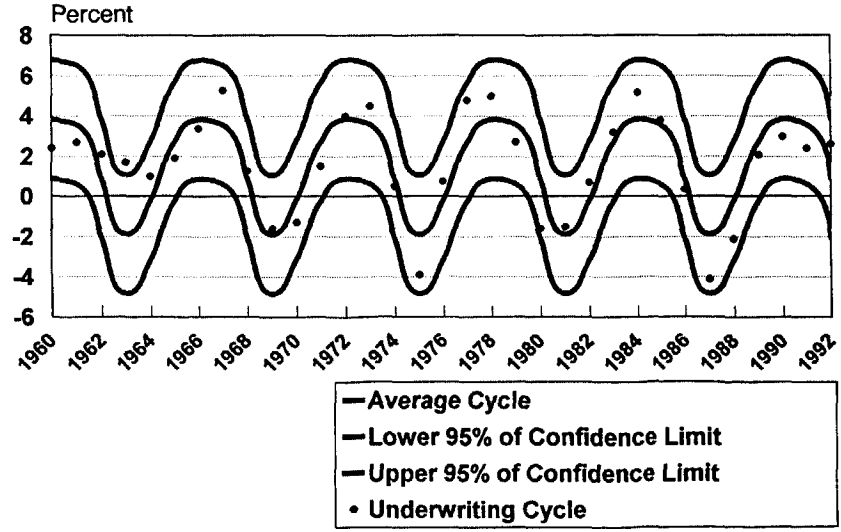


CHART 4
Blue Cross/Blue Shield Net Gain/Loss and Confidence Limits Under Six-Year-Cycle Assumption



We appear to have a regular business cycle. It represents a sector of the economy. It's one major sector of the gross domestic product, now approaching 14% in total. But it's not realistic to expect this kind of regularity because there's no law of nature, per se, that can produce these kinds of consistent business results.

Even though the Blue Cross segment is only a portion of the total health care sector, it does represent a business cycle for that portion. If you look at similar results or similar types of results from the commercial insurance sector, you'll see a very similar pattern in terms of ups and downs in underwriting gains or in loss ratios. I'll have an example later on that will show the loss ratios of the commercial industry versus the Blue Cross/Blue Shield underwriting gains and losses.

BUSINESS CYCLE

What is a business cycle? The following is a definition proposed by Arthur Burns and Leslie Mitchell in 1946 which expanded on earlier definitions going back even into the early 1900s. Basically, business cycles "are a type of fluctuation found in aggregate economic activity of nations that organize their work mainly in business enterprises: cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle." I think that certainly fits what we've seen in the health care underwriting cycle.

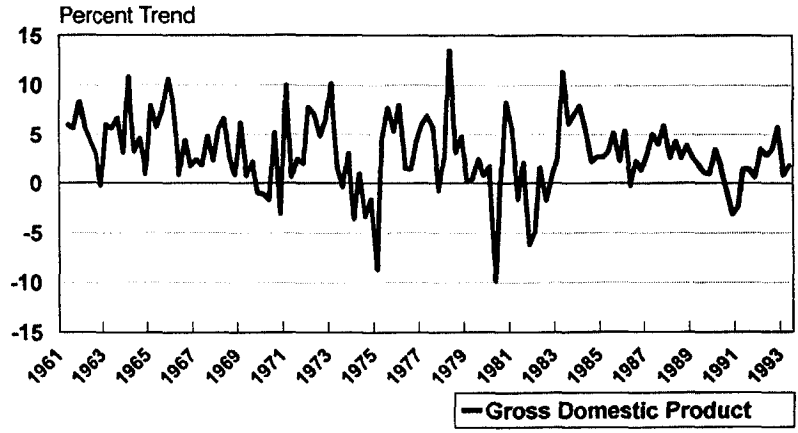
"This sequence of changes is recurrent, but not periodic." Now, that's somewhat different than what we've seen in the Blue Cross/Blue Shield underwriting cycle because it appears to be periodic or has appeared historically (up to 1992) to be periodic. I don't think we necessarily should expect that this periodicity should be continued into the future. "Duration, business cycles vary from more than one year to ten or twelve years;" so they are varying in duration in the general business cycles. "They are not divisible into shorter cycles of similar character with amplitudes approximately their own."

There's one other definition worth looking at -- the definition of a growth cycle, which is a fluctuation around the long run trend or trend-adjusted business cycle. We can look at some of the examples that I'll show in terms of the deviations around their long-term trend. Growth cycles occur sooner and more frequently than business cycles. A number of variables are monitored in general economic activity that represent business cycles or are represented as part of the overall business cycle. Corporate profits is an example, which is analogous to underwriting gains or net gains or losses. Other examples include stock prices and many different sectors -- the auto sector, the electronic sector, the real estate sector. Some of these examples have shorter durations and some have longer durations in their cycles. For example, the real estate sector has been known to have a longer cycle. Then some are even countercyclic to the normal cycle.

What we want to do for perspective is look at some of these other examples. Chart 5 shows the growth rate of the gross domestic product (GDP) from 1961 through the second quarter of 1993 on a quarterly basis and is compared to the year earlier. This is the real growth rate, net of inflation, compared to one year earlier. Obviously, you can see the many ups and downs. In this period, you will notice the recessions or the real downturns in the overall business cycle by the decline in the 1969-70

period that dips below zero (negative growth), the 1974-75 recession, the 1980 recession, which was very short, and then followed very quickly by the 1982 recession and, again, the recession in 1990 and early 1991.

CHART 5
Gross Domestic Product
Increase From Prior Year-By Quarter

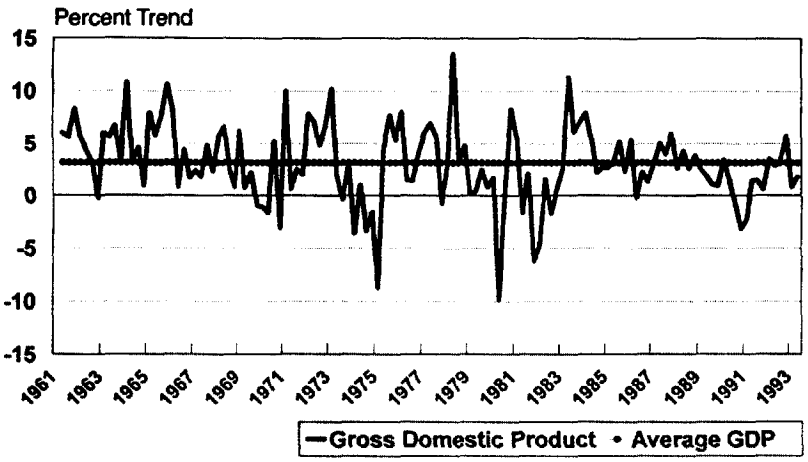


From a slightly different perspective, we can look at that growth cycle for the GDP (Chart 6) by also plotting the average growth during this period, which is represented by the center line. You see many more growth recessions or economic declines relative to the average growth rate during this period of time. Some of them are very short lived, others are a little longer and some eventually grow into an overall recession. An interesting fact is that many of these periods of decline, particularly in comparison to the average growth rate, will correspond to many of the underwriting downturns in the Blue Cross/Blue Shield financial results.

For example, the growth recession in 1962-63 corresponds to a gain-and-loss cycle in 1962-64. The 1969-70 GDP downturn corresponds to a down cycle in 1968- 70. There is a GDP decline in 1973-75 that corresponds to the 1974-76 down cycle. The 1980-82 period both correspond. There's also a slight dip in 1986 that corresponds to a 1986-88 down cycle. However, there's no down underwriting cycle that corresponds to the 1989-91 recession.

One variable that we are studying – and we are using this factor in trying to do some analysis of underlying trends – is personal income. We believe we may have found some relationships between personal income growth and underlying health care trends. We're trying to see what implications that might have in future forecasts and in terms of the underwriting cycle per se.

CHART 6
Gross Domestic Product
Relative to the Average GDP Increase



Personal income growth is shown in Chart 7 and it is somewhat smoother, obviously much more clear in terms of the declines, and a little easier to follow than the GDP. In comparison to its average, it does not provide a much different perspective than GDP. There are no additional growth cycle declines, in fact there's one in the late 1980s that does come down and touch the average growth rate, but does not go below the average growth rate.

One additional business cycle example is inflation as measured by the consumer price index (CPI) trend on a 12-month moving average basis (Chart 8). Again, we see several peaks, with much higher levels in the 1970s, followed by a significant downturn in the early 1980s, and a much more moderate inflation rate since that time.

Now let's return to the underwriting cycle and talk about some of the issues and theories involved. One issue that I haven't seen discussed or written about much is the implications of the underwriting cycle on risk-based capital (RBC). If you have regular periods of cumulative losses going through several years, and if that's likely to continue into the future, I think that should be one consideration in determining RBC requirements. Up to this point, I have not seen much done with that issue.

THEORIES OF UNDERWRITING CYCLE

There are a number of theories proposed about what causes the underwriting cycle. There has been some related research sponsored by the Health Insurance Association of America. The Blue Cross/Blue Shield system has also examined this issue and tried to educate their members about the underwriting cycle. They've studied all the plan

experience and tried to identify characteristics of different plans that have different impacts under the underwriting cycle.

CHART 7
Trend in Personal Income Less Transfer Payments
Relative to the Average

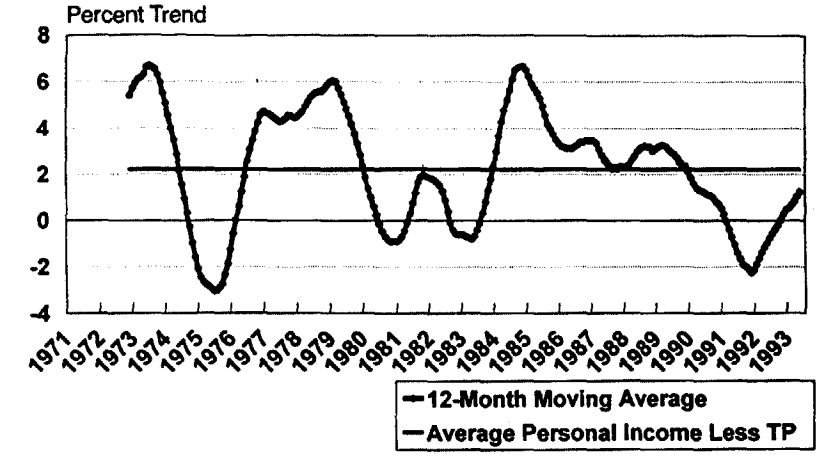
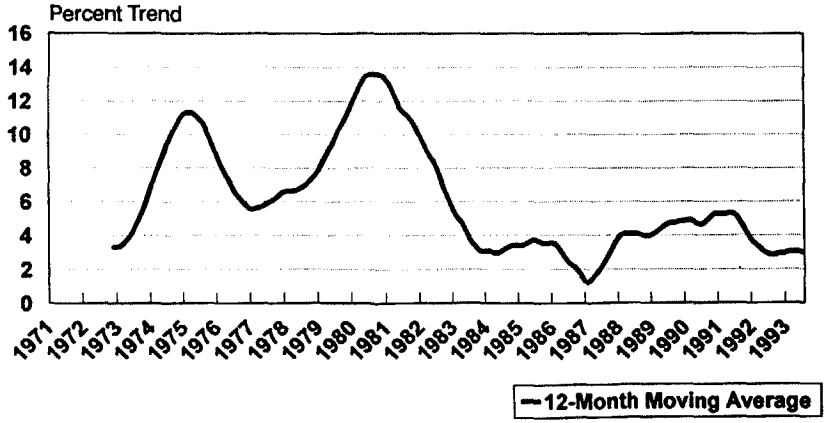


CHART 8
CPI Trends



One of the theories is that the underwriting gain-and-loss cycle is caused by changes in the supply of insurance; the demand is relatively inelastic, but the supply can change dramatically. In other words, in periods of high profits, more players come into the market; they are not necessarily new players, but companies may expand into the small group market or they may expand into the large group market. There's just more capacity made available which then bids the profits down as people compete for market share. Then as the results turn around, people withdraw from the market, creating tighter conditions and a different set of pricing circumstances.

The second proposed theory has to do with industry pricing practices and lags in recognizing changes in their underlying cost structure. There is some reason to believe that this has something to do with at least some of the cycles. This results from the lags in recognizing, and in implementing trend changes, and the fact that many rates are guaranteed for 12 months or more. Also, the Blues have a lot of regulatory requirements in some states that may affect how quickly they can react to changes in the environment.

A third theory relates to external factors. People believe external factors such as the oil shocks or other phenomenon may affect what happens in the underwriting cycle.

COMMERCIAL CARRIERS EXPERIENCE

It is not only the Blues that have been subject to this cycle. Chart 9 shows a graph from 1965-90 of the commercial insurance company loss ratios relative to the Blue Cross/Blue Shield underwriting gains and losses. The underwriting gains and losses are plotted on the left scale and the right scale represents the loss ratios for the commercial insurance industry. Obviously there's an inverse relationship, when the commercial loss ratios are high, the Blues are showing the underwriting losses. When the commercial loss ratios improve, the Blues are showing, in general, the underwriting gain portion of their cycle. So there's a close correspondence of the timing of the financial results as measured between these two sectors.

SPECIFIC CARRIER VARIATIONS

I'll also show several examples of specific Blue Cross/Blue Shield plans and how they may differ from the overall average. Even so, it's the overall average of all the Blue Cross plans combined that determine the cycle that we've examined up to this point. Each plan is different, although in general, they tend to follow similar patterns. In some cases they're more volatile than the average and in other cases they're less volatile. This first example in Chart 10 is a medium-sized Blue Cross/Blue Shield plan. Its experience has obviously been more volatile than average with larger losses during the loss periods offset by larger gains during the gain periods, which would be necessary in order to survive. Towards the end of the period the results have come back closer together.

The second Blue Cross/Blue Shield plan (Chart 11) is obviously somewhat more volatile and certainly had a much tougher time in the 1986-87 downturn than the overall Blue Cross/Blue Shield average. However, the patterns are still fairly similar in terms of the timing of the overall cycles. The third example (Chart 12) is a much smaller plan, very volatile, and subject to a lot more fluctuations than the overall average. It's really the combination of how all such plans are affected that results in the overall cycle that we've seen.

CHART 9
Blue Cross/Blue Shield Underwriting Gain/Loss versus
Commercial Loss Ratio

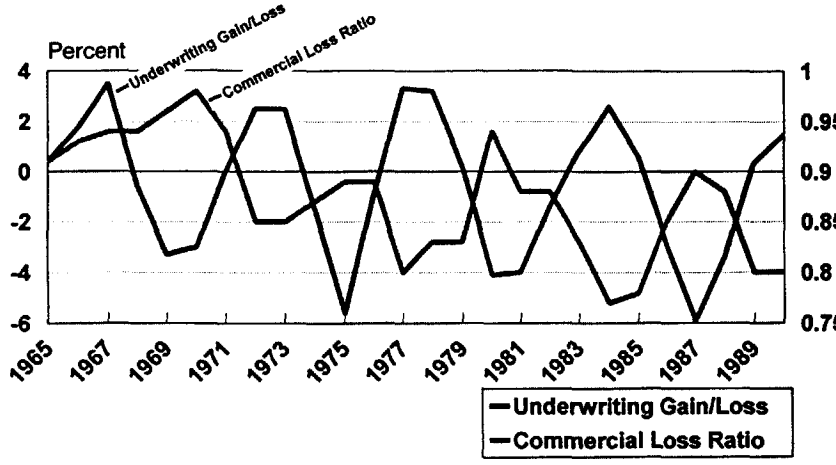


CHART 10
Health Insurance Underwriting Cycle
Underwriting Gain/Loss Comparison

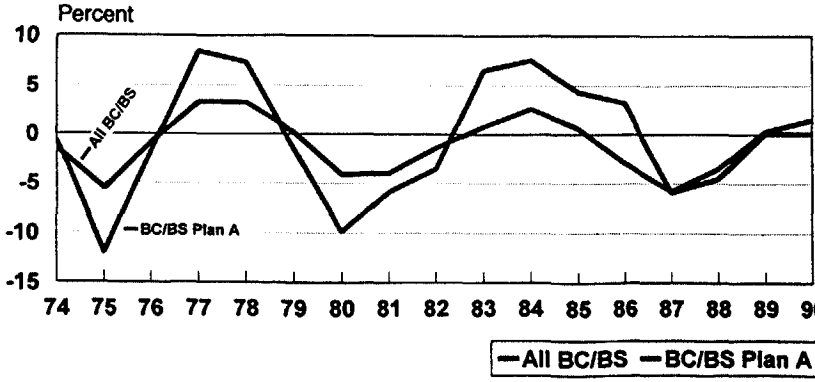


CHART 11
Health Insurance Underwriting Cycle
Underwriting Gain/Loss Comparison

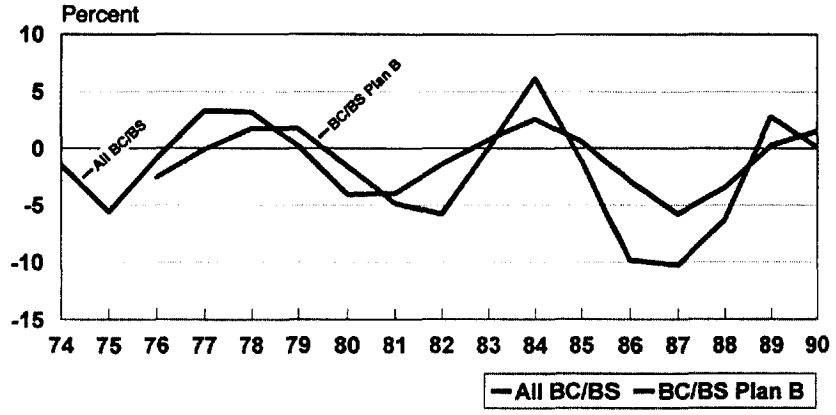
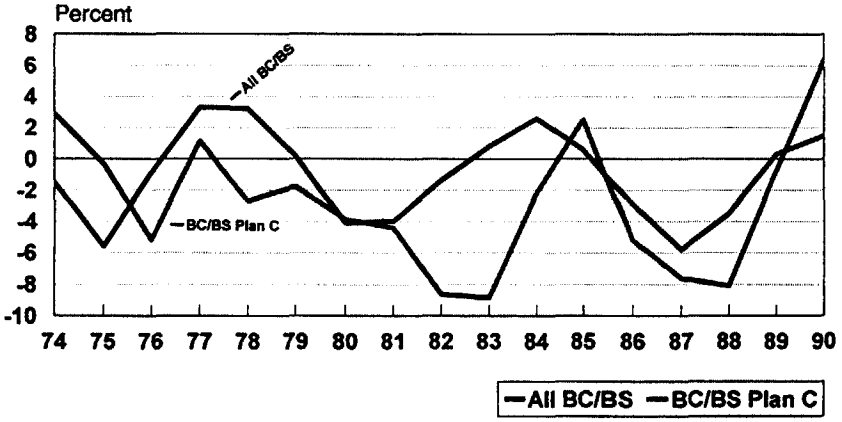


CHART 12
Health Insurance Underwriting Cycle
Underwriting Gain/Loss Comparison

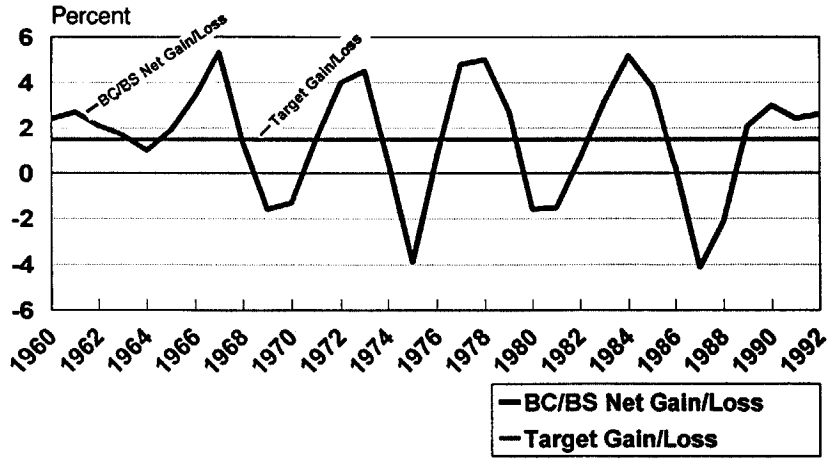


NET GAIN/LOSS AND OTHER ISSUES

Up to this point, we've examined mostly underwriting gains and losses. One thing we all recognize is that that's not the bottom line. The bottom line has investment income that needs to be considered. When we take into account the net gain or loss, which includes investment income, obviously the Blues in comparison to overall gains and losses have much fewer and smaller losses overall and much larger gains overall than represented purely by their underwriting gains and losses.

However, just looking at net gain or loss per se isn't enough to deduce what we should be expecting since there's a need for a net gain just to grow and maintain relative surplus levels. Chart 13 is the set of Blues net gains and losses versus a target gain or loss, which is based on a two-month surplus and a 10% annual growth rate. This requires an average gain of about 1.5% of revenue to maintain the two months of surplus. This looks similar to the underwriting gain-or-loss graph around zero, but shifted up to reflect the required gain or loss and the net investment income.

CHART 13
Blue Cross/Blue Shield Net Gain/Loss versus
Target Gain/Loss



One additional factor is that since the late 1980s, the Blues have been subject to federal income tax. In effect, and it's not shown here, those plans that have been successful and have been experiencing positive gains have been paying a portion of the gains over time in taxes after an allowed buildup of surplus by the federal government. To account for taxes, if for example the effective tax rate is 25%, this implies that the 1.5% target gain that I talked about to maintain the two-month surplus then requires a 2% net gain before income tax. Depending on the particular tax situation, the plans need a higher expected return since the imposition of federal income tax.

Next, I want to examine the process a little bit more deliberately. We're talking about underwriting gain and loss. It's a fairly simple process. It's represented by premiums minus claims and minus expenses. The net is the underwriting gain or loss. Obviously, I've hinted about the relationship between premiums and claims or premium trends and claim trends. They're obviously the two most important issues or the two most important factors in this equation.

Expenses in proportion, at least for the Blue Cross/Blue Shield plans, are relatively small, although they have not been insignificant in contributing to the underwriting cycle. This is particularly true in the late 1980s downturn, when many carriers and Blue Cross/Blue Shield plans were actively pursuing alternative delivery systems, HMO development, and PPO development. There was an expense explosion in the Blue Cross/Blue Shield system and that certainly did help contribute to the underwriting losses during that time period.

All other things being equal, the expense is probably the least important issue or the least important item in this equation. It's the relationship between premiums and claims that is most important in determining the underwriting results. Chart 14 shows an example of an historical comparison of some underlying health care trends under the health insurance trend model (HITM) which we have developed. It measures the underlying health care trends in the economy for the non-Medicare population. It does not include adverse selection and it actually reflects the revenues that providers are getting from the non-Medicare population on a per capita basis. We call it the underlying force of trend. I believe this example is adjusted to a $250 deductible.

The second line, the later line, is a representation of the Employment Cost Index for health insurance premiums that was published by data resources incorporated (DRI), several years ago. It came out of some work they were doing for the Bureau of Labor Statistics which publishes the Employment Cost Index monthly. The Employment Cost Index measures the cost of wage increases and benefit increases. They do not generally split out the health care component of that, but DRI was doing some work for the Bureau of Labor Statistics, and had gotten some of the subcomponents and published this chart.

In fact, it was DRIs intent to publish this regularly, but the Bureau of Labor Statistics told them they couldn't do it. This is the only example that has been published of this, and there hasn't been anything since that time. What you can see is a representation of what's happened to employer health costs during this period and the lag between what we're measuring as the underlying health care cost trends and the "premium" trends. Obviously, there's no perfect correlation between them, and benefit changes are going on and employee premiums are changing. There are a number of factors operating here, so it's not the absolute precise relationship that we're concerned about. We're looking at the timing issues and the relative magnitudes of the changes that I think are important in understanding this relationship.

If we shift this time frame on the health trends (Chart 15), obviously these trends appear to be a leading indicator of what's happened to employer costs.

CHART 14
Health Insurance Trend Model versus Employer Health Cost Trends (DRI)
12-Month Moving Trends

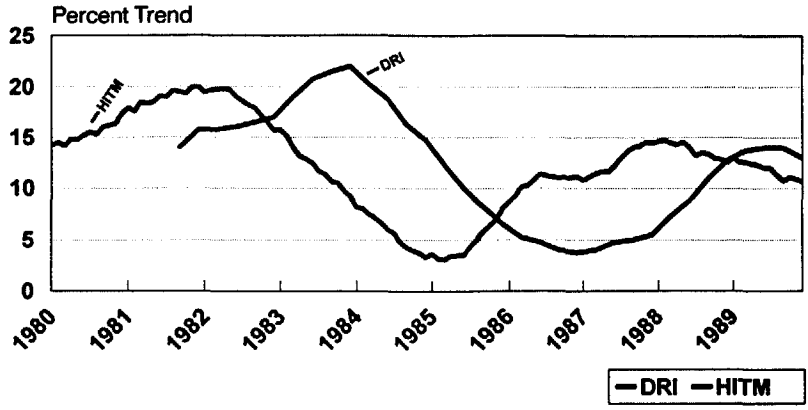
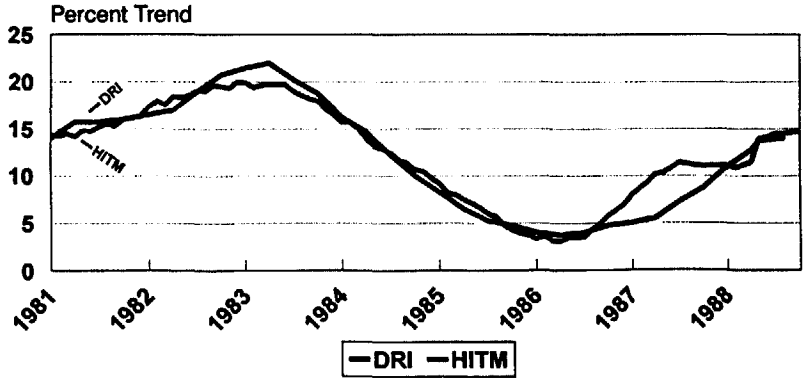


CHART 15
Health Insurance Trend Model versus Employer Health Cost Trends (DRI)
12-Month Moving Trends



HITM Lagged 21 Months

If we lag the HITM by 21 months, we see a remarkable correspondence between what we measure in the underlying force of trends for the non-Medicare population and what the Bureau of Labor Statistics has measured as employer health costs in the Employment Cost Index. There is a 21-month lag between the two.

We have to go beyond the underwriting gains and losses and add the impact of investment income to the equation because it contributes to the net gain or loss. This adds some additional complexity to understanding the relationship because investment income is a function of inflation. It's also a function of investment mix and duration, the amount of invested assets; this can be affected by some of the other variables -- the premiums, claims, and expenses. If we're having underwriting gains, more money will be available for net investment income. If inflation is going up, pushing claims up, interest rates will be going up. If you're holding long-term bonds, you may incur capital losses. Those factors all need to be taken into account in terms of adding the implications to this equation. The last item to add is the income tax, which also is a function of the net results plus the effects of carry-forwards and carrybacks that may complicate the analysis even further.

ENVIRONMENTAL FACTORS

Beyond these primary items, there have been a number of external factors over the years that have affected the underwriting cycles. What I've done is highlighted a number of them in each of the three-year periods since 1965 just to point out highlights that may add some perspective to you in considering what's happened at different points in time. In the 1965-67 period, Medicare was introduced. Prior to this, the Blue Cross/Blue Shield system was primarily community rated and had a lot of retired employees on their rolls under community rates. Obviously, the demographics of the over-65 group resulted in costs much higher than average. When these people were moved to the Medicare rolls, the financial results of the Blue Cross/Blue Shield system improved dramatically during that time because of the removal of the high-cost beneficiaries from their insurance rolls. That period also was characterized by low and stable inflation.

During the immediately succeeding period (1968-70), we had the Vietnam War inflation, the income tax surtax and a recession. As a result of the Medicare program, usual, customary and reasonable (UCR) and semiprivate hospital coverage became much more common than they had been prior to that time. Prior to that time, many of the Blue Cross/Blue Shield plans had scheduled programs for their physician and inside room and board limits, and other limits on their hospital coverage. We also had a maturing health insurance market during this period. In the 1971-73 period, we had the wage and price controls resulting in low inflation – at least temporarily. In fact, if you'll notice, and you can go back and look at the graphs, the inflation rates were already coming down when the wage and price controls were imposed. We next move to the 1974-76 period with the removal of wage and price controls, and the health care sector was one of the last sectors removed, so inflation was already moving up rapidly in the other sectors when it was taken off the health care sector and we had the highest trends in history in health care during that period. We had recession and high unemployment rates and we had the oil shock all mixed together.

In the 1977-79 period, we had declining inflation rates from the very high levels of the immediately preceding period, and we also had a voluntary cost restraint program

on the hospitals by the Carter administration. In fact, at the end of the period, they had tried to pass legislation requiring restraint. The legislation was not passed and we had another bout of hospital inflation in the early 1980s. In addition, in the early 1980s, we also had the second oil shock, double-digit inflation, recession, and high unemployment.

If we go to the next period, 1983-85, again lower inflation took over, and significant changes in health benefits were implemented during that period. We saw a lot of movement. A lot of the Blue Cross plans had full-service plans prior to that time. Many of them for the first time developed comprehensive major medical coverage with front-end deductibles and copayments. We had significant reductions in inpatient utilization coincident with the implementation of Medicare diagnostic-related groups (DRGs), peer review organizations (PROs), and strong economic growth.

During the next period, 1986-88, we saw significant cost shifting as Medicare cut back its reimbursements. Also many other payers were negotiating contracts with providers and negotiating their own deals to avoid cost shifting by the federal government; we had the aggressive development of HMOs and PPOs. I think we had some complacency in the insurance industry from the low trends experience in 1983-85, some unrealistic pricing of utilization review programs as to what the potential implications would be and, as I mentioned before, significant development expenses associated with all of this development and adverse selection going on from multiple option programs that were also being developed during this period of time.

In the 1989-91 period, we saw continued moderate inflation, consolidation of the market, and further increases in managed care. For 1992 and beyond, or at least up to this point, we've had a continued decline in trends. We have the issue of health care reform looming, the jaw boning by politicians on providers, particularly as manifested in the drug sector, and I think, to a large extent, favorable impact on insurers from the implementation of resource-based relative value schedule (RBRVS), by Medicare.

One other factor in 1992, as far as the Blue Cross/Blue Shield plans are concerned, (actually this later period started in 1990 or so), was that Fred Cue, financial senior vice-president of the Blue Cross Association, became very interested in the underwriting cycle and made a concerted effort to educate the plans. Fred Cue died in early 1993, but he made a significant effort to educate the plans about their history in the underwriting cycle, to do studies of all the plans, to array them, and to try to understand the various factors that affect the different plans. For example, management style was one of the big factors that tended to distinguish those who had low volatility in their underwriting gains and losses from those that had high volatility.

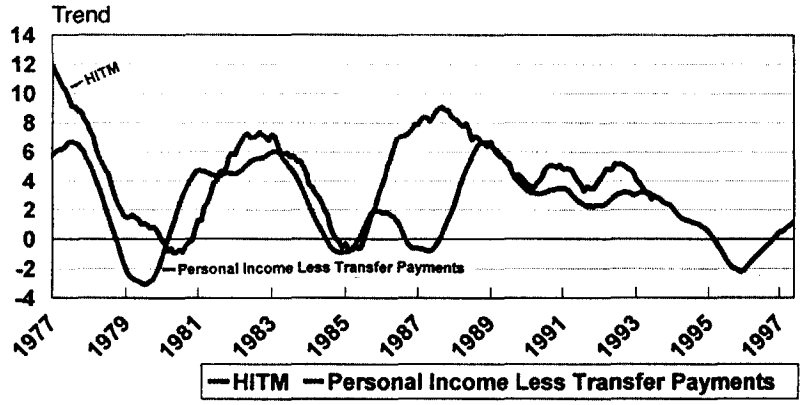
Other factors included the regulatory environment that a Blue Cross/Blue Shield plan may operate in, and the provider contracts and how good their provider contracts were in immunizing them from some of the swings over time, and size. I think market penetration may also have played a role in some of the results. There's a lot more understanding within the Blue Cross/Blue Shield system now about what had been going on for the past 30 years. I think they would say they're trying to deal with this situation and have been successful so far. The year 1992 had a gain that violated the cycle for the first time since 1965. This should have been a loss under

the classic three-year-gain/three-year-loss scenario and it would have been the first year of an underwriting loss, but continued to show an underwriting gain and the financial results so far for 1993 are very positive.

TRENDS VERSUS UNDERWRITING CYCLE

There are a couple of other issues that I think might be worth considering, and they're related to trends and how the trends interact with the underwriting cycle. I mentioned one of these earlier, which is the personal income less transfer payments. In some of the research we're doing to try to understand why the trends have been moderating and continue to moderate in the last couple of years, we've related personal income trends to trends in the underlying rate of health care costs. Again, we're using the HITM for the non-Medicare population that is in Chart 16.

CHART 16
Personal Income Less Transfer Payments Lagged Four Years versus HITM



Both series net of underlying inflation

It's been accepted for some time that personal income and health care spending are highly correlated variables. If you look at the data from countries in the Organization For Economic Development, and plot the results in equivalent U.S. dollars of total GDP or total health care spending per capita, there's a clear upward trend between the overall GDP or personal income versus the amount of money spent on health care costs. Over time, that pattern continues. I never would have expected the kind of precise timing relationship that appears to occur.

The lags that have been proposed in other economic studies are generally three to four years. What I have done here is to lag the personal income by four years relative to the HITM and there's close correspondence during this period, except for the

1986-87 years. Obviously personal income isn't the only variable that affects health care trends. During that period (1986-87), one thing is obvious. In our models and in developing our forecasts we have what we call a cost-shift variable that considers the Medicare payment increases to hospitals and compares them to the overall hospital revenue requirements or cost requirements.

If the differential is positive, then it's favorable and Medicare would be reducing the required revenue needs of hospitals from other payers. If Medicare is paying less than the rate of increase of overall hospital costs, then the hospitals have to charge more to the non-Medicare payers. During this time, particularly 1985, 1986 and 1987, we saw significant cost shifting going on by Medicare. When we build our models, we'll be taking this factor into account.

I'm not sure if I pointed out that both of these variables (personal income and HITM) are net of inflation. Inflation has been taken out, overall average CPI has been removed from the trend model data, and the personal income is net of inflation also. These are just pure net growth changes. The interesting implication of this is, because we've got a four-year lag on personal income, what does that imply about future trends. If this relationship continues to hold and none of the other factors come in and compensate for this, we're likely to see a continued moderation of the underlying real rates of health care trend.

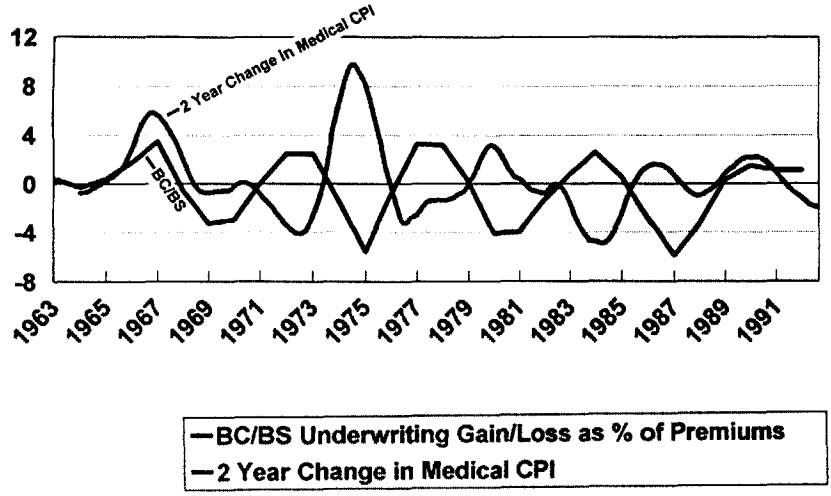
We're in the process of trying to study this in more detail, and actually what I would like to get is disposable income and not just personal income, because the tax changes that occurred in the 1980s may have some effect on these variables, presenting a slightly different light on this.

The last item that I would like to present is one more item related to inflation and the underwriting cycle. Chart 17 represents a graph of the Blue Cross/Blue Shield underwriting gains and losses as a percentage of premium versus a two-year change in the medical CPI.

Obviously, if I had the HITM data back to the early 1960s, I'd use the trend model in lieu of the medical CPI; but I think the CPI is good enough to illustrate for these purposes. What you'll find is we examined the two-year change in the medical CPI. If the medical CPI increase two years ago was 8% and this year it's 10%, it's a 2% increase in the rate of medical inflation. In the 1965-66 period, we see no relationship at all and I think that's easily explained by what happened with Medicare pulling the Medicare enrollees out of the Blue Cross/Blue Shield system. This resulted in underwriting gains.

Since that time, though, you can see a significant correspondence between the two-year change in the medical CPI and the underwriting cycle. When the medical CPI was going down, the underwriting gains were going up. When the medical CPI was going up, the underwriting gains were going down. We used a two-year lag because of the lag between premiums and trends, similar to the lag relationship that we looked at earlier. In the CPI change, we've seen some fairly significant swings, generally plus or minus 3% or more, until we get to 1988.

CHART 17
Medical CPI versus Underwriting Cycle



The recent experience is the point at which the traditional cycle appears to have been broken. Although the medical CPI began to decrease during this period, it decreased only for a short period of time. It was actually relatively stable from 1985-90 with only a couple of point swings, which were relatively modest compared to historical standards. We also see that since 1989, the change has continued to drop off. I think that's a big part of what's happening to the favorable financial results that have occurred in 1992 and so far in 1993.

MR. MICHAEL MOONEY: I'm going to present a little bit different perspective on this so-called underwriting or pricing cycle. Essentially I'm going to go through the primary components of a presentation that United Health Care, a publicly held managed care company, has used with our investment community over approximately the last five years.

John commented that he was interested in the whole issue of RBC and in some ways this may be a reaction to that. United Health Care is a company that, for those of you who don't know much about it, has gone from being a little known Minneapolis managed care company to more of a regional or a national managed care company in the last five or six years. It has been extremely successful in terms of acquiring other companies, other HMOs. It has been successful with the investment community as well. The stock price, as I recall, in early 1988 was something like $4, and it's now the equivalent of $140, so it has been extremely successful in that respect. We've been very sensitive over the years to our investors' concern and I guess I can't overemphasize how much of a concern of theirs it is that we not experience this so-called underwriting or pricing cycle. Literally, every year or two, the

investment community gets real worried about prices getting more competitive and consequently their return on investment from United Health Care being sacrificed.

I'm going to go through thoughts that we've shared with our investors. We did an extensive analysis of the underwriting cycle in approximately 1988-89. We used some outside consultants, did a lot of work internally, and formed some conclusions that we then shared with investors. The first part of my presentation will pertain to that kind of historical analysis.

Every three years Blue Cross/Blue Shield is up or it's down. Over the last 25 or 30 years it seemed like the downs got worse and the ups did not improve. Most of you have seen these numbers before, although, as John pointed out, 1992 was the year that broke the cycle so to speak.

Our analysis went further though. We said, "OK, that's Blue Cross, but everybody kind of trashes Blue Cross because that's easy to do. The commercial sector or the regular insurance industry couldn't be that bad." The actual results showed that they were worse. Over roughly the same period of time, the negatives were a lot worse and the positives were not as good with the stock mutual carriers in the insurance industry. So the cycle was a little more scary than we thought.

Then we went further and looked at what we called the first quartile performers. We actually took the data and peeled out the top 25% in terms of performance; performance, obviously in this case, being less negative and more positive. The contrast between the high performers and everyone else is dramatic. And the relative comparison gets better or more favorable as time goes on. We spent some time studying these so-called first quartile performers and tried to determine what it is that they do differently than the worst 75%.

The simple conclusion is that they were more disciplined about their pricing. One of our conclusions from all this analysis was that the cycle is not a cost cycle. It's not one where medical trend ends up being a lot different than anybody thought it was going to be. It really is a pricing cycle where carriers, for any number of reasons under their control, actually go about a process of pricing below what their costs are and giving up some of this surplus that they've accumulated in exchange for trying to increase their market share.

It was this top 25% that were more disciplined about saying, "No, return on investment is more important to us than market share," and they proved it and accomplished at least better financial results. This was a important thing for us to go through with our investors and reach some conclusions, which I'll come back to again later.

About 13 months ago, we went through this type of presentation with our investors again and spent some time specifically looking at Blue Cross/Blue Shield on a national basis. Table 1 is a breakdown of some of the numbers over a five-year period we went through. The underwriting gain, the projected 1992 number has actually turned out to be slightly better than the projections for the Blue Cross carriers, but these projections are still in the ball park. You can see 1988 was the last down year of the last three-year cycle. Then 1989, 1990, and 1991 were the positive years of the

cycle. And 1992 was projected to be a positive year, ending up with about 1% underwriting gain.

TABLE 1
Blue Cross/Blue Shield (U.S.)

	1988	1989	1990	1991	Projected 1992
Underwriting Gain[1]	−3.4%	0.3%	1.5%	1.1%	0.5-1.1%
Reserves Gain	−2.1%	2.1%	3.0%	2.4%	1.8%
# Months Reserves	1.13	1.33	1.55	1.77	1.77

[1]Excludes investment income

Obviously if you put 1989, 1990, 1991, and 1992 together, you would have something between 3.5-4%, which is about what 1988 was as a loss; so it took four years to make up for one year of losses. As John mentioned earlier, underwriting gain is one thing. You have to add investment income to that and that's what reserve gain basically represents. Then the number of months of reserves is an interesting number. You're all familiar with these numbers, probably more so than I am, but one of the key variables that people look at when they evaluate Blue Cross ability to absorb a pricing cycle is this issue of how many months of reserves there are. Even though there were four consecutive years of positive underwriting results, the actual number of months in reserve changed by something like two-thirds of one month, which is an important conclusion that I'll come back to later.

We also looked at the other commercial insurers (Table 2). The data are hard to find, but if you look at underwriting gain over a near similar period, then one conclusion from this was that even in 1990, they hadn't yet rebounded to a positive part of the cycle; so their negative cycle was in a fourth year. Actually, I haven't even seen all of the 1991 data yet because it's so slow to come out, but presumably 1991 will be at about zero or maybe slightly positive, but still not very good.

TABLE 2
Top 20 Insurers

	1987	1988	1989	1990
Underwriting Gain[1]	−3.9%	−4.6%	−1.3%	−0.4%

[1]Excludes investment income

In looking at all this historical data, we formed what I'll describe as sort of three conclusions. One, which I mentioned, is that this is a pricing cycle. It's not really a cost cycle. Two, there were a lot of carriers in the business, and probably most importantly, there was very little differentiation between carriers with respect to what I'll call their input costs. The claims or the medical costs that the carriers were dealing with through most of this cycle were, I guess, what I would call in simple

terms billed charges from providers and consistent billed charges with providers across all the carriers. In that sense, you could say input costs to the carriers were a commodity. There is little ability to differentiate on that part of their cost, and probably the biggest component of their pricing.

Third, there is a lack of discipline on the part of some carriers, perhaps knowingly and perhaps not, and to some degree the whole health insurance industry. It's interesting because there's even a lack of desire or a need on the part of many carriers, evidenced by a lot of the nonprofit Blue Cross and the mutual insurance companies, to have a return on investment. In that sense, a pricing environment could be different because you don't need to accumulate reserves any more than what's necessary to satisfy regulators. Maybe market share becomes more important on a relative basis than if you were in an investor type of arena or environment.

Here are some of the conclusions that we went through with our investors a year ago. Again, these are repetitive from five years ago. It's interesting. Actually, to some degree we have been given credit for saying the cycle was going to be more limited, shorter, smaller in about 1988 or 1989. In fact, in 1992 and 1993 the results of that are showing through. There are still some Blue Cross/Blue Shield plans that have solvency problems. It's not likely that they are going to start a down underwriting pricing cycle.

As I mentioned earlier, the increase in surplus levels for the Blues, even after four or possibly five years of gain, is so small compared to the previous three years of losses that the surplus levels are still not anywhere near historical levels going into any downward pricing cycle. John mentioned the favored tax status. A lot of the favored provider contract and certainly market share of Blue Cross in many locations is being eroded, so those are all issues that will prevent, we think, Blue Cross from being as aggressive in down pricing cycles as they may have been historically.

With respect to the commercial health insurance industry, there has actually been a fair amount of consolidation that started to occur. Some examples of that are Lincoln National, Allstate, Trans America, and others. You're all much more aware than I am of investment portfolio issues property and casualty losses that tend to drag on compared to a normal cycle there, and life insurance product changes -- all those types of things put more pressure on the health insurance earnings of the multiline carriers which, in our opinion makes the health insurance commercial industry less likely to go into a down pricing cycle than historically.

Probably equally or maybe more importantly, the development and emergence of a managed care industry which, in our perspective, is what will begin to dominate in the 1990s. It goes back to this issue that I mentioned earlier of ability to control your input costs. I would argue that the number one future variable in the pricing cycle is going to be how well carriers can control their medical costs. There must be differentiation between carriers' ability to control those costs. That's going to provide different platforms than before for pricing differences to be able to show up.

I guess a subpoint is that there is a barrier to entry in the managed care marketplace. It costs money to set up effective cost-control systems, as many of the large insurance carriers have found out. In fact, that's part of the reason why some of

them are now exiting the market. It's simply not worth investing the capital from their perspective compared to historical returns. Most importantly, there are now products that are distinguishable in terms of costs and therefore some carriers are going to be better positioned to achieve and sustain margins and to avoid this so-called pricing cycle.

We believe that whatever cycle that there is going to be is certainly going to be local, if for no other reason than the fact that there's going to be a consolidation in the industry and what I'd determine as input costs are going to vary by market or by locale, whatever pricing cycle there is will certainly be a local issue and not a national one. Whatever cycles that there will be are going to be shorter and more shallow, again local. Again, reserve levels of nonprofit and for-profit entities are not high and taking losses on this type of business is just not an acceptable business practice.

John touched on a point earlier. It's probably the case that better information systems with the remaining competitors will have some impact. Historically, the industry has had a little bit of trouble reacting to knowing what the costs are. Some of that is built into the issues of regulators and 12-month or longer contracts, but some of it is just using technology to more quickly identify our cost structure. As carriers are better able to deal directly with providers over multiple time periods, their ability to use their systems and their contracts to project costs should improve. Certainly that's an argument that we make in our case.

In our opinion, the more efficient managed care companies are going to be the winners. They're going to produce better financial results. There will be further industry consolidation and dramatic increases in the market share of those that are more effective at controlling and managing health care costs will occur.

One conclusion is this issue of differentiation in costs, the effect of what I would call managed care. Two is the pricing, and therefore, the cycles will be more local. Three, there will be fewer players. There will be more consolidation in the industry. Four, the players that are left will be more disciplined in their pricing. Five -- which is related to those others -- is that because of this consolidation, the players that are going to be left either will need a return on investment because they're for-profit entities, or if they're nonprofit entities, they have less relative surplus than they had previously, and so there's not as much ability to lead a new pricing cycle.

That's sort of the heart of the presentation. To give you a flavor of what it is that we've talked about with our investors, the three-year up/down cycle is broken. We've emphasized very strongly with our investors this whole issue of being disciplined about our pricing. United Health Care practices discipline. We're positioned well in terms of managing our costs for continuous profit and growth.

These are points that we've made with our investors for each of the last five years. We focus our day-to-day business on making sure that we make money.

Controlling medical costs is our number one priority. Pricing for an 85% or better medical loss ratio is a high priority. All of our incentive compensation programs reward profit and not just growth. Our real incentives are to achieve both. We have a management structure that supports pricing discipline as opposed to the top 25%.

What was common practice throughout a lot of this historical cycle with a lot of carriers was to have sort of dispersed pricing authority – lots of autonomy either with a local manager of some kind or a sales office. Our belief is that that's not a good way to discipline your pricing. Having it done in one centralized financial function is the best way to support the discipline, and that's the way United Health Care is organized.

The pricing is a financial function. It's controlled by our underwriting department. Our senior management conducts monthly reviews of the results and the trends and gives guidance and support to continue that process. Again, we feel our company is positioned very well for growth because of our cost controls and because of the fact that industry consolidation is occurring.

FROM THE FLOOR: You talked about pricing discipline. Would you comment about the tendency toward renewal caps in the health maintenance organization arena right now and what your position is on that?

MR. MOONEY: I'm going to assume that was directed toward me. I guess I can speak for United Health Care. I can't speak for the rest of the HMO industry. It certainly appears to be the case that there are many carriers or some carriers right now that are quoting, on some form of risk basis, two- or three- or four-year types of contracts. How can they do that? Speaking from United Health Care's perspective, we have done some two- or three-year deals, but they have tended to be with increases in the second or third year that are in line with what we expect our medical cost trends will be.

We feel that that's appropriate, particularly for a two-year basis. Usually when you write a new group, you're willing to assume that in that first two-year period you've done a good job of estimating what the costs are going to be anyway. I can't speak for the rest of the industry as far as three- or four- or five-year deals that I hear about. As an outside observer, I would suggest that perhaps they're not being very disciplined about their pricing; they are perhaps being more market-share oriented as opposed to return-on-investment oriented. I certainly don't believe any of them know what their costs are going to be three or four or five years from now.

MR. ROBERT C. BENEDICT: New York State has community rating and open enrollment effective April 1, 1993 for small group and individuals. The Clinton plan speaks about similar things. Specifically with reference to open enrollment, were it to be mandated on a federal or state basis, how would your corporation work? Assuming you now do some underwriting, how would you see the transition to a nationwide open enrollment environment influencing your profit margins and your attempts to maintain profitability in your investment approach?

MR. MOONEY: Again, I guess I would give sort of a two-part answer. You've touched on an interesting question not only from the regulator perspective, but also from an investor perspective; right now probably the big concern of the investment community with respect to for-profit managed care companies is whether our margins will go down because of any health care reform efforts. We've told them we believe that managed care margins on a basis of a percentage of premium probably are at a relative all-time high and that they probably will come down some. We believe that

from an investor perspective, they will be more than offset by the market share gains that will occur.

I guess to directly answer your question, it varies by state whether United Health Care practices community rating or open enrollment. It is based on what the rules are in any given state. We're very comfortable with respect to small group, which seems to be the real focus with respect to the uninsured or a lot of people not having coverage available or being excluded in some way. We're very comfortable with National Association of Insurance Commissioners (NAIC) model regulation types of environments.

In fact, before and since the NAIC came into existence, we've essentially complied with all of what's in there. I assume that most of you are familiar with things like keeping the rate increases within certain limits between groups, not excluding individuals for preexisting conditions or for any other reasons. Those are issues with which United Health Care has always been in compliance.

What goes further than that are the issues of guarantee issue or total community rating. In the states we are in, we have not had to go to that extreme so far. Our position is that if we have to because that's what the legislation requires, it won't be a problem for us; from a relative positioning perspective, we're in a much better position with respect to managing costs than virtually any of our competition. I guess our perspective is some of those strong controls may or may not be necessary.

We believe a lot of just adopting NAIC model regulations will potentially achieve a lot of the reforms that are needed short of mandating employer coverage, which would change the rules a lot. In any environment that's created, we feel like we're going to be very successful because we want to focus on who manages health care costs well and puts together the best overall package for the consumer, not who can eliminate some risk elements better than somebody else. I don't know if that answers your question or not.

In that kind of environment, we think that some managed care companies may make less money as a percent of premium. Again, we think we'll add much more membership that will more than make up for lesser profits as a percentage.

MR. BENEDICT: I guess I could ask a corollary question. Do you see a radical shift, a slight shift, or no shift in your marketing and underwriting practices were this type of brave new world to evolve?

MR. MOONEY: Again, under NAIC-type changes, I would suggest that marketing wouldn't change as much, but under more dramatic changes –

MR. BENEDICT: Excuse me. I'm not talking about NAIC.

MR. MOONEY: I understand that, but I'm trying to draw a distinction. I do believe NAIC does accomplish a lot of the reforms that are needed. I'm afraid that's been overlooked in some cases. To kind of go to the other extreme – and I would describe the extreme as mandating employers to cover everybody, and then, mandating community rate and guaranteed issue – it probably does create a different

environment, particularly in so-called health insurance purchasing cooperatives (HIPCs) or accountable health plan type of environment.

It probably does change marketing and underwriting dramatically for the industry and I would suggest that we don't really know exactly what that means yet because it's still too early, but we do know it means who controls medical costs the best is going to be important.