

**Ratemaking 1993: A Play "Not Ready for a Stable Market"**  
by Nolan E. Asch

D R A F T

In April, 1993, the "Not Ready For A Stable Market Players" (Dave Skurnick, Jerry Tuttle, Helen Exarhos, Nolan Asch) presented a 3 Act Play at a CAS Special Interest Seminar in Raleigh/Durham, North Carolina. It looked at 3 Mythical Companies; Mindless Mutual, Global Galactic and Cowboy Casualty. It concentrated on explaining some of the behavioral forces that might influence the UW Cycle and how they interact with certain Actuarial factors.

I repeated the 1989 Play and then revisited the same three firms in 1993 with a topical update. Perhaps four years later (or sooner) the Author will try to update the Play. There seems to be a need, in my opinion, for Actuaries to test the accuracy and appropriateness of their models and assumptions in the real world over the long run.

## The Play

We are revisiting the three firms we looked in on in 1989 again in 1993. We (The "Not Ready For A Stable Market Players") feel there are serious causative factors for the Underwriting Cycles being addressed between the lines of this exercise. Note that we have tried to be consistent in our second incarnation of our 3 act play. Note that we are using actual industry statistics in many of the 1993 updates slides. There are sections meant to reflect what the person is really thinking, but not saying. The speaker will turn to the audience and preface those remarks with "well folks." We will visit each of our three mythical firms first, in 1989, to repeat the drama they faced then - And then their updated 1993 situation. Of course, we are describing mythical firms and not advocating any particular course of action for any firm today.

ACT I (1989)  
GLOBAL GALACTIC

CAST

Nolan Asch. . . . .CHAIRMAN  
Jerome Tuttle . . . . .PLANNER

ACT I (1989)  
GLOBAL GALACTIC

PLANNER: ...As you can clearly see -- the trend in pricing  
(J. Tuttle) for all lines is clear via our monthly monitoring  
systems.

Price Levels  
See Chart 1

(Slide 89-1-1)

June 1984 June 1986  
The decline continues ...although at  
a less severe slope this month...

CHAIRMAN: I know all this -- what I must know is where the  
(N. Asch) break-even profit position for these rates is -- I am  
the chairman and the final strategic decision must be  
mine.

PLANNER: Break-even levels are, as you know, a result of  
(J. Tuttle) many factors -- the payment pattern and loss ratio  
outcomes, investment returns --

CHAIR: Yes, I know all this. It's clear the June 1984  
(N. Asch) rates were ruinously low and the trend had to change.  
In 1986, rates peaked out at high profit margins, and  
rates have plummeted ever since. -- My actuary  
keeps telling me about claims cost inflation, "shock"  
awards, the next "pollution fiasco" -- while my  
marketing VP keeps telling me about the market share  
and anti-selection. But what I want to know is...

PLANNER: Yes - I know - you want to know which strategy will  
(J. Tuttle) have the better impact on long-term Earning Per Share.

CHAIR: And Short-term EPS.

(N. Asch)

PLANNER: Well, here I can maintain a simple position. Given our  
(J. Tuttle) large casualty distribution of business, the easiest  
way to improve short term earnings is--

CHAIR: I know - maximize current premium volume. The losses  
(N. Asch) cannot appear immediately, but the premiums do. Let's  
look at those premium numbers again.

PLANNER: (SLIDE 89-1-2)

(J. Tuttle) As you know, premiums exploded from 1985 thru mid-1987,  
due to price increase. As you can see, (SHOW 89-1-1)  
our commitment to high standards led to flat premiums  
through 1988 and signs of premium shrinkage in 1989.

However, our actuarial analysis shows clearly, that on  
the "1985 standards basis," the percentage of premiums  
written to that standard has dropped consistently --  
from 1985 - 100%.

To 1987 - Jan. 90% Dec. 70% (SLIDE 89-1-3)

1988 - July 50% Dec. 25%

In other words - only.

CHAIR: Yes, I know --

(N. Asch)

PLANNER: Don't interrupt!

(J. Tuttle)

CHAIR:           Damn those actuaries, their logic is irrefutable.  
(N. Asch)       They're like my conscience! So... the only certain way to achieve the desired EPS increase is to increase premiums - by writing more business whose rates, terms and conditions today are marginal and appear to be still deteriorating.

PLANNER:       We don't have to kow-tow to Wall Street. We're a Top  
(J. Tuttle)   Ten firm in this industry and we have credibility with most on Wall Street.

CHAIR:           It's not just Wall Street I'm worried about...  
(N. Asch)       It's our parent company. The cereal people.

PLANNER:       I thought they said ...  
(J. Tuttle)

CHAIR:           Yes -- I have their total confidence. Since they  
(N. Asch)       bought us in 1984, I showed them nothing but massive earnings increase in 1985 and 1986. In 1987, they saw that EPS was increasing, but at a much slower rate. In 1988, they didn't like flat earnings, with several "down" quarters, AT ALL. Now, I'm afraid, if 1989 isn't up to expectations they'll be eating me for breakfast. They don't totally understand all the technical nuances of this business -- like we do. I'm afraid if EPS doesn't move up, I'll be replaced. Aside from ego and selfish motives, replacing me with a less responsible or less competent CEO will be bad for the whole industry ... and the public. What should I do?

Act One (1993)  
GLOBAL GALACTIC

PLANNER: ... As you can clearly see -- the trend in pricing for  
(J. Tuttle) all Commercial Lines is clear via our monthly  
monitoring systems. (SLIDE 93-1-1)  
we maintain price stability.....

CHAIRMAN: I know all this --- what I need to know is how long we  
(N. Asch) can continue viably in this environment. We made the  
hard choice in 1989 to maximize current premium volume,  
focus on rate of return rather than targeting an  
underwriting profit in every pricing exercise (Well  
Folks that's why I'm still here) but our ROEs have  
plummeted.

SHOW Exhibit 93-1-2 ROE in industry

We never thought the downturn would be this sharp or  
this long. We never planned on Cat losses like  
Andrew. We had secure Cat Reinsurance for that one but  
if it happens again we do not have that level of  
coverage. Also, this year we mitigated our Andrew  
losses though taking capital gains, but that's a one-  
time thing!

OH MY GOD! NOT AGAIN!

PLANNER: Yes and the Actuaries are getting more vocal about it!  
(J. Tuttle)

CHAIRMAN: Can't you get a room deodorizer?  
(N. Asch)



PLANNER: You know how the wind gets a hold of those Asbestos and  
(J. Tuttle) Pollution claim files in the basement. They have to go  
down there to pay some of the Asbestos claims and that  
stirs the air down there. All those \$1 Environmental  
claim files there must be thousands of them...

CHAIRMAN: 11,857 by the latest weekly count. If only the smell  
(N. Asch) were the only consequence. We have been forthright.  
We have established a fund and begun to build. We have  
made the appropriate caveats in our opinions....

PLANNER: And we have reams of studies that show our reserve  
(J. Tuttle) problem here is less than our three major  
competitors...

CHAIR: Yes. We're under reserved by 30% of our surplus while  
(N. Asch) they average 60% of their surplus. Sometimes I wish we  
didn't know so much about it. Perhaps we would have  
been better off with a "pay as you go" approach? When  
will this mad competitive cycle end? When we're all  
technically bankrupt?

PLANNER: Perhaps. You see here a retrospective test of the  
(J. Tuttle) industry's surplus at 12/84 if our current best  
estimate of needed 1984 reserves is used. As you can  
see the reinsurance industry (by this measure) was  
technically insolvent and the primary industry was  
close. Slides 93-1-3, 93-1-4  
According to an ISO analysis of 12/91 industry loss  
reserves they estimate \$50 Billion of under reserving  
on a \$160 Billion surplus base, up from a \$36 Billion  
estimate last year.

CHAIR: Thanks for your advice. I will see ya later.  
(N. Asch)

PLANNER: Yeah. See ya later.  
(J. Tuttle)

CHAIR: Well folks, what do I do now? Come clean about our  
(N. Asch) reserve problems? Tell everyone that our current pricing implies to me even worse true levels of current profitability than we're reporting or --- slog ahead, and muddle through, putting the best possible public face on all this? What would you do?

ACT II (1989)  
COWBOY CASUALTY

CAST

Nolan Asch. . . . .	.CHAIRMAN
Jerome Tuttle . . . . .	.PLANNER & STAFF MAN
Helen Exarhos . . . . .	.STAFF PERSON 2
Dave Skurnick . . . . .	.ACTUARY

ACT II (1989)

CAFETERIA OF COWBOY CASUALTY

(THE CHAIRMAN IS HOLDING ONE OF HIS "KITCHEN  
CABINETS" WITH SEVERAL KEY EXECUTIVES)

CHAIR: You know... We have a motto here at Cowboy Casualty --  
(N. Asch) "No one has a job here unless somebody out there makes  
a sale." It's taken us from a medium-sized regional  
insurer to a major national insurance company in less  
than 5 years. We have had a compound premium growth  
rate of over 30% a year throughout the period.  
(SHOW SLIDE 89-2-1)

STAFF: But to continue that growth rate we'd need to become a  
(J. Tuttle) \$450 Million company in 1993.  
(SHOW SLIDE 89-2-2)

CHAIR: Why not? It's just perpetuating the same growth  
(N. Asch) rate of the last 4 years.

STAFF: Because, sooner or later there are limits to our  
(J. Tuttle) size. We can't write almost every risk. And by  
continuing to cut rates we are helping to reduce  
the total Industry Premium pie every year.

CHAIR: I know you worry about our recent rate reductions --  
(N. Asch) but let's look at the "big picture" (SHOW SLIDE 89-1-1  
AGAIN ON IND RATES). Even though rates are declining.  
They are still well above 1983/84 rate levels. ...  
Also, you forget our 3 secret weapons ...

STAFF: I know  
(J. Tuttle)

CHAIR: But do you really believe? We have a saying here at  
(N. Asch) Cowboy Casualty ...

STAFF: I know .. "Knowledge without belief is a barren  
(J. Tuttle) tree."

CHAIR: Well -- Let's review our 3 weapons:  
(N. Asch) #1 - you no longer need underwriting profits to  
realize a profit on business. Our investment  
department has consistently earned returns 2 to 3  
points better than the industry.

STAFF: Only over 5 years, after investing in riskier  
(J. Tuttle) instruments than our competitors.

CHAIR: But you agree we've been earning 10% per annum.  
(N. Asch) Our average payout is 3 years after premium  
collection. That means we can break even at a 133%  
combined ratio. (SLIDE 89-2-3)

STAFF: If the 10% holds up. Also, you're ignoring the  
(J. Tuttle) new tax law and the fact that at 20% commission  
you only earn interest on 80%, and you are not always  
going to earn investment income faster than loss  
payments materialize. (SLIDE 89-2-4)

CHAIR: Your 80% point is well taken ... (SLIDE 89-2-5) But we  
(N. Asch) still break even at  $1.0648 - .80 = .2648 + 1 = 126.48\%$ .  
Also, our new plan is write even longer-tail business  
to increase our investment leverage.

Our second weapon is our superior portfolio. We have  
had a clientele of smaller, loyal risks in rural  
locales. Their frequency characteristics have always

been superior to industry averages. And we avoid anti-selection by being the lowest priced market in each of our target sectors.

STAFF: This weapon is eroding. We're now a national company (J. Tuttle) with a slightly less select book and our target sectors now cover 50% of our premium volume ... not 10% as when we started the program. Also our rate is eroding.

CHAIR: How are we going to lose money on people who never file (N. Asch) claims? My claims-free discount system has been praised by many industry experts.

STAFF: Giving a 5% discount on renewal to a claims-free (J. Tuttle) risk the first year is fine, even for a 2nd or 3rd year -- but extending it up to 10 years for a maximal 50% discount!!! It didn't matter in the early years when no one had earned many discounts -- but we're now in year 4 and 90% of those policyholders have earned a 20% discount.

CHAIR: That's great! We've kept them loss free and with us (N. Asch) for 4 years! 90% claims-free!!! Just imagine if 10% or 20% more had left us?! We'd have lost all that clean premium! These people are going to think twice about leaving us, or filing any small claims to forfeit their claims free discount!

STAFF 2: Mr. Chairman - we've got a large risk new (H. Exarhos) business submission that needs your immediate attention.

CHAIR: YA HOO - There's nothing like new business. (N. Asch)

STAFF 2: It's a fairly large firm. The key to the risk is  
(H. Exarhos) their products liability for automobile parts.  
(SHOW 89-1-1) As you can see -- with loss  
development, their rate per exposure has been  
climbing slowly. (SLIDE 89-2-6)  
With current trends, it seems next year's ultimate  
net loss cost should be \$322,000 grossed up for 25%  
Expenses by 100/75ths; (SLIDE 89-2-7) that's a  
\$430,000 Premium. That's probably not enough since  
their latest loss control report from their existing  
carrier has caused them to quote a renewal rate  
higher than this designed to lose the renewal.

CHAIR: Maybe -- Maybe not. Also, what's the policy  
(N. Asch) limit and policy aggregate? Let's see, with a 5-  
year average payout at 10% ... that's a 161%  
combined to break-even. So -- We don't need  
\$430,000. We need  $430/1.61 = \$267,000$ .  
(SLIDE 89-2-8)

STAFF 2: It's a \$1M occurrence policy with a \$2M general  
(H. Exarhos) policy aggregate but the LAE is in addition to  
limits. (SLIDE 89-2-9) The 5-year average  
indication is \$326,000 not \$430,000 but the risk  
manager is looking for a premium of around \$150,000.  
Last year, they paid \$250,000 and Mindless Mutual is  
competing also.

CHAIR: (TO STAFF 1) We haven't yet factored in our 3rd and  
(N. Asch) strongest secret weapon ... (PAUSE)

STAFF 1: What's that?  
(J. Tuttle)

CHAIR: RICKETTY RE  
(N. Asch) If memory serves me well, we have a 750 xs 250 treaty with Ricketty Re and a 1M xs 1M treaty. We pay a rate of 10% for both covers combined. Aggregate excess is included for products. That means we are writing a policy with a \$250,000 Net Aggregate loss-limit and 5-year average pay-out lag.

STAFF 1: But -- I've told you how shaky Ricketty Re is  
(J. Tuttle) getting. Also, we know we'll suffer that full 250K loss for certain -- and the payout pattern for us will be far shorter than 5 years, since we're paying the first losses -- our reinsurer will be paying the later losses. We can't just assume 10% interest rates.

CHAIR: Hmm - This sounds like a tough one -- well -- Let's  
(N. Asch) call our actuary in on this one. Why don't you both go get him. (BOTH STAFF PEOPLE GET ACTUARY WHEEL HIM OUT AND UNTIE HIM) (ACTUARY IS WHEELED OUT -- BOUND AND GAGGED)  
(CHAIR SPEAKS WHILE STAFF UNTIES ACTUARY)  
Let's summarize -- let him look at all the data on this risk -- then give him 3 minutes to speak.

As I see it, it's a golden opportunity. This is precisely the kind of longer tail business we now want to write. With our reinsurance arrangements at a \$150,000 Premium and a 10% treaty cost ... (well folks, that's the price the risk manager wanted) That's \$135,000 left and 1.61 for investment income, that's \$217,000 to pay a maximum loss of \$250,000. That's good odds to me. (SLIDE 89-2-10)



ACTUARY: This is nonsense! You need to subtract at least 25%  
(D. Skurnick) for commissions, taxes and expenses up front! Even  
using all your assumptions that generates (217)  
times (.75) = \$163. Not 217. (SLIDE 89-2-11)  
The 250 is expected to be paid every year. Remember  
our reinsurance does not include LAE! Also, there  
is generally 40 cents of LAE for every dollar of  
loss - (SLIDE 89-2-7, again) so expect  $322 \times .40$   
= \$129,000 of LAE per annum to fund. That yields  
an ultimate loss and LAE of \$451,000 per annum to  
pay for. Our payout pattern is going to be shorter  
than 5 years! Most importantly -- my security  
review of Ricketty Re finds them very Ricketty  
indeed.

CHAIR: That's enough. I'm beginning not to like you --  
(N. Asch) Boy. Ricketty Re is solid! Highly regarded by all  
the rating agencies.

ACTUARY: They're growing too fast in relation to their  
(D. Skurnick) surplus! They're at 2.5 to 1! Their loss reserving  
is consistently testing inadequate.

CHAIR: Hell! That's what everybody's whispering about us -  
(N. Asch) - Growing to fast!! Over leveraged! We've got  
positive cash flow up our ying-yang!!! See you  
later!  
(ACTUARY IS REBOUND AND REGAGGED)

CHAIR: (ALONE) Well folks, that actuary is a smart guy.  
(N. Asch) Stands up to me. I like that. Got to think about  
that angle. Still -- these technicians just somehow  
cannot grasp the BIG PICTURE.

ACT TWO (1993)  
CAFETERIA OF COWBOY CASUALTY

CHAIRMAN: My isn't that satisfying?! Way back in 1989, We  
(N. Asch) planned to be at \$450 Mil in 1992 and here we are,  
in black and white, right on the money! And you  
said it couldn't be done!

STAFF: I did not say that. I said there were risks  
(J. Tuttle) involved in this type of rapid growth. We have  
failed to even approach an underwriting profit in  
any year. Look at this!  
SHOW slide 93-2-1 Industry (c lines) UW ratios

CHAIR: I've been telling you for years you don't need UW  
(N. Asch) profits! Look at our rate of return!  
SHOW slide 93-2-2 Industry ROE

STAFF: That rate of return line is nothing to write home  
(J. Tuttle) about, especially in recent years.

CHAIR: There's that smell again! Didn't we figure out what  
(N. Asch) it was?

STAFF: It's just those old claims files in the basement.  
(J. Tuttle)

CHAIR: That MGA was a nice guy. How could his business  
(N. Asch) smell so bad when it looked so good in the years he  
wrote it?

STAFF: Don't worry about that! We have more troubles  
(J. Tuttle) coming from the state of Despair.

CHAIR: Not that state again! They're the real thieves!  
(N. Asch) Didn't the courts just rule on our industry appeal?

STAFF: Yes. They ruled in our favor on confiscatory rate  
(J. Tuttle) levels but upheld them on the residual market issue.

CHAIR: That's not good! But, those actuaries must be full  
(N. Asch) of it again! How could we lose \$40 mill on just \$10  
mill of voluntary writings in the state! We shrunk  
by 50% that year in that state! You know how that  
goes against my grain but I fully agreed to it!  
Wheel that Actuary in!  
(Actuary is wheeled in, bound and gagged.)

ACTUARY: That's better! You know, we need an employee health  
(D. Skurnick) plan for dental work!

CHAIR: Enough of that! How could your projections be  
(N. Asch) right?

ACTUARY: Well sir, in fact, they are wrong!  
(D. Skurnick)

CHAIR: I knew it!  
(N. Asch)

ACTUARY: We won't lose \$40M, we'll lose \$80M!  
(D. Skurnick)

CHAIR: What!  
(N. Asch)

ACTUARY: The actual size of the residual market turned out to be 80% of the market on audit, not 60%. That means the voluntary market is only 20% (\$20M) and not 40% (\$40M) as originally thought. That means that the \$160 Mill residual market loss goes 50% to us, since we wrote \$10M (10%) rather than only 25% to us as we thought. And it gets worse!

CHAIR: WORSE!  
(N. Asch)

ACTUARY: Yes. The auditors are finding irregularities. I predict the ultimate loss will be far greater than \$160M and we will assume 50% of the loss no matter how large it is!

CHAIRMAN: How bad do you think it will get?  
(N. Asch)

ACTUARY: Honestly?  
(D. Skurnick)

CHAIR: Yes, honestly. This talk about my temper is exaggerated. You know that you've been here 15 years!

ACTUARY: Only 7 years!  
(D. Skurnick)

CHAIR: Seems like 15 to me!  
(N. Asch)

ACTUARY: In addition to all these problems, we have the problems related to reinsurance recoverables.  
(D. Skurnick)

CHAIRMAN: What reinsurer are we worried about?  
(N. Asch)

ACTUARY: Ricketty Re --- We have \$150 million of recoverable  
(D. Skurnick) from Ricketty on paid losses over 90 days and I  
don't think we will ever collect that money. By the  
way, that is equal to our total statutory surplus.  
We also have another \$300 million of reinsurance  
recoverable from Ricketty Re on unpaid losses, and  
I don't think we're going to collect that money  
either.

CHAIRMAN: Wait a second! What are they rated by the rating  
(N. Asch) agencies for security.

STAFF: You don't want to know!  
(J. Tuttle)

CHAIRMAN: You better tell me.  
(N. Asch)

STAFF: The Best's rating has just been reduced from C- to  
(J. Tuttle) NA7. Below minimum standards.

ACTUARY: The Insurance Department has just secretly started  
(D. Skurnick) an audit of Ricketty Re - and it's not a normal tri-  
annual examination!

ACTUARY: Whew! What's that smell?  
(D. Skurnick)

CHAIR: Oh nothing!  
(N. Asch)

CHAIRMAN: We do have a problem here. How quickly can we begin  
(N. Asch) negotiations for a commutation of all our  
reinsurance treaties with Ricketty Re?

STAFF: Immediately, Boss!  
(J. Tuttle)

ACTUARY: The tougher question is, how many pennies on the  
(D. Skurnick) dollar can we realistically expect to negotiate out  
of Ricketty Re.

CHAIRMAN: OK - You raised the question - give me a range!  
(N. Asch)

ACTUARY: Given their circumstances and condition, I honestly  
(D. Skurnick) feel that it could not be any better than 40¢ on the  
dollar and could be as bad as 10¢ on the dollar, if  
we can get any commutation at all.

CHAIRMAN: Do you know what that means to our solvency?!!!  
(N. Asch)

ACTUARY: Of course, we would be anywhere from \$120 million to  
(D. Skurnick) \$255 million in the hole!

CHAIRMAN: What! Who asked you! Tie him up again! Get him  
(N. Asch) out! ACTUARY IS THEN WHEELED AWAY.

STAFF: Mr. Chairman, Mr. Chairman! Boss! There is perhaps  
(J. Tuttle) another way out of this mess!

CHAIRMAN: Right now, I'm willing to listen to ANYTHING!  
(N. Asch)

STAFF: I have heard rumors that Ricketty Re is for sale!  
(J. Tuttle)

CHAIRMAN: That's great! Maybe some highly solvent  
(N. Asch) organization will buy them and we will still get full recovery! Make sure that pessimistic Actuary doesn't get too eager in any commutation negotiations! 10 cents on the dollar my foot!

CHAIR: By the way, you don't think he realized where that  
(N. Asch) smell came from?

STAFF: No. But he has to review the reserves just like  
(J. Tuttle) every year.

CHAIR: Couldn't you sign that loss reserve opinion this  
(N. Asch) year?

STAFF: No. It must be signed by a qualified Actuary.  
(J. Tuttle) Further, subject to new rules you went to the Board and made him the Appointed Actuary this year.  
(WHEW!) (Well folks - that's good news for me!)

CHAIR: Why the hell did I do that?!

(N. Asch)

STAFF: You had to appoint someone and we did not think we  
(J. Tuttle) could find another Actuary loyal or reliable enough.

CHAIR: Why not shop around for a nice compliant consulting  
(N. Asch) actuary? Some other CEOs have given me a couple of  
names...  
Well, let's go back to looking up our daily stock  
price. Wall St. knows quality! Look at those  
numbers!



ACT III (1989)

MINDLESS MUTUAL

CAST

Nolan Asch. . . . .	.CHAIRMAN
David Skurnick. . . . .	.ACTUARY
Jerome Tuttle . . . . .	.SAM SALES
Helen Exarhos . . . . .	.NEW PLAYER

ACT III  
MINDLESS MUTUAL

Last, but not least of our 3 outstanding insurance organizations is the firm of Mindless Mutual. We will first repeat our 1989 dramatization and then visit them again in 1993.

CHAIRMAN: Well, I can see here that premiums are not meeting  
(N. Asch) our growth plans.

ACTUARY: I told you that accepting the sales department's  
(D. Skurnick) proposal of a 20% rate decrease would generate less premium rather than more ---.

CHAIRMAN: But they guaranteed us a 50% increase in policies  
(N. Asch) in-force at those rates to create 20% premium growth.

ACTUARY: And once again they failed us all -- And -- the  
(D. Skurnick) analysis shows us that they only wrote more business in the "preferred category" -- where rates are down 40%, and less business than ever in the one-third of the former portfolio with no rate change. So the original plan was as follows:

	<u>CHART 1</u> (SLIDE 89-3-1)			
	<u>TERRTY 1</u>	<u>TERRTY 2</u>	<u>TERRTY 3</u>	<u>AVERAGE</u>
Old Weight	1/3	1/3	1/3	
Rate Change	-40% (.60)	-20% (.80)	0% (1.00)	-20% (.80)
Planned PIF	1.5	1.5	1.5	1.5
Planned New Weight	1/3	1/3	1/3	
Premium Volume Change				+20.0%

WHAT WE GOT LAST YEAR WAS THIS

CHART 2

(SLIDE 89-3-2)

	<u>TERRTY 1</u>	<u>TERRTY 2</u>	<u>TERRTY 3</u>	<u>AVERAGE</u>
Old Weight	1/3	1/3	1/3	
Rate Change	-40% (.60)	-20% (.80)	0% (1.00)	-20% (.80)
Act. PIF Change	+20%	+0%	-20%	
Premium Volume Change				-23%

A 23.2% PREMIUM DECREASE WITH SAME POLICY COUNT  
AND EXPOSURE LEVEL

SAM SALES: Hello everyone  
(J. Tuttle)

OTHERS: Hello Sam!!!

SAM SALES: Still trying to brainwash our chairman against  
(J. Tuttle) the "tried and true" techniques that this firm  
has used for 30 years.

ACTUARY: And should have stopped using 30 years ago ---  
(D. Skurnick)

SAM: When Charlie's dad founded this firm 70 years  
(J. Tuttle) ago -- its intent was to supply low cost and  
reliable insurance to people no one else would  
insure. We're not a greedy stock firm -- a  
prisoner of Wall Street's expectations. We are  
not in existence for greed and profit. We represent  
a way of life.

ACTUARY: Yes -- we all know --  
(D. Skurnick) THE MINDLESS WAY

SAM: Well -- I know the 23% premium drop was a  
 (J. Tuttle) disappointment to us all. Our sales reps worked like  
 mad last year -- but as I told you last year -- even  
 with that measly 20% rate decrease, our rates are  
 still not competitive. Our high rate levels cause  
 only the poorer risks to stay with us and the good  
 ones to leave -- perpetuating poor loss ratios that  
 justify more rate increases that drive away more  
 "good" business.

ACTUARY: This is ridiculous! We took a rate decrease -- not  
 (N. Asch) a rate increase. Not competitive!!! With whom?!

SAM: I'm glad you asked -- Look at these figures -- You  
 (J. Tuttle) can see we're never the lowest rated. Podunk Mutual  
 is beating our brains out in most places --

SLIDE 89-3-3

PREMIUM COMPARISON

	TER'TY	TER'TY	TER'TY	
	<u>1</u>	<u>2</u>	<u>3</u>	<u>AVG</u>
Podunk Mutual	100	80	80	96
Global Galactic	80	110	80	104
Cowboy Casualty	60	60	60	60
Mindless Mtl - Before	100	100	100	100
Mindless Mtl - After	60	80	100	80
Actuarially Indicated	100	100	100	100
Weight	1/3	1/3	1/3	
Policy Count Change	+20%	0	-2-%	(100)

ACTUARY: We've been through all this -- These three firms;  
 (N. Asch) Podunk Mutual, Global and Cowboy, only represent 20% of the market. Our tables always use the 5 largest firms in the market for comparison. Global Galactic has 80% of their portfolio in Territory 2 so their average rate is  $(110) (.80) + (.2) (80) = 88 + 16 = 104$ . (SLIDE 89-3-3) Podunk Mutual writes 80% in Territory 1 -- so they come to  $(100) (.8) + (.2) (80) = 96$ .

SAM: What about Cowboy Casualty? They're the "hot  
 (J. Tuttle) market," -- They're big and getting bigger fast! They beat us everywhere. Also -- rumor has it that even Global Galactic is about to get more competitive. Their field offices get so many mixed signals from their Home Office -- everyone's dizzy.

ACTUARY: Cowboy Casualty will be bankrupt within 5 years --  
 (D. Skurnick)

SAM: Says you -- They're A-rated and surplus goes up  
 (J. Tuttle) every year --

ACTUARY: Yeah -- much faster than their absurdly understated  
 (N. Asch) loss reserves!

SAM: So emotional! By the way, Charlie -- How's the golf  
 (J. Tuttle) game?

CHAIRMAN: Fine -- We really need to get together soon. You  
 (N. Asch) know I love to play with you.

ACTUARY: Let's go back to business.  
 (D. Skurnick)

CHAIR: Must we?! It's a lovely day.  
(N. Asch)

ACTUARY: Look at the situation we've put ourselves in! Our  
(D. Skurnick) average rate is only 80 now! Our premium is  
dropping! Our loss ratios are booming!

CHAIR: You know -- you really should take up golf. You're  
(N. Asch) far too emotional and serious about all this. We've  
gotten by for 70 years without all this advanced  
Actuarial analysis. It was my idea -- over Sam's  
objections, to start Actuarial 5 years ago. How are  
you going to get us the sales we need?

ACTUARY: What! Sam's the sales VP, not me! I've already  
(D. Skurnick) bent over backwards to accommodate him.

NEW PLAYER: (TIMIDLY) Excuse me -- I thought it important to  
(H. Exarhos) show you a new business proposition just in from  
Fearless Freddie.

SAM: See -- Sales once again can save the day.  
(J. Tuttle) (SAM READS THE NEW BUSINESS PROPOSAL)  
We're up against Cowboy Casualty on this one -- It  
will be tough. However, we've had the property  
insurance on this account for 20 years! It has had  
a 30% loss ratio at \$100,000 per year. That's 2  
Million in Premium with a profit of (30% + 30% Exp  
= 60% \$800,000. If Cowboy gets the Casualty the  
Property will be next. We need to defend this core  
account.

ACTUARY: Don't get emotional! Why don't you go to your  
(D. Skurnick) normal office at the golf course.

SAM: It can be done! We can quote \$100,000 and use our  
(J. Tuttle) Property profits on the risk to make it profitable  
on a joint basis.  
(EVERYONE LEAVES BUT THE CEO)

CEO: What should I do? Well folks, Sam has been with the  
(N. Asch) firm for ever. The Actuaries appear to be so smart,  
with all their logic and numbers. I'm going to have  
to make a policy decision, sooner or later. The  
status quo or this new "scientific" Actuarial  
approach to pricing?

ACT III (1993)

MINDLESS MUTUAL

CHAIRMAN: Well, I can see here that premiums are not meeting  
(N. Asch) our growth plans.

ACTUARY: I told you before, in a market as soft and  
(D. Skurnick) unprofitable as this one. We should not have any  
growth plans.

CHAIRMAN: Yes, I know only survival plans  
(N. Asch)

ACTUARY: What's that smell!??  
(D. Skurnick)

CHAIRMAN: I don't know. Every once in a while it seems to  
(N. Asch) come here from the general direction of the Claims  
Department. Charlie's been in charge there for 30  
years. You know dad hired him. He tells me there's  
nothing to worry about. Anyway, I have called you  
here to hear the solution to our premium problem...

ACTUARY: We don't have a premium problem!!!  
(D. Skurnick)

CHAIRMAN: A distinguished reinsurance broker will be showing  
(N. Asch) us ways of massively increasing our premium volume  
with the assumption of virtually no risk. It  
relates to these new Financial lines of business and  
some other things.

BROKER: HELLO!!! It is an honor to meet such an exalted  
(J. Tuttle) insurance executive!!



CHAIR: The pleasure is mine! I have invited my Chief  
(N. Asch) Actuary to join us....

BROKER: Is that really necessary? These technical types  
(J. Tuttle) often do not understand the big picture strategic considerations...

CHAIR: But you told me these were highly technical product  
(N. Asch) lines so I have my best technician with me.

BROKER: All right! The basic concept of these products is  
(J. Tuttle) really quite simple although the mechanics can be complex. You will be using your statutory surplus in transactions that will look like you are losing money, while, in reality, you are earning a very high rate of return with almost no risk. The profit margins on each deal are very small but the risk you assume is even smaller. Of course, on paper it has to look like you are assuming a lot of risk (risk transfer) so the limits are very large but the aggregate loss scenarios it would take to trigger these events would be so massive...

ACTUARY: You mean, like Hurricane Andrew...  
(D. Skurnick)

BROKER: Well, sometimes the unexpected does happen.  
(J. Tuttle)

CHAIR: But I really don't understand....  
(N. Asch)

BROKER: (TO AUDIENCE) Well folks, that's what I'm counting  
(J. Tuttle) on! I can see they don't call this place "mindless" for nothing!

BROKER: It's really quite simple you are involved in a  
(J. Tuttle) disguised banking arrangement.

CHAIR: That's why there's a 99% profit commission -  
(N. Asch) Doesn't that mean in all outcomes favorable to us we  
realize almost no underwriting income.

BROKER: Yes -- but you get to keep 10% of all the  
(J. Tuttle) accumulated investment income!

ACTUARY: But, if the 500 million aggregate deductible is  
(D. Skurnick) pierced, we could lose 100 million in real money,  
while our upside potential in the best case is only  
\$2 million.

BROKER: I calculate it to be \$4 Million.  
(J. Tuttle)

CHAIRMAN: But can we book this transaction as \$100 Million in  
(N. Asch) premium volume?

ACTUARY: That depends on the accounting treatment ... with  
(D. Skurnick) the new FASB pronouncements I doubt ...

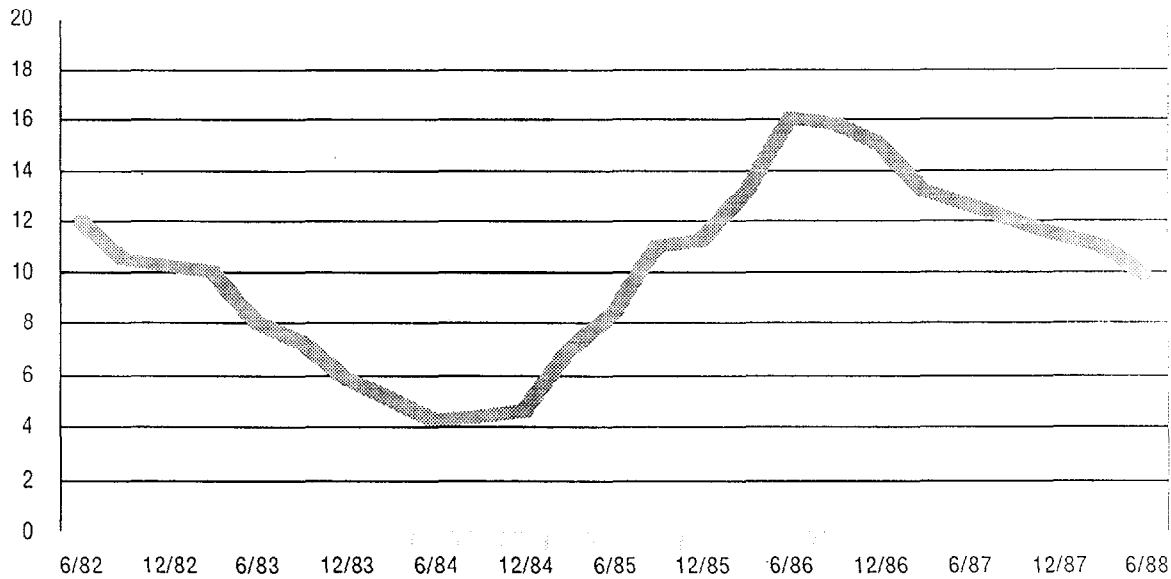
BROKER: Let's leave that to the CPAs. Where is SAM SALES?  
(J. Tuttle) He'd know what to do! I must have your answer  
within 29 hours or this deal will be placed with  
someone else?

CHAIR: SAM's in the hospital. He had a serious coronary at  
(N. Asch) the 16th hole tee! Well --- Thank you! Why don't  
you both leave me. I will give you my decision  
tomorrow.

CHAIR: Well folks - what should I do? After Andrew, we've  
(N. Asch) had a major surplus hit and we must reduce our  
Property business accumulations. I agree with our  
casualty underwriters that prospects and prices  
there today are abysmal. I don't totally understand  
these new finite products but there's a lot of  
premiums there with very little need for additional  
staffing or expense. Everybody seems to be doing  
these "deals." I know growth in all my traditional  
insurance lines is ill advised. What would you do?

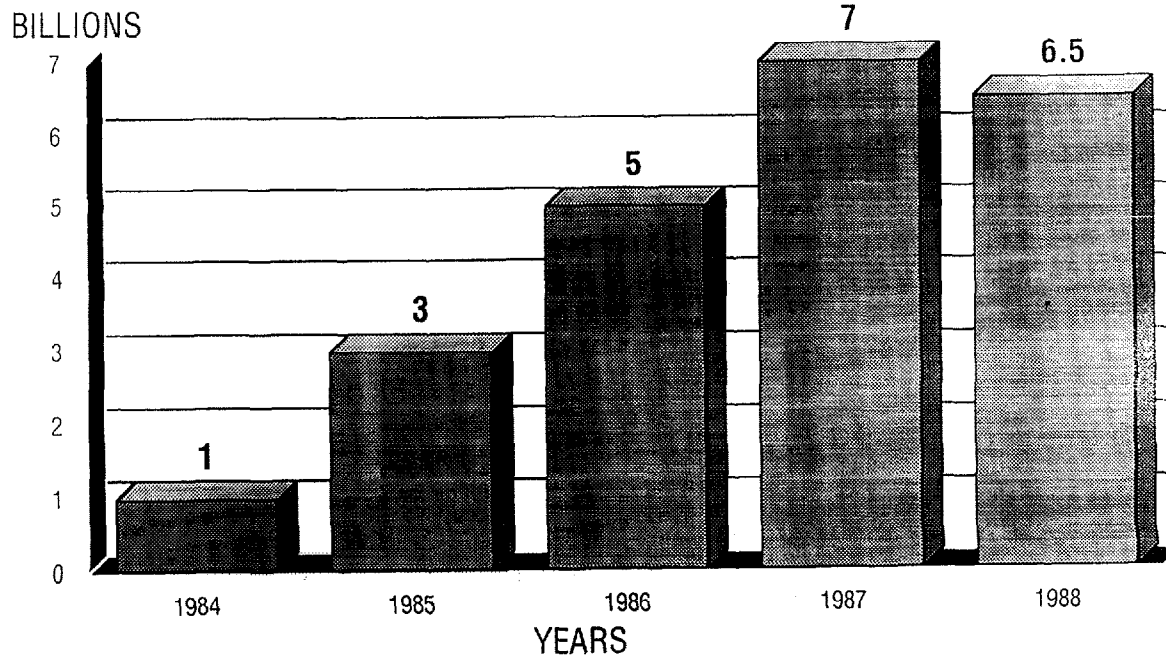
NARRATOR: Well - we will have to wait a few years to learn  
(N. Asch) what decisions our mythical CEOs made in 1993. I do  
know decisions and corporate actions like these will  
influence the future course of the underwriting  
cycle.

# PRICE LEVELS

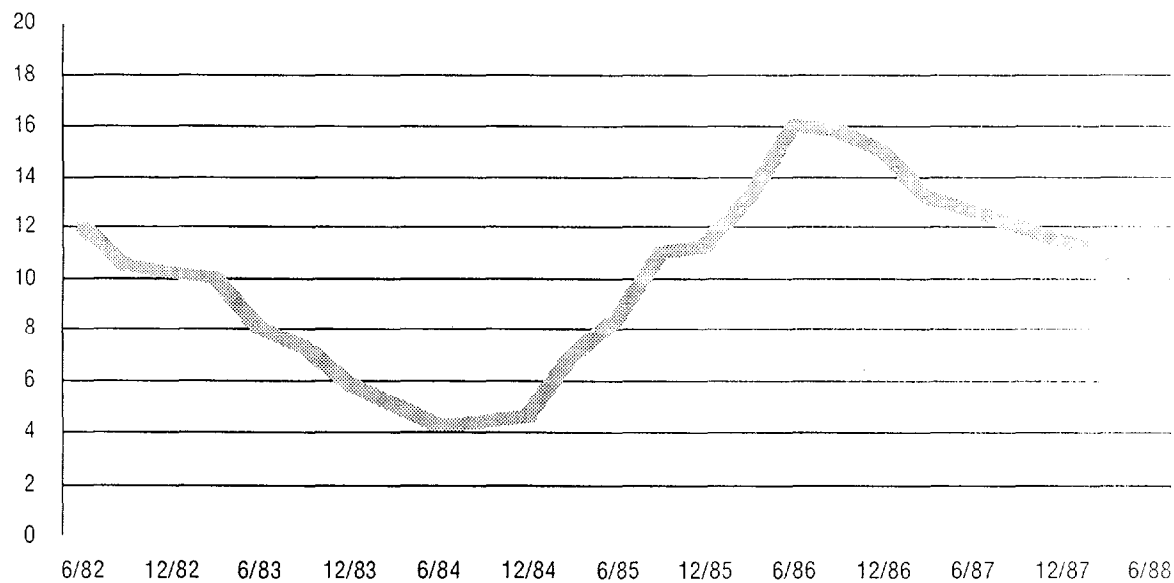


# GLOBAL GALACTIC

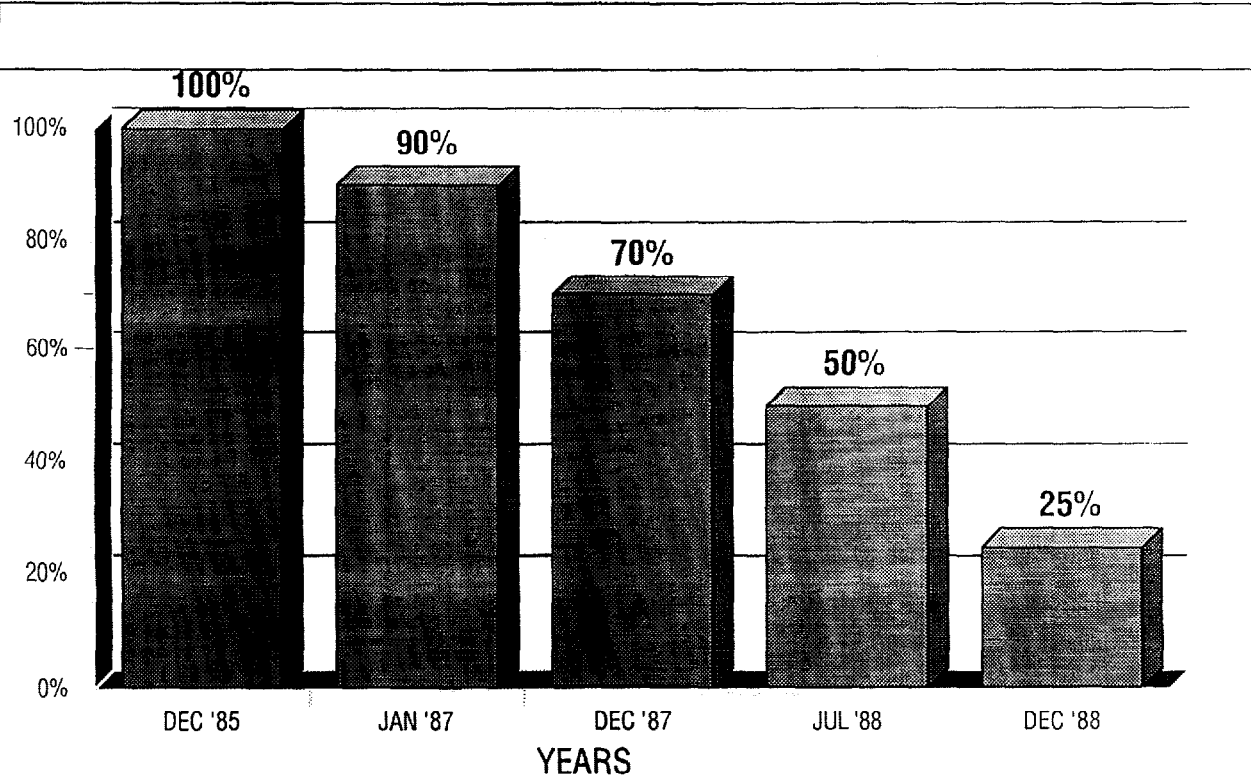
## Written Premiums



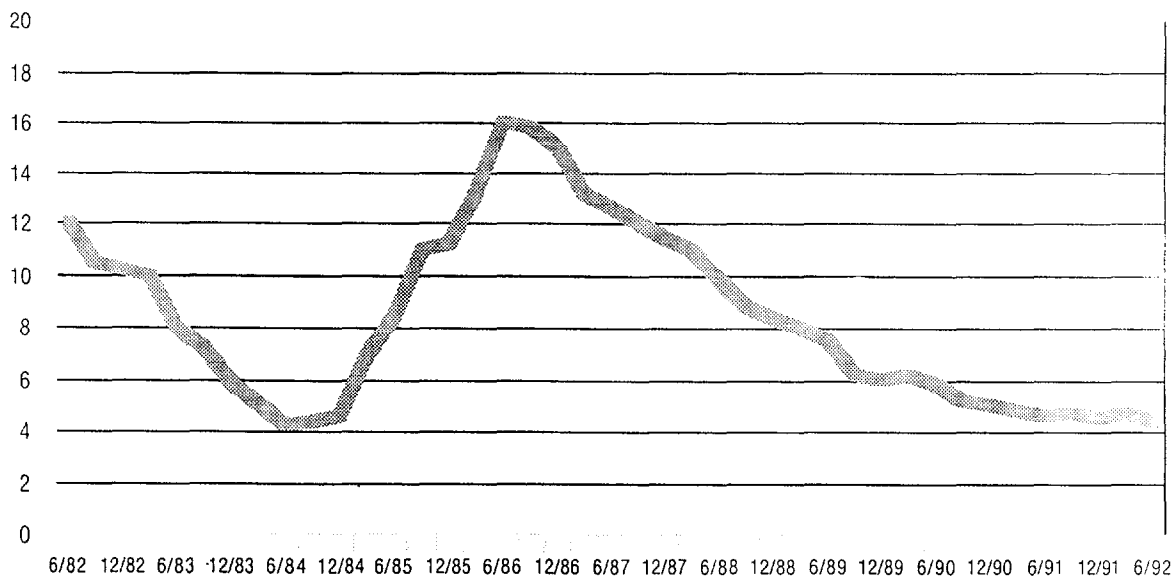
# PRICE LEVELS



# % WRITTEN PREMIUMS USING 1985 STANDARDS



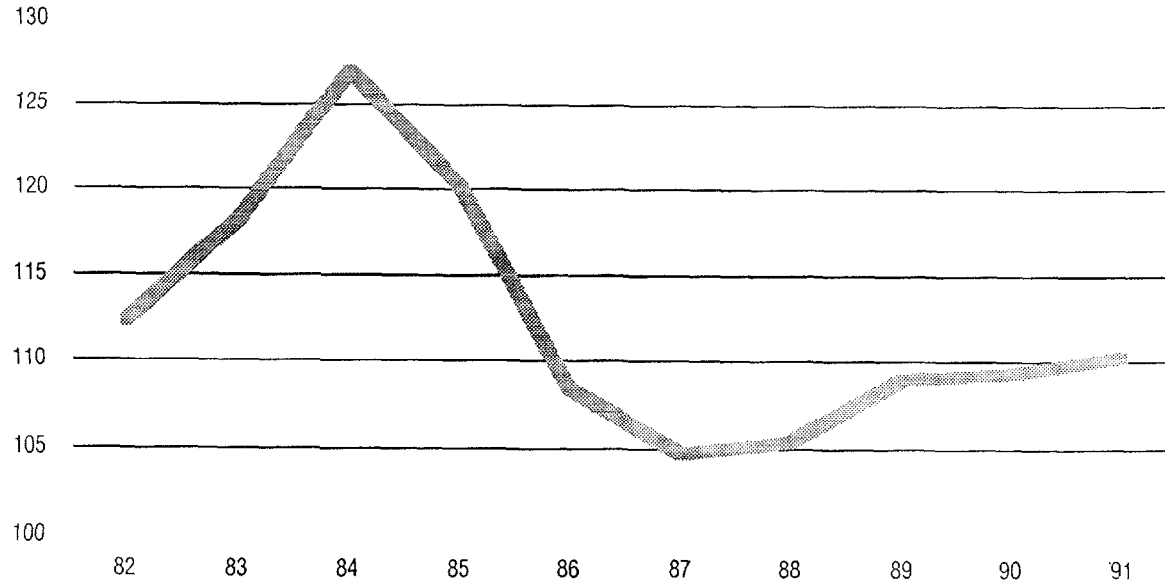
# PRICE LEVELS





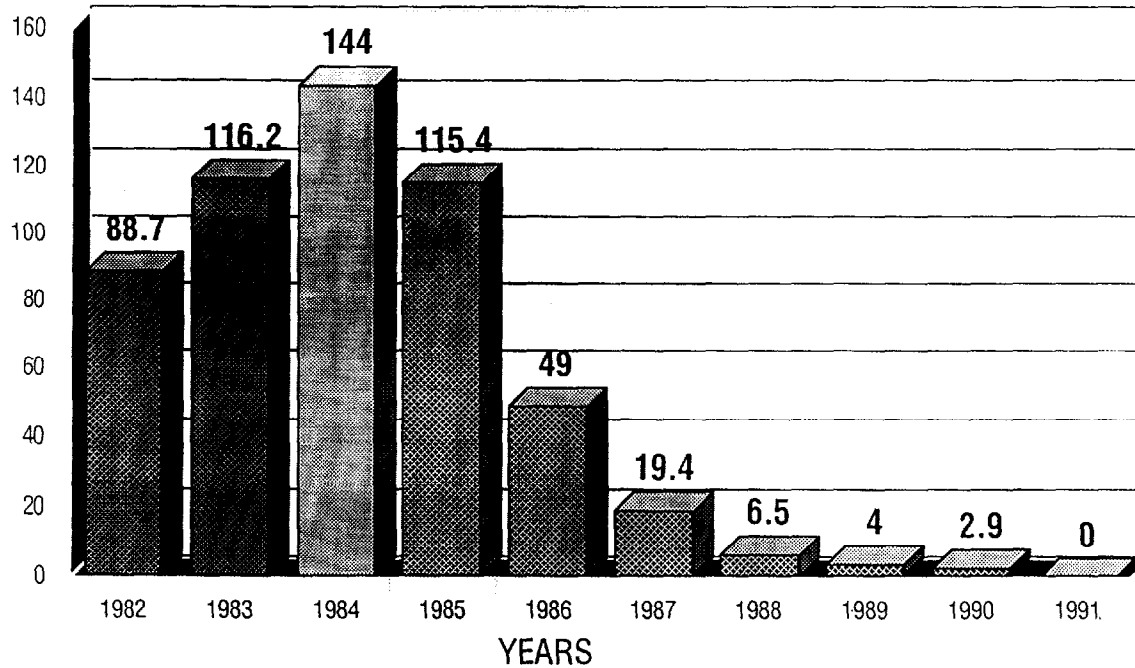
# INDUSTRY (COMMERCIAL LINES) UW RATIOS

(Combined Ratios After Dividends)



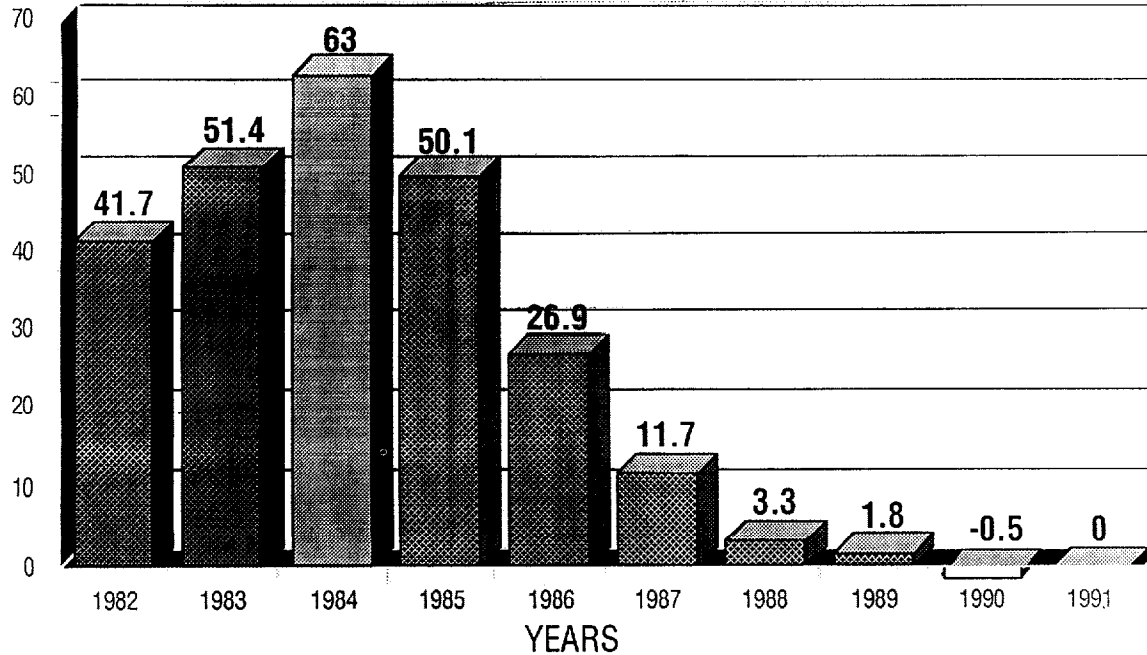
# REINSURANCE-LOSS RESERVE ANALYSIS

## (Developed Reserves to PHS for 1991)



# INSURANCE-LOSS RESERVE ANALYSIS

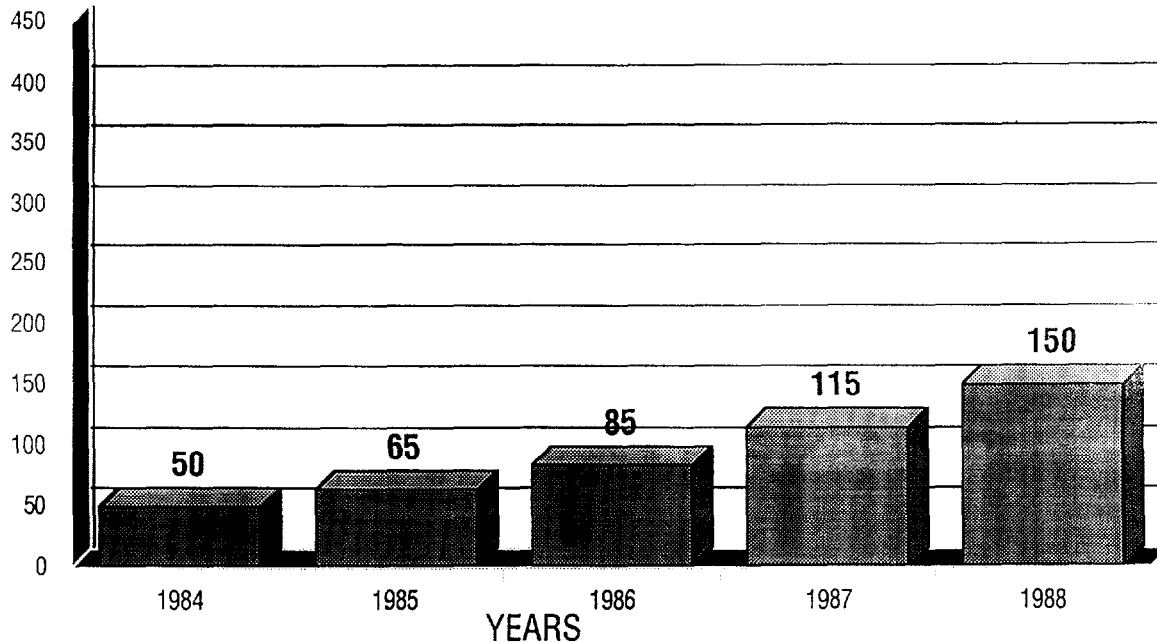
(Developed Reserves to PHS for 1991)



# COWBOY CASUALTY COMPANY

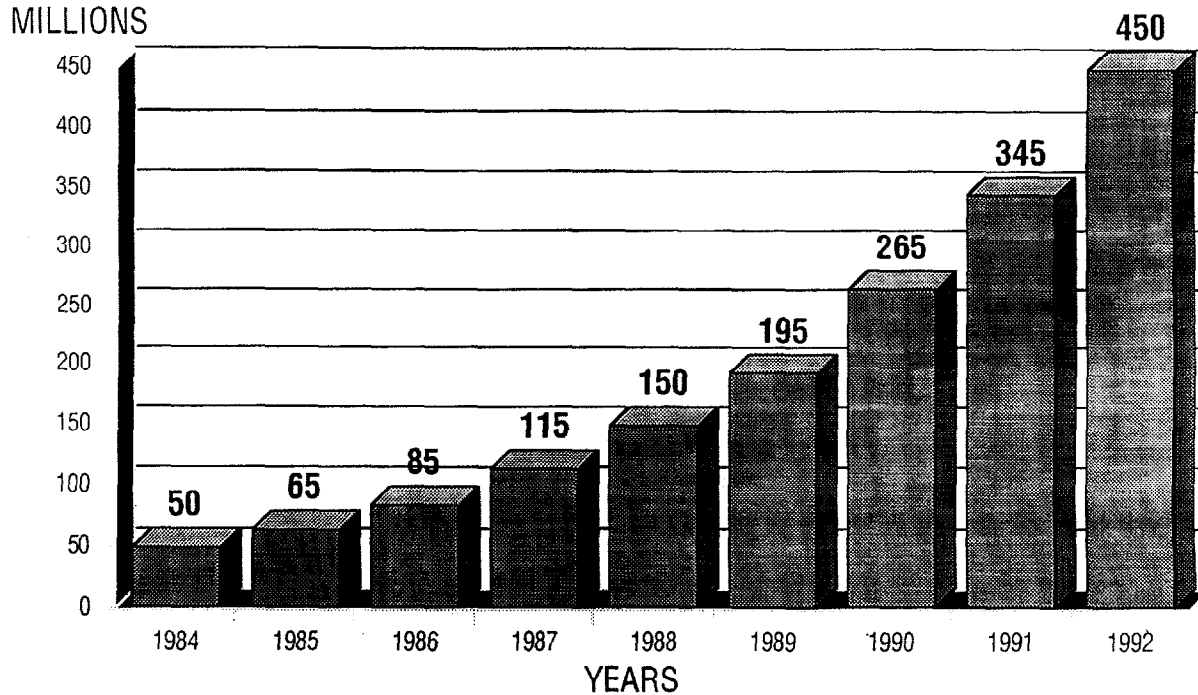
## Written Premium Volume

MILLIONS

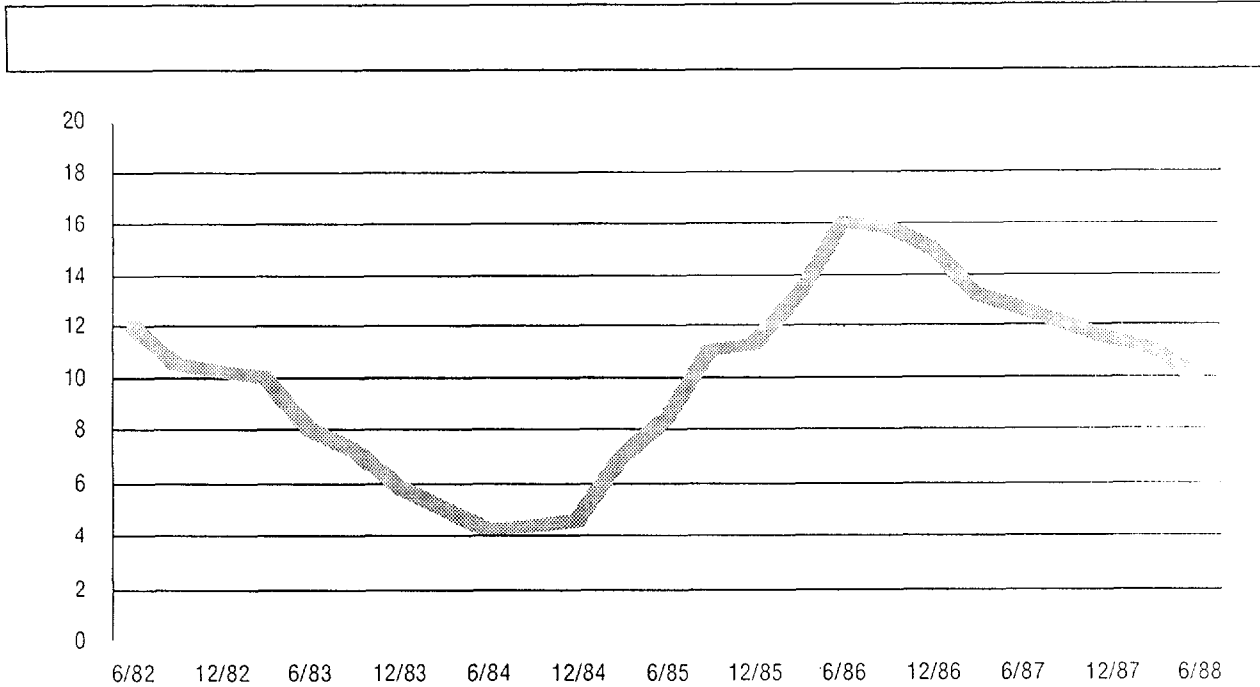


# COWBOY CASUALTY COMPANY

## Written Premium Volume



# PRICE LEVELS





$$(1.1)^3 = 1.331$$



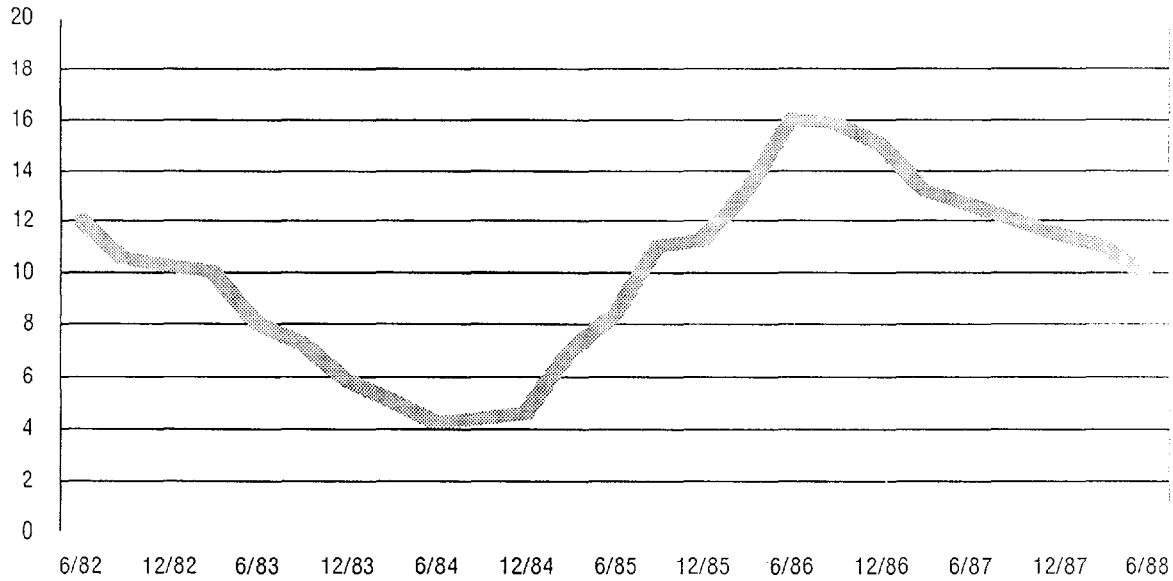
$$(.8) (1.1)^3 = 1.0648$$





$$\begin{aligned} 1.0648 - .80 &= 0.2648 + 1 \\ &= 126.48\% \end{aligned}$$

# PRICE LEVELS



# SUBMISSION

## XYZ Auto Parts

Year	Exposures	Ultimate Loss Costs	Ultimate Cost Per Exposure	Estimated Average Payout
1982	1,000	200	200	3.0 Years
1983	1,000	220	220	3.5 Years
1984	1,000	242	242	4.0 Years
1985	1,000	266	266	4.0 Years
1986	1,000	293	293	4.5 Years

**5 YEAR AVERAGE:** 244

# SUBMISSION

## XYZ Auto Parts

Year	Exposure	Ultimate Loss Cost	Ultimate Cost Per Exposure	Estimated Average Payout
1982	1,000	200	200	3.0 Years
1983	1,000	220	220	3.5 Years
1984	1,000	242	242	4.0 Years
1985	1,000	266	266	4.0 Years
1986	1,000	293	293	4.5 Years

**EXPECTED '87**

**VIA TREND ANALYSIS: 322**

$$\text{\$322,000} \times (100/75\text{ths}) = \underline{\underline{\text{\$430,000}}}$$

# SUBMISSION

## XYZ Auto Parts

Year	Exposures	Ultimate Loss Costs	Ultimate Cost Per Exposure	Estimated Average Payout
1982	1,000	200	200	3.0 Years
1983	1,000	220	220	3.5 Years
1984	1,000	242	242	4.0 Years
1985	1,000	266	266	4.0 Years
1986	1,000	293	293	4.5 Years

**EXPECTED '87**

**VIA TREND ANALYSIS: 322**

$$\text{\$322,000} \times (100/75\text{ths}) = \text{\$430,000}$$

$$(1.1)^5 = 1.61051$$

$$\text{\$430,000} = \underline{\underline{\text{\$267,000}}}$$

$$\underline{1.61051}$$

# SUBMISSION

## XYZ Auto Parts

Year	Exposures	Ultimate Loss Costs	Ultimate Cost Per Exposure	Estimated Average Payout
1982	1,000	200	200	3.0 Years
1983	1,000	220	220	3.5 Years
1984	1,000	242	242	4.0 Years
1985	1,000	266	266	4.0 Years
1986	1,000	293	293	4.5 Years

**5 YEAR AVERAGE:      244**

$$\text{\$244,000 X (100/75ths) = } \underline{\underline{\text{\$326,000}}}$$

# RICKETTY RE

Written Premium		\$150,000
Treaty Cost		10%
Net Investable Funds		\$135,000
5 Yr Compounded Interest Income		1.61
Cumulative Fund After 5 Years	=	\$217,000

# **RICKETTY RE**

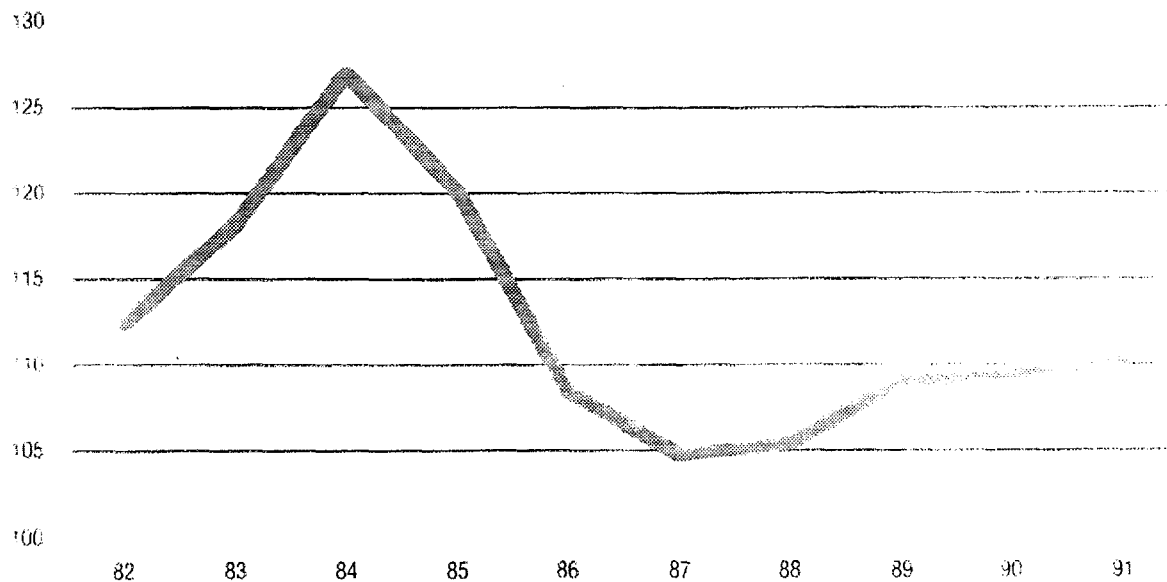
## **Actuarial Analysis**

<b>Commissions, Taxes, &amp; Expenses</b>	<b>25%</b>
<b>Adjusted Cumulative Fund After 5 Yrs</b>	<b>\$217,000 (.75) = \$163,000</b>
<b>Expected Ultimate Losses</b>	<b>\$322,000</b>
<b>Expected LAE Per Annum</b>	<b>40%</b>
<b>Expected LAE Amount Per Annum</b>	<b>\$129,000</b>
<b>Total Expected Losses</b>	<b>\$451,000</b>



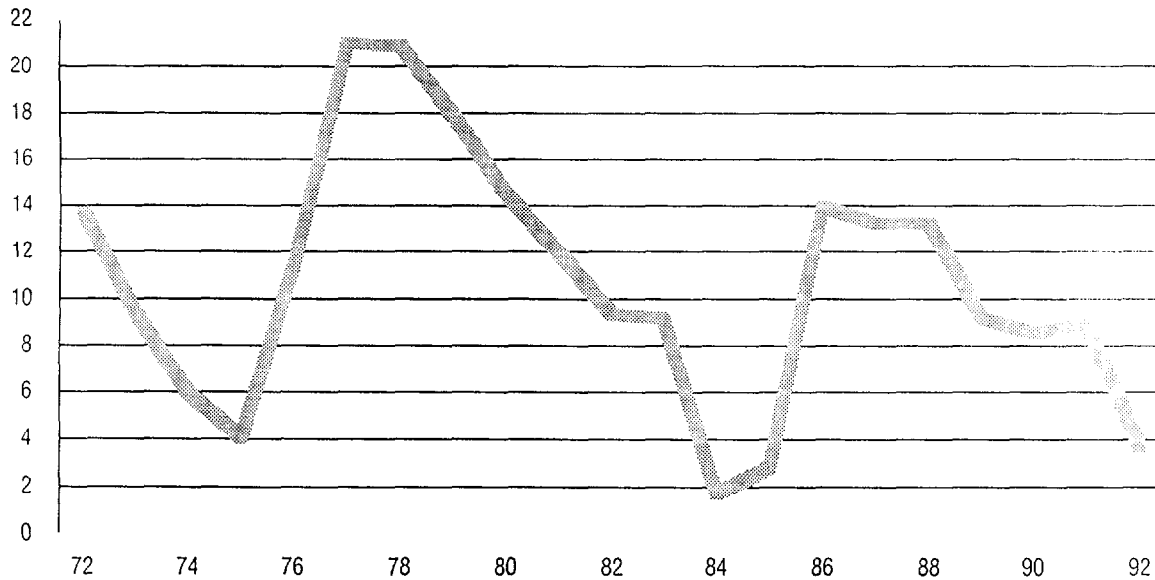
# INDUSTRY (COMMERCIAL LINES) UW RATIOS

(Combined Ratios After Dividends)



## AVERAGE ANNUAL RATES OF RETURN ON NET INCOME AFTER TAXES

as % of Net Worth for the Property-Casualty Industry



# MINDLESS MUTUAL

Chart 1

	<u>TERR 1</u>	<u>TERR 2</u>	<u>TERR 3</u>	<u>AVERAGE</u>
Old Weight	1/3	1/3	1/3	
Rate Change	-40%(.60)	-20% (.80)	0%(1.00)	-20%(.80)
Planned PIF Change	1.5	1.5	1.5	1.5
Planned New Weight	1/3	1/3	1/3	

**PREMIUM VOLUME CHANGE**  **+20.0%**

# MINDLESS MUTUAL

## Chart 2

	<u>TERR 1</u>	<u>TERR 2</u>	<u>TERR 3</u>	<u>AVERAGE</u>
Old Weight	1/3	1/3	1/3	
Rate Change	-40%(.60)	-20% (.80)	0%(1.00)	-20%(.80)
Actual PIF Change	+20%	+0%	-20%	

**PREMIUM VOLUME CHANGE**  **-23%**

# PREMIUM COMPARISON

	<u>TERR 1</u>	<u>TERR 2</u>	<u>TERR 3</u>	<u>AVERAGE</u>
Podunk Mutual	100	80	80	96
Global Galactic	80	110	80	104
Cowboy Casualty	60	60	60	60
Mindless Mutual- Before Rate Change	100	100	100	100
Mindless Mutual- After Rate Change	60	80	100	80
Actuarially Indicated	100	100	100	100
Weight	1/3	1/3	1/3	1/3
PIF Change	+20%	0%	-20%	-110%





