



INDUSTRY CASUALTY RESERVE RISK – OR LACK THEREOF

THE GOLDEN AGE OF LOSS RESERVING

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OUR ESTIMATE OF INDUSTRY RESERVE ADEQUACY

Assured Research estimates industry reserve redundancy on Accident Years 2005 and subsequent at \$17.1 billion (est. \$17.5 bil at YE 2013)

Figure 1 Loss reserve projections by line of business; Ultimate losses by accident year

	Indicated Loss & DCCE Reserves	Stated Loss & DCCE Reserves	Indicated Reserve Redundancy/ (Deficiency)	Redundancy/ (Deficiency) as % of Stated Reserves
Homeowners	16,971,608	18,731,179	1,759,571	9.4%
FP Auto Liab	89,013,547	93,278,994	4,265,447	4.6%
Comm Auto Liab	26,880,839	25,455,456	-1,425,383	-5.6%
Workers' Comp	145,554,917	142,088,026	-3,466,891	-2.4%
Comm Multi-Peril	34,016,430	34,665,560	649,130	1.9%
Medical Professional Liability - Occ	9,223,641	10,712,129	1,488,488	13.9%
Medical Professional Liability - CM	12,403,368	15,920,924	3,517,556	22.1%
Special Liability	4,932,145	5,748,055	815,910	14.2%
Other Liability - Occ	86,592,116	88,024,862	1,432,746	1.6%
Other Liability - CM	38,307,413	38,908,107	600,694	1.5%
International	197,300	251,774	54,474	21.6%
Reinsurance - Property	5,548,191	7,908,833	2,360,642	29.8%
Reinsurance - Liability	29,623,636	32,383,022	2,759,386	8.5%
Reinsurance - Financial	310,429	439,331	128,902	29.3%
Products Liability - Occ	15,258,350	13,906,386	-1,351,964	-9.7%
Products Liability - CM	1,093,151	1,374,844	281,693	20.5%
Two Year Lines	42,836,168	46,090,030	3,253,863	7.1%
Totals	558,763,247	575,887,512	17,124,265	3.0%

Small differences in ultimate loss ratio selections can lead to large figures at the industry level.

	Net Earned Premium	Indicated Ult	Carried Ult	Redundancy/ (Deficiency)	Indicated Ult LR	Carried Ult LR	Redundancy/ (Deficiency)
2005	422,167,800	253,548,481	253,201,914	-346,567	60.1%	60.0%	-0.08%
2006	441,964,959	241,765,183	241,917,550	152,367	54.7%	54.7%	0.03%
2007	444,967,934	266,497,915	265,832,374	-665,541	59.9%	59.7%	-0.15%
2008	442,574,227	305,020,535	304,480,340	-540,195	68.9%	68.8%	-0.12%
2009	425,680,754	279,034,141	280,058,736	1,024,595	65.6%	65.8%	0.24%
2010	422,783,876	282,760,922	285,030,603	2,269,681	66.9%	67.4%	0.54%
2011	434,755,398	311,588,043	316,034,534	4,446,492	71.7%	72.7%	1.02%
2012	449,398,633	298,758,266	303,544,695	4,786,429	66.5%	67.5%	1.07%
2013	464,572,667	289,019,621	293,484,222	4,464,601	62.2%	63.2%	0.96%
2014	499,350,246	309,813,382	311,345,785	1,532,403	62.0%	62.4%	0.31%
Total	4,448,216,494	2,837,806,488	2,854,930,753	17,124,265	63.8%	64.2%	0.38%

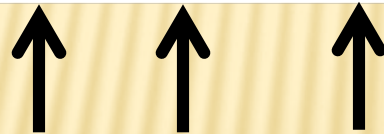
Source: SNL, Assured Research



OUR ESTIMATE OF INDUSTRY RESERVE ADEQUACY

Acc Year Reserve Changes by Line of Business: Reveals there are only a very few 'sore spots'.

	<u>Home owners</u>	<u>Private Pass. Auto</u>	<u>Comm Auto</u>	<u>Workers Comp.</u>	<u>Comm Multi Peril</u>	<u>Medical Liability Occur.</u>	<u>Medical Liability Claims</u>	<u>Other Liability Occur.</u>	<u>Other Liability Claims</u>
Prior	(291)	(1,455)	(1,322)	8,786	166	(1,154)	(2,928)	12,373	1,149
2005	(940)	(3,654)	(750)	(6,690)	(1,583)	(573)	(1,850)	(3,018)	(2,790)
2006	(572)	(2,315)	(776)	(4,096)	(1,828)	(691)	(2,027)	(3,310)	(2,383)
2007	(1,476)	(1,829)	(374)	(1,733)	(1,557)	(390)	(1,924)	(2,364)	(1,502)
2008	(1,018)	(2,171)	(244)	313	(1,343)	(307)	(1,458)	(1,740)	(616)
2009	(586)	(2,272)	(407)	80	(872)	(304)	(1,211)	(1,828)	356
2010	(919)	(1,974)	513	1,243	(152)	(220)	(978)	(554)	(638)
2011	(1,603)	(1,343)	938	532	(163)	(216)	(422)	(8)	(75)
2012	(1,099)	(791)	616	(623)	(414)	(129)	(361)	(156)	17
2013	(560)	(96)	305	(447)	(107)	(58)	(63)	(191)	(35)
Total	(9,064)	(17,900)	(1,499)	(2,636)	(7,853)	(4,042)	(13,222)	(796)	(6,518)



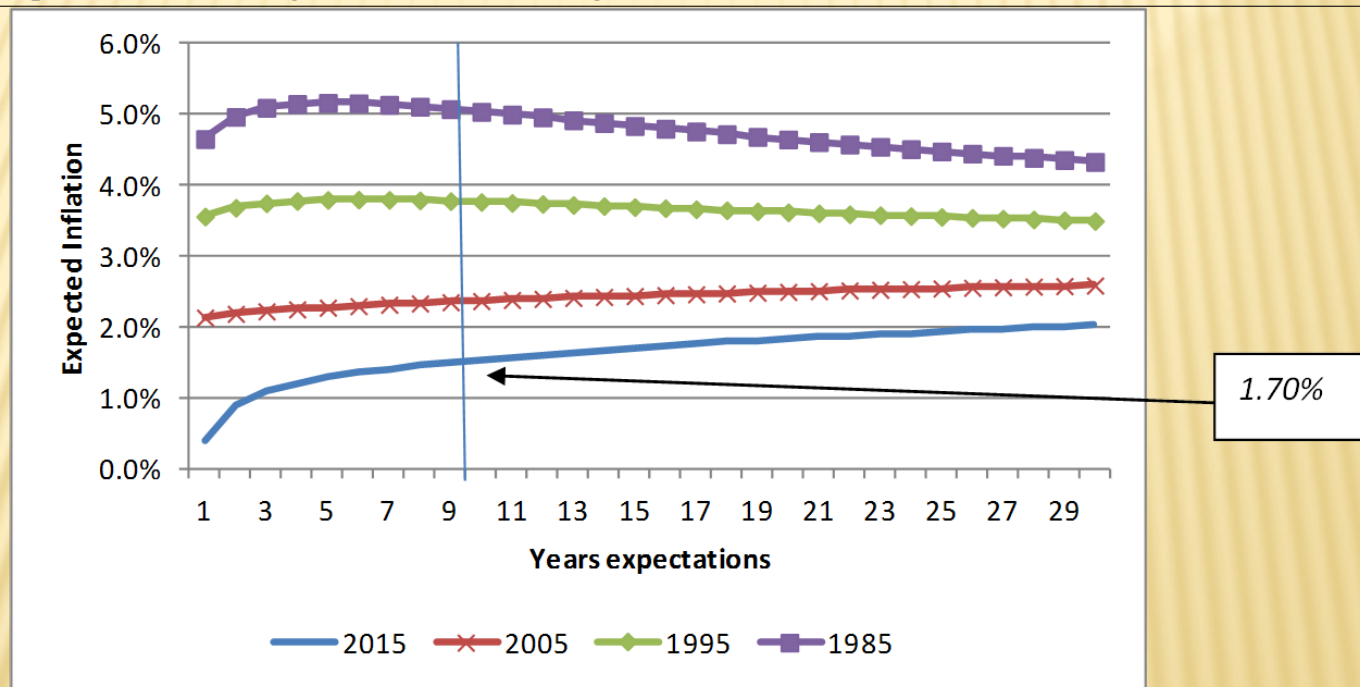
We'll comment on WC, Commercial Auto, and PPA



FIRST: ENDOGENOUS OR EXOGENOUS?

Endogenous factors matter...witness 2000-2005...but is declining inflation since 1985 the source of much of the reserve releases?

Figure 4 Inflation expectations: Selected years 1985-2015



Source: Cleveland Federal Reserve, Assured Research



COMMERCIAL AUTO LIABILITY

Many companies have struggled with adverse development and poor results

Figure 6 Commercial auto comparisons of ultimate losses and loss ratios

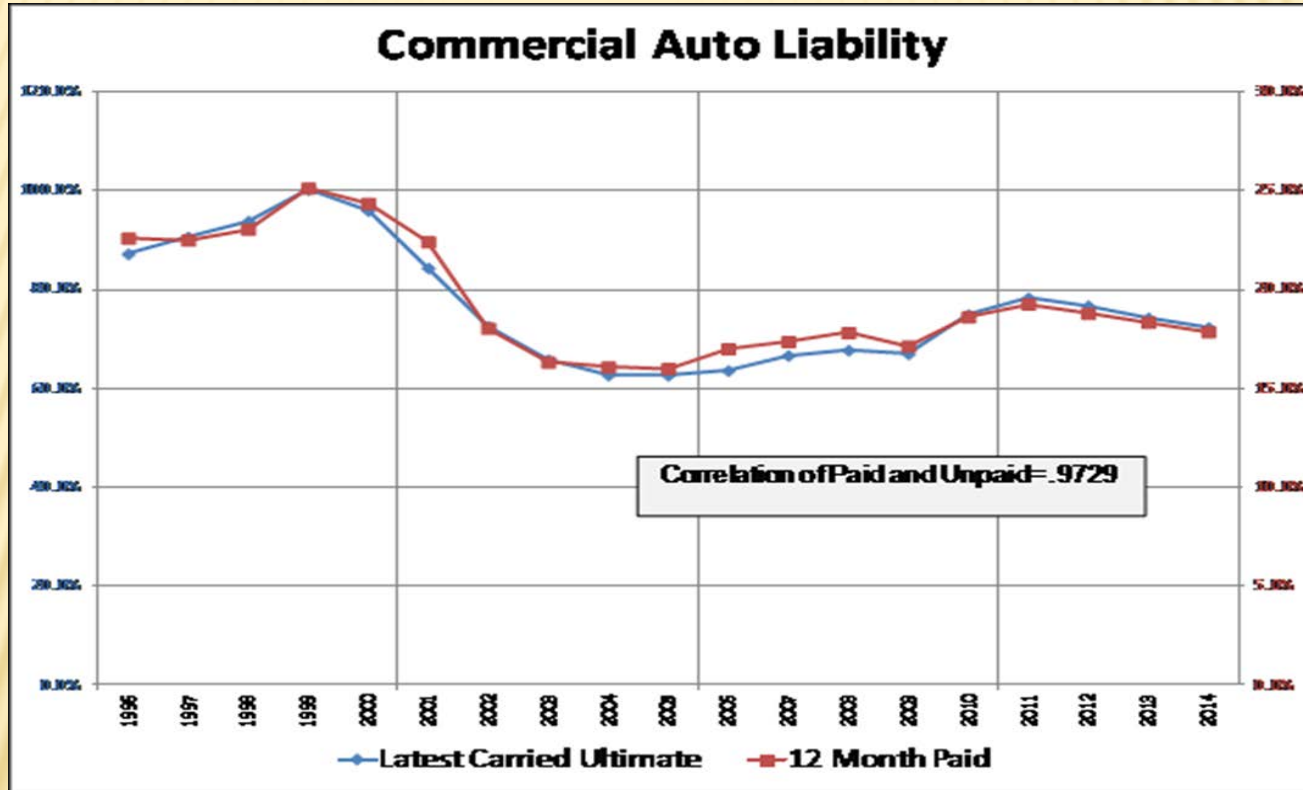
Accident Year	Indicated Ultimate Losses	Industry Carried Losses	Indicated Redundancy/ (Deficiency)	Redundancy/ (Deficiency) as % of Stated Res	Indicated Ultimate Loss Ratio	Industry Carried Ult Loss Ratio	Difference Redundancy/ (Deficiency)
Prior							
2005	10,735,989	10,746,758	10,769	12.4%	56.6%	56.7%	0.1%
2006	10,919,949	10,928,313	8,364	6.0%	57.4%	57.5%	0.0%
2007	11,317,517	11,356,062	38,545	19.4%	59.7%	59.9%	0.2%
2008	10,980,733	11,034,111	53,378	17.8%	60.7%	61.0%	0.3%
2009	10,102,404	10,163,442	61,038	11.2%	59.9%	60.3%	0.4%
2010	10,897,901	10,947,509	49,608	4.7%	67.5%	67.8%	0.3%
2011	11,669,357	11,576,417	(92,940)	-4.3%	71.9%	71.3%	-0.6%
2012	11,875,069	11,617,783	(257,286)	-6.7%	71.4%	69.9%	-1.5%
2013	12,541,025	11,974,496	(566,529)	-8.9%	70.5%	67.3%	-3.2%
2014	13,053,380	12,323,050	(730,330)	-7.6%	69.1%	65.2%	-3.9%
Total	114,093,324	112,667,941	(1,425,383)	-5.6%	64.3%	63.5%	-0.8%

Source: SNL, Assured Research



COMMERCIAL AUTO LIABILITY

Why are there problems in the first place?



Let's look at some of the explanations offered:



COMMERCIAL AUTO LIABILITY

Endogenous (self-inflicted)

- Rate decreases while claim frequency was on decline ('06/'07-'11/'12)
- The 'least underwritten' line of insurance
- Claims professionals need more training
- UI/UIM commercial claims filed where personal auto limits are too low

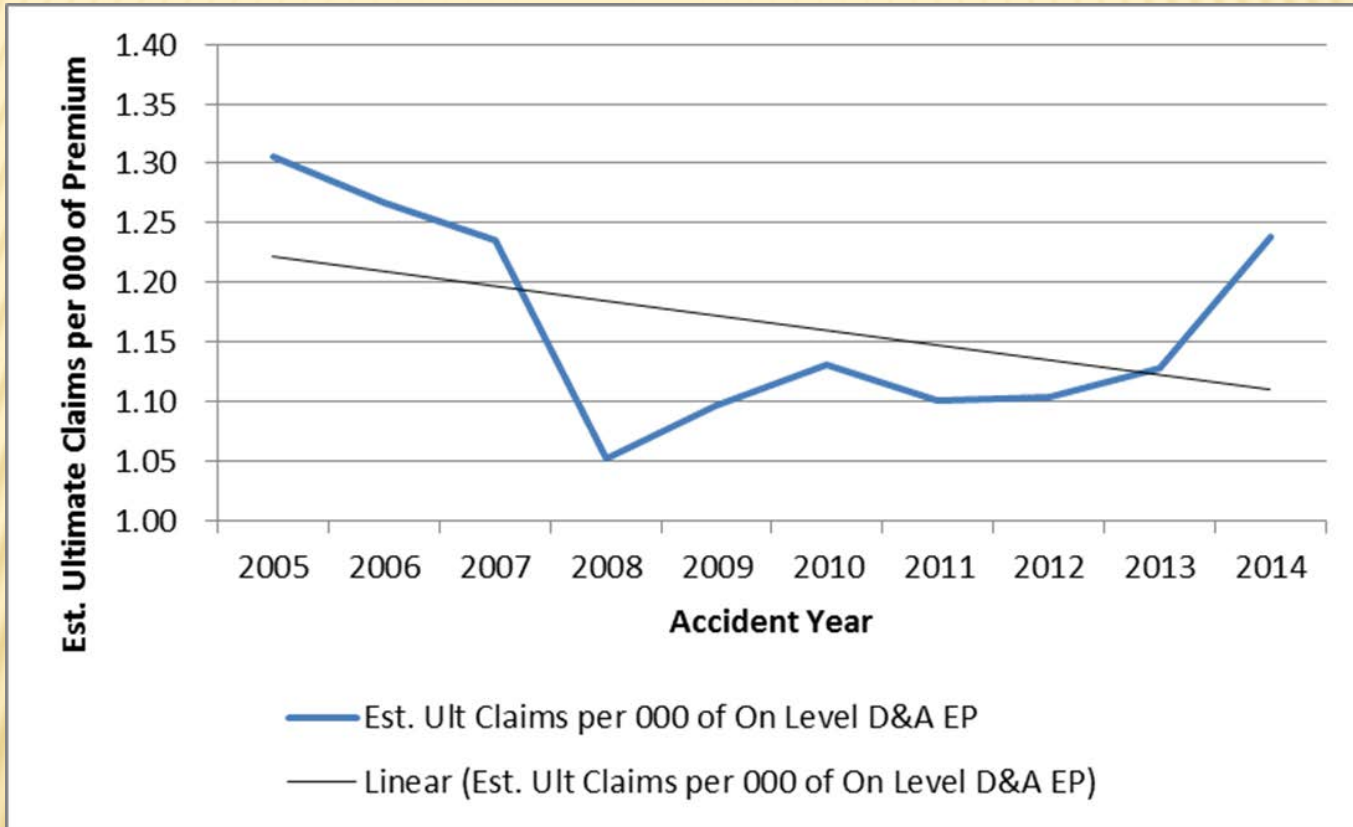
Exogenous (Not my fault!)

- Medical cost shifting to retail payers!
- It's the economy, stupid!



COMMERCIAL AUTO LIABILITY

It's the economy, stupid!



University of Michigan Transportation Research Institute – great (free) resource

Research and Analysis for Insurance and Investment Professionals

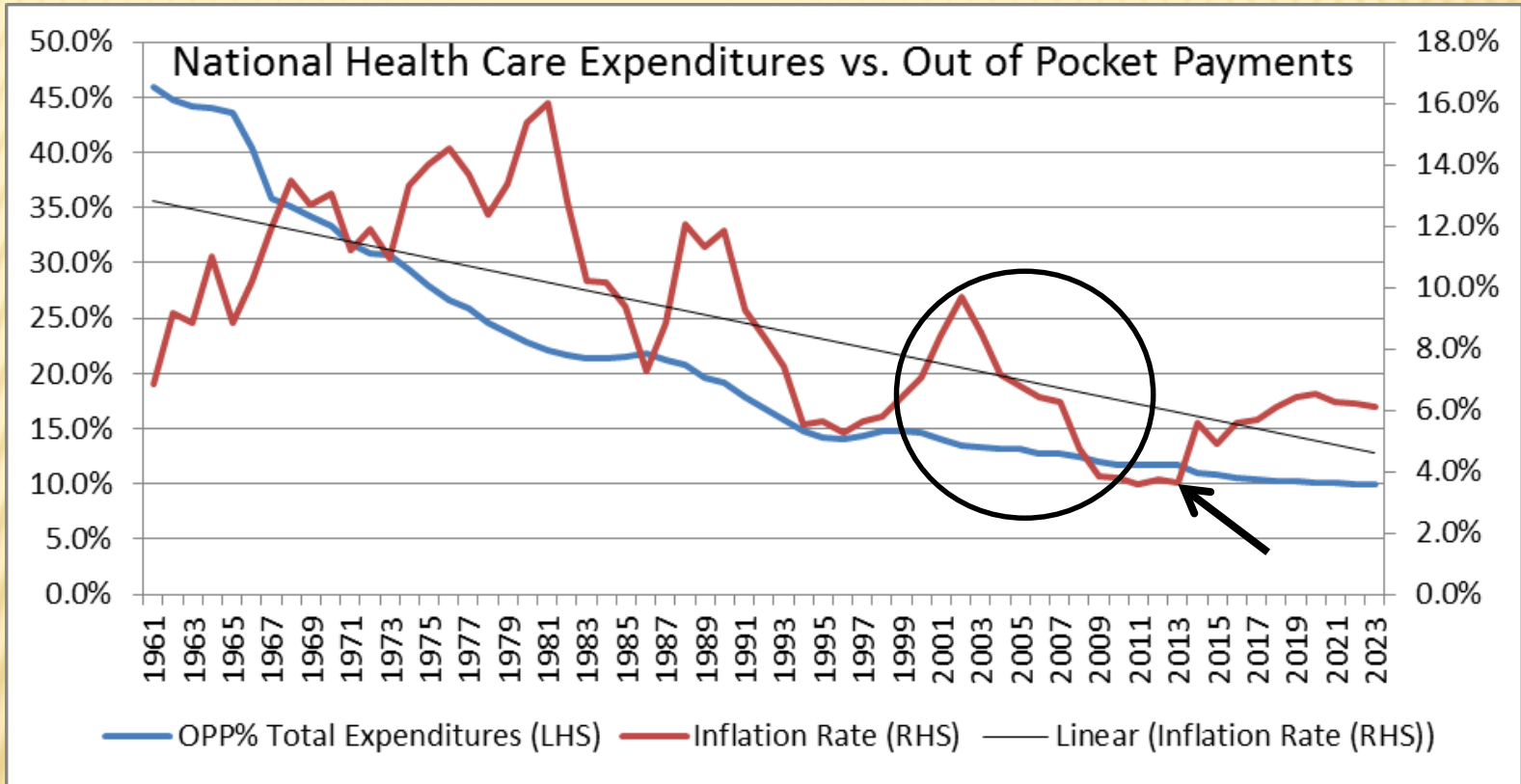


WORKERS' COMPENSATION

- Two thirds of insurance professionals worry most about medical inflation
 - 38% cite being unprepared for this risk (most among various insurance concerns) Data from Travelers, 2014 Investor Day
- Yet according to the 2014 Workers' Compensation Benchmark Survey
 - 73% of respondents report the ACA has had no impact on claims dept.
 - 89% report no impact (yet) on staffing
 - 89% report no impact (yet) on medical management programs
- At Assured Research, the intersection of health and P/C insurance are most frequently researched, and requested topic(s)



WORKERS' COMPENSATION



CBO: Real per-capita national health expenditure growth 1.2% per annum 2010-2013 vs. 4.6% 1960-2010



WORKERS' COMPENSATION

2014 Economic Report of the President makes case for favorable ACA impact:

- Reductions in excessive Medicare payments to providers and health plans
- New payment models
 - Spillover impact (ex. lowering of Medicare benchmark rates)
- Reductions in hospital readmissions

Role of the recession is being debated:

- Report cites research indicating less than $\frac{1}{2}$ slowdown due to recession
- Kaiser foundation report cites *mainly* macroeconomic factors

But the government report adds two more:

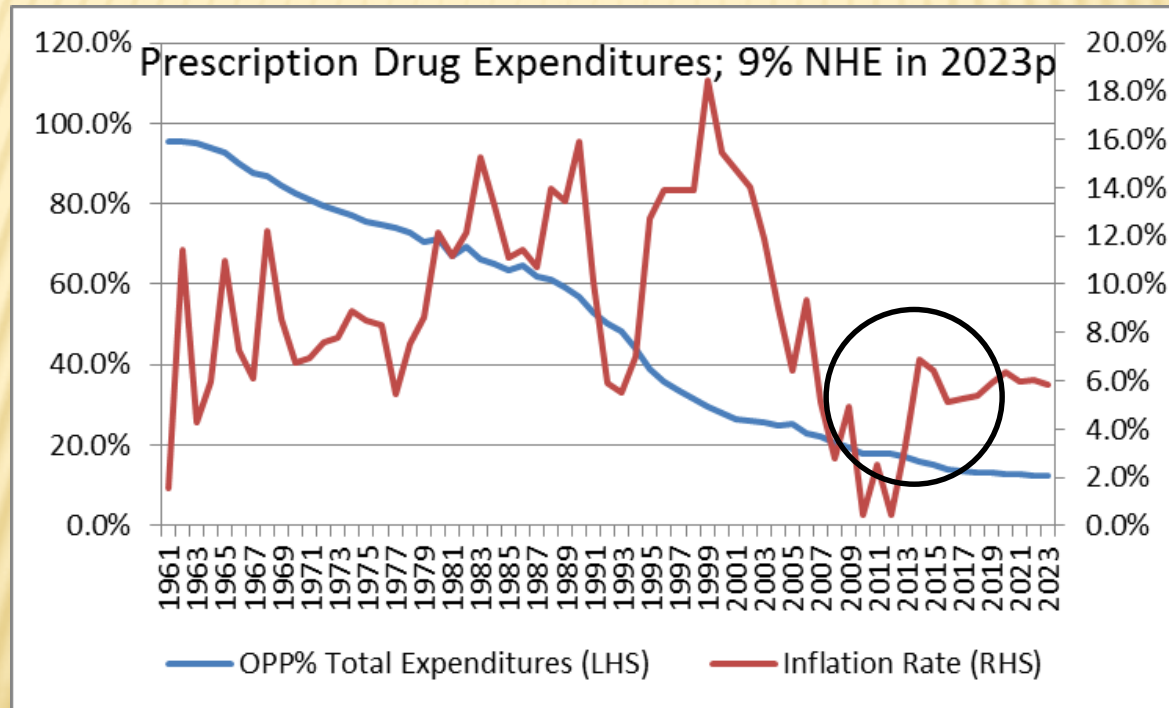
- “Long term trend toward increased patient cost-sharing...”
- “Striking slowdown in prescription drug spending...”



WORKERS' COMPENSATION

Reversion to the mean pending due to:

- 1) Declining impact of drugs coming off patent expirations
- 2) Use of Rx drugs from the newly insured
- 3) Specialty drugs and early-stage drug therapies
- 4) Improving economy!



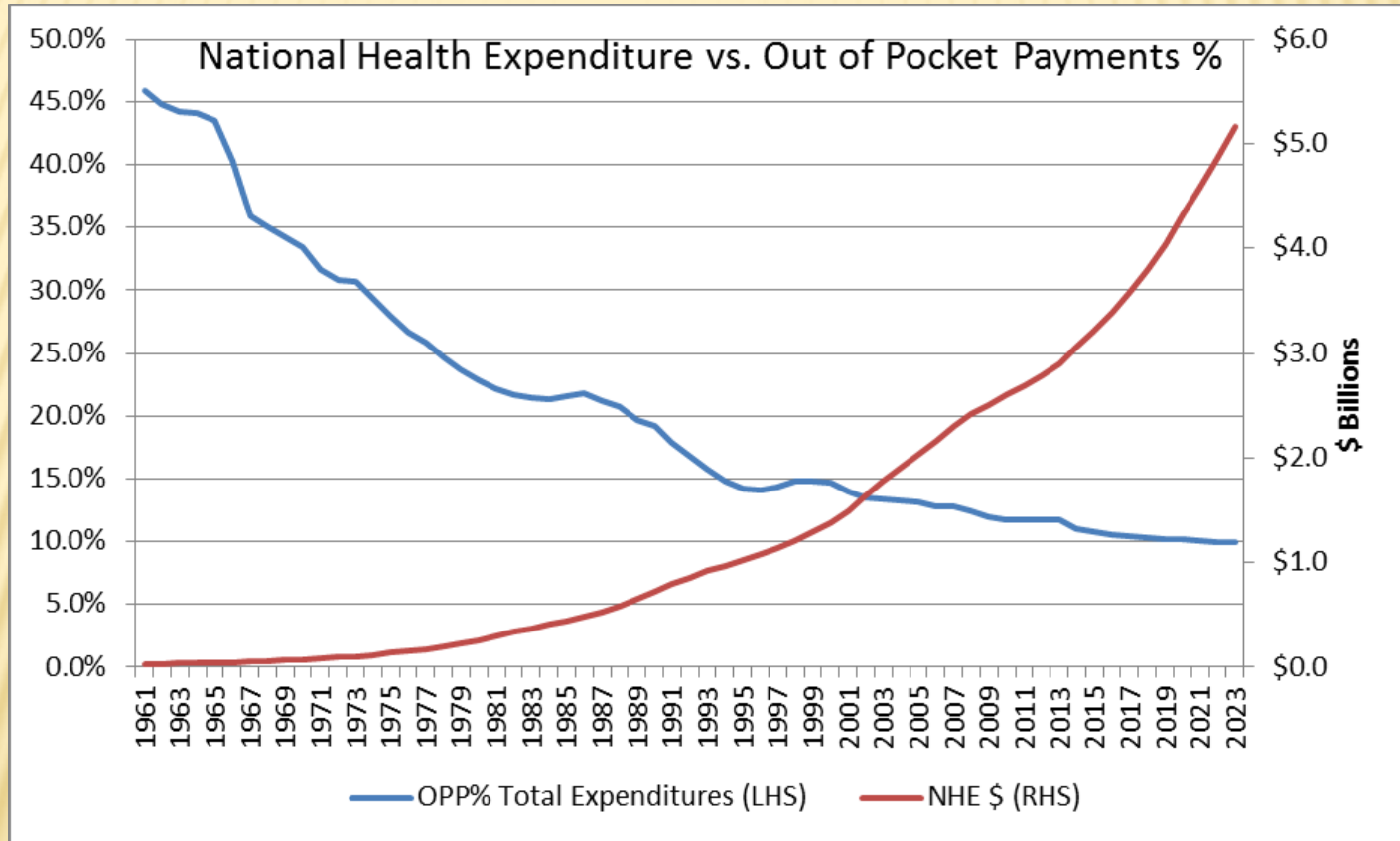
Source: CMS.Gov

Research and Analysis for Insurance and Investment Professionals



WORKERS' COMPENSATION

Impact of rising OPP not felt...yet!



Source: CMS.Gov

Research and Analysis for Insurance and Investment Professionals



WORKERS' COMPENSATION

Other considerations: **rising demand against shrinking supply:**

- 25 million to be added to ranks of the insured by 2016_(CBO)
- 15% increase in demand for healthcare _(CBO)
- Doctor shortage is underway

And **P/C insurers sit where in the pecking order?**

- Reimbursement rates consistently higher than Govt or private payers
- P/C insurance may be 5% or less of total healthcare spending _(Travelers, others)
- WC claimants most profitable among all payers at trauma centers
(Insuring the uninsured: potential impact of Health Care Reform Act of 2010 on trauma centers. Shafi, S. (et. al.)



WORKERS' COMPENSATION

At least one source thinks the ACA will have a net positive impact on the Property/Casualty industry...we're not so sure

Figure 1: Range of Estimated Changes Across States in Liability Claim Costs, by Market

ACA Impact Mechanism	Auto (1 st Party)	Auto (3 rd Party)	WC	Medical Malpractice
Combined Impact %	(1.4%)	(1.7%)	(1.4%)	2.4%
Combined Impact (mil. of \$ in 2016)	(\$200)	(\$540)	(\$930)	\$120

Source: RAND Corporation

RAND explored 5 pathways that would influence costs – 2 affect WC:

- Substitution effect – lower rates of fraud
- Collateral source rule – where limited, allows for collections from collateral sources like health ins.
- Provider fee effect – raises costs in 3rd party auto
- Direct fee effect – presumes WC and auto will lower rates benchmarked off medicare
- MPL volume effect – more people accessing health care = more MPL claims



WORKERS' COMPENSATION

What is Substitution Effect? Shifting of costs to WC when a claimant lacks health insurance.

RAND estimated 0.6% impact in 2016, or \$390 million of WC savings.

RAND estimates a decline in claims leakage to 10% from 20% when someone gains health insurance

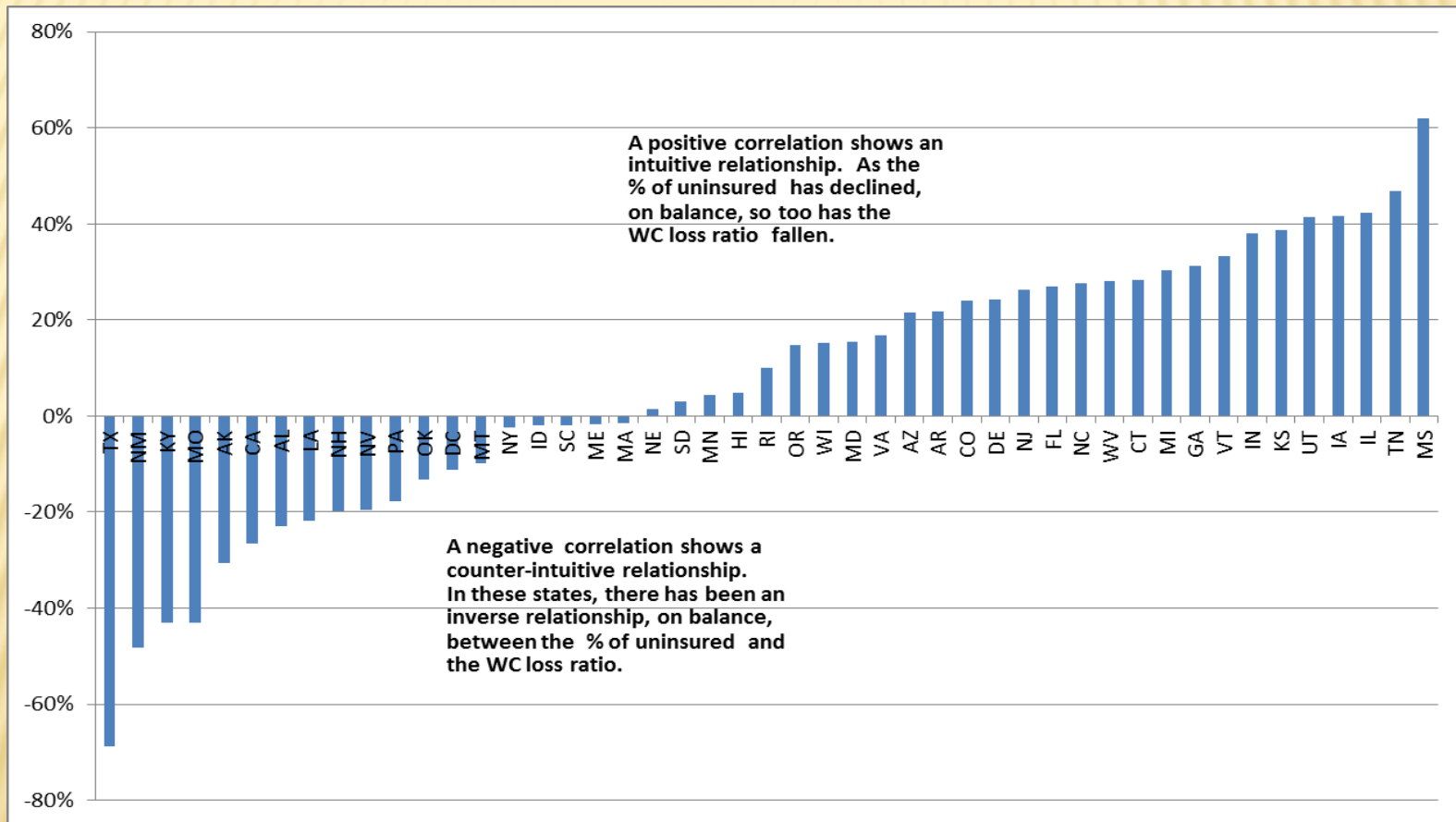
RAND'S main points:

- Less fraud – Monday morning affect
- Less embellishment of real claims
- Savings on co-morbidities....healthier population generally
- RAND concludes this effect will “unambiguously reduce liability costs”



WORKERS' COMPENSATION

Perspective of Assured Research: If only the data were so supportive



Source: U.S. Census Bureau, SNL Financial, Assured Research

Research and Analysis for Insurance and Investment Professionals



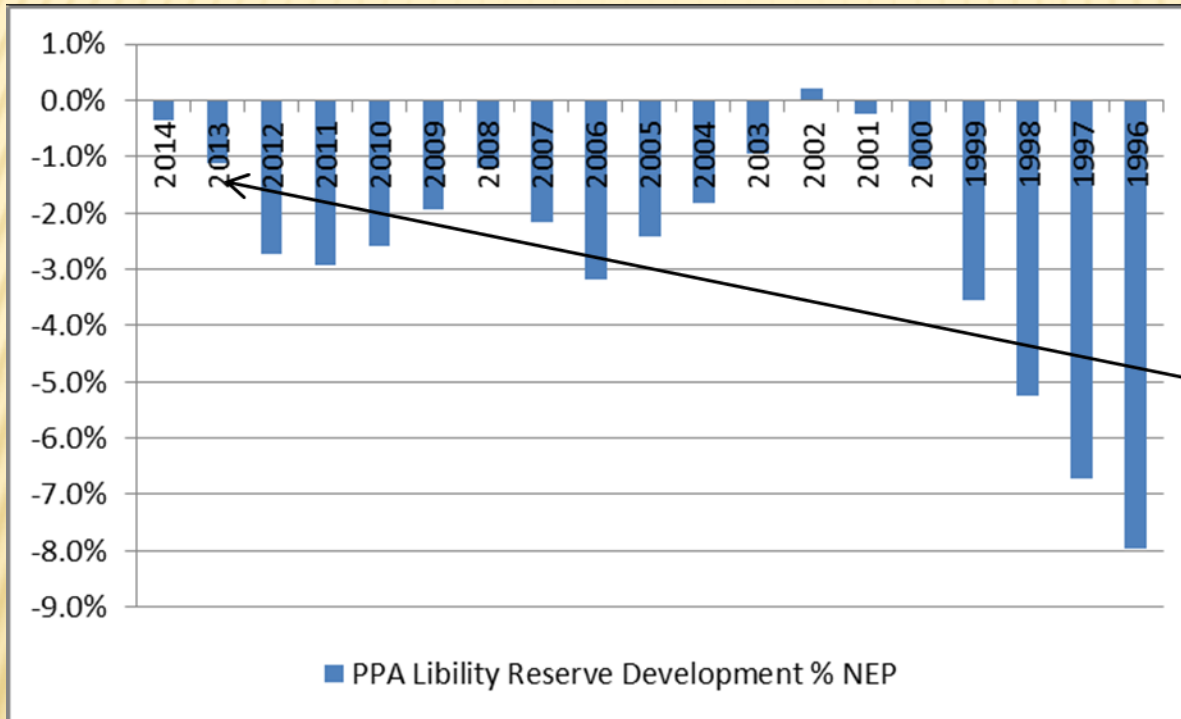
WORKERS' COMPENSATION

If you were running a business...and your bargaining power was improving through market-share gains, how willing would you be to grant price concessions to a payer representing a small share of your total revenue, one which generally reimburses at a higher than average rate, and has relatively few 'product substitution' possibilities?



PRIVATE PASSENGER AUTO LIABILITY

Figure 1 PPAL: Reserve releases (neg.) or increases (pos.) as % Earned Premiums



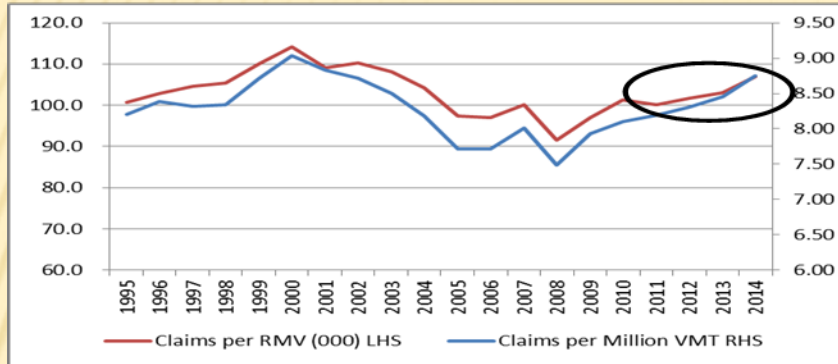
Why the rapid decline in releases beginning in 2013? Medical inflation, for instance, recently reached a 50-year low!

Source: SNL Financial, Assured Research



PRIVATE PASSENGER AUTO LIABILITY

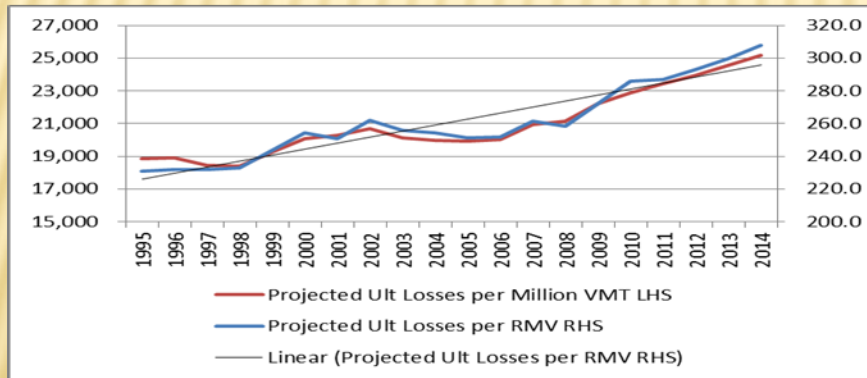
Figure 2 Projected Ultimate PPAL Claims and RMV, VMT



Note the uptick in frequency following the post-recession bounce. Is this what has actuaries and managers on edge?

Source: SNL Financial, Federal Highway Transportation Administration, Assured Research

Figure 3 Projected Ultimate PPAL Claims and RMV, VMT



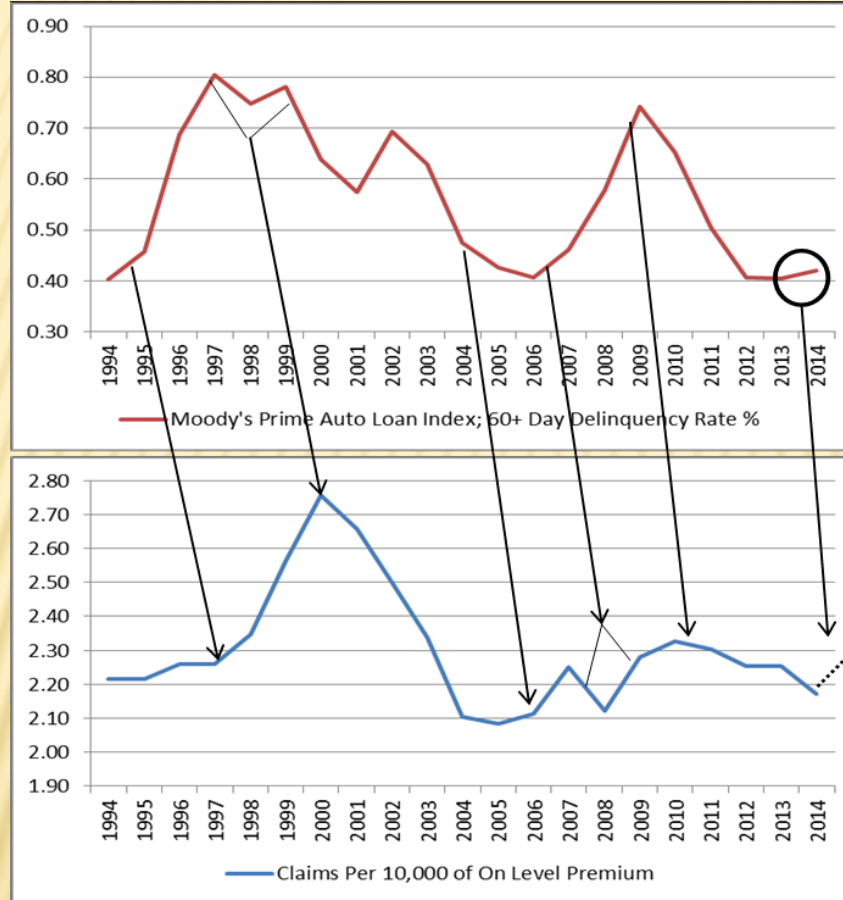
Although the upward trend looks like a reason for alarm, the 20-year trend is only 1.5%; slightly higher since 2011 at 2.5%. Hardly cause for alarm and unlikely an actuarial assumption-buster.

Source: SNL Financial, Federal Highway Transportation Administration, Assured Research



PRIVATE PASSENGER AUTO LIABILITY

Figure 4 Auto Loan Delinquencies Share 60% Correlation (Lagged 1 Year) w/ Auto Liability Claim Freq.



Does the rise in delinquencies seen in 2014 suggest claim frequencies will rise in 2015? First quarter 2015 comments from GEICO and Allstate suggest that could be the case!

Source: SNL Financial, Moody's (c/o Morgan Stanley), Assured Research; 2014 Freq is forecasted using a one year-lag regression model.