State of the Insurance Market

May 8, 2023 – CAS Spring Meeting

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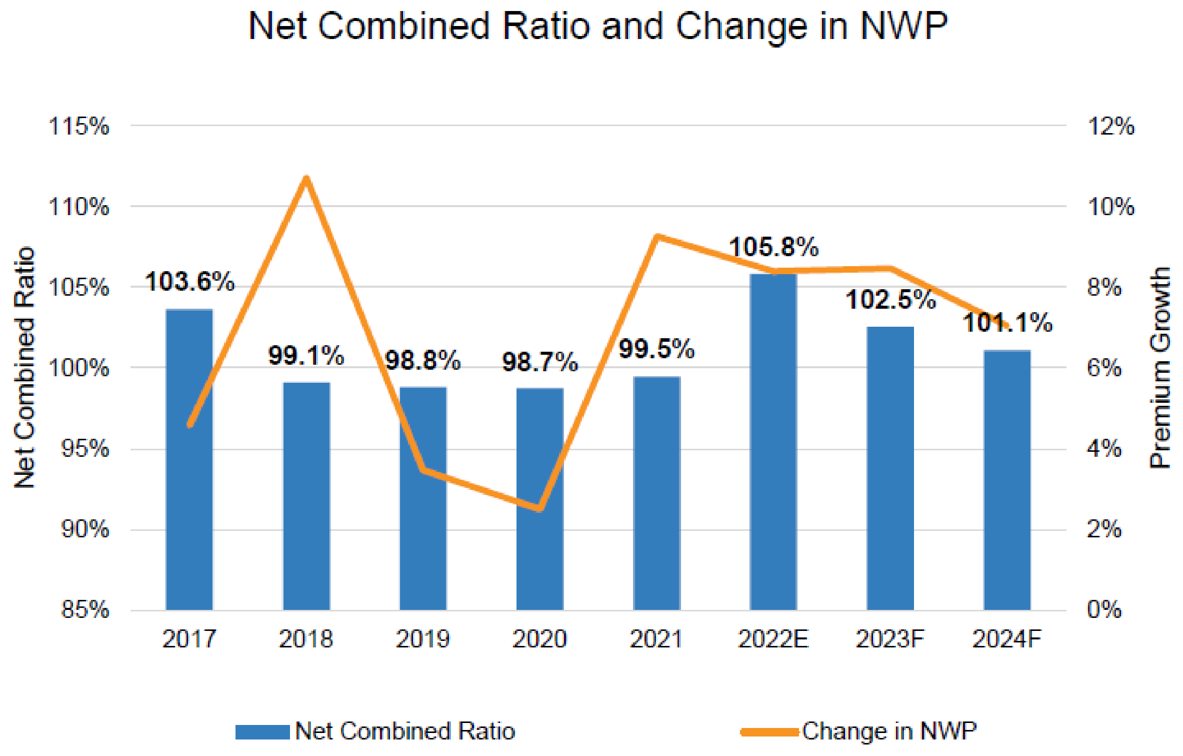
State of the Insurance Market

- Overall combined ratio trends
- Major issue facing the industry – Social Inflation
- Coverages where conditions changed rapidly in 2019

P&C Industry Outlook



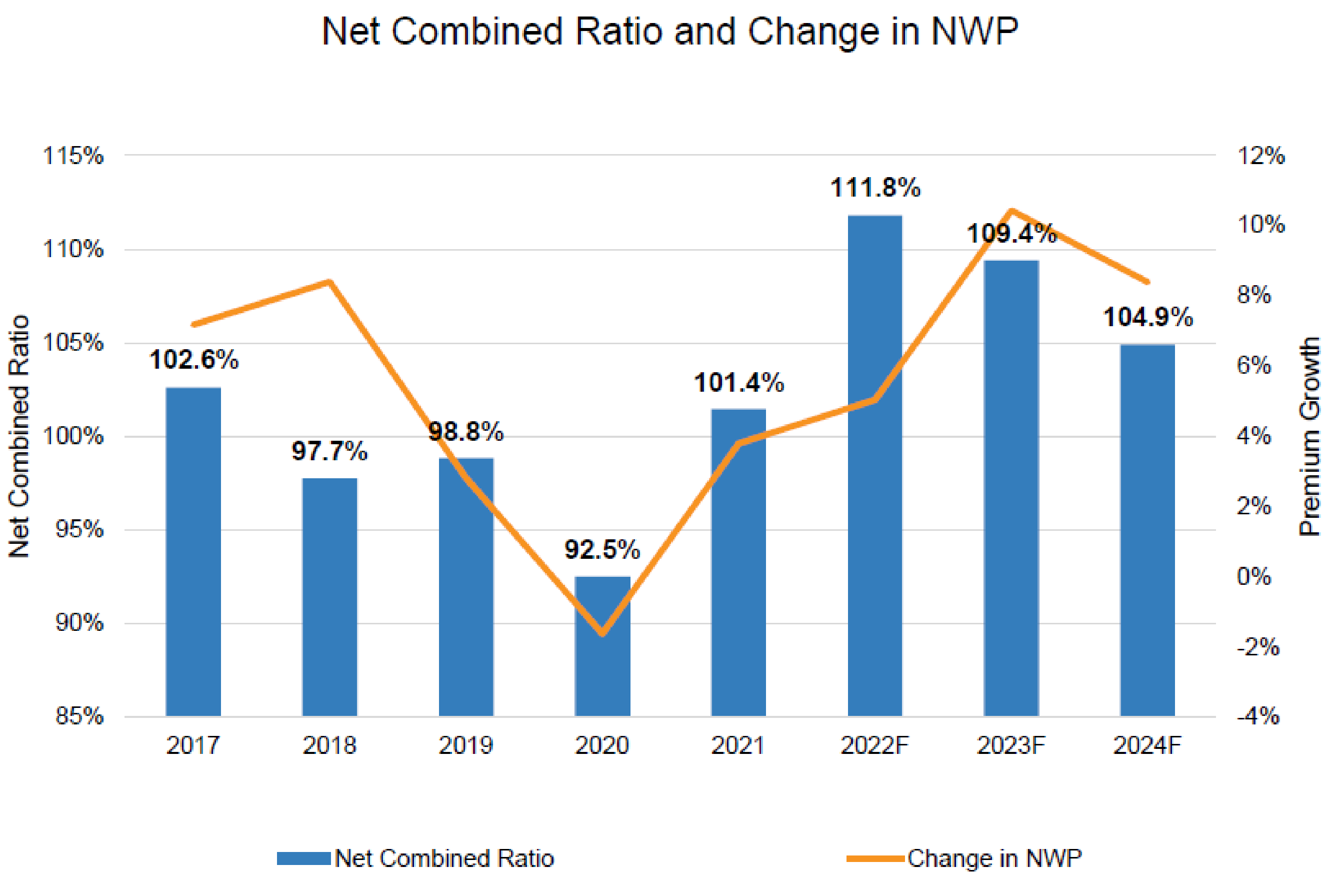
Sources: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman.

- 2022 Net Combined Ratio forecast to worsen by 6.3 pts from 2021, before recovering in 2023-2024
- 2022 forecast stable this quarter, with lower ultimate loss selection for Hurricane Ian offset by deterioration in GL, Personal & Commercial Auto
- Premium growth forecast to increase 8.4% in 2022 and 8.5% in 2023 primarily due to hard market conditions and exposure growth
- Commercial Lines forecast to be more profitable than Personal Lines through at least 2024

Net Combined Ratio	2019	2020	2021	2022	2023	2024
Personal Lines	98.8%	96.8%	102.1%	110.8%	107.6%	104.3%
Commercial Lines	98.8%	100.9%	96.7%	100.8%	97.5%	97.8%

Source: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman

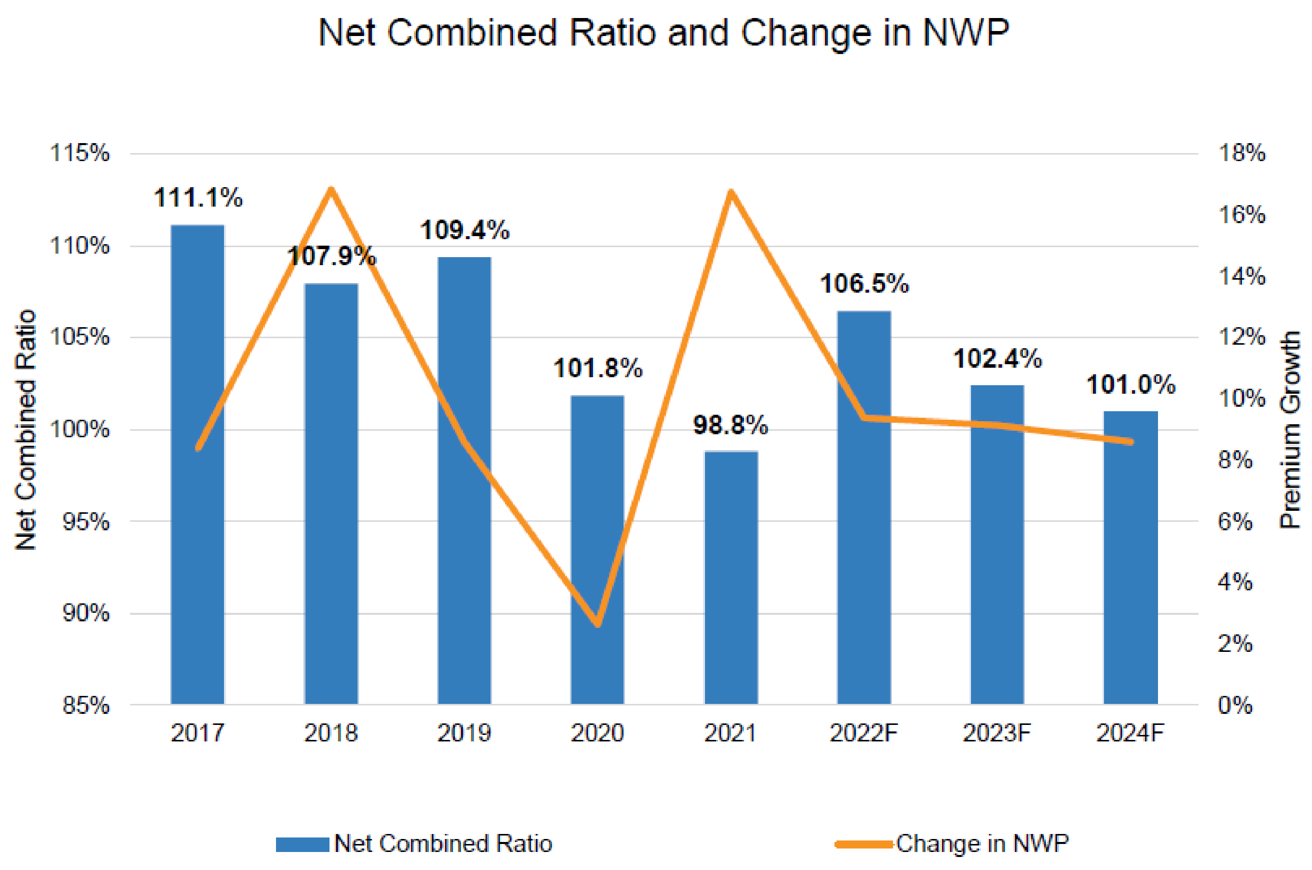
Personal Auto



Sources: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman.

- 2022 Net Combined Ratio forecast at 111.8, 10.4 pts worse than 2021 and 19.3 pts worse than 2020
- 2022 Q3 Direct Loss Ratio of 83.2% was worst in over 20 years
- Supply chain disruption, labor shortages, and costlier replacement parts all contributing to current and future loss pressures
- Elevated losses cause 2023–2024 to remain at an underwriting loss while expected rate increases are fully earned

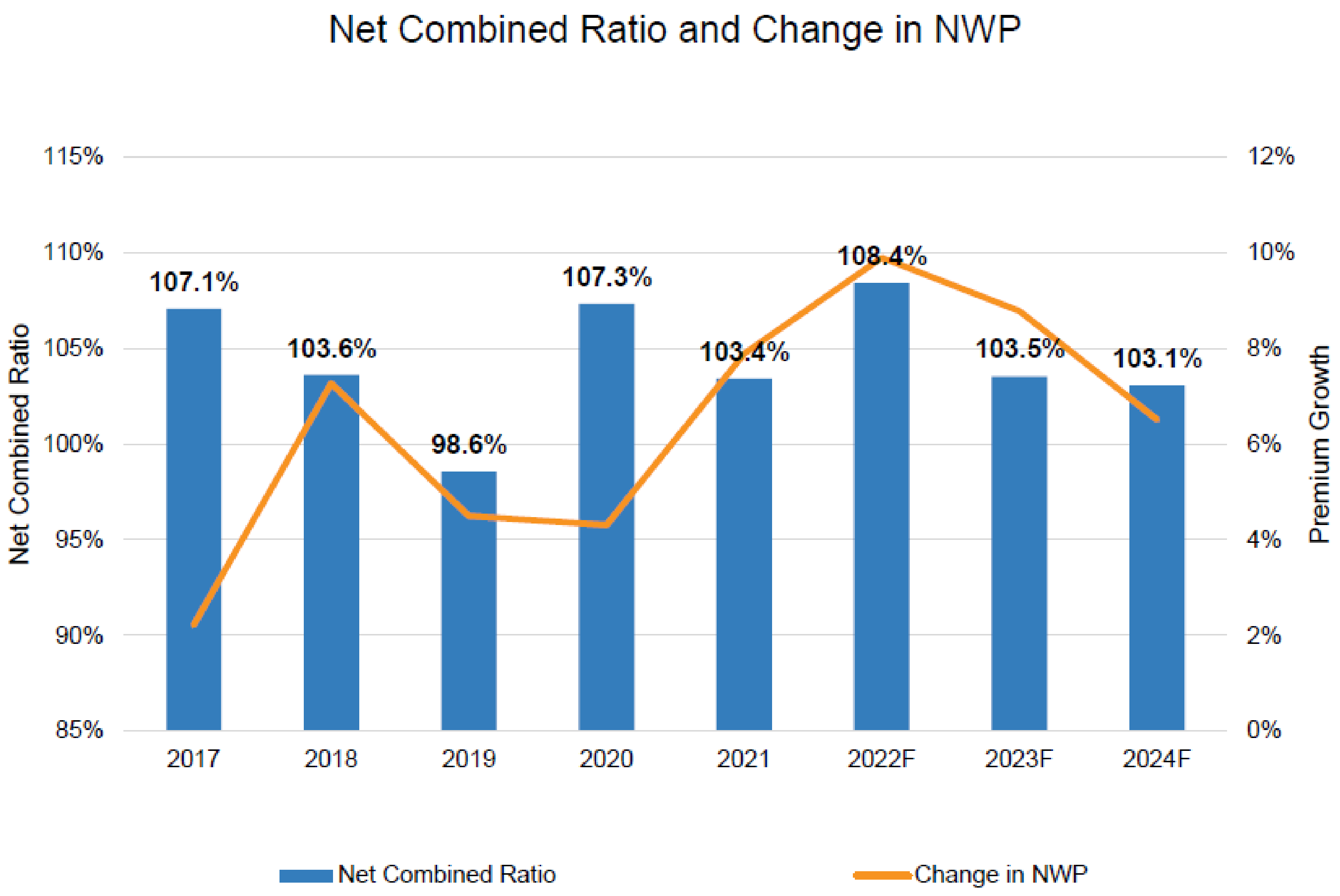
Commercial Auto



- 2022 Net Combined Ratio forecast at 106.5, nearly 8 pts worse than 2021
- 2022 Q3 Direct Loss Ratio of 71.3% was worst since 2019 Q4
- Forecast underwriting loss in 2023-2024 due to inflation, loss pressure, and prior year adverse loss development
- Premium growth expected to remain elevated due to hard market conditions

Sources: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman.

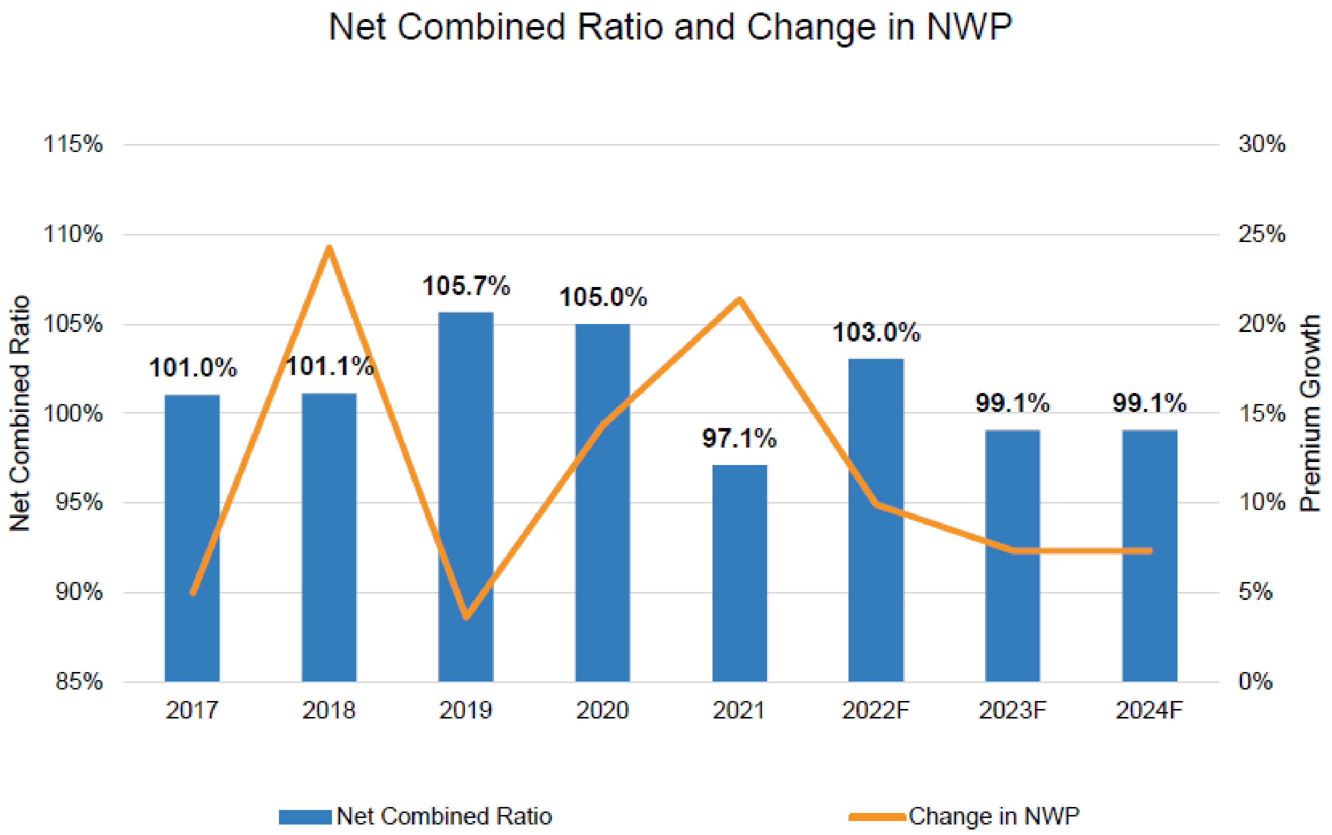
Homeowners



Sources: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman.

- 2022 Net Combined Ratio forecast at 108.4, reflecting latest estimate for Hurricane Ian and winter storms
- Forecast to improve in 2023 and 2024 but remain an underwriting loss throughout this horizon
- Net Written Premium forecast to grow 9.9% in 2022 due to rate and exposure increases
- Loss pressures and expected catastrophes indicate greater rate increases are needed to restore Homeowners to an underwriting profit

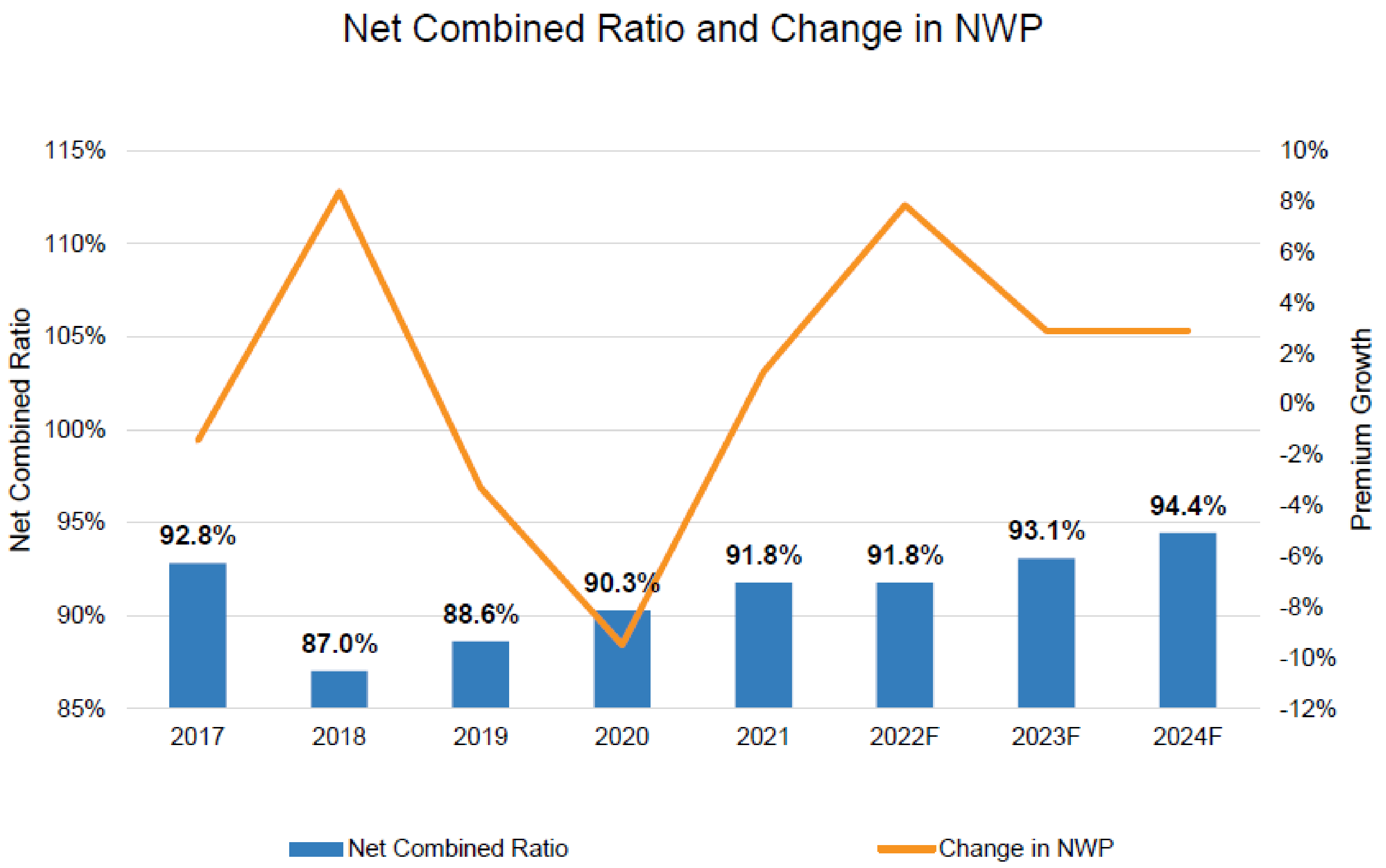
General Liability



- 2022 Net Combined Ratio forecast at 103.0, nearly 6 pts worse than 2021
- Forecasting small underwriting profit for 2023-2024, but inflation and geopolitical risk put pressure on these forecasts
- Premium growth from hard market in 2021 slowing in 2022-2024

Sources: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman.

Workers Compensation



- Underwriting profits continue, with 2022 Net Combined Ratio of 91.8 identical to 2021
- Favorable results forecast to continue in 2023 and 2024
- Pandemic, recession, remote work, and economic recovery impacted volume and location of WC risk, but not profitability

Sources: NAIC Statutory Financial Data through S&P Global Market Intelligence Analysis (as of 2/7/2023): Insurance Information Institute, Milliman.

Social Inflation

- Significant issue facing the industry
- Makes it difficult to estimate future loss trends
- Drives adverse prior year development
- No uniform definition of Social Inflation
- In this presentation, I will use the following definition:

  Rising cost of insurance claims that can't be explained by economic inflationary factors

Reasons for Social Inflation

- Change in jury attitudes
- Plaintiff attorneys are developing new strategies
- Third Party Litigation Funding

Jury Attitudes

- Some believe that current jury pools (e.g., millennials) have a lower opinion of big business
- The mortgage crisis of 2007-08 resulted in many people not trusting big business
- Some people see jury service as a way to right social wrongs and redistribute wealth
  - Empirical evidence suggests that jury awards are highest in areas where income inequality is higher

Plaintiff Attorney Strategies

- Reptile Tactics – make juries feel fear – 2009 book by a trial attorney and a jury consultant
- Blame the organization for the behavior
- Anchoring Tactics – amount suggested by plaintiff attorney creates a baseline
- Various conferences and better communication among plaintiff attorneys
- Advertising promoting large awards
  - US television advertising by attorneys has tripled in the past decade[1]
  - A lack of policy and enforcement of existing regulations has allowed some attorneys to manipulate advertising in ways that usurps and trivializes the justice system with asymmetric information. This is contributing to the rise of nuclear verdicts (in excess of $10 million) in the trucking industry.[2]

[1] Swiss Re Institute, US litigation funding and social inflation – The rising costs of legal liability, December 2021
[2] https://www.ccjdigital.com/business/article/15066258/misleading-legal-ads-contribute-to-trucking-nuclear-verdicts

Third Party Litigation Funding (TPLF)

- Provide up front funding to the plaintiff attorney in exchange for a percentage of the final settlement
- Many TPLF are founded by former litigators
- According to Bloomberg[1], the TPLF industry is estimated to be worth $39 billion
- Swiss Re[2] estimates that TPLF companies are earning a return of 25%
- TPLF is now in the mainstream in front of bar association meetings, and they have their own trade lobby
- Hard to tell, but appears that TPLF started to grow around 2010
- TPLF is often in the background and unknown to defense attorneys
- TPLF have an economic incentive to roll the dice and go to court

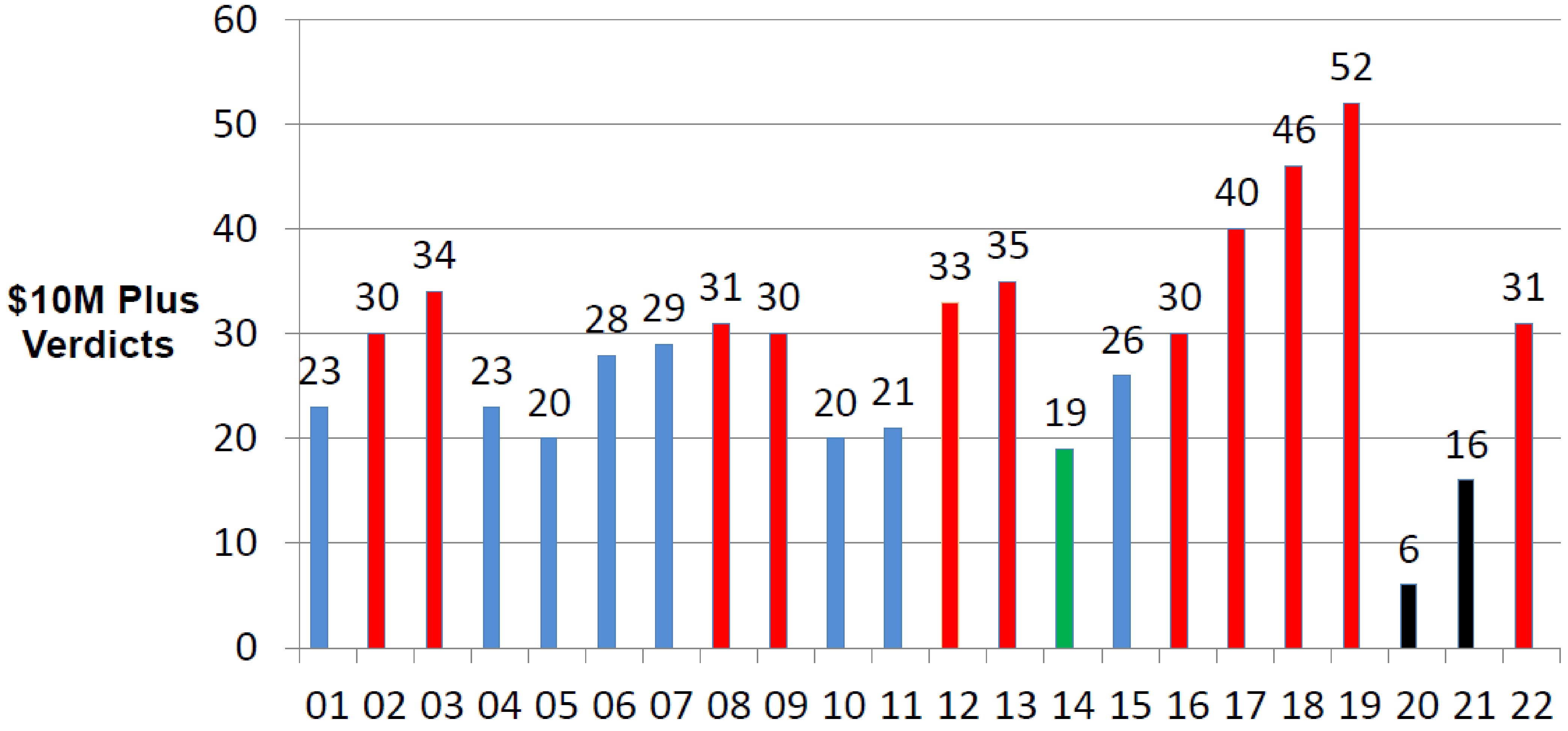
[1] https://www.bloomberg.com/news/articles/2021-11-15/hedge-funds-have-turned-lawsuit-bets-into-a-39-billion-industry#xj4y7vzkg
[2] https://www.swissre.com/institute/research/topics-and-risk-dialogues/casualty-risk/us-litigation-funding-social-inflation.html

Nuclear Verdicts

- Awards of $10 million or more
- Most prevalent in
  - Products Liability
  - Commercial Auto
  - Medical Professional Liability

$10M+ Verdicts, 2001-22

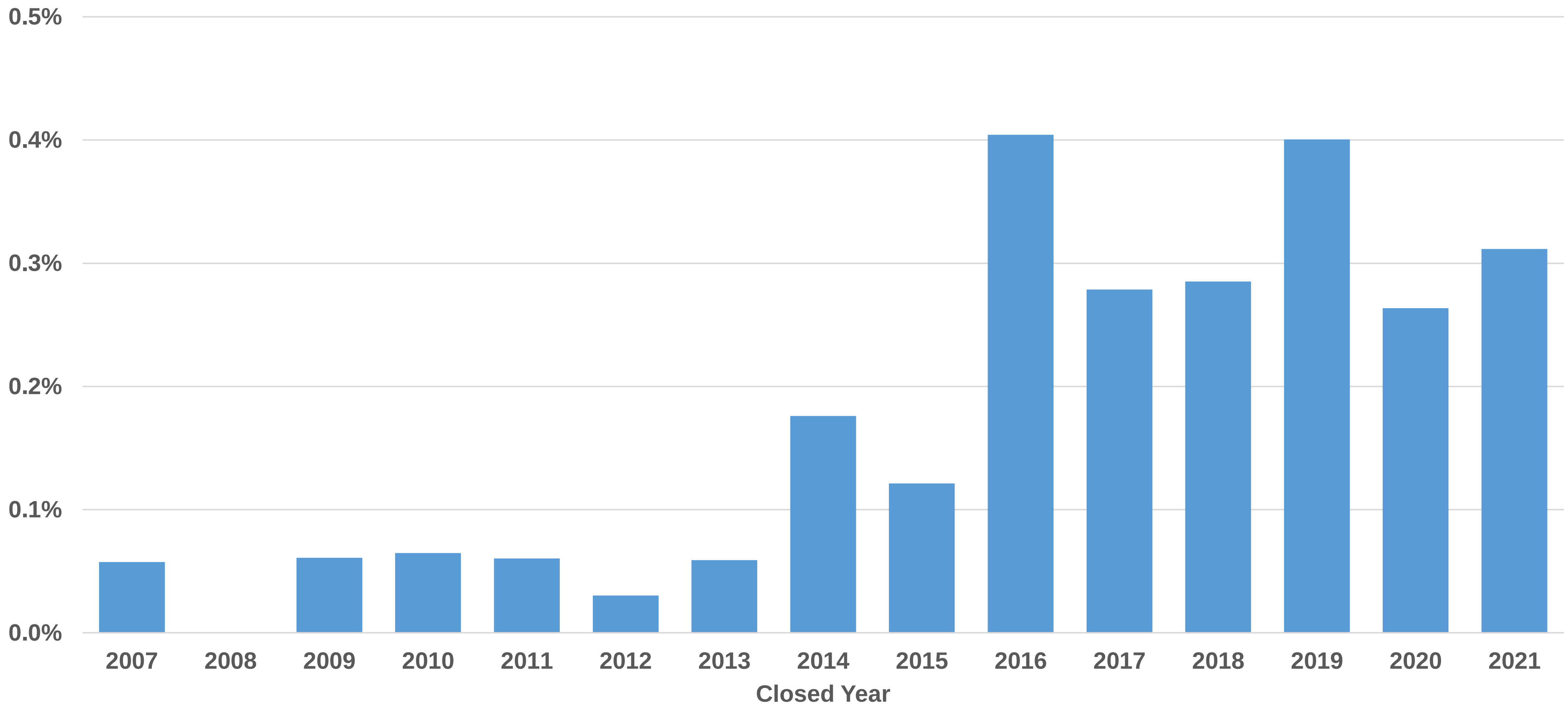
Data known as of 09/30/2022



TransRe
We value risk.

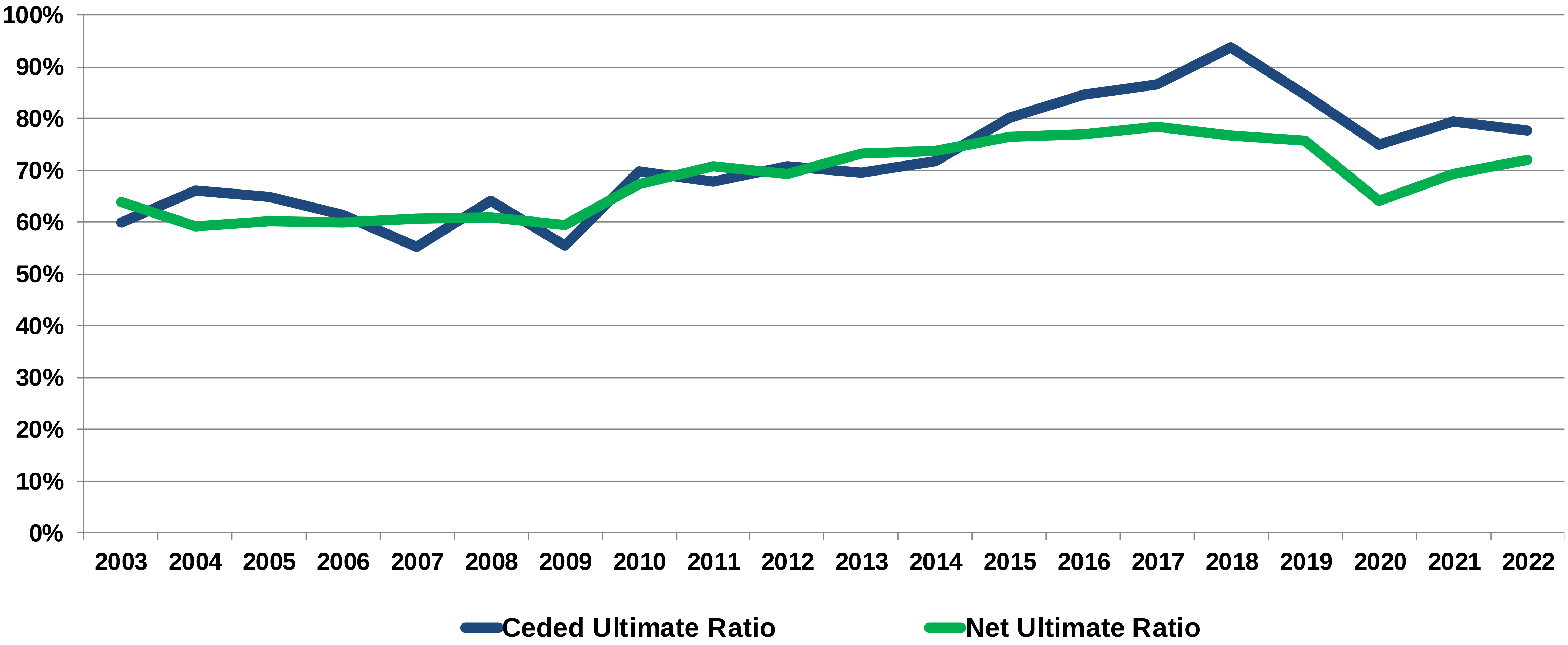
Hospital Professional Liability Large Claim History

% of Closed Claims Over $10M



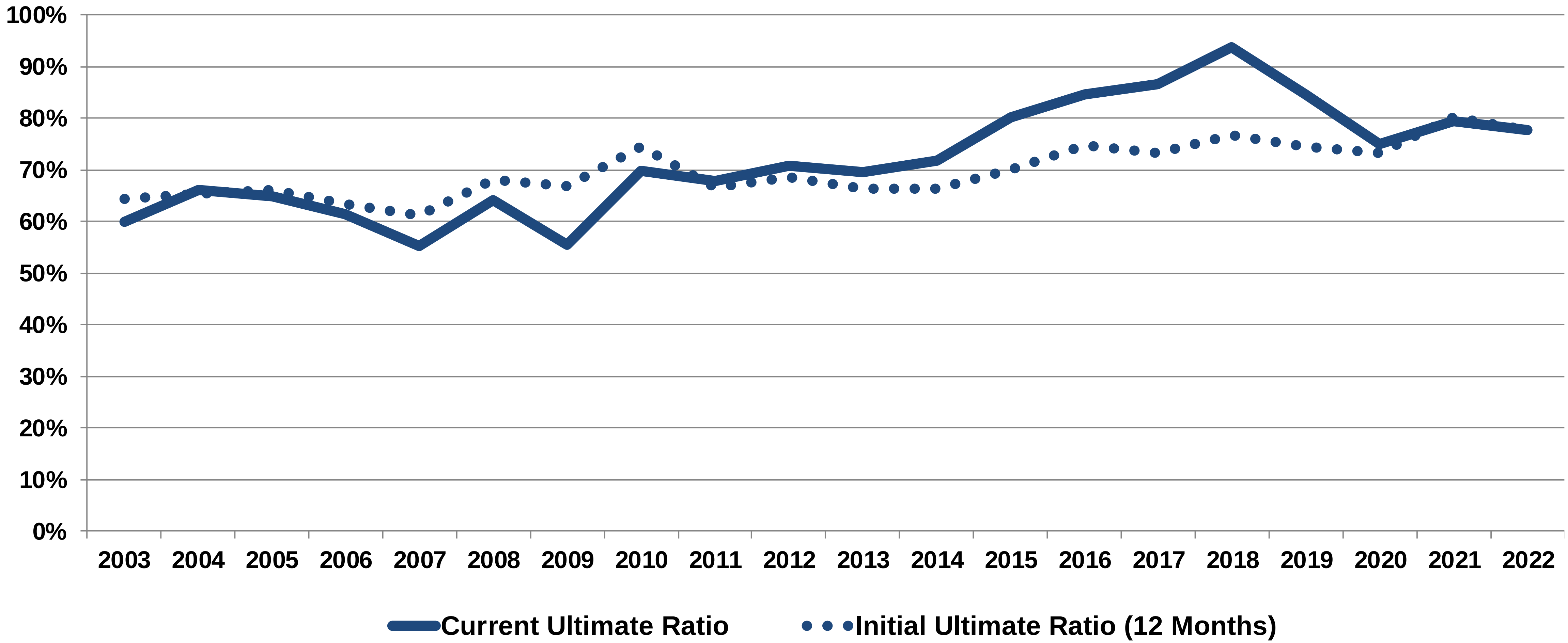
Source: Milliman closed claim database evaluated through December 31, 2021. Reflects payments on closed claims (not verdicts).

Commercial Auto Industry
Net vs Ceded Results



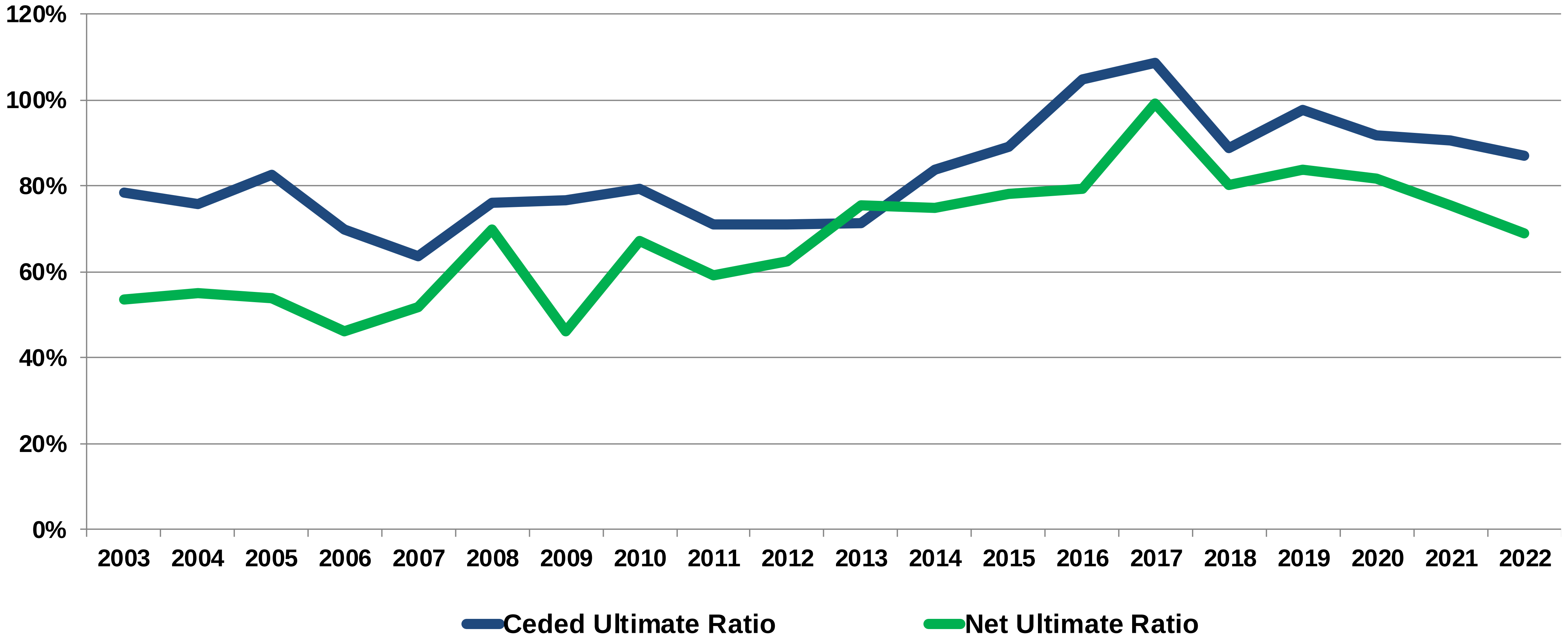
Source: Milliman review of publicly available statutory annual statement data as of December 31, 2022 for 40 large commercial auto writers.

Commercial Auto Industry – Ceded Results Initial Ultimate Loss Ratio vs Current Estimate



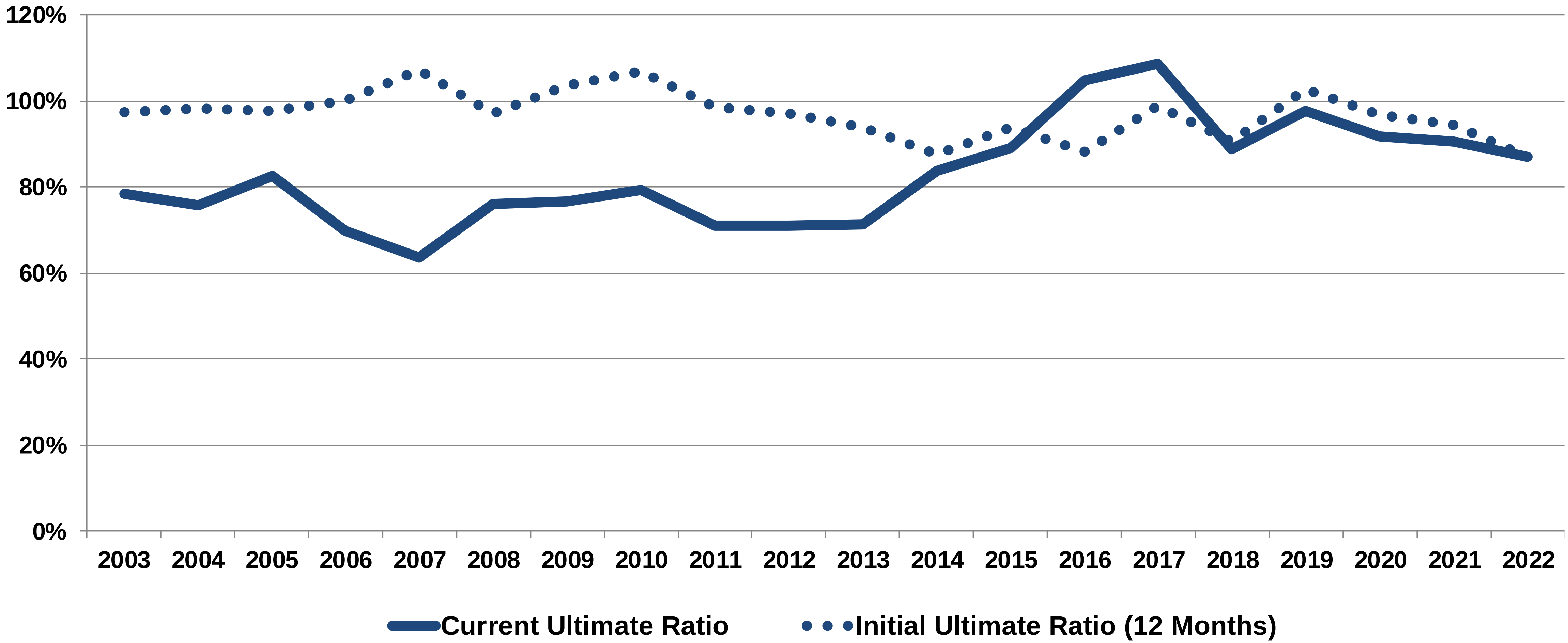
Source: Milliman review of publicly available statutory annual statement data as of December 31, 2022 for 40 large commercial auto writers.

Hospital Professional Liability Industry Net vs Ceded Results



Source: Milliman review of publicly available statutory annual statement data as of December 31, 2022 for 22 predominantly hospital professional liability writers.

Hospital Professional Liability Industry – Ceded Results
Initial Ultimate Loss Ratio vs Current Estimate



Source: Milliman review of publicly available statutory annual statement data as of December 31, 2022 for 22 predominantly hospital professional liability writers.

Coverages Where Conditions Changed Rapidly

- D&O
- Lawyers
- Cyber
- Medical Professionals

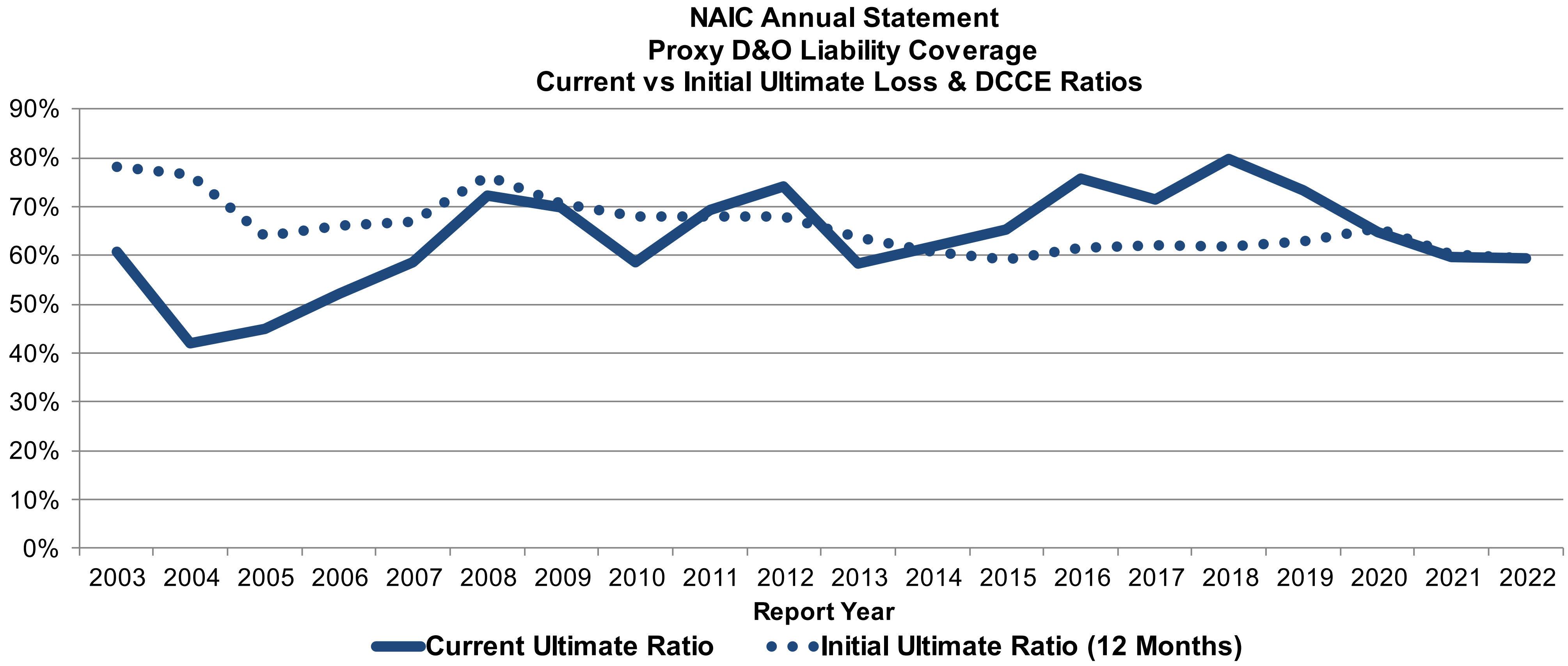
Coverages Where Conditions Changed Rapidly

- Generally favorable results in the early 2010 period
- Adverse trends starting in 2015-16
  - Increase in class action lawsuits in the US
  - Social inflation – high jury awards
  - COVID work from home – increased Cyber exposure
  - Increase in Special Purpose Acquisition Companies (SPACs) – resulting in more D&O lawsuits
  - Real inflation
  - Third party litigation funding
- Flat rates or rate decreases for many coverages 2010-2018
- Significant rate increases 2019-2021 – leading to better results
- Some companies exited certain markets – For example for HPL – Zurich in 2020 and CNA in 2021
- Rate environment in 2022
  - Generally, rates for D&O in 2022 decreased somewhat
  - While rates are still increasing for Cyber, the rate increases are starting to decrease
  - HPL rates are still increasing but are they increasing in line with loss trends

Rate Increases

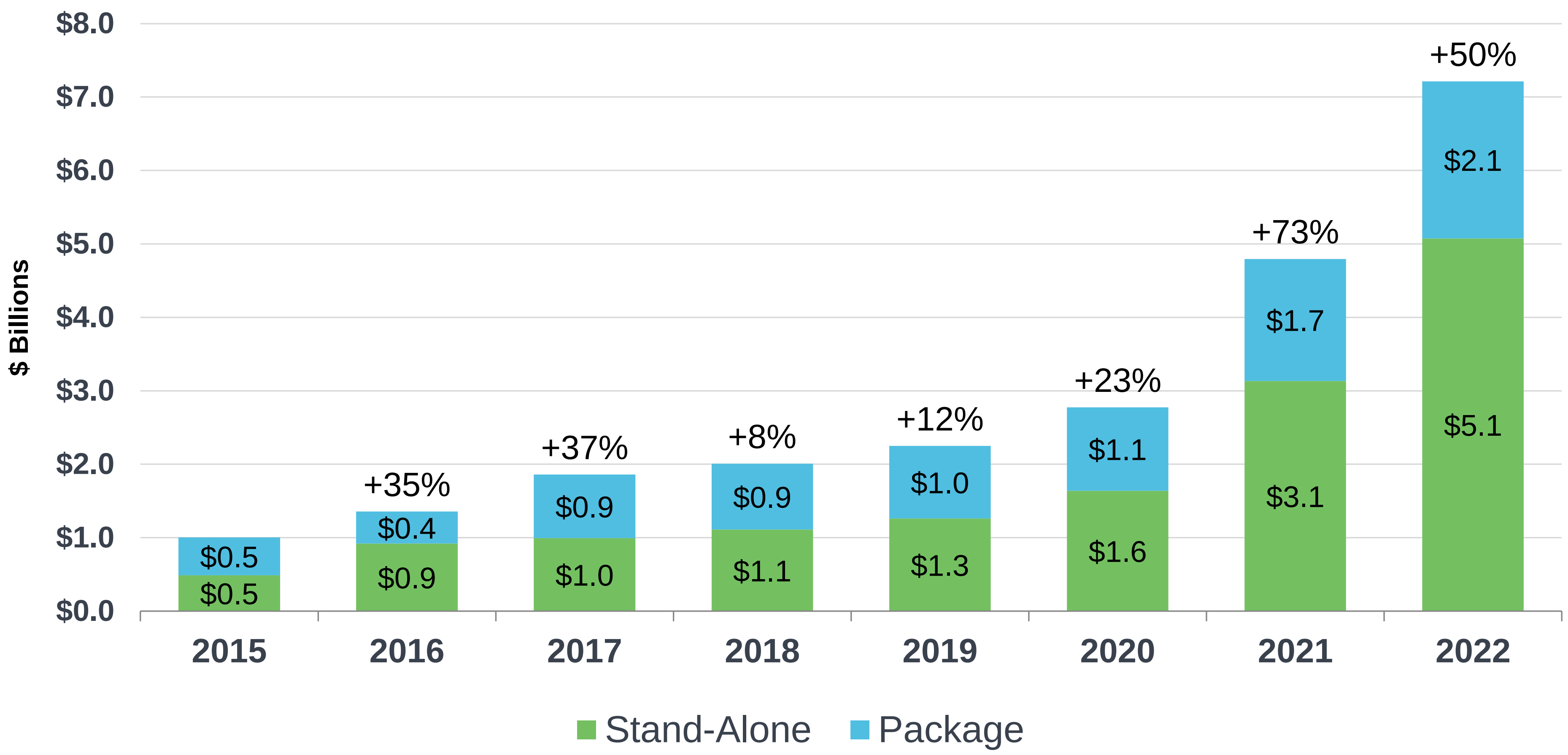
- According to Woodruff Sawyer the median change in D&O insurance costs increased 31%, 38%, 14%, and 8% in 2019, 2020, 2021, and 2022
- According to Marsh, Cyber insurance pricing in the US increased on average 96% in the third quarter of 2021, followed by a 79% increase in Q2 of 2022, a 48% increase in Q3 of 2022, and a 28% increase in the fourth quarter of 2022
- Rates have increased for large law firms but at a lower rate

Comparison of NAIC D&O Market Current Estimate of Other Liability Claims Made Ultimate Loss & DCCE Ratios to Initial Estimate by Report Year



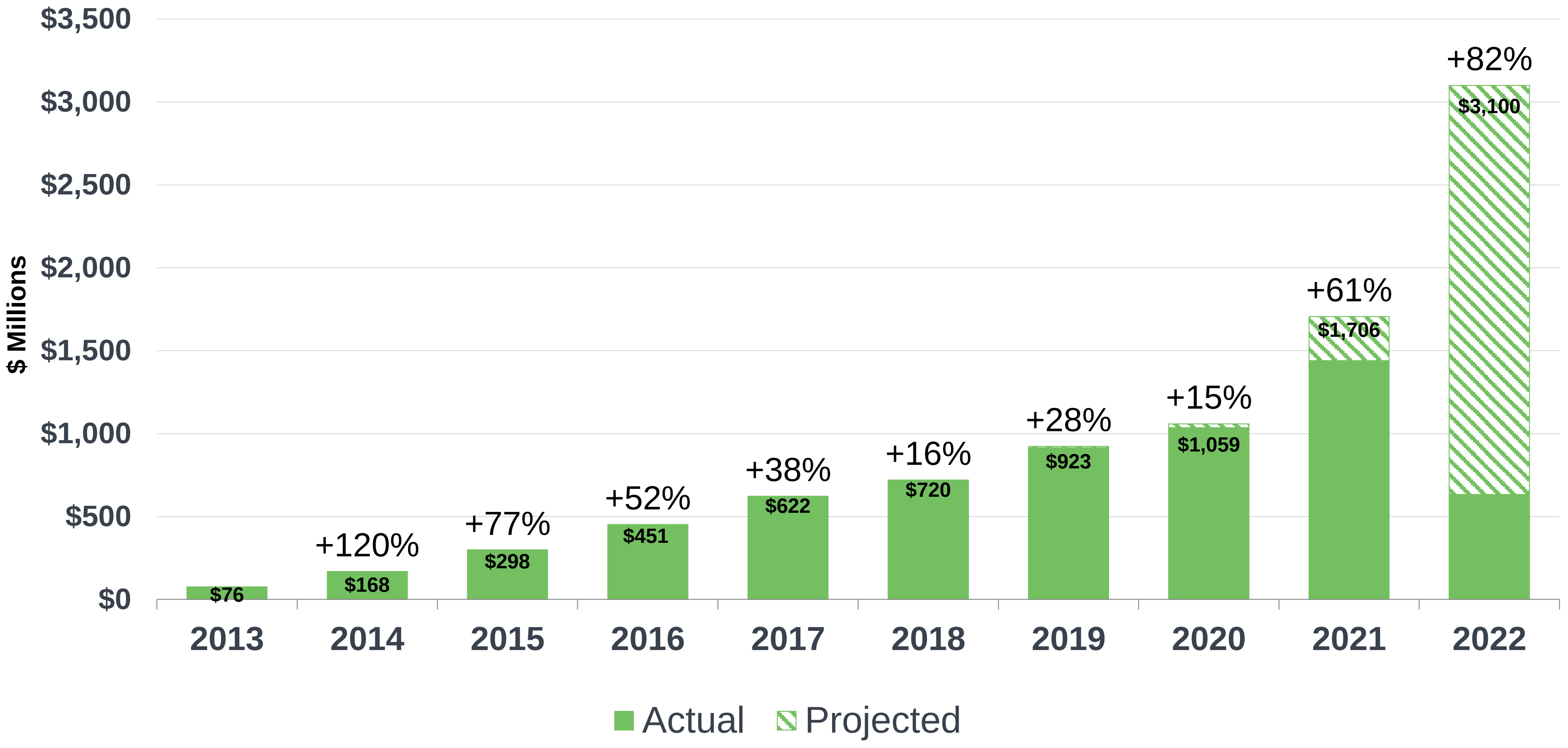
- D&O Market represents 13 companies in which their D&O premium was at least 50% of their Other Liability Claims Made premium based on their D&O supplement and Schedule P from each 12/31/22 annual statement, as provided by S&P Global Market Intelligence.

NAIC Cyber Market Direct Written Premium ($Billions)



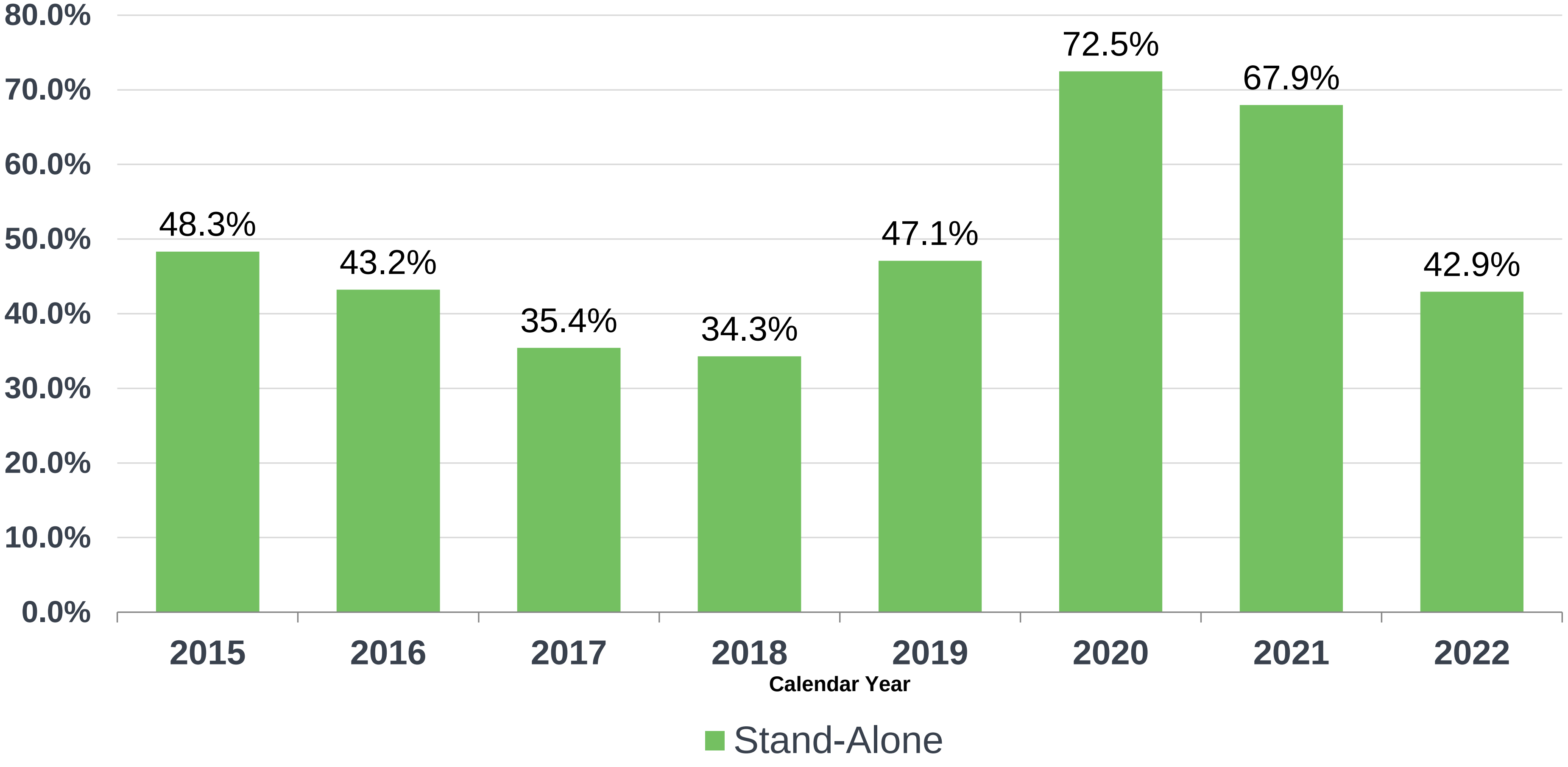
- The above information is based on data reported in the Annual Statement Cyber supplement on a calendar year basis, as provided by S&P Global Market Intelligence.

Lloyd’s Cyber Market Ultimate Signed Premium by Underwriting Year ($Millions)



- Lloyd’s of London Cyber data is provided by Xchanging, is presented on an underwriting year basis and reflects worldwide exposures.

NAIC Cyber Market Direct Incurred Loss & DCCE Ratio



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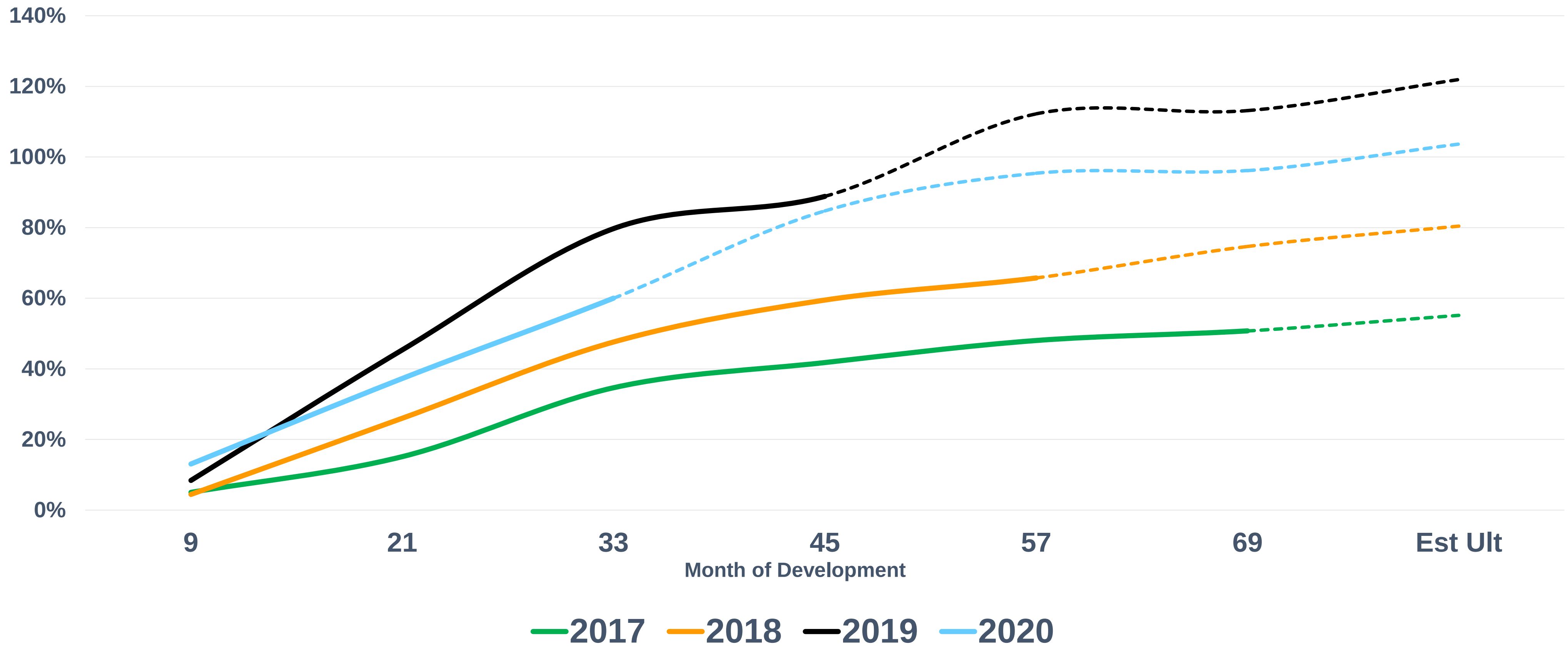
Lloyd’s Cyber Market Ultimate Reported Loss Ratios by Underwriting Year



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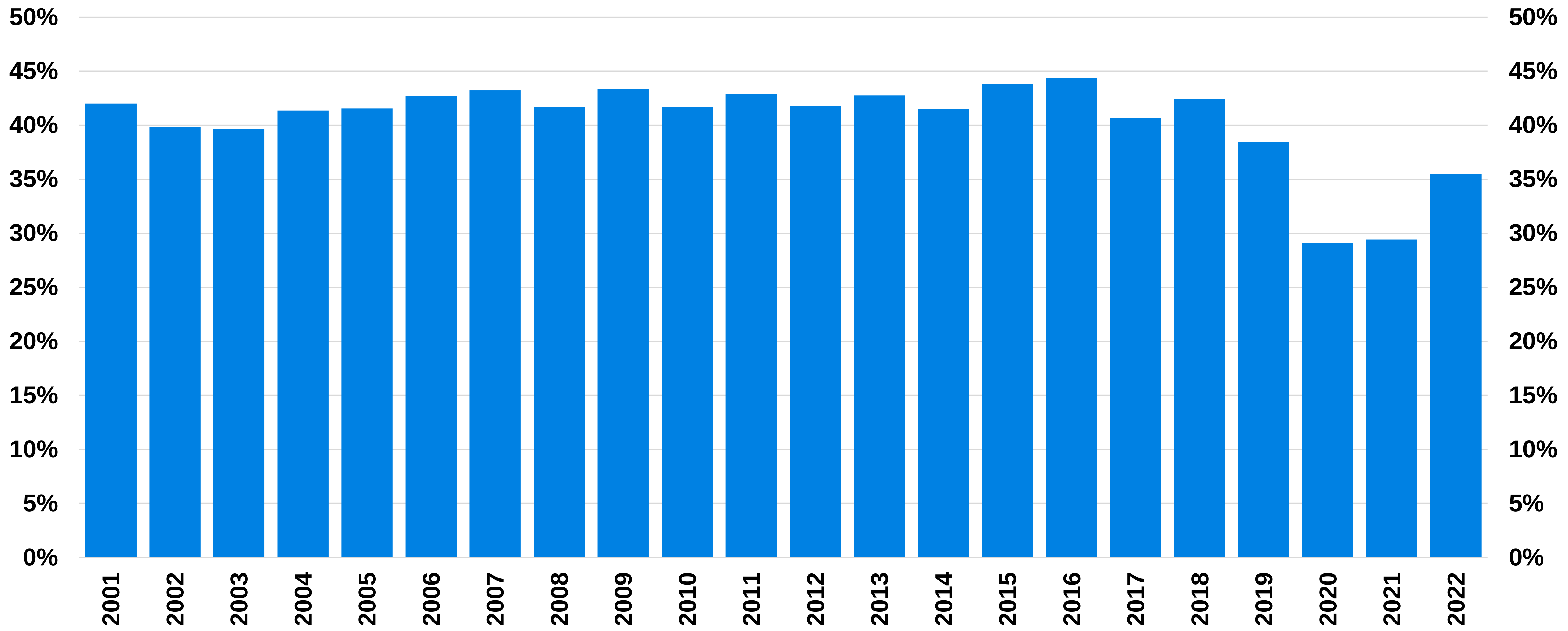
COVID-19 Impact on MPL

Portion of Prior Years Open Claims to Close in Next 12 Months



Source: Milliman analysis of P&C insurance statutory data as provided by S&P Global Market Intelligence
Claim counts from Schedule P – MPL claims-made business
Chart represents aggregate results of 37 MPL specialty companies

Predictions for 2023-2024

- “It’s tough to make predictions, especially about the future” – Yogi Berra
- Social Inflation – Third Party Litigation Funding is a $39 Billion industry with returns of 25%
- Rates for some coverages have increased dramatically in recent years – will rates for these coverages start to fall?
  - New competitors
  - Economy is creating some problems (regional banks, Crypto, possible recession)
- Property
  - How do we price for Climate Change?
    - Rising sea levels
    - Increased frequency of tornadoes and fire

Questions?

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