

An Actuary Looks at Social Inflation

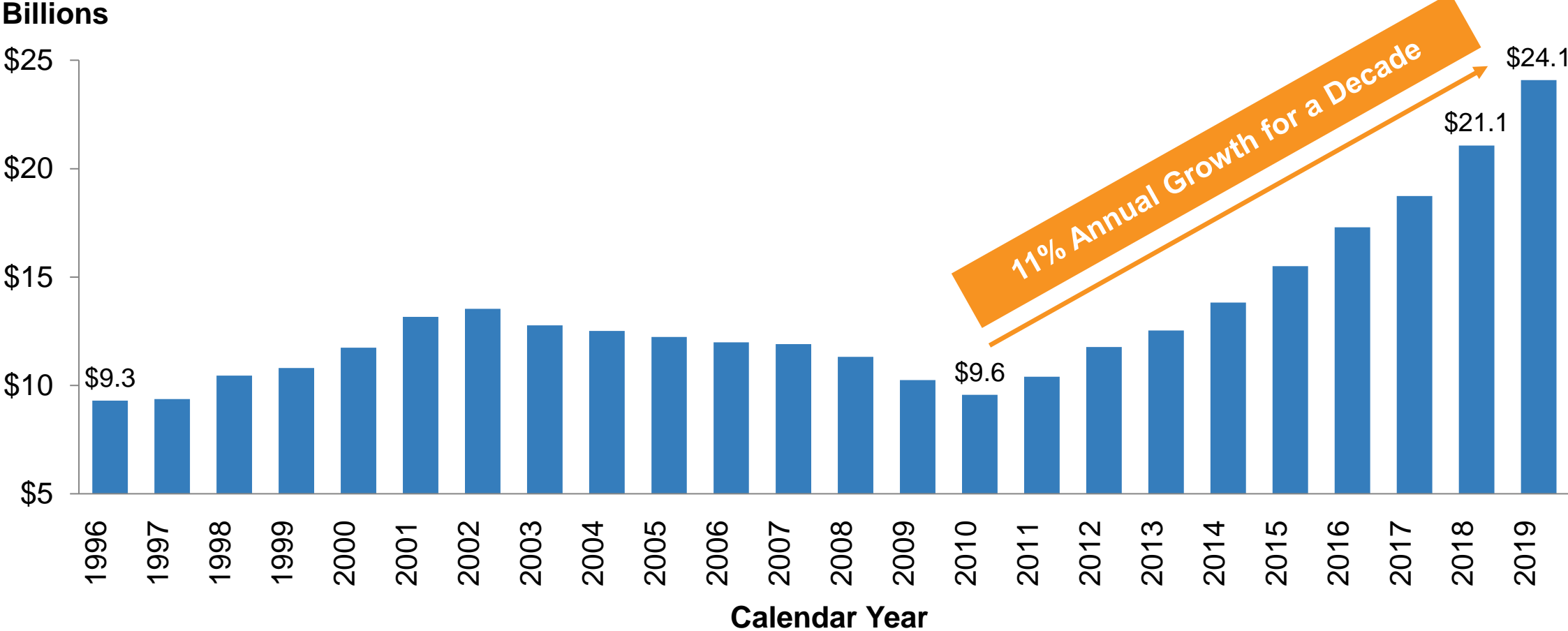
Insurance Information Institute

Coming to terms

- A good definition
 - “A fancy term to describe rising litigation costs and their impact on insurers’ claim payouts, loss ratios, and ultimately, how much policyholders pay for coverage.”
- Actuarial interpretation
 - “Excessive inflation in claims.”
 - Occurs when development defies key assumption: Loss Development is RV about stable mean

Upward Trend in Incurred Losses

Incurred Losses, Commercial Auto Liability

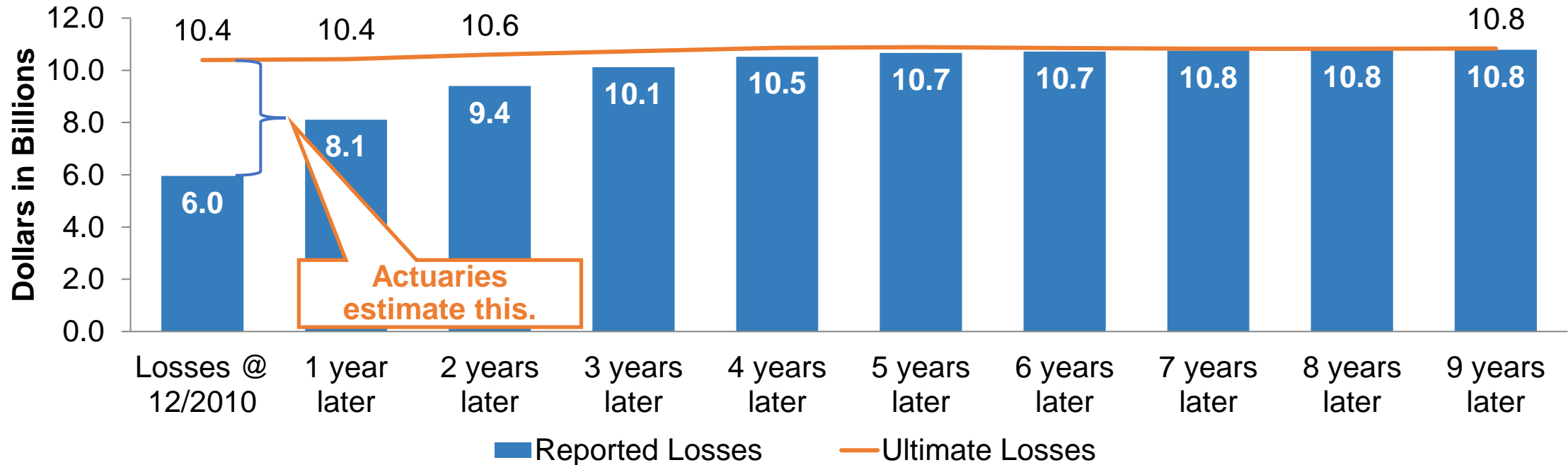


Sources: NAIC data sourced from S&P Market Intelligence; Insurance Information Institute.

What Actuaries Do

How much will insurers pay for claims that occurred in 2010?

Industry Losses for AY 2010 Commercial Auto Liability



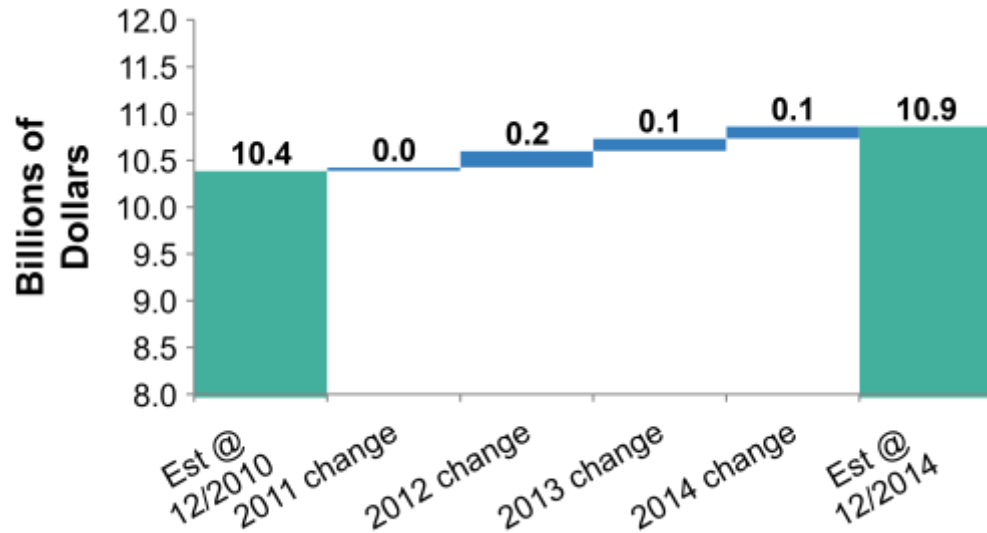
Reported losses change over time. Actuaries estimate how much will ultimately be paid on a bloc of claims.



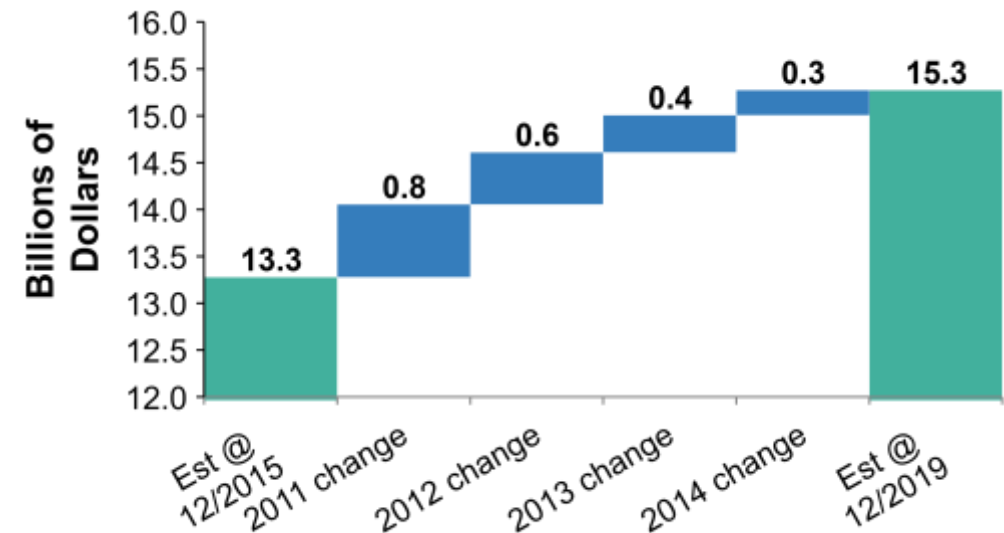
What Actuaries Do

The old rules don't apply anymore

Ultimate Losses for 2010 Claims
Across Time



Ultimate Losses for 2015 Claims
Across Time

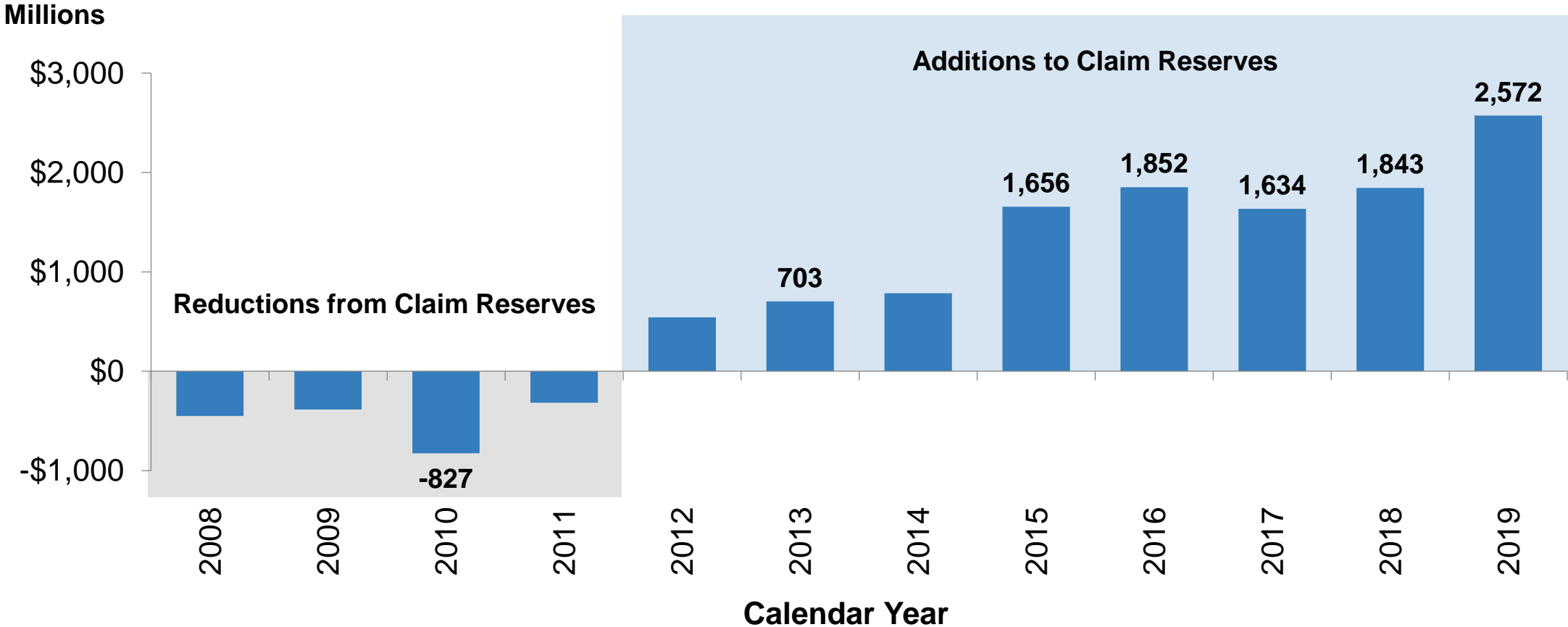


Starting around 2015, something made the old process yield a weak estimate.



Social Inflation: The Toll

Reserve development, commercial auto liability



Sources: NAIC data sourced from S&P Market Intelligence; Insurance Information Institute.

What we studied and why

- Hypothesis: Rising LDFs → Social inflation
- Method:
 - Focus on long-tailed liability lines
 - Minimizes Catastrophe's Impact
 - 12:120 LDF > 1.8 (Workers Comp)
 - Included: Comm Auto Liability, MedMal, Other Liability, Product Liability
 - Excluded: Personal Auto Liability, Workers Comp, Special Liability (Social inflation might be present, but harder to detect.)
 - Look for trends in loss reporting

Upward Creep in Loss Development

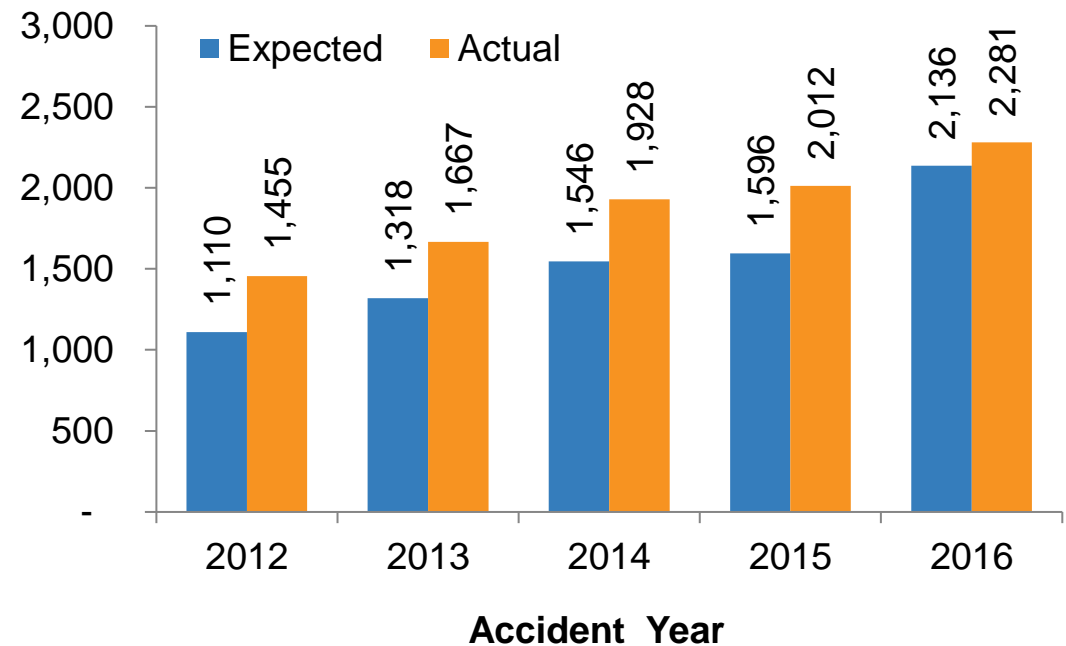
Key assumption: LDF is RV about mean + inflation

Comm Auto LDFs

	12	24	36	48
2009	1.34	1.14	1.08	1.03
2010	1.36	1.16	1.08	1.04
2011	1.40	1.16	1.08	1.04
2012	1.40	1.16	1.09	1.04
2013	1.41	1.18	1.10	1.04
2014	1.42	1.19	1.10	1.05
2015	1.45	1.18	1.11	
2016	1.43	1.20		
2017	1.44			

2-Year Expected vs. Actual

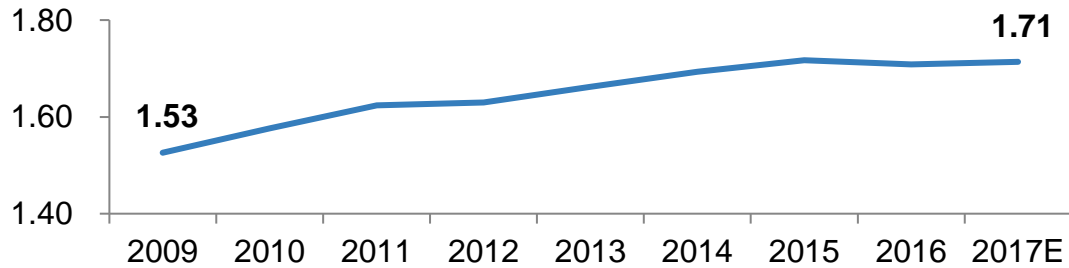
12-36 Development (\$ Millions)



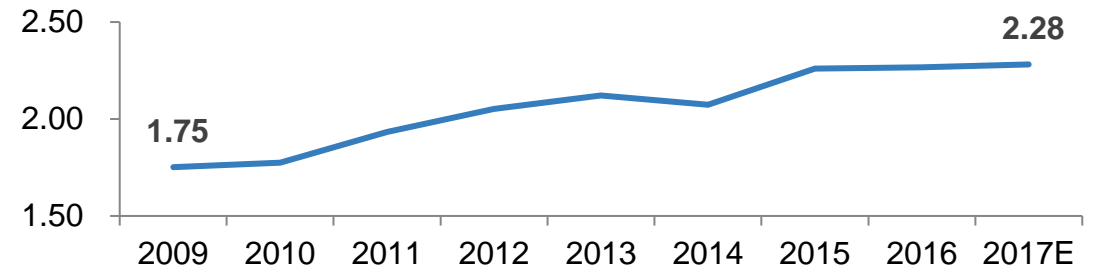
It's Not Just Auto

12:36 loss development factors by year, long-tailed lines

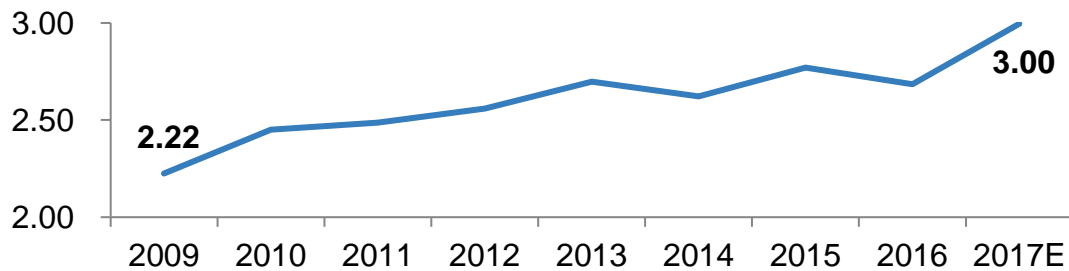
Commercial Auto



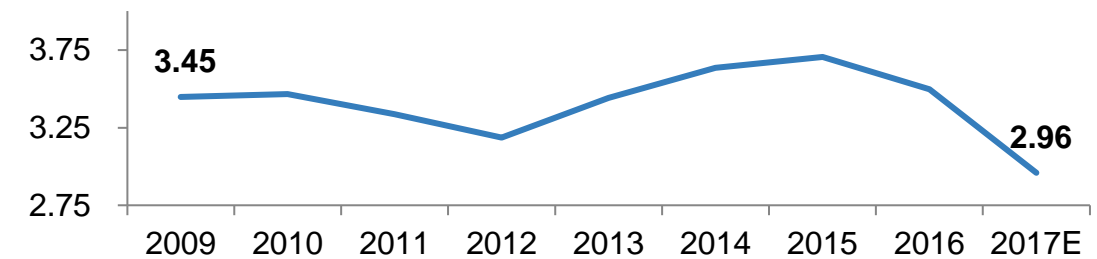
MedMal Claims-Made



Other Liability Occurrence



Other Long-Tailed Lines*



*Medical Malpractice Occurrence, Other Liability Claims-Made, Products Liability Occurrence, Products Liability Claims-Made.

Estimate assumes 24:36 Factor is straight average of previous three years.

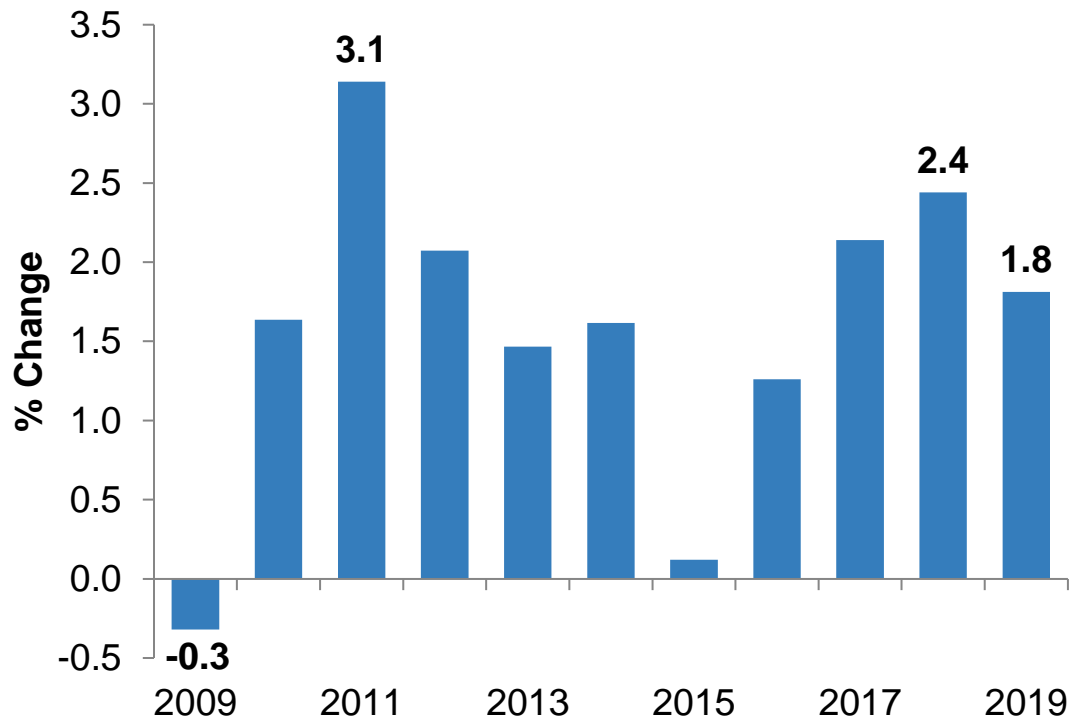
Source: NAIC data, sourced from S&P Global Market Intelligence; Insurance Information Institute.



Why Is It Happening? ...And What Makes It Social Inflation

Overall Inflation Remains Steady

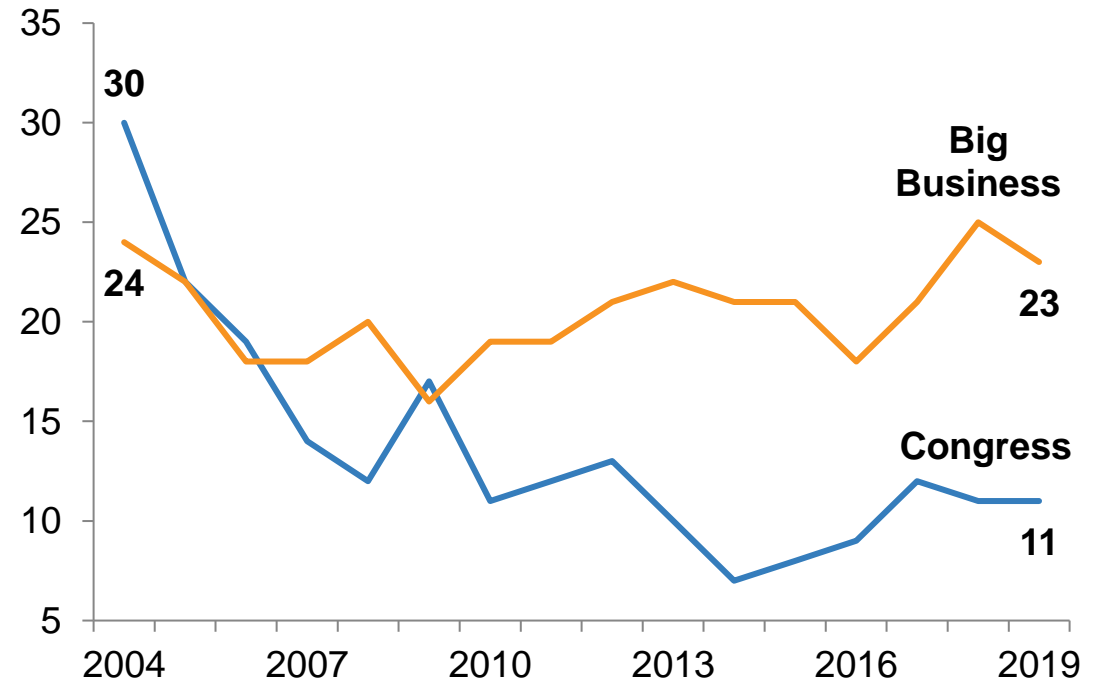
CPI Change vs Year Earlier



Who Solves Problems?

Confidence in Institutions

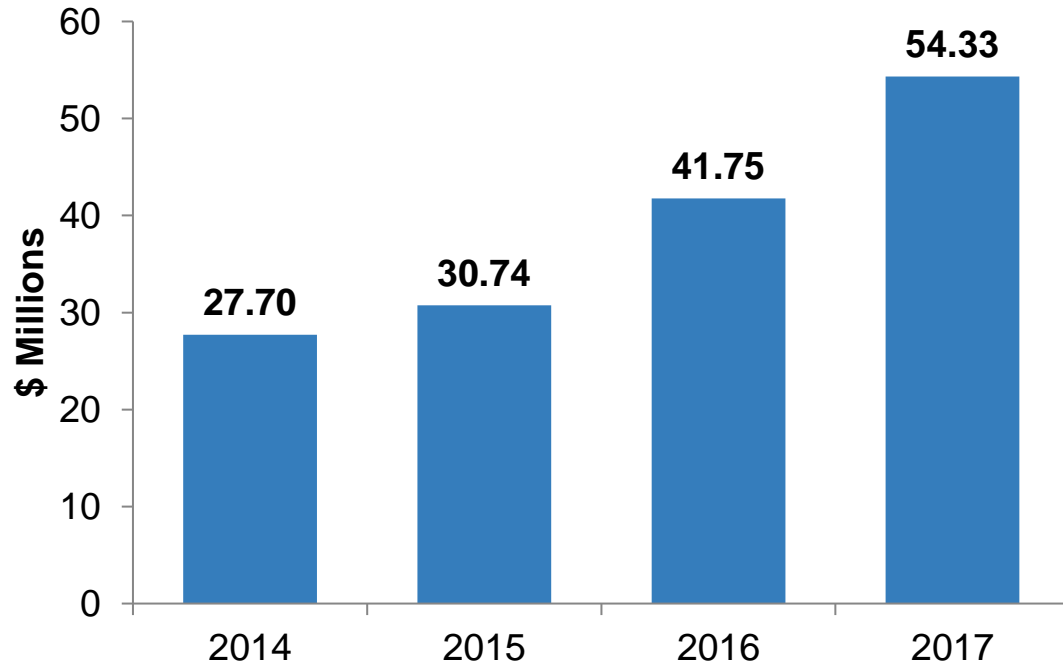
% Saying Great Deal/Quite a Lot



Why Is It Happening? The Changing Legal Environment

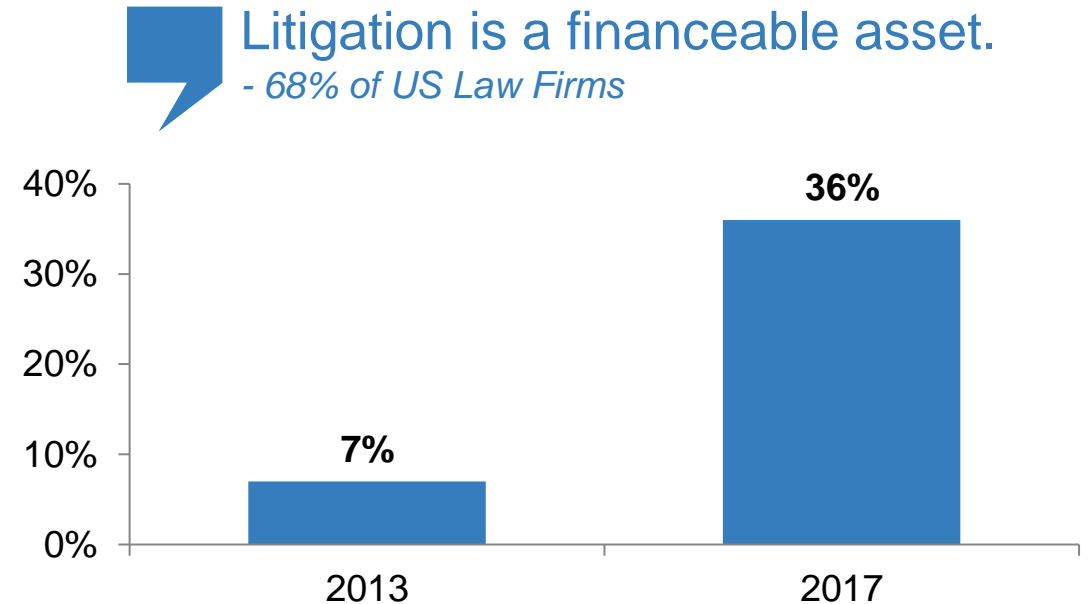
Anchoring: “Jackpot Justice”

Median, 50 Largest Jury Verdicts



Litigation Financing

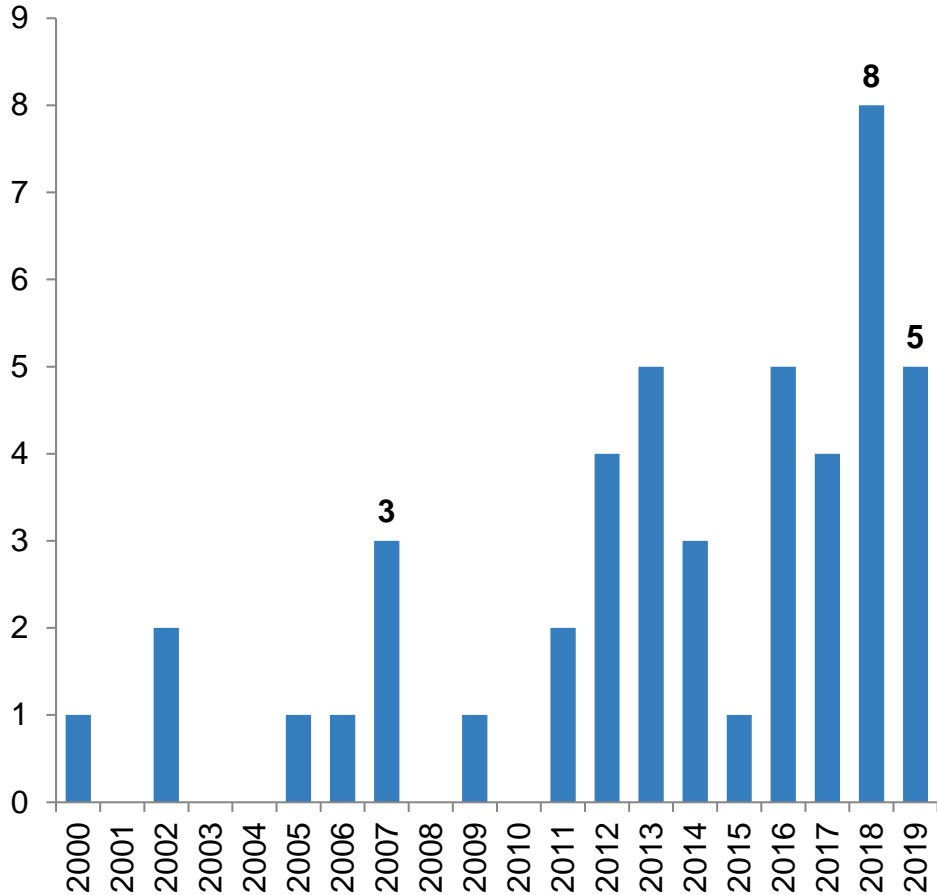
Percent of US Law Firms Using Litigation Financing



Why Is It Happening? Social Trends Set the Stage

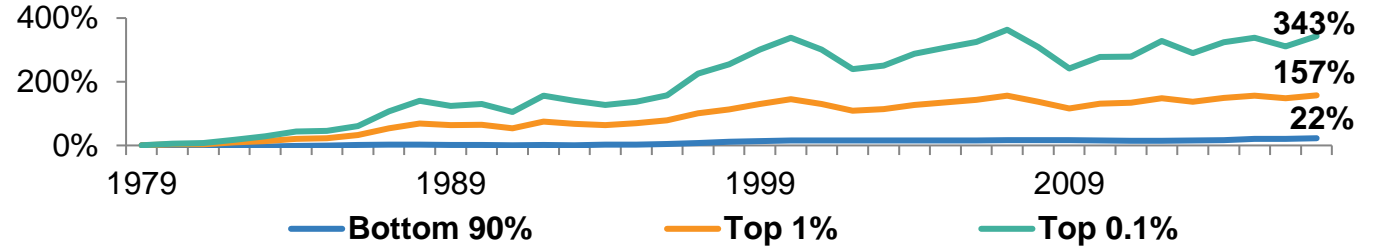
Big Payout Expectations

No. of \$300M Lottery Jackpots

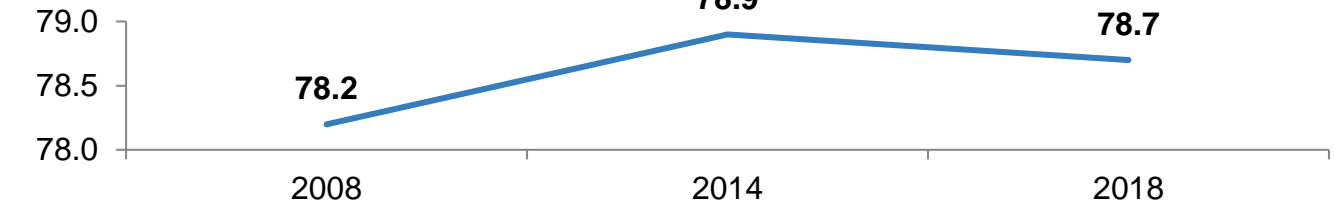


Dystopian Days

% Chg, Real Income Since 79

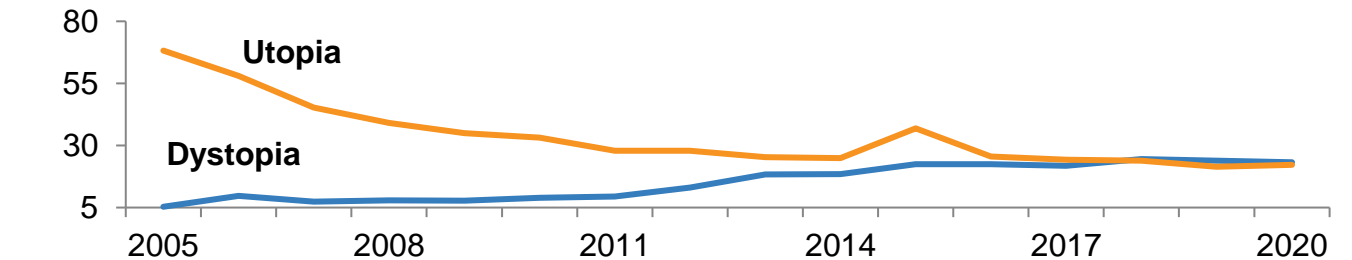


Life Expectancy at Birth



Search Topic: Utopia vs Dystopia

Interest Over Time (12-Mo Mov. Avg)





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