

The Underwriting Cycle Seminar

October 2009

The Reasonability of Loss Reserves:
A Primary Company Perspective

Reserving Accuracy Poll

At year-end 2008, what percentage of US P&C insurance companies' hindsight reserves at year-end 2002 were within -10% to +10% of their originally recorded year-end 2002 reserves?

- **75% - isn't it called actuarial "science"?**
- **50% - but on the other hand, there's loads of judgment**
- **30% - loads and loads and loads of judgment**
- **15% - but at least it can't be negative**

... right?

Discussion Points

- A. Hindsight review of reserve adequacy
 - Calendar Year Ending
 - Accident Year
- B. Hindsight review of pricing trends

A ↔ B ?

Percentage of Companies with Initial Recorded Reserves within X% of 2008 Hindsight Reserves

Companies with Initial Recorded Reserves in excess of \$1 million

Calendar Year End	Within +/- 5%	Within +/-10%	Within +/- 25%
1999	18%	31%	63%
2000	15%	30%	61%
2001	13%	28%	62%
2002	15%	30%	67%
2003	19%	36%	69%
2004	23%	40%	68%
2005	24%	40%	69%
2006	25%	43%	73%
2007	35%	60%	84%

Source: SNL, 2009.

Percentage of Companies with Initial Recorded Reserves within X% of 2008 Hindsight Reserves

Companies with Initial Recorded Reserves in excess of \$1 million – excluding 1998 & prior

Calendar Year End	Within +/- 5%	Within +/-10%	Within +/- 25%
1999	17%	30%	65%
2000	14%	28%	64%
2001	14%	30%	67%
2002	16%	34%	70%
2003	20%	36%	68%
2004	19%	35%	65%
2005	18%	34%	67%
2006	19%	39%	71%
2007	29%	56%	84%

Source: SNL, 2009.

Percentage of Companies with Initial Recorded Reserves within X% of 2008 Hindsight Reserves

Companies with Initial Recorded Reserves in excess of \$500 million – excluding 1998 & prior

Calendar Year End	Within +/- 5%	Within +/-10%	Within +/- 25%
1999	18%	34%	69%
2000	10%	23%	64%
2001	14%	29%	71%
2002	17%	34%	74%
2003	25%	45%	78%
2004	28%	49%	84%
2005	32%	53%	88%
2006	27%	61%	93%
2007	46%	84%	98%

Source: SNL, 2009.

Percentage of Companies with Initial Recorded Reserves within 10% of 2008 Hindsight Reserves

Companies with Initial Recorded Reserves in excess of \$1 million – by line

Calendar Year End	Within +/-10%				
	Aggregate	Oth Liab	CMP	Work Comp	PP Auto
1999	31%	18%	24%	26%	43%
2000	30%	17%	26%	23%	44%
2001	28%	17%	27%	22%	46%
2002	30%	20%	26%	23%	51%
2003	36%	22%	28%	31%	48%
2004	40%	30%	30%	43%	40%
2005	40%	33%	35%	49%	36%
2006	43%	40%	38%	49%	46%
2007	60%	49%	47%	66%	65%

Source: SNL, 2009.

Percentage of Companies with Initial Recorded Reserves within X% of 2008 Hindsight Reserves

10K Basis (50+ companies)

Calendar Year End	Within +/- 5%	Within +/-10%	Within +/- 25%
1999	24%	41%	67%
2000	12%	28%	62%
2001	22%	39%	67%
2002	21%	34%	74%
2003	21%	51%	87%
2004	30%	53%	92%
2005	40%	62%	100%
2006	36%	70%	100%
2007	68%	98%	100%

Source: Company 10K filings.

Calendar Year-End Hindsight Redundancy / (Deficiency)

Emerged Redundancy / (Deficiency) as a % of Hindsight Reserves

Cumulative Emerged Hindsight Redundancy / (Deficiency)				
Calendar Year End	US Stat Aggregate	US Stat Excl Priors	10K-Basis 50+ Sample	10K-Basis x-Large
1999	-17%	-15%	-21%	-9%
2000	-21%	-18%	-25%	-12%
2001	-21%	-15%	-26%	-14%
2002	-16%	-10%	-22%	-10%
2003	-10%	-3%	-13%	-3%
2004	-2%	4%	-5%	4%
2005	2%	7%	2%	6%
2006	2%	5%	3%	6%
2007	0%	1%	2%	3%

Source: SNL 2009, Company 10K filings.

Accident Year Hindsight Redundancy / (Deficiency)

Emerged Redundancy / (Deficiency) as a % of Hindsight Reserves

Cumulative Emerged Hindsight Red / (Def)			
Accident Year	US Stat Aggregate	10K-Basis 50+ Sample	10K-Basis x-Large
1999	-15%	-18%	-13%
2000	-17%	-19%	-14%
2001	-8%	-12%	-6%
2002	-1%	-3%	3%
2003	13%	13%	12%
2004	20%	17%	17%
2005	13%	14%	9%
2006	4%	9%	8%
2007	0%	2%	2%

Source: SNL 2009, Company 10K filings.

Accident Year Hindsight Redundancy / (Deficiency)

Emerged Redundancy / (Deficiency) as a % of Hindsight Reserves

Cumulative Emerged Hindsight Redundancy / (Deficiency)					
Accident Year	Schedule P Part				
	Aggregate	Oth Liab	Work Comp	Comm Auto	PP Auto
1999	-15%	-32%	-24%	-19%	0%
2000	-17%	-30%	-23%	-16%	-2%
2001	-8%	-21%	-13%	-8%	1%
2002	-1%	-19%	-5%	0%	3%
2003	13%	8%	9%	7%	9%
2004	20%	32%	21%	9%	11%
2005	13%	21%	22%	5%	9%
2006	4%	10%	11%	6%	3%
2007	0%	3%	2%	1%	1%

Source: SNL 2009, Company 10K filings.

Accident Year Hindsight Redundancy / (Deficiency)

Emerged Redundancy / (Deficiency) as a % of Hindsight Reserves by Evaluation

Cumulative Emerged Hindsight Red / (Def) relative to Current Hindsight Reserves									
Accident Year	US Stat Aggregate								
	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1999	-2%	-4%	-8%	-10%	-12%	-13%	-14%	-15%	-15%
2000	-3%	-7%	-10%	-13%	-14%	-16%	-16%	-17%	
2001	-1%	-2%	-5%	-6%	-7%	-7%	-8%		
2002	4%	2%	0%	-1%	-1%	-1%			
2003	8%	10%	12%	12%	13%				
2004	11%	15%	17%	20%					
2005	7%	11%	13%						
2006	4%	4%							
2007	0%								

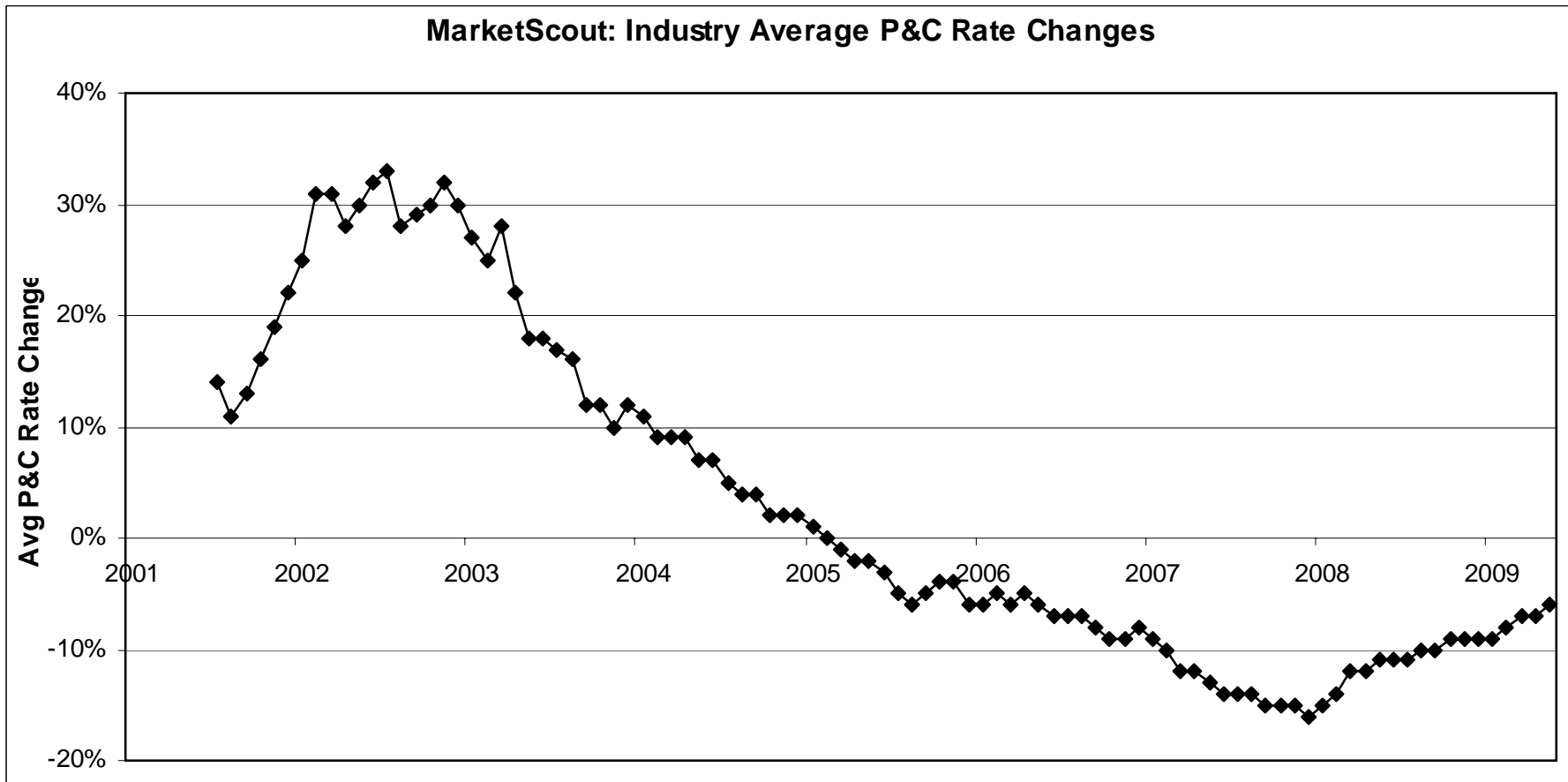
Source: SNL 2009, Company 10K filings.

Pricing Trends Poll

According to MarketScout's "Market Barometer Report", what is the average monthly composite P&C rate change for 2009?

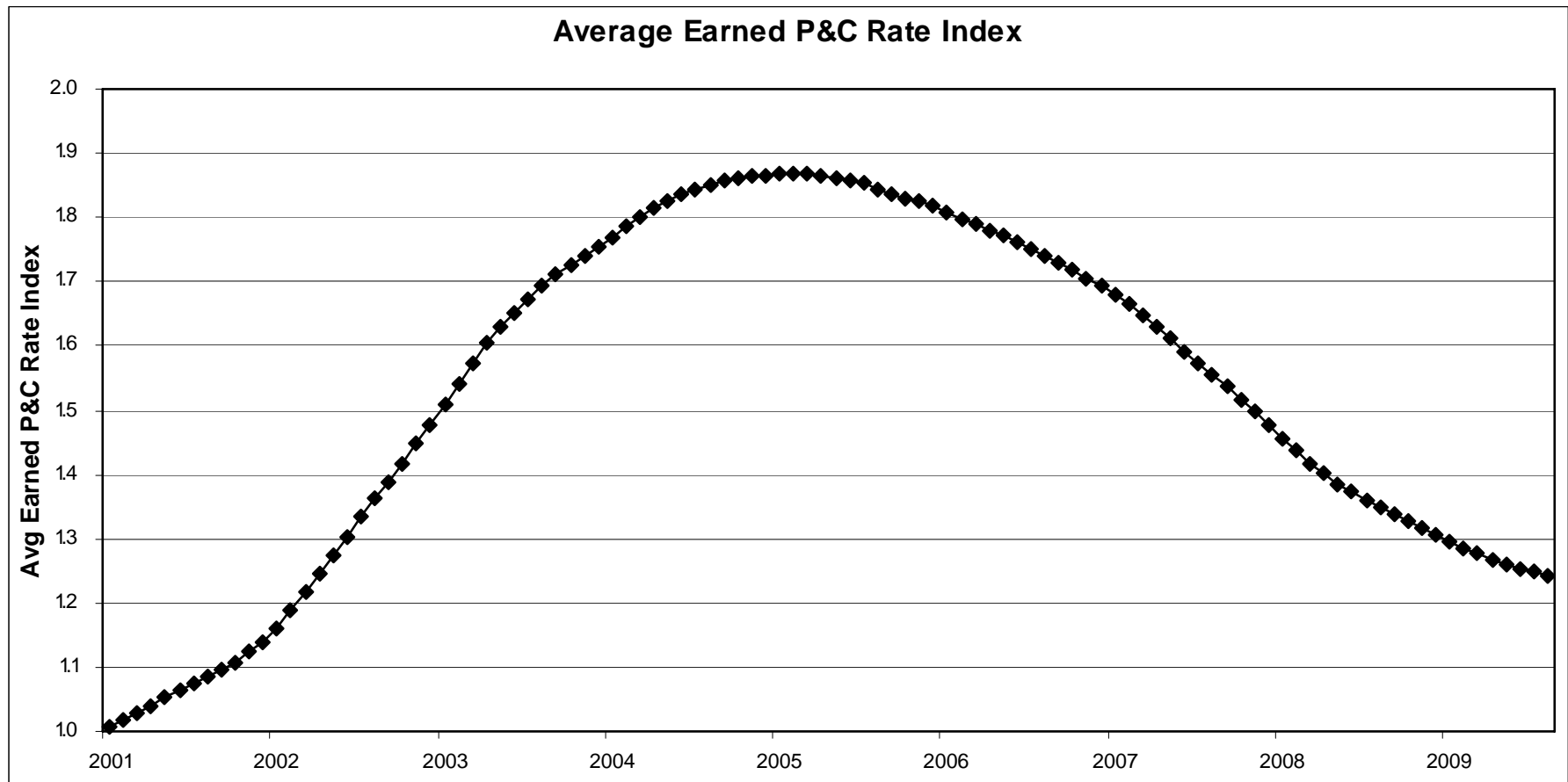
- **+5% or more - happy days are here again**
- **+0% to +5% - rates are moderately up**
- **-0% to -5% - rates are moderately down**
- **-5% or less - where's the bottom?**

Industry Average Rate Changes

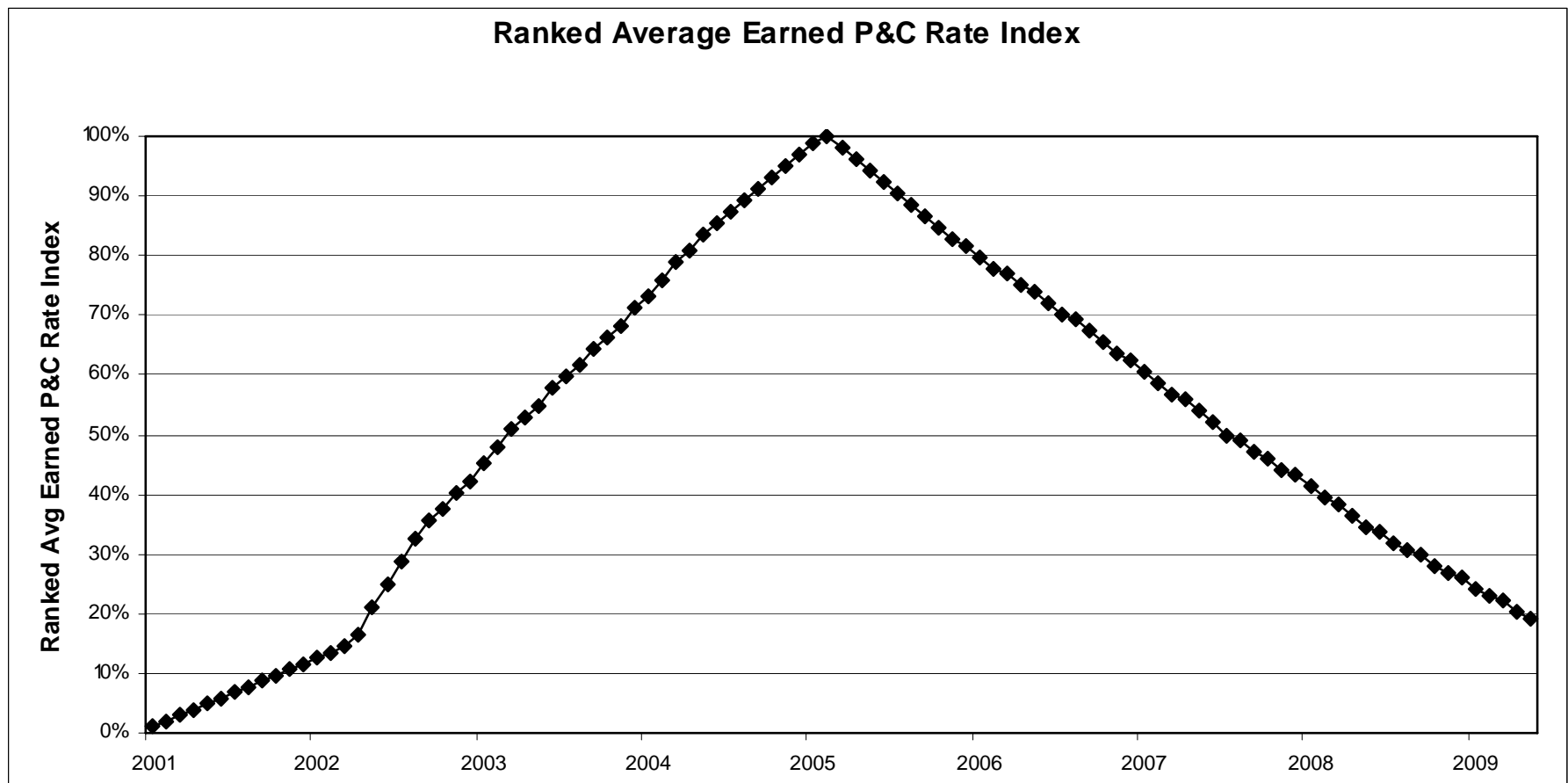


Source: www.MarketScout.com

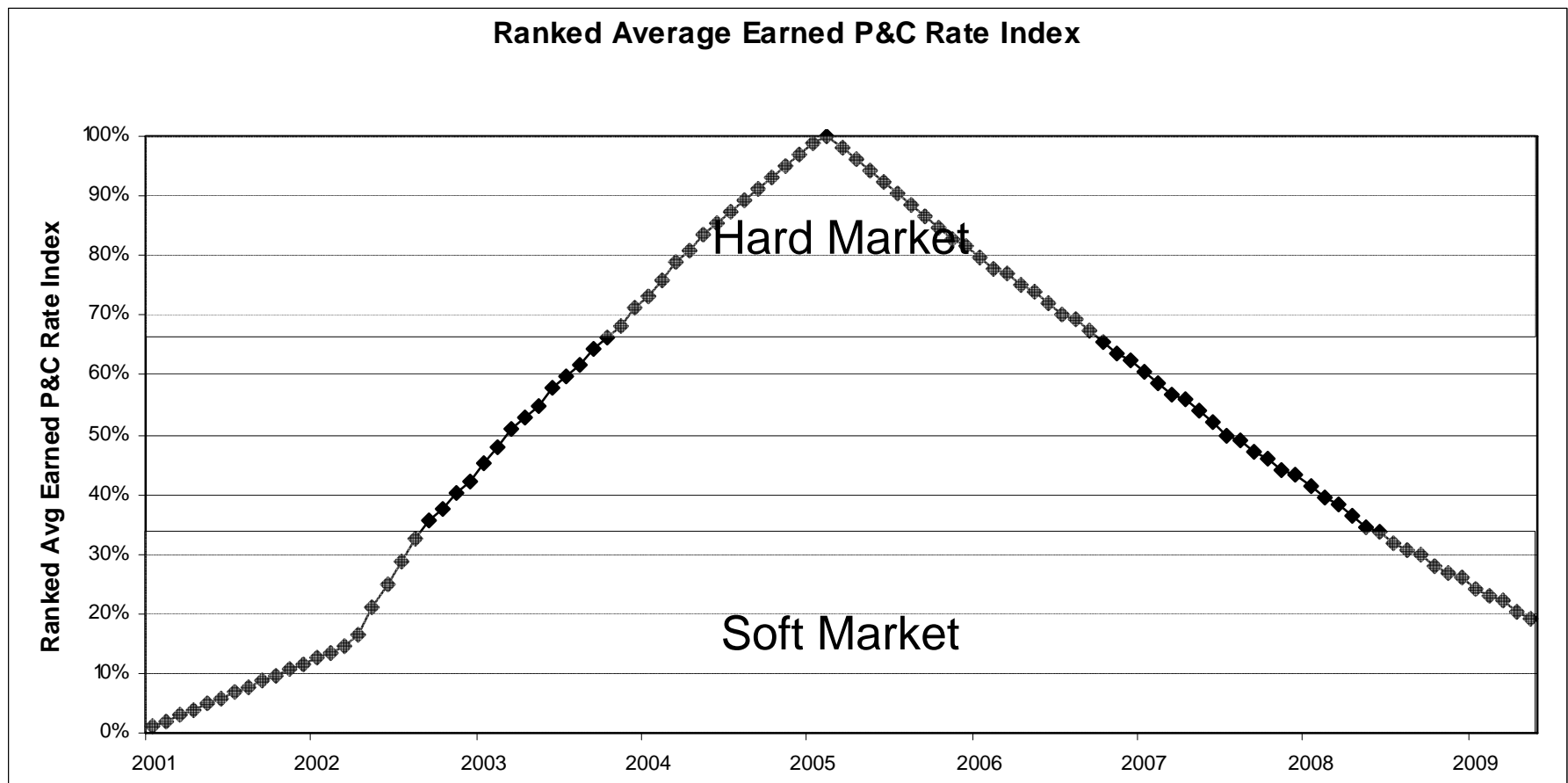
Average Earned P&C Rate Index



Ranked Average Earned P&C Rate Index



Ranked Average Earned P&C Rate Index



Ranked Average Earned P&C Rate Index

Earned Year	Count of Banded Rank			Pricing Environment
	Soft	Flat	Hard	
2002	8	4	0	Soft to Flat
2003	0	10	2	Flat to Hard
2004	0	0	12	Hard
2005	0	0	12	Hard
2006	0	3	9	Hard to Flat
2007	0	12	0	Flat
2008	6	6	0	Flat to Soft
2009	8	0	0	Soft

Ranked Average Earned P&C Rate Index

Earned Year	Count of Banded Rank			Pricing Environment
	Soft	Flat	Hard	
1999				Soft
2000				Soft
2001				Soft
2002	8	4	0	Soft to Flat
2003	0	10	2	Flat to Hard
2004	0	0	12	Hard
2005	0	0	12	Hard
2006	0	3	9	Hard to Flat
2007	0	12	0	Flat
2008	6	6	0	Flat to Soft
2009	8	0	0	Soft

Ranked Average Earned P&C Rate Index

Earned Year	Count of Banded Rank			Pricing Environment	
	Soft	Flat	Hard		
1999				Soft	Soft
2000				Soft	
2001				Soft	
2002	8	4	0	Soft to Flat	Hard
2003	0	10	2	Flat to Hard	
2004	0	0	12	Hard	
2005	0	0	12	Hard	
2006	0	3	9	Hard to Flat	Flat
2007	0	12	0	Flat	
2008	6	6	0	Flat to Soft	Soft
2009	8	0	0	Soft	

Ranked Average Earned P&C Rate Index

Earned Year	Count of Banded Rank			Pricing Environment	
	Soft	Flat	Hard		
1999				Soft	Soft
2000				Soft	
2001				Soft	
2002	8	4	0	Soft to Flat	Hard
2003	0	10	2	Flat to Hard	
2004	0	0	12	Hard	
2005	0	0	12	Hard	
2006	0	3	9	Hard to Flat	Flat
2007	0	12	0	Flat	
2008	6	6	0	Flat to Soft	Soft
2009	8	0	0	Soft	

Ranked Average Earned P&C Rate Index

Earned Year	Count of Banded Rank			Pricing Environment	
	Soft	Flat	Hard		
1999				Soft	} Soft
2000				Soft	
2001				Soft	
2002	8	4	0	Soft to Flat	
2003	0	10	2	Flat to Hard	} Hard
2004	0	0	12	Hard	
2005	0	0	12	Hard	
2006	0	3	9	Hard to Flat	
2007	0	12	0	Flat	— Flat
2008	6	6	0	Flat to Soft	} Soft
2009	8	0	0	Soft	

Industry Pricing Environment vs. Cumulative Emerged Hindsight Redundancy / (Deficiency)

A ↔ B ?

Industry Pricing Environment vs. Cumulative Emerged Hindsight Redundancy / (Deficiency)

Cumulative Emerged Hindsight Redundancy / (Deficiency)					
Calendar Year End	US Stat Aggregate	US Stat Excl Priors	10K-Basis 50+ Sample	10K-Basis x-Large	Pricing Environment

1999	-17%	-15%	-21%	-9%	Soft
2000	-21%	-18%	-25%	-12%	Soft
2001	-21%	-15%	-26%	-14%	Soft
2002	-16%	-10%	-22%	-10%	Soft

2003	-10%	-3%	-13%	-3%	Hard
2004	-2%	4%	-5%	4%	Hard
2005	2%	7%	2%	6%	Hard
2006	2%	5%	3%	6%	Hard

2007	0%	1%	2%	3%	Flat
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Source: SNL 2009, Company 10K filings.

Industry Pricing Environment vs. Cumulative Emerged Hindsight Redundancy / (Deficiency)

Cumulative Emerged Hindsight Red / (Def)				Pricing Environment
Accident Year	US Stat Aggregate	10K-Basis 50+ Sample	10K-Basis x-Large	

1999	-15%	-18%	-13%	Soft
2000	-17%	-19%	-14%	Soft
2001	-8%	-12%	-6%	Soft
2002	-1%	-3%	3%	Soft

2003	13%	13%	12%	Hard
2004	20%	17%	17%	Hard
2005	13%	14%	9%	Hard
2006	4%	9%	8%	Hard

2007	0%	2%	2%	Flat
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Source: SNL 2009, Company 10K filings.

Industry Pricing Environment vs. Cumulative Emerged Hindsight Redundancy / (Deficiency)

Cumulative Emerged Hindsight Redundancy / (Deficiency)						Pricing Environment
Accident Year	Schedule P Part					
	Aggregate	Oth Liab	Work Comp	Comm Auto	PP Auto	
1999	-15%	-32%	-24%	-19%	0%	Soft
2000	-17%	-30%	-23%	-16%	-2%	Soft
2001	-8%	-21%	-13%	-8%	1%	Soft
2002	-1%	-19%	-5%	0%	3%	Soft
2003	13%	8%	9%	7%	9%	Hard
2004	20%	32%	21%	9%	11%	Hard
2005	13%	21%	22%	5%	9%	Hard
2006	4%	10%	11%	6%	3%	Hard
2007	0%	3%	2%	1%	1%	Flat

Source: SNL 2009.

Industry Pricing Environment vs. Cumulative Emerged Hindsight Redundancy / (Deficiency)

Cumulative Emerged Hindsight Redundancy / (Deficiency)											Pricing Environment
Accident Year	Schedule P Part										
	Comm Auto	Work Comp	CMP	MM-Occ	MM-CM	Spec Liab	OL-Occ	OL-CM	PL-Occ	PL-CM	
% Agg Res	4%	20%	7%	2%	3%	1%	15%	6%	3%	0%	
1999	-19%	-24%	-14%	-22%	-18%	-26%	-28%	-40%	-37%	-17%	Soft
2000	-16%	-23%	-18%	-24%	-20%	-23%	-25%	-39%	-31%	-34%	Soft
2001	-8%	-13%	-4%	-15%	-15%	-5%	-14%	-32%	-26%	-52%	Soft
2002	0%	-5%	5%	-13%	-5%	14%	-11%	-29%	-10%	51%	Soft
2003	7%	9%	14%	0%	22%	18%	11%	4%	4%	53%	Hard
2004	9%	21%	17%	14%	35%	19%	29%	36%	22%	86%	Hard
2005	5%	22%	10%	13%	28%	-4%	19%	25%	25%	52%	Hard
2006	6%	11%	11%	7%	18%	10%	11%	8%	15%	32%	Hard
2007	1%	2%	5%	4%	10%	5%	5%	1%	7%	3%	Flat

Source: SNL 2009.

2007 Hindsight Emergence Less Convincing?

Emerged Hindsight Redundancy / (Deficiency) at 2nd Evaluation											Pricing Environment
Accident Year	Schedule P Part										
	Comm Auto	Work Comp	CMP	MM-Occ	MM-CM	Spec Liab	OL-Occ	OL-CM	PL-Occ	PL-CM	
2003	5%	8%	8%	-4%	3%	8%	5%	4%	12%	14%	Hard
2004	6%	9%	9%	1%	6%	14%	15%	14%	12%	18%	Hard
2005	3%	9%	2%	3%	6%	-1%	8%	10%	10%	10%	Hard
2006	4%	8%	5%	5%	8%	7%	4%	1%	11%	5%	Hard
Average	5%	8%	6%	1%	6%	7%	8%	7%	11%	12%	
2007	1%	2%	5%	4%	10%	5%	5%	1%	7%	3%	Flat

Source: SNL 2009.

Topics for further discussion

- Quality of price monitoring
- Changes in terms and conditions
- Underlying drivers of loss cost
- Long-term trends vs. changing environment
- Strength of the communication
- Other biases?

Contact Information

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Thank you

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