Social inflation and emerging mass torts: now, next and beyond

CAS Webinar

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Agenda

- Introduction
- Trends driving social inflation and emerging mass torts
- Insurance industry response
- Social inflation: a case study

Today's presenters

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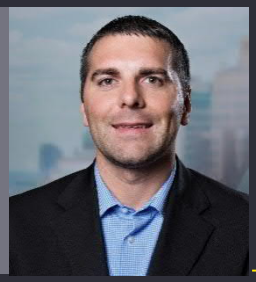

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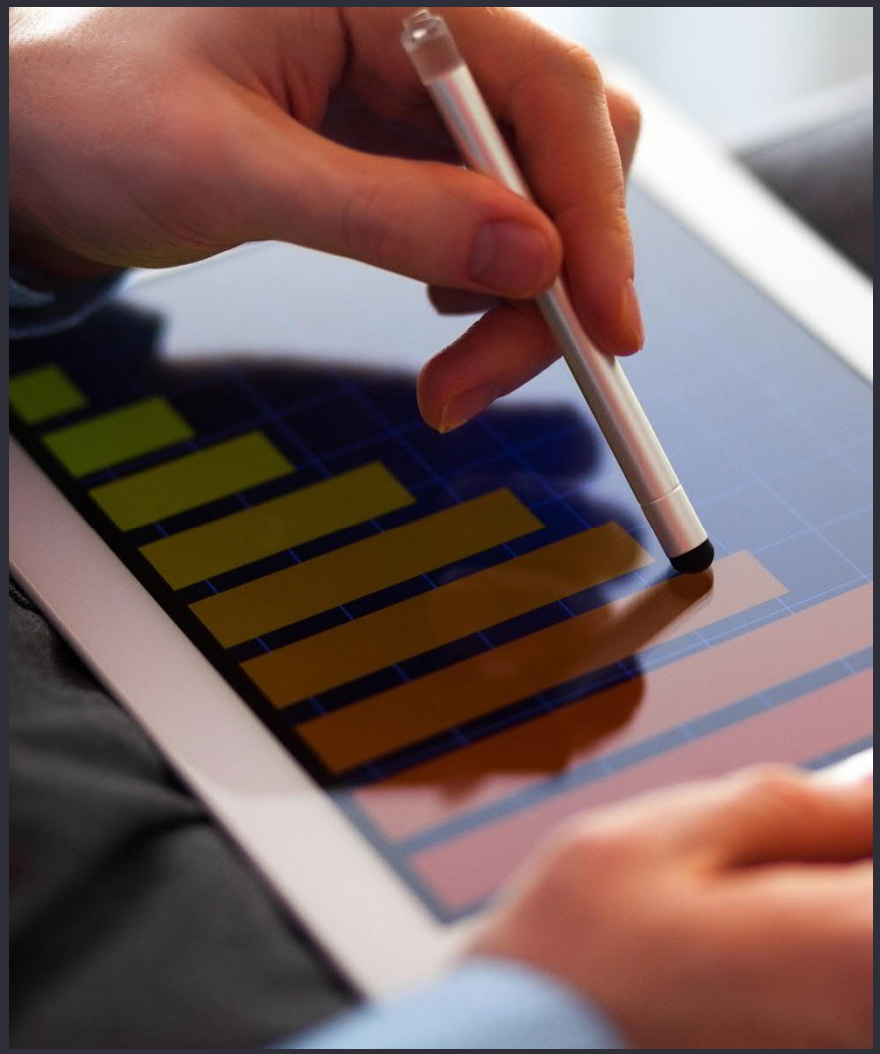
Social inflation
What is social inflation?

- Concept first introduced in 1977:
  "A broadening definition by society and juries of what is covered by insurance policies"*
- Rising costs of claims resulting from increasing litigation, broader definitions of liability, more plaintiff-friendly legal decisions and larger compensatory jury awards
- Modern drivers of social inflation:
  - Societal trends
  - Increase in the number of litigated claims
  - "Nuclear" verdicts and new concepts in tort law



*Berkshire Hathaway

Mass torts

Emergence of mass torts in the insurance industry

Mature mass torts

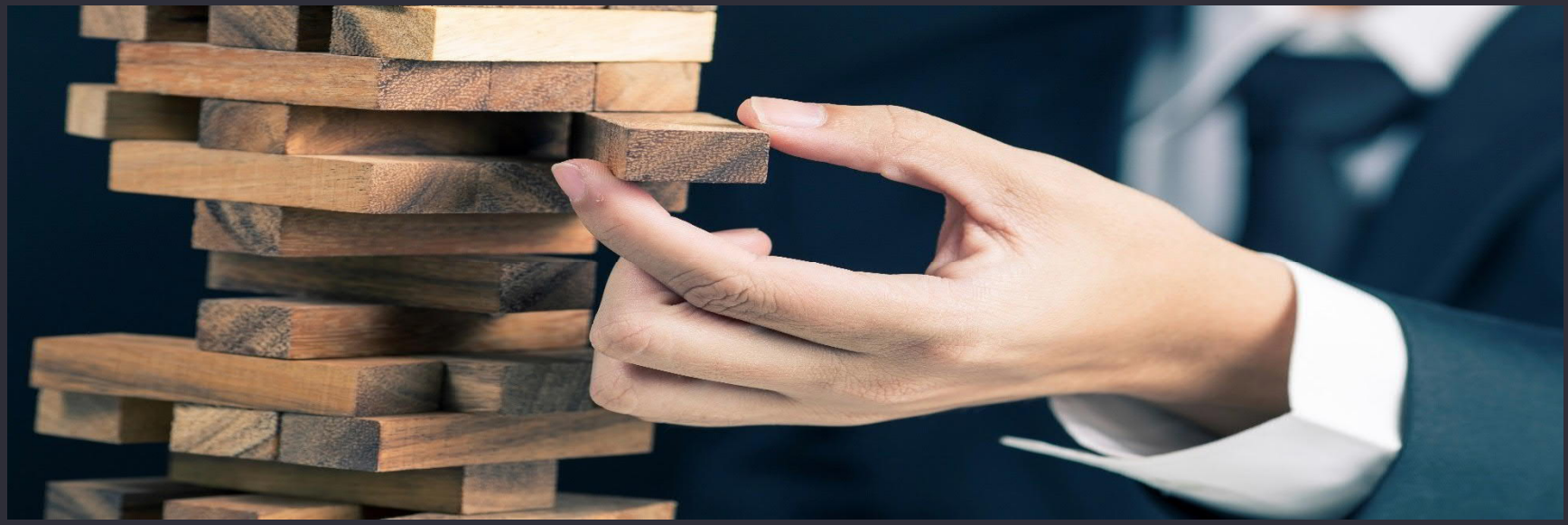
- Asbestos
- Environmental/pollution
- Construction defects
- Black lung
- Merger/acquisition litigation

Emerging mass torts

- Opioids
- Sexual abuse/misconduct
- Glyphosate
- Talcum powder litigation
- Traumatic brain injuries

Potential future torts

- Vaping and e-cigarettes
- Mass shooting/active shooter
- Climate change
- COVID-19?



Trends driving social inflation

Trends driving social inflation and emerging mass torts
Societal trends

- Distrust of corporate entities:
  - Long history of corporate distrust
    - Example: in 1950s, many tobacco companies advertised that smoking was “good for your health” despite contrary scientific evidence.
  - Feelings of distrust have only increased
    - According to Gallup’s latest *Confidence in Institutions* survey, the percentage of Americans expressing “very little confidence” in big business grew from 22% in 2000 to 32% in 2019; those expressing “a great deal/quite a lot” of confidence decreased from 29% to 23%.
    - Belief that jurors no longer feel large corporations are the “backbone of the economy” but rather part of the “privileged elite” that need to be punished for their wrongdoing.
  - Prevailing distrust of corporations contributing to a jury’s desire to assign blame and punish defendants, and in doing so achieve justice by rewarding plaintiffs.

Trends driving social inflation and emerging mass torts
Societal trends

- Social justice and the impact of social media:
  - Younger generations have a general mistrust of corporate America and the government and stronger belief in social justice:
    - Only 48% of millennial respondents in a 2018 survey believed that corporations behave in an ethical manner.[1]
  - Social media now allows people to leverage information and turn a small movement into a considerable force:
    - The #MeToo movement has changed the culture around reporting of sexual misconduct.
  - As society increasingly expects corporations to exhibit ethical behavior, they may be quicker to penalize perceived moral lapses:
    - Victims will likely go after the deeper pockets of the institutions that enabled unethical/predatory behavior rather than just the perpetrator.

[1]2018 Deloitte Millennial Survey

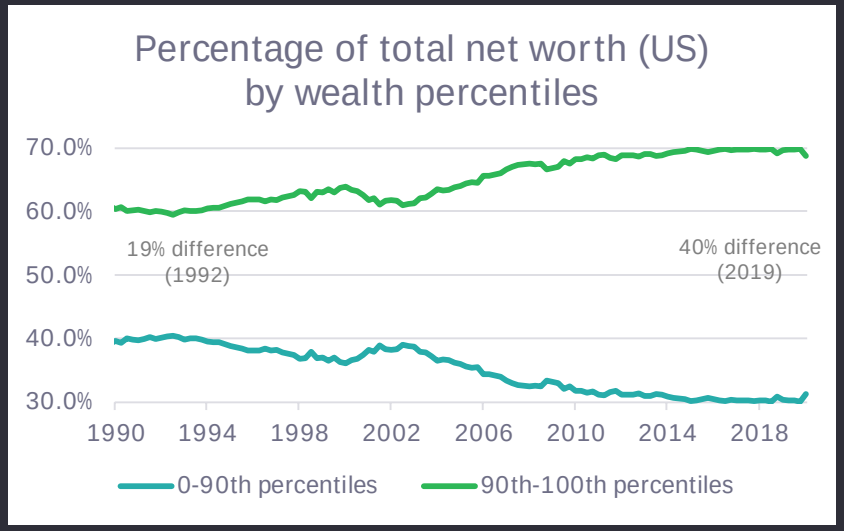
Trends driving social inflation and emerging mass torts
Societal trends

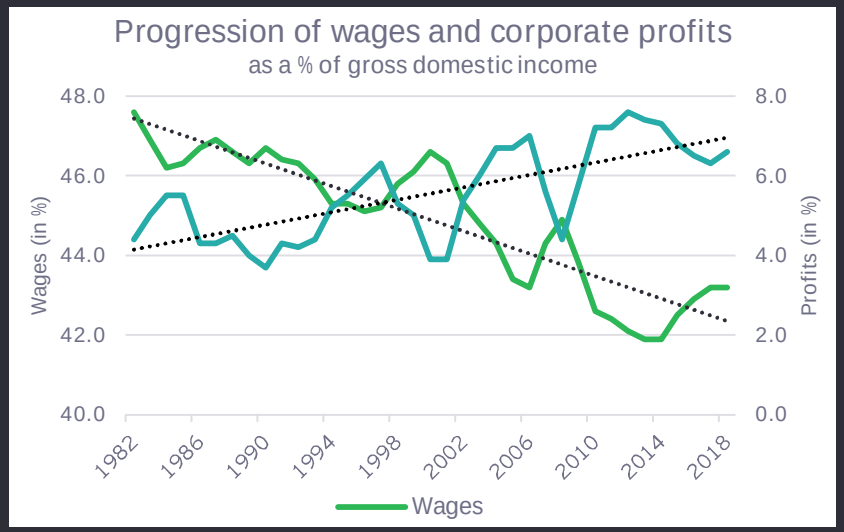
- Changing concept of money:
  - Jurors do not hesitate to award sums of money that are often larger than expected for perceived bad actors.
    - Jurors want to be sure the injured are "taken care of" to avoid simply overcompensating the plaintiff's bar through contingent fees.
  - Jurors' perspective of what is reasonable compensation is being influenced by public reports of ever-increasing contracts for athletes, celebrities and business executives.
  - Increased frequency of higher awards leads to further desensitization to large awards.
  - This is exacerbated by plaintiffs attorneys' frequent use of large figures from previous verdicts/settlements during trial (when permitted).
    - The median value of the top 50 US verdicts has almost doubled since 2014 (from $27.7m in 2014 to $54.33m in 2018)[1]

[1]The *National Law Journal*'s annual list of "The Top 100 Verdicts Reported by VerdictSearch"

Trends driving social inflation and emerging mass torts
Economic inequality

- While income for the top 10% has been outdistancing the bottom 90% since the mid-1980s, this trend has accelerated in the last 10-20 years.
  - Awareness of this trend increased during the Great Recession recovery period when corporate profits and income for the top 10% (the “haves”) recovered much faster than that of the bottom 90% (the “have-nots”).
  - Between 2010 and 2014, US corporate profits as a percentage of national income reached their highest levels since World War II, but individual wages stagnated during this period.
    - Contributed to the Occupy Wall Street movement protesting economic inequality during 2011-12.
- Growing wealth gap exacerbated the feelings of frustration toward and resentment of corporations among many people who felt left behind during the economic recovery.





Source: Federal Reserve economic data

Trends driving social inflation and emerging mass torts
Litigation trends

- Organized plaintiff's bar
  - More coordinated than defense bar:
    - Better data collection and sharing among plaintiffs firms
    - Frequent conferences to discuss litigation strategies
  - Recent coordinated litigation strategy – reptile theory:
    - The idea of corporations as bad actors, and its appeal to jurors, is commonly referred to as the "reptile theory."
    - A party can prevail by speaking to and scaring the primitive part of jurors' brains that is conditioned to respond to fear in a protective manner.
    - This is done by reinforcing the allegation that corporations value profit over people and therefore are a "threat" to the safety of the community, which the jury can rein in by awarding damages.

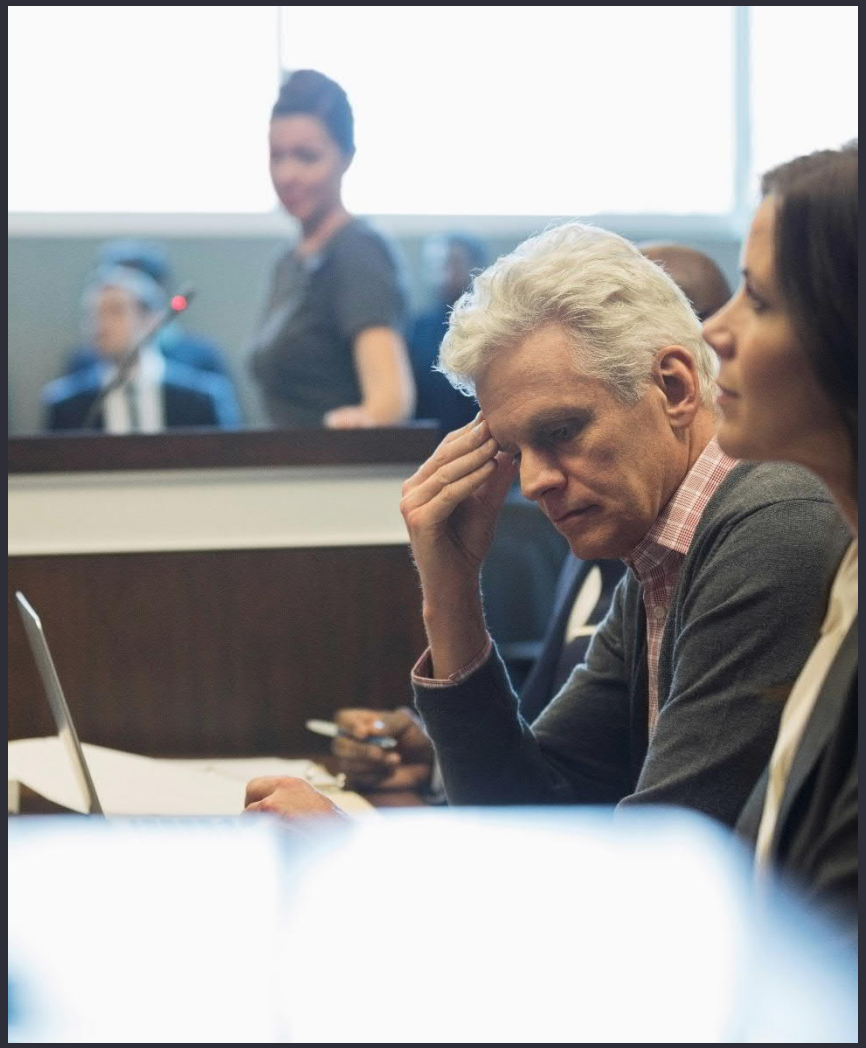
Trends driving social inflation and emerging mass torts
Litigation trends

- Third-party litigation funding:
  - Hedge funds investing money in lawsuits in exchange for a percentage of the settlement or judgment
  - Over $100b available to funders and firms, with use of the practice having grown 414% in the US from 2012 to 2017[1]
  - Presently not regulated anywhere in the world, creating the potential for ethical issues and conflicts of interest:
    - Increases the volume of litigation
    - Affects litigation/claim cycle times

[1]Burford Capital "2017 Litigation Finance Survey"

Trends driving social inflation and emerging mass torts
Impact on insurance industry experience

- Frequency and severity impact:
  - Increase in percentage of claims involving attorney representation
    - Increases overall claim severity as the overall cost of claims involving attorney representation is significantly higher than those without attorney representation[1]
  - Increasing frequency of “large loss” events and settlements
    - Creating significant pressure on umbrella and excess classes in recent accident years due to increased frequency and severity of claims piercing these layers
  - Nuclear verdicts
    - Five times as many verdicts of $20m+ between 2014 and 2019 than in the prior five years.
    - The median settlement of the 50 largest verdicts in 2018 is 93% higher than in 2014



[1]Insurance Research Council, *Countrywide Patterns in Auto Injury Insurance Claims*, 2012 Edition

Insurance industry response

Insurance industry response
Coverage and claims considerations

Policies and coverages exposed to mass torts

- Commercial General Liability
- Employment practices liability
- Errors & Omissions
- Directors & Officers
- Medical malpractice

Coverage considerations

- Jurisdictional considerations
- Triggers/limits
- Exclusions

Claims handling and defense

- Claim organization segmentation strategy
- Case reserving and cost estimation
- Cost sharing with co-carriers
- Choice of defense firm

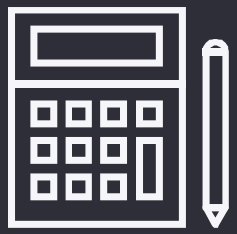
Insurance industry response
Actuarial, reserving and accounting considerations

Actuarial

How will companies estimate unpaid liability associated with mass tort events and social inflation when traditional reserving methodology is insufficient?

- Inventory of policies, coverages, limits impacted by specific emerging tort
- Estimation options
  - Mass tort: similarity to other, more mature torts? Frequency/severity, market share, survival ratio, benchmarking, etc.
  - Social inflation: forecast impact of higher inflation using various scenarios

Accounting



Statutory accounting

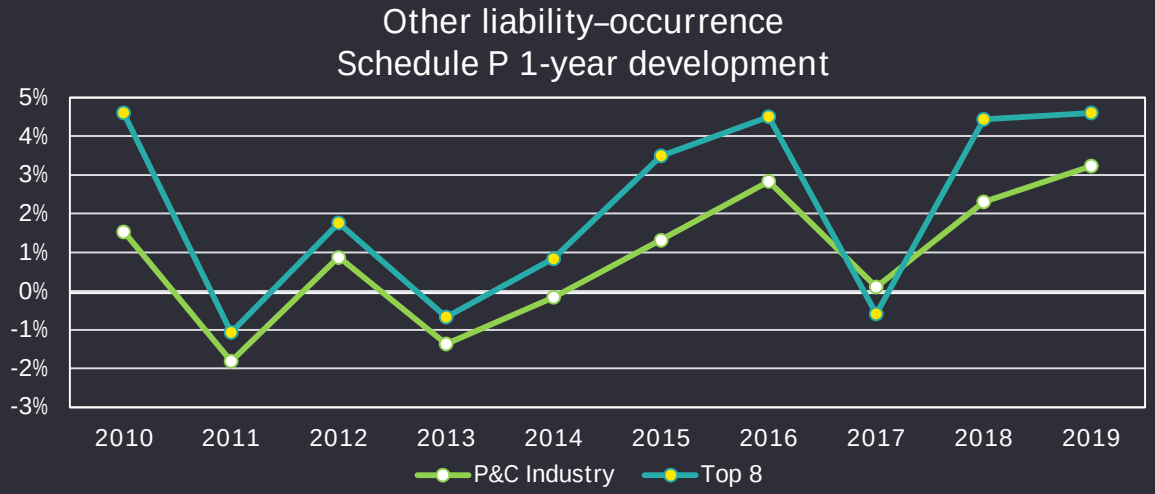
- SSAP 5R paragraph 8: estimated loss from contingency must be recorded if 2 conditions are met:
  - Information indicated it is probable that a liability has been incurred
  - Amount can be reasonably estimated
- Range of reasonable estimates
- Potential disclosures when both conditions are not met

GAAP accounting

- Loss contingencies categorized based on likelihood of occurrence
  - Probable/reasonably possible/remote
  - If probable and can be reasonably estimated, loss is accrued
  - Differences with Statutory regarding range of reasonable estimates
  - Disclosure requirements for “reasonably possible” consistent with Statutory

Insurance industry response
Adverse reserve development and COVID-19 uncertainty

- Traditional reserving can be slow to react to changes until there is evidence that the trend is "real" and can be quantified. This has resulted in consistent adverse reserve developments in recent years



"If in 2019, you were worrying about loss cost trend and social inflation, then you probably should be worrying more about it today than you were then."

Q2 2020 Earnings call

- Actuarial reserving considerations:
  - Identify and consider impact of calendar year trends on reserving estimates
    - Consider impact of COVID-19 on future calendar year trends — while social inflation trends may subside during COVID-19, the expectation is that it will quickly resurface post-pandemic
  - Use of nontraditional actuarial methods to develop additional ultimate loss and ALAE indications
  - Review recent vs. historical loss development factors and incorporate observable trends in the selected loss development pattern or adjustments to loss projections
  - Development of frequency/severity models that incorporate the impact of the identified loss trends in recent years

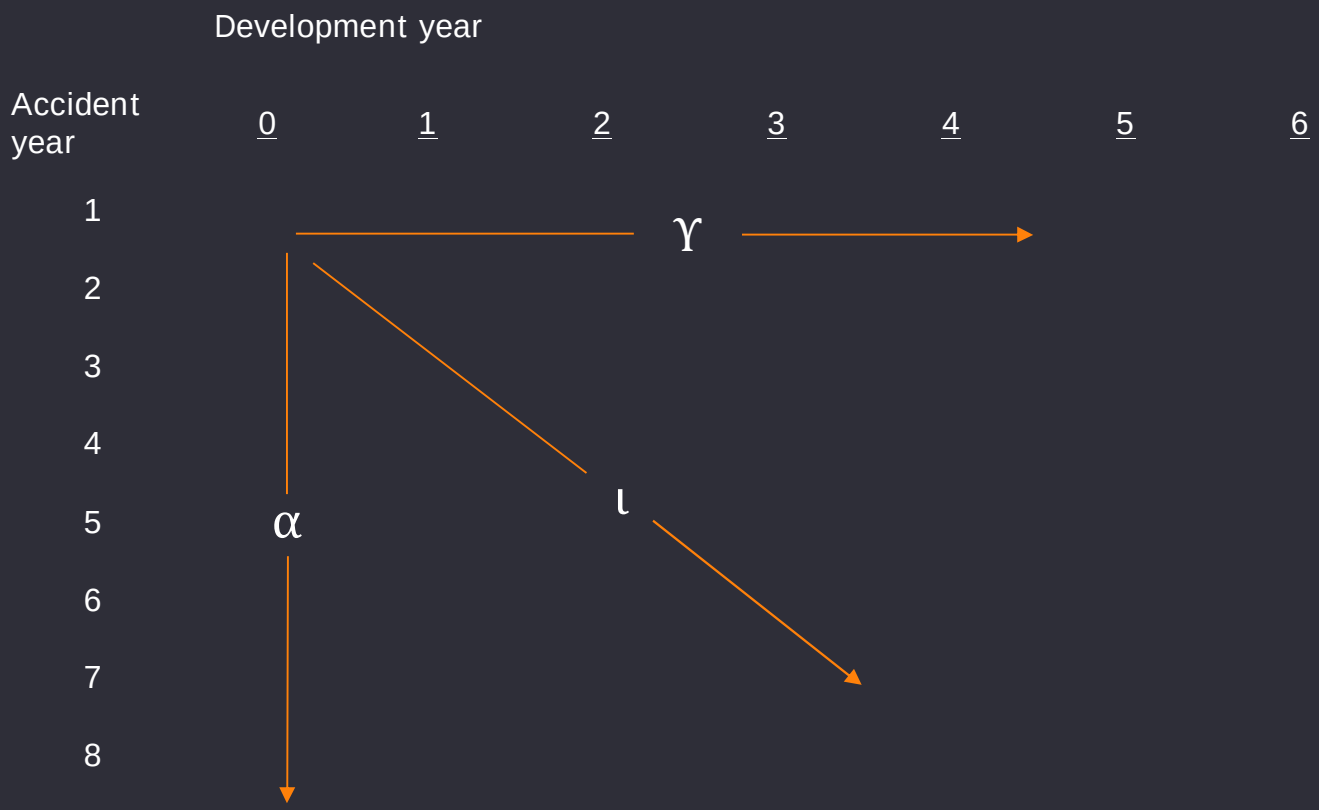
Social inflation: a case study

Abstract

- We performed a case study on social inflation trends using ICRFS software modeling and a combination of proprietary data and industry Schedule P commercial auto and other liability occurrence data.
- The intent of the case study was to identify and isolate calendar year trends inherent in the historical data separately from the development year and accident year parameters.
- With the recent increases in severity trends due to social inflation, this approach is valuable as calendar year trends become statistically significant faster than accident year trends do.
- The case study quantified the impact on accident year ultimate loss estimates of various prospective calendar year trend scenarios.

Approach – ICRFS

- Probabilistic trend family (PTF)[1] model: describes loss development/emergence in three directions along with volatility around the trends



1 Refer to appendix for details of probabilistic trend family model

Approach – analysis process

Step 1 – Data sourcing:

- Proprietary EY data
- Industry Schedule P filings from 2001 through 2019 from various insurers:
  - The “industry aggregate” for commercial auto is based on industry aggregate Schedule P data. However, due to inconsistencies in the claim count data within the comparable data set for other liability occurrence, this “industry aggregate” is based on an aggregation of sample company Schedule P data.

Step 2 – Data aggregation:

- Paid loss and allocated loss adjustment expense (ALAE)
- Reported counts (projected to ultimate)
- Recorded loss and ALAE reserves

Step 3 – We modeled the aggregated loss and ALAE severity data for each company using the PTF modeling framework in ICRFS. Parameters for accident year, development year and calendar year were modeled judgmentally for each data set, and any resulting calendar year trends underlying the fitted models were identified.

Step 4 – Ultimate loss and ALAE were projected using the modeled parameters from the PTF model

Step 5 – Alternative scenarios were modeled in ICRFS. The results for each scenario were calculated and compared with the base scenario and the recorded reserves of each company.

Approach – data challenges and limitations

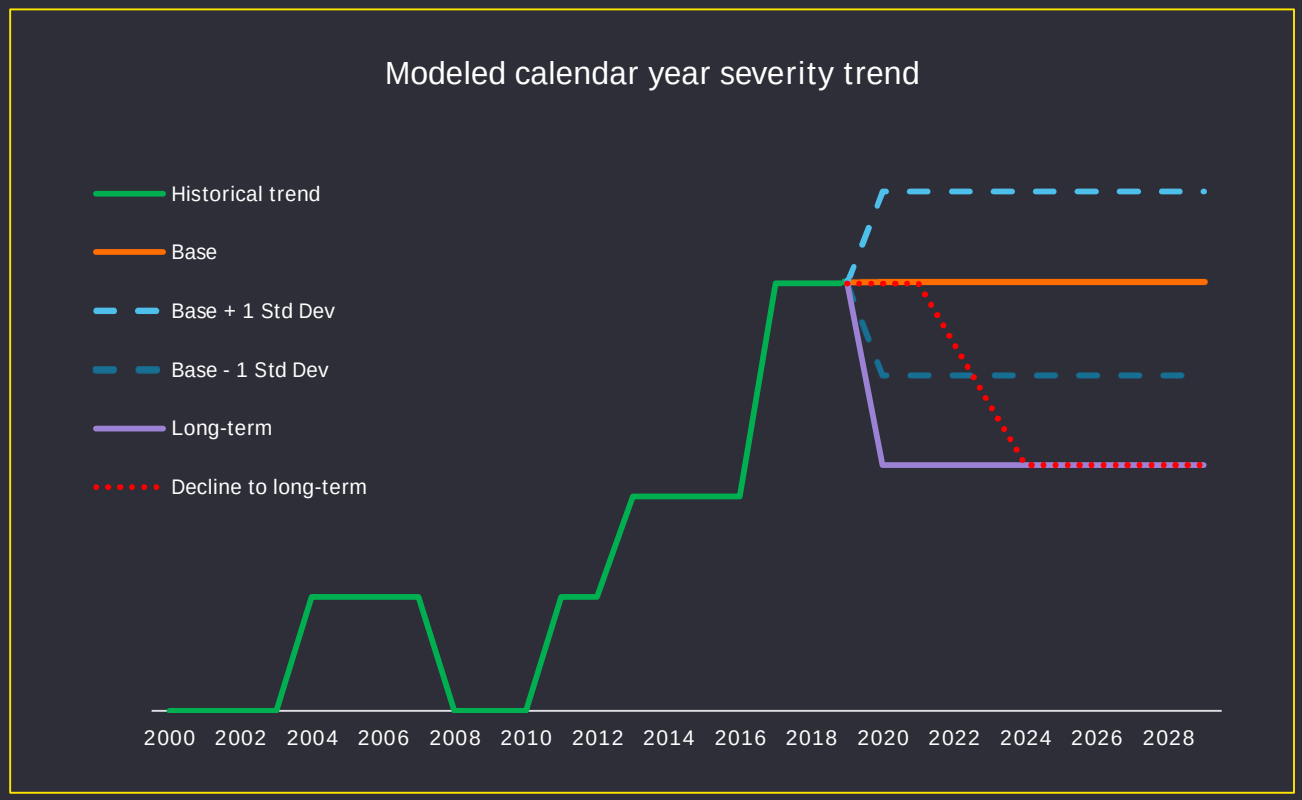
- Data limitations may introduce significant variability and obstacles to the ICRFS modeling approach, which is best suited for data sets with:
  - Sufficient credible loss history, particularly for fitting development period decay parameter
  - Stable exposure profiles and mix of business
  - Reliable claim count data, which allows for modeling of severity trends separate from impact of changes in claim frequency
  - On-level factors for adjusting premiums for rate change history

- Additional limitations of the ICRFS approach include:
  - Collinearity of fitted parameters
  - Forecast of ultimate loss estimates is highly dependent on selected future calendar year parameter, particularly for long-tailed lines of business

Approach – additional considerations

- The results of this case study are indicative of various scenarios of future calendar year inflation trends.
- The views shown on the following slides do not represent Ernst & Young LLP's or the presenters' views of the redundancy/deficiency of the companies or the prospective calendar year trends.
- The case study is intended to demonstrate the potential effects of continued elevated calendar year trends likely attributable to social inflation.

Commercial auto liability
Industry aggregate: calendar year trend



Scenario assumptions

Base
- Current 2019 calendar year trend

Base +/- 1 Std Dev
- Current base trend +/- one standard deviation

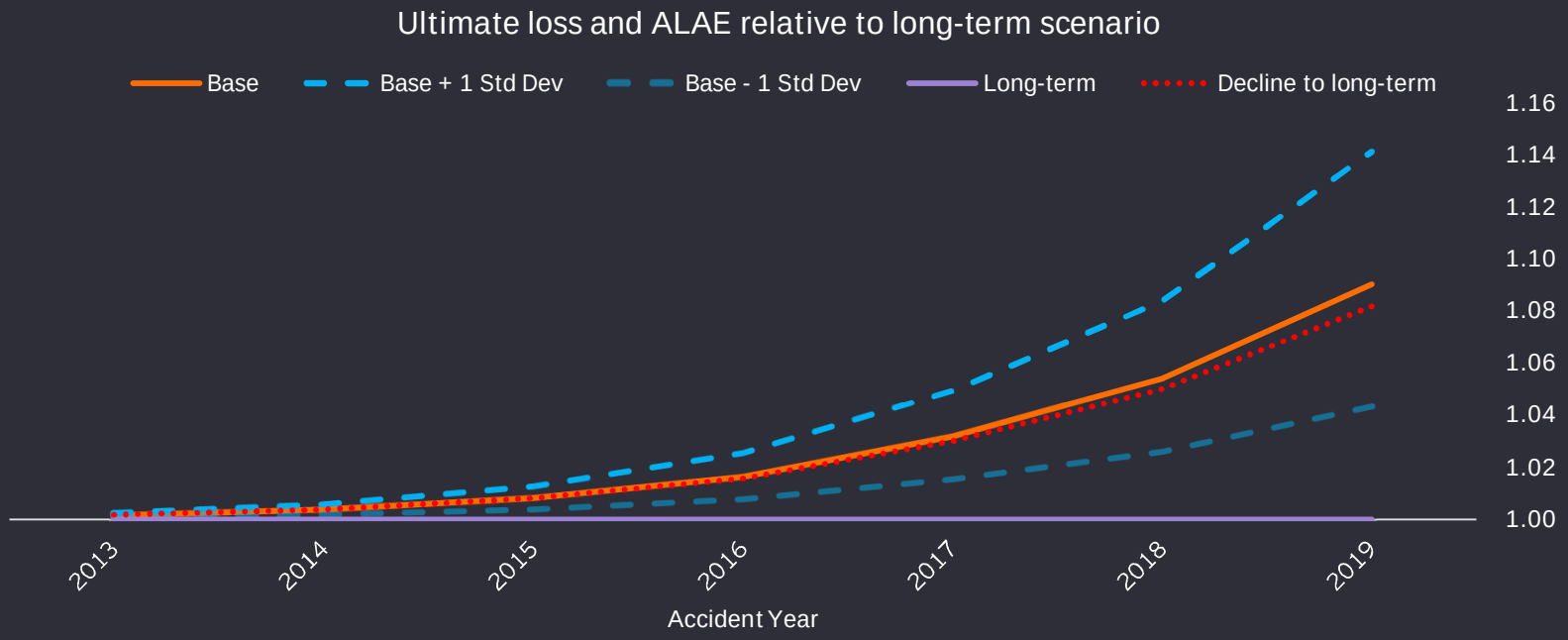
Long term
- Seven-year calendar year trend

Decline to long term
- Three years at current base trend followed by a three-year linear decline to the long-term trend

- The industry aggregate commercial auto liability model suggests an uptick in the calendar year severity trend starting in 2013 with a further increase beginning in 2017.
- The industry aggregate recorded reserves as of year-end 2019 imply a future calendar year trend roughly equivalent to the Base – 1 Std Dev scenario. Continued trend at the current level would imply a deficiency of 4.3% in the industry recorded reserves.

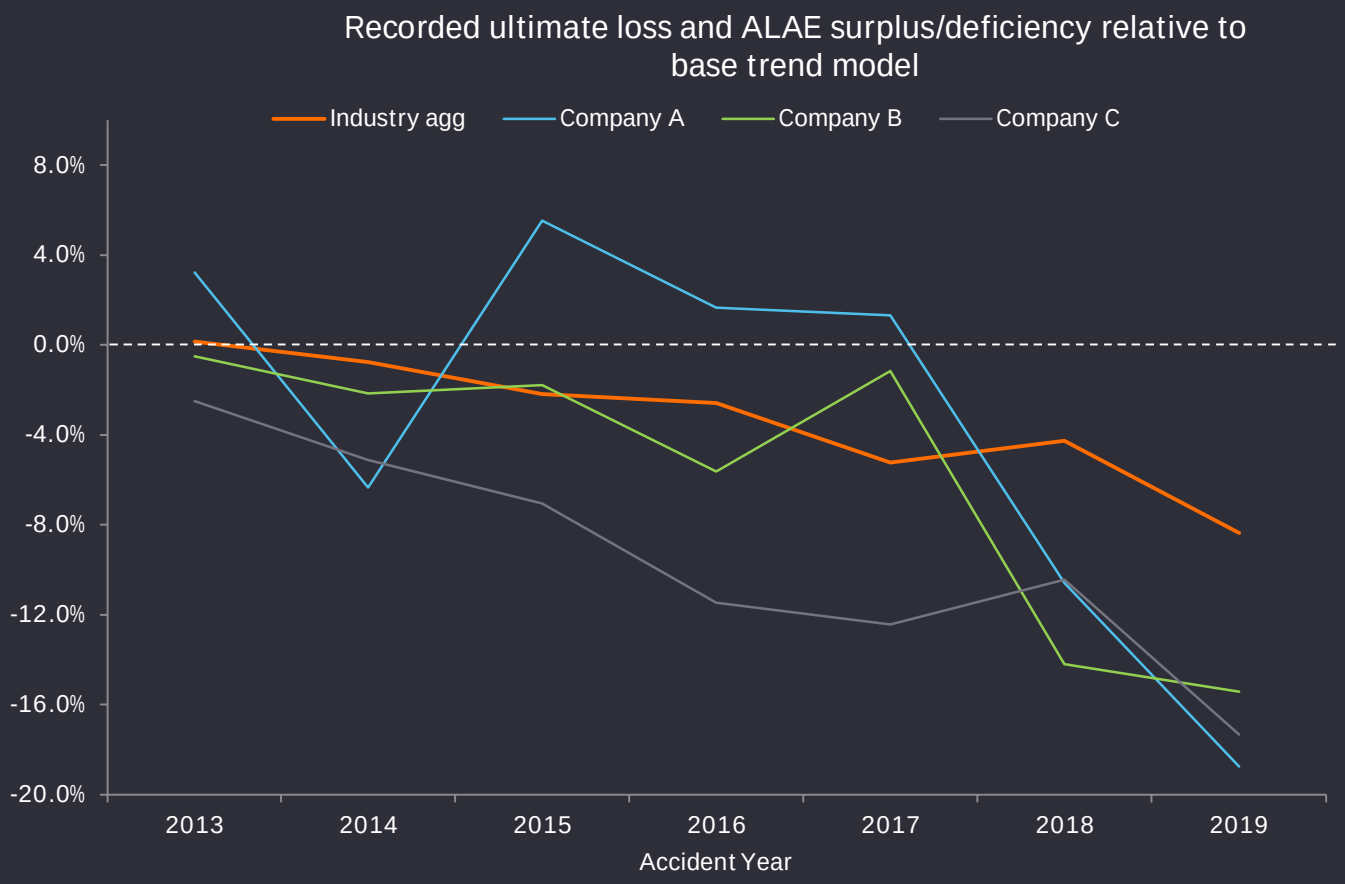
Commercial auto liability
Industry aggregate: results of prospective trend scenarios

- The chart shows ultimate loss and ALAE by accident year for the various modeled scenarios relative to estimates modeled using the seven-year calendar year trend (long-term trend).



- For accident year 2019, the projected ultimate loss and ALAE assuming a continuation of the current trend exceeds the long-term modeled estimate by 9.0%.
- If social inflation trends were to increase by one standard deviation from the current level, the accident year 2019 deficiency would increase to 14.1%.

Commercial auto liability
Recorded ultimate surplus/deficiency relative to base trend



Company profiles

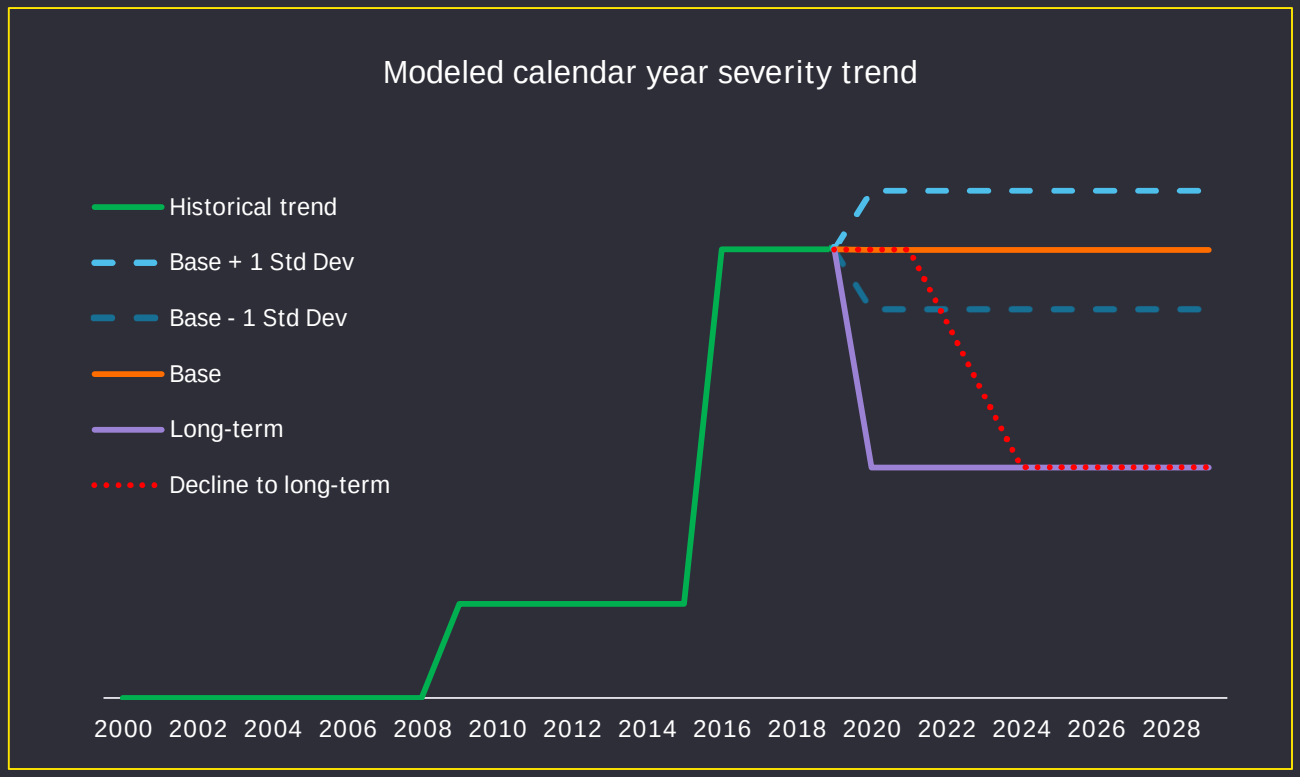
Company A
- Large national middle-market carrier

Company B
- Self-insured countrywide transportation company

Company C
- Midsize regional carrier

- Compared with the base trend model forecast using the 2019 calendar year trend, the recorded ultimate loss and ALAE are deficient in total for the industry and each of the sample companies. However, the indicated difference in ultimate estimates varies by accident year.

Other liability occurrence
Industry aggregate: calendar year trend



Scenario assumptions

Base
- Current 2019 calendar year trend

Base +/- 1 Std Dev
- Current base trend +/- one standard deviation

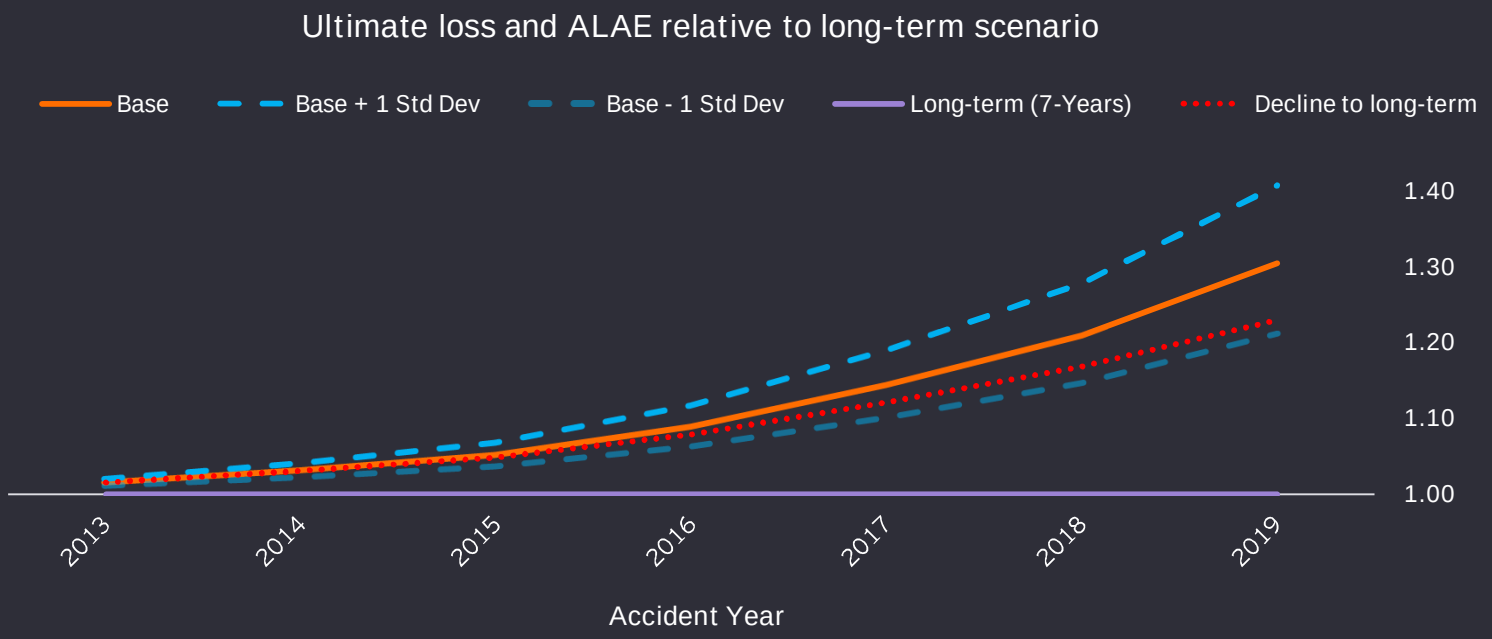
Long term
- Seven-year calendar year trend

Decline to long term
- Three years at current base trend followed by a three-year linear decline to the long-term trend

- The industry aggregated Other Liability Occurrence model suggests an uptick in calendar year severity trend starting in 2009 with a significant further increase beginning in 2016.
- The industry aggregated recorded reserves as of year-end 2019 imply a future calendar year trend roughly equivalent to the Base – 1 Std Dev scenario. Continued trend at the current level would imply a deficiency of 6.4% in the industry recorded reserves.

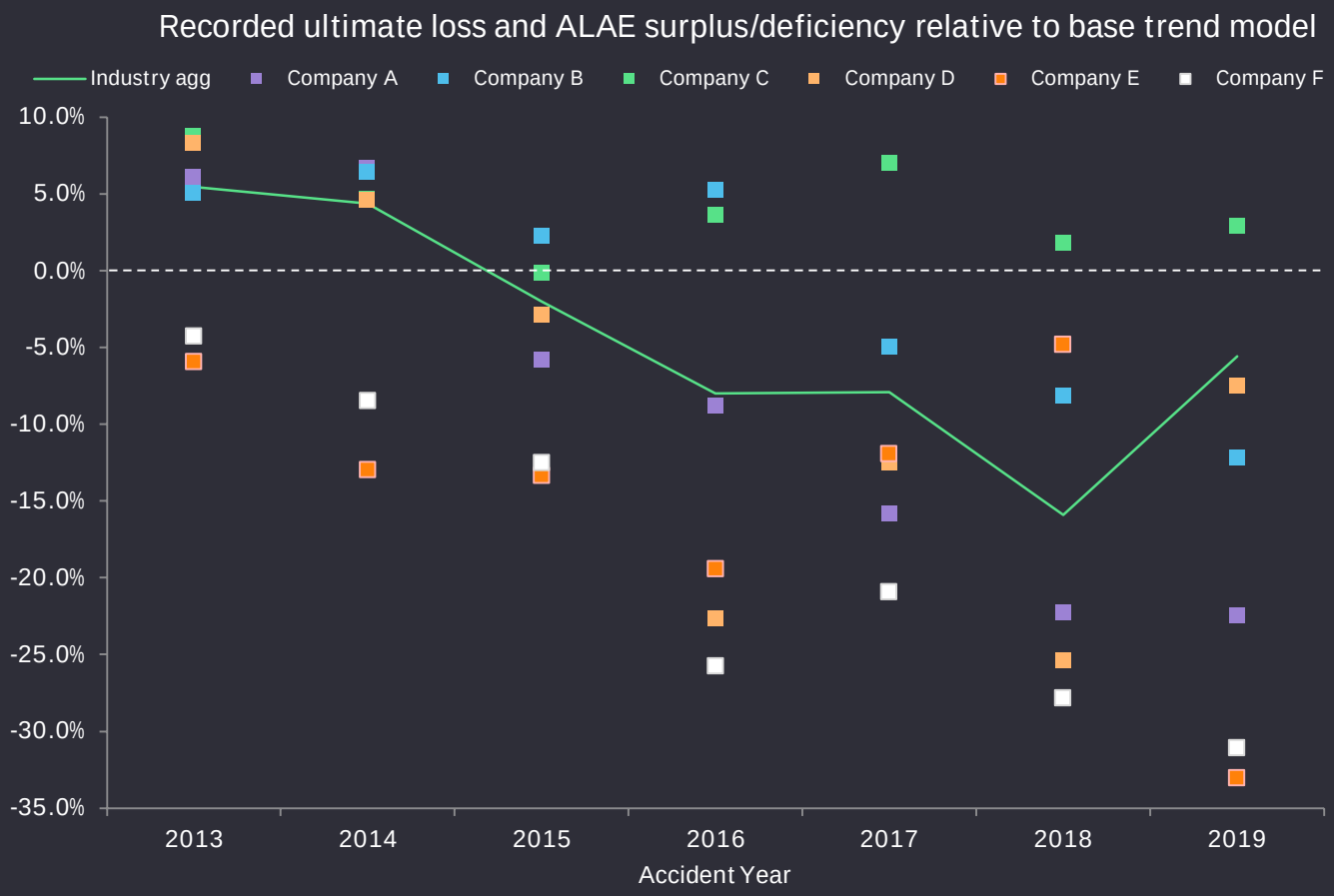
Other liability occurrence
Industry aggregate: results of prospective trend scenarios

- The chart shows ultimate loss and ALAE by accident year for the various modeled scenarios relative to estimates modeled using the seven-year calendar year trend (long-term trend).



- For accident year 2019, the projected ultimate loss and ALAE assuming a continuation of the current trend exceeds the long-term modeled estimate by 31.0%.
- The impact on other liability occurrence is greater than commercial auto due to:
  - The longer-tail nature of this line of business
  - Larger difference between the base and long-term trends

Other liability occurrence
Recorded ultimate surplus/deficiency relative to base trend



Company profiles

Company A
- Large multi-line national carrier

Company B
- Large multi-line national carrier

Company C
- Midsize regional carrier

Company D
- Large multi-line national carrier

Company E
- Large national middle-market carrier

Company F
- Large national specialty carrier

- Other than Company C's, the recorded ultimate loss and ALAE are deficient in each of the most recent three accident years for the industry and sample companies relative to the base trend model forecast using the 2019 calendar year trend.

Questions?

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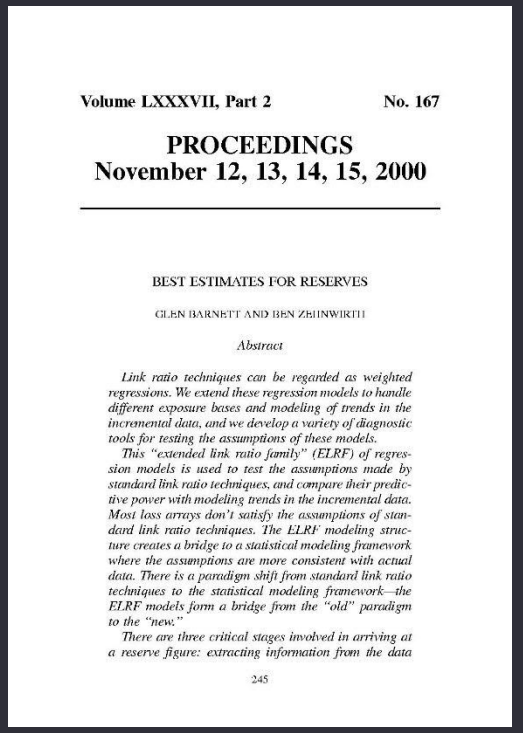
Appendix

Appendix – approach – ICRFS

- The PTF method is fundamentally different from deterministic methods in that it recognizes that historical data is simply one observed sample from a very complex claim payment process. It acknowledges the fact that each data point consists of two components: signal and noise (or randomness). Most importantly, it takes into consideration that fluctuations in observed data may be due to systemic trends or nothing more than randomness. By attempting to differentiate between signal and noise data, probabilistic approaches like PTF are fundamentally different from deterministic approaches that make no attempt to quantify the amount of noise in the data. As a result, ICRFS provides significant diagnostic information to help understand trends in the data and consequently gives management much more information on which to base its business decisions.

Appendix – approach – ICRFS

- The ICRFS methodology is an accepted approach within the actuarial community for forecasting loss payments and quantifying the uncertainty in those forecasts. The methodology is described in the Barnett and Zehnwirth paper "Best Estimates for Reserves," and has been on the Casualty Actuarial Society's examination syllabus. The methodology has been used by EY member firms in the United States and Australia for over 10 years. In addition, several large insurance and reinsurance companies use the methodology in their reserve evaluation and setting process.



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BEST ESTIMATES FOR RESERVES

GLEN BARNETT AND BEN ZEHNWIRTH

Abstract

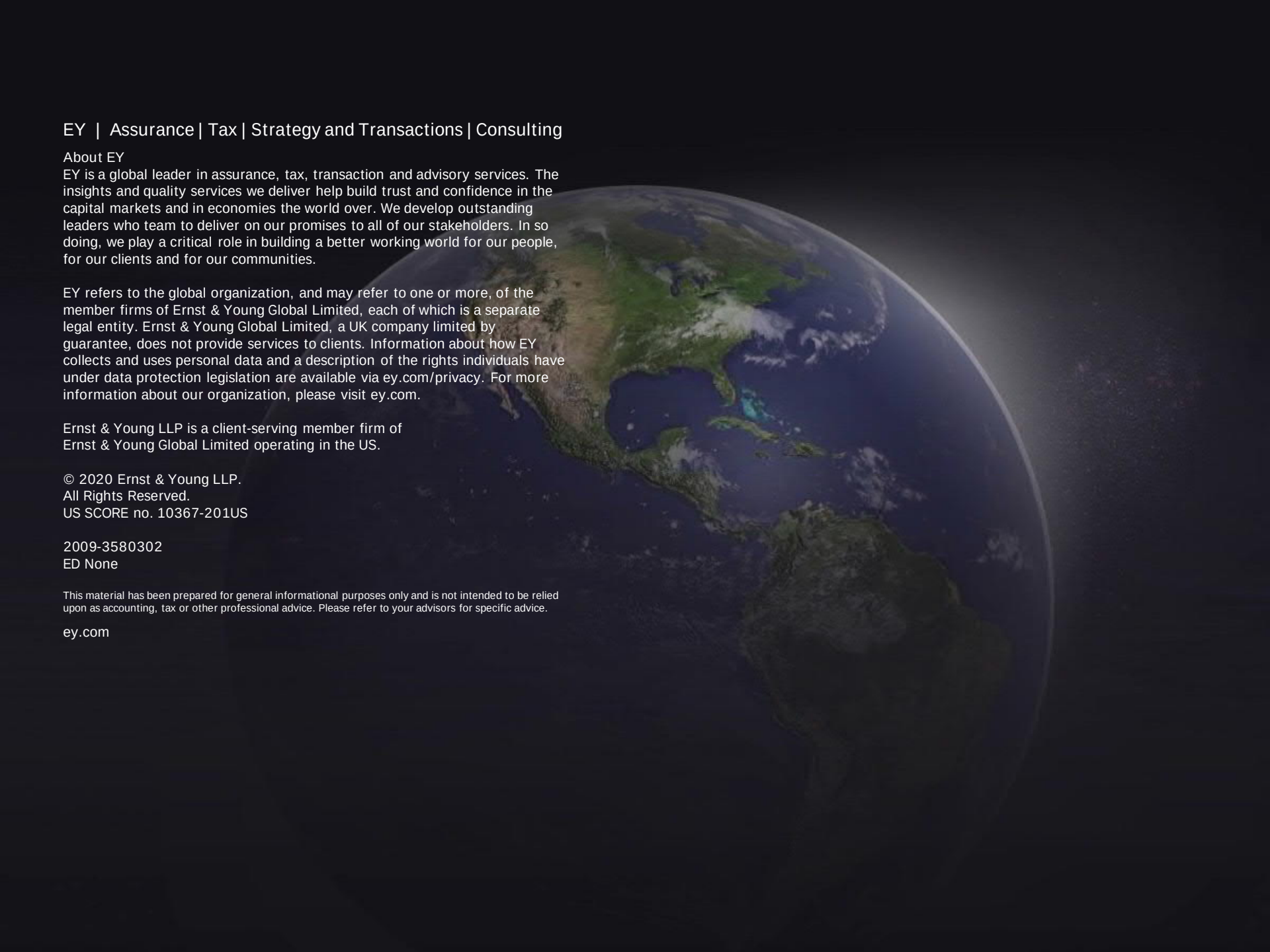
Link ratio techniques can be regarded as weighted regressions. We extend these regression models to handle different exposure bases and modeling of trends in the incremental data, and we develop a variety of diagnostic tools for testing the assumptions of these models.

This "extended link ratio family" (ELRF) of regression models is used to test the assumptions made by standard link ratio techniques, and compare their predictive power with modeling trends in the incremental data. Most loss arrays don't satisfy the assumptions of standard link ratio techniques. The ELRF modeling structure creates a bridge to a statistical modeling framework where the assumptions are more consistent with actual data. There is a paradigm shift from standard link ratio techniques to the statistical modeling framework—the ELRF models form a bridge from the "old" paradigm to the "new."

There are three critical stages involved in arriving at a reserve figure: extracting information from the data

245

https://www.casact.org/pubs/proceed/proceed00/00245.pdf



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