ASSURED BRIEFING

July, 2020

What's Inside

The *Assured Briefing* is a monthly research note analyzing business development, financial, legal, or claim matters relevant to property/casualty insurance professionals.

In this edition

In the research pipeline

In an upcoming Assured Report, we will be examining the economic forecasts for the main drivers of commercial insurance premiums: sales, payrolls, and operating locations. As the economy changes, business development research has never been more important. With data through July 1st we'll examine private passenger auto rate filing activity and driving indices by state.

Assured Research is dedicated to producing substantive and actionable research for property/casualty insurance and investment professionals. In addition to subscription research, we offer bespoke research and educational services to subscribers.

P/C Industry Analysis: Our Forecast - It's Going to be a Bumpy Ride!

The next 18 months will be tough, but better days are ahead

Figure 1 offers a summary of our industry forecast for 2020 and 2021. The projections are heavily influenced both by expected developments in the pandemic and the economy as well as specific, tactical industry decisions.

Our key assumptions: 1) improved personal auto results from reduced driving even after the pandemic; 2) worsening commercial lines profitability because of lower exposures stemming from the weakened economy and $30 billion of COVID-related losses; and 3) lower investment income (again).

Anyone in the business of forecasting knows that the easiest time to make predictions is when conditions are largely normal, and projections can simply be straight line extrapolations. ***This is not one of those times****. Instead it is a period of extreme uncertainty, and, consequently, all forecasts (ours included) should be viewed with a heightened degree of skepticism.*

There are two timeframes on which insurance executives should be focused.

First, there are the near-term aspects of how to navigate over the next 18 months, or so, as the country recovers from both the health and economic crises.

Beyond that are the strategic considerations regarding what the "new normal" will look like after the pandemic recedes.

In this note we focus on the near term, although we ultimately believe the longer term is more important and that is where we will concentrate much of our research in the coming months.

Figure 1: Industry Forecast: 2018-2021E

We would be happy to share a spreadsheet with the by-line details of our forecasts; built interactively so that one's own views can be implemented.

Source: A.M. Best, S&P Global, Assured Research

Key Issues to Influence Industry Results

Our thoughts on some of the key issues to influence industry results over the next 18 months:

Pandemic and the Economy

Taking our cues from medical experts, our expectation is that the virus will continue to be present and affecting both consumer behaviors and governmental actions through at least the first half of next year. This, of course, will vary widely by geographic region and the severity will be heavily influenced by the degree to which preventive measures are adhered. We do not expect there will be another national lockdown. But even though states will allow normal business activities to resume, we believe there will be a hesitancy on the part of many people to reestablish normal activities. Hence, we expect the economy will experience a muted rebound.

While we expect unemployment to retreat from the current mid-teens level, we also expect the languid economy will result in many workers not called back from furlough and that will have a broad impact on all aspects of behavior from driving to consumer spending.

Implications: *We believe the bulk of the losses for event cancellations and business interruption (to the extent some policies do not have virus exclusions upheld in courts) have already been incurred in the first and second quarters. However, many of the claims, particularly for BI, will ultimately have to be litigated and incurred loss estimates in the short term will be more volatile than usual.*[1]

Into the second half of 2020, we expect more of the losses to be recognized will stem from professional coverages such as D&O and E&O, as company stakeholders will allege either that adequate coverage was not purchased, or financial disclosures were incomplete and/or misleading.

We also expect there will be a material volume of employee-related claims related to both injuries (e.g., citing employers for failing to take adequate safeguards) and for employment

Successful navigation of liability claims will present a particular challenge to insurers in the post-pandemic legal environment.

Our conversations with litigation strategists suggests there will be more defense verdicts owing to the goodwill earned by frontliners and those industries/corporations believed to have acted in the national interest during the pandemic – good for insurers.

On the flip side, they also believe juries could seek to punish defendants or industries in roles branded as villainous – bad for insurers.

An important takeaway for insurers battling over policy language: Be careful not to win the policy-wording battle but lose the public relations war. It is a particularly dangerous time to be cast as a villain.

[1] See *COVID-19: On Disrupted Diagonals and Lengthening Actuarial Tails* in our April 2020 *Assured Briefing.*

practices relating to the recession and the myriad local, state, and federal laws with which employers have to comply. COVID-related workers' compensation claims will accelerate, particularly in states that have established a rebuttable presumption for the virus and ensuing disease.

Protests

We expect the current social protests will continue albeit at a diminishing pace…with tensions around the November elections being a notable wildcard. We hope and expect that the most severe riots and the resultant property damage have largely passed, and more peaceful demonstrations pose only limited financial challenges for the industry.

***Implications**: Property losses from protest-related rioting will probably be in the $1-2 billion range and most will be recognized in the second quarter. While there may be further claims over the coming months, we anticipate they will be minor in the grand scheme.*

Federal Legal Immunity for Actions Taken (or, not) During the Pandemic

Laying our cards on the table, we actually expect varying levels of legal immunity will be granted to businesses by both states and at the level of the Federal government. This will limit the number and types of suits that can be filed by employees and consumers.

***Implications**: As we have described in other notes and in this Assured Briefing, we think the hardening market underway will fall short of 'industry lore' status if immunity passes. However, we assume immunities will not grant protection from gross misconduct so there will still be enough legal action and concern over litigation and social inflation (we're looking to coin the term 'covflation') that liability rates will continue to rise at least into early 2021.*

Interest Rates, Inflation, and Investing

The Federal Reserve has made it clear they will continue with low interest rates and an expansive monetary policy for as long as needed to support the pandemic-weakened economy. Whenever the Board is in an accommodative mode there is always the potential for rising inflation across consumer goods, materials and labor, or medical services – the indemnity payments that influence P/C insurers' pricing and loss reserve assumptions. But this did not happen after the expansion of the money supply during the Great Recession of 2008 and we do not expect it to happen now.

We're not investing experts, but thanks also to the Federal Reserve the equity and credit markets have, thankfully, now long-since recovered from the apocalyptic levels experienced late in the first quarter. Our predictions of investment returns or market volatility over the 2H2020 hold no particular weight, but *Don't fight the Fed* seems an operative strategy and our assumption for the remainder of the year.

Implications: *The most obvious implication of this monetary strategy is that investment income will continue to decline as new cash is reinvested at lower rates than those on the maturing issues. Additionally, there undoubtedly will be a deterioration in credit quality that will lead to a rise in investment losses. Hence, it seems indisputable that investment income will decline both this year and next and that asset volatility will be higher than it would have been in the absence of the pandemic*

But there are some positives. If inflation remains low, loss costs for 'normal' P/C indemnification payments (i.e., we're not talking about social inflation) will be under less pressure and, likewise, reserve assumptions could get some relief. Plus, an often-overlooked point is that a lower risk-free rate reduces the cost of capital.

Commercial Pricing

After a long period of softness, commercial premium rates have been rising for over two years. Our research has shown that the industry can raise rates despite the ongoing recession and we expect this strengthening to accelerate over the next year or so (although not to a level that would be viewed as a hard market reaching the status of industry lore as did the mid-80s and 9-11 hard markets). The demand for P/C insurance is not completely inelastic and there will be some resistance to rate increases; particularly among commercial insureds who believe they have not been adequately compensated for their COVID-related claims submissions (see sidebar).

As an example of price elasticity, Tesla announced in a recent SEC filing that it "determined not to renew its directors and officer's liability policy for the 2019-2020 year due to disproportionately high premiums quoted by insurance companies." Instead, Elon Musk, the company's founder and CEO personally agreed to provide equivalent coverage.

Implications*: We expect insurers (and particularly liability insurers) will accrue conservatively for the balance of 2020 and into 2021. That makes sense given the risks posed by covflation and other pandemic-related uncertainties. Consequently, the income statement benefits of the hardening market will probably felt in late 2021 or beyond.*

Reinsurers have Pricing Power

We believe reinsurers have more pricing power vis a vis primary insurers than do the primary companies relative to their corporate customers. Insurers face newly emerging risks to both sides of their balance sheets while catastrophes operate independently of the pandemic. Moreover, broadly speaking, insurers have been exceeding their cost of capital while rating agencies and other stakeholders are calling on reinsurers, explicitly, to raise their returns on equity.

***Implications**: The tail wagging the dog metaphor is probably a bit of an overstated maxim insofar as the primary markets seem intent on raising prices even in the absence of lower reinsurance capacity and rising prices. Still, we expect reinsurance discipline will help to sustain primary rate increases at least into 2021.*

Capital Raising

As is true after most instances of extreme industry conditions, new capital will be raised both by existing companies looking to shore up their balance sheets, and entrepreneurial executives looking to benefit from the potentially improving pricing environment. This trend is currently underway and we expect more to be raised.

***Implications**: We do not believe newly raised capital will rise to a sufficient level to impede the industry's positive pricing trends. Interestingly, some of the new capital will be raised by vehicles designed to dissolve after the (presumed) hard market has ended. It will be interesting to see if those self-deflating structures help the industry to keep supply/demand balances in check after the catalysts for this hardening market have faded.*

Catastrophes

Most current forecasts call for 2020 to be an above-average hurricane season, but we would temper that with two observations: 1) early season forecasts are notoriously inaccurate; and 2) regardless of the number of hurricanes in a season it only takes one to create a large loss. Location and severity are more important than frequency.

***Implications:** If any catastrophe (hurricane, or otherwise) strikes while the country is still dealing with the pandemic (which is likely), there will be an incredible strain on first-responder resources. This will not only lead to elevated economic losses, but the human toll will be greater than otherwise would be the case as social distancing would be exceedingly difficult to achieve particularly if the affected areas are evacuated and temporary shelters have to be utilized.*

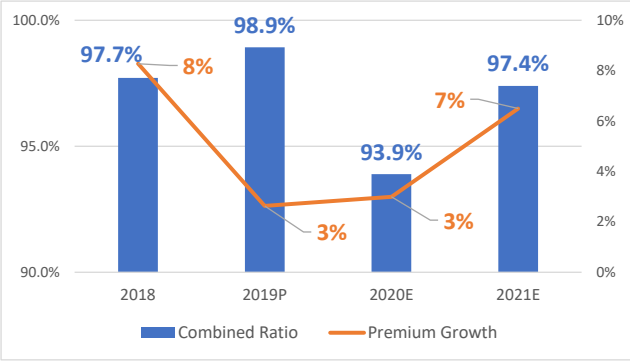
Forecasts by Major Line of Insurance

We offer just a few comments on major lines of insurance below.

Private Passenger Auto

For the next year, our basic premise is that driving will be lower than it otherwise would have been in the absence of a pandemic as many people continue to work from home and unemployment remains at an elevated level. State Farm seems to agree with us

Figure 2: Private Passenger Auto Forecasts



Source: A.M. Best, S&P Global, Assured Research

(or, more likely, us with them). Our review of their nationwide filings of rate reductions in late May found this repeated reference:

Company Wide, claim volume is starting to increase as drivers return to the roads. We anticipate claims volume will be lower than before COVID-19 but higher than current levels.

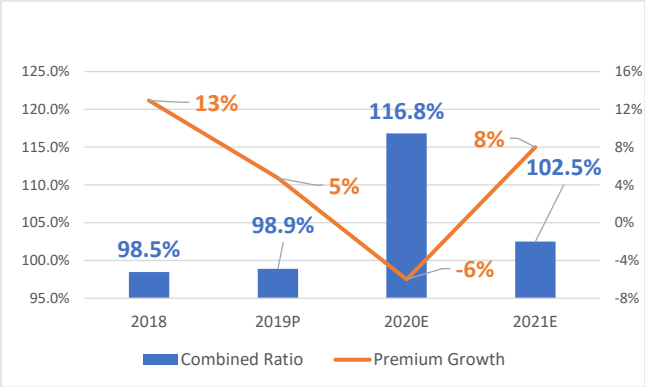
Commercial Lines Summary

In an upcoming Assured Report, we will examine newly released forecasts of the major exposure bases driving commercial insurance premiums – sales, payrolls, and operating locations.

Without doubt the biggest driver of commercial line results for this year and next will be the slowly recovering economy which will put a damper on exposures, and, thus, on premium levels. Payrolls will be lower with higher unemployment and inventory levels will remain in check as manufacturers adjust to lower consumer spending (and probably deal with halting production because of virus-induced supply chain disruptions). Also, reduced capital expenditures will temper the need for property coverage.

We presume there will be some successful BI claims and we also expect a surge in employment related costs through both workers' compensation and various other employment and professional service products. **Our model provides for $30 billion of U.S. commercial insurance losses related to COVID-19**.

Figure 3: Commercial Forecasts



Source: A.M. Best, S&P Global, Assured Research. Premium projections informed by work published by ISO MarketStance.

Summary

While 2020 and 2021 will clearly be transitional years as the country (and the world) recovers from the recent health, economic and social events, we believe the P/C insurance industry is poised for a substantial recovery beyond the next 18 months. That is because premium rate increases will be effected in many lines and the benefits will flow through income statements after a period of conservative reserving necessitated by covflation risks.[2] While we never assume that P/C insurers face an inelastic demand curve, the inevitable reevaluation of risks by corporations following the black-swan year of 2020 should ultimately prove to be a net positive for an industry whose signature product involves the transfer of risk.

[2] As a reminder, we use covflation as a conflation of COVID-19 litigation and social inflationary pressures

P/C Industry Analysis: Will '20 Hard Market Reach Industry Lore Status?

Here is one fly in the ointment: ROEs relative to cost of capital just aren't that bad…yet

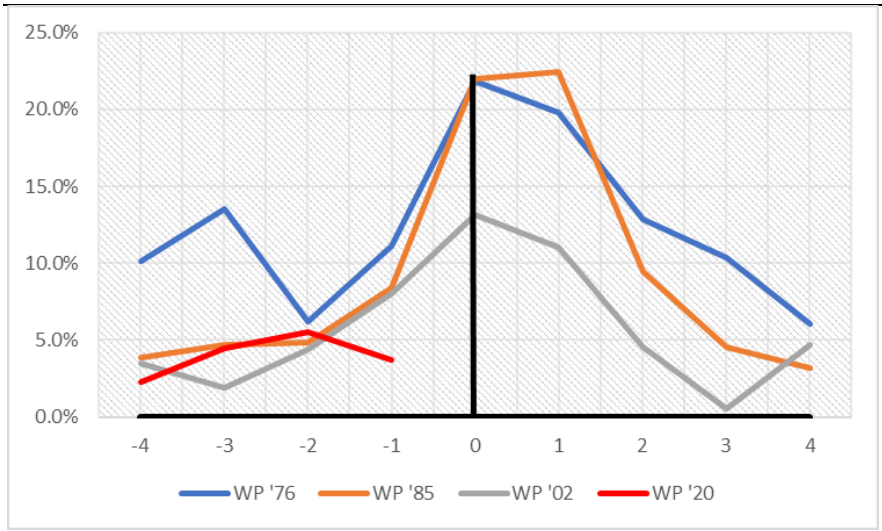
Looking within the insurance industry the conditions for a hardening market are increasingly in place. In another note in this *Briefing* we conclude that with the national catastrophe burden rising steadily, (re)insurance pricing for catastrophe-exposed property will accelerate throughout 2H20 and likely into 2021. Moreover**,** commercial casualty rates will rise in anticipation of a tsunami of post-pandemic litigation…let's call it *covflation* – the conflation of "COVID-19 litigation" and "social inflation". And in our June *Assured Briefing,* looking back over insurance history to the early 1950s, we convinced ourselves that **the occurrence of a recession during 2020 wouldn't necessarily preclude insurers from raising rates – perhaps materially**. In other words, insurers *might* retain their pricing power despite the deep 2020 recession.

The main determinants of whether this hardening market joins those of industry lore are ahead of us. Will a federal safe harbor act be passed and what will happen with covflation?

So, **what's holding us back from going all-in on the call for a 2020 hard market that will reach the status of industry lore like the hard markets of the mid 1970s, mid 1980s, and early '00s?**

1. We continue to think **the passage of a federal safe harbor act** (i.e., legal immunity) vis a vis pandemic conduct and reopenings by businesses would blunt liability pricing trends.
2. **Relative to the cost of capital, industry ROEs aren't that bad…yet!** Compared to the hard cycles of bygone eras, industry returns through YE19 argue for a cycle correction - not a hard market of industry lore status. However, **if the industry ROE does fall to just 2.1% or so** (our forecast in the previous note), **the industry will fall short of its required return by about 3% - more in line with past hard markets but still a smaller shortfall**.

Figure 1: Net Written Premium Growth Rates 4-Years Preceding and After Past Hard Markets



If the 2020 hard market materializes it seems likely that premium growth will trail preceding hard markets. Rates may go appreciably higher, but exposures have been hurt materially by the recession.

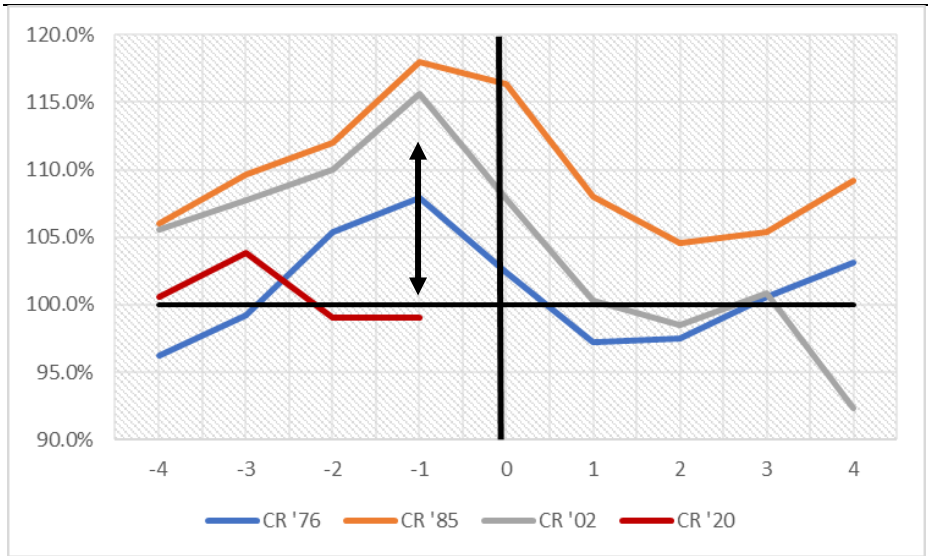
Source: A.M. Best, S&P Global, Assured Research

3. **Primary insurers, we think, face a more elastic demand function** than some appreciate.

Our Hard Market Comparisons

To put developments leading up to a possible hard market in 2020 in historical perspective, we've constructed a series of graphs comparing the four years preceding and subsequent to the peak of each of the last three hard markets. We selected as the peak of each past pricing cycle the year with the largest spike in written premium growth (figuring that is near the point of maximum policyholder pain). Our data for the current, possible, hard market begins in 2016.

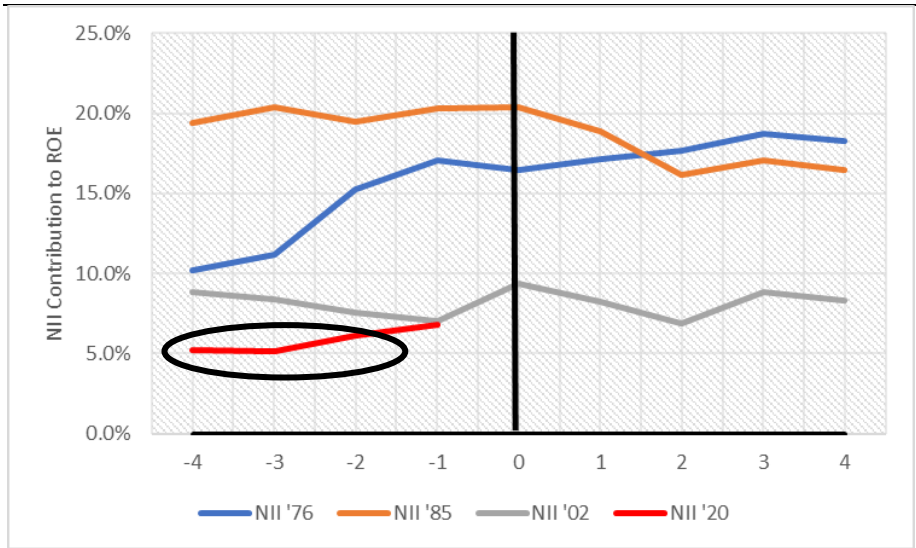
Figure 2: Combined Ratios Preceding and After Past Hard Markets



The CR in the current cycle is already well below past pricing cycles. On the surface, it begs the question of why pricing needs to go higher. The answer…

Source: A.M. Best, S&P Global, Assured Research

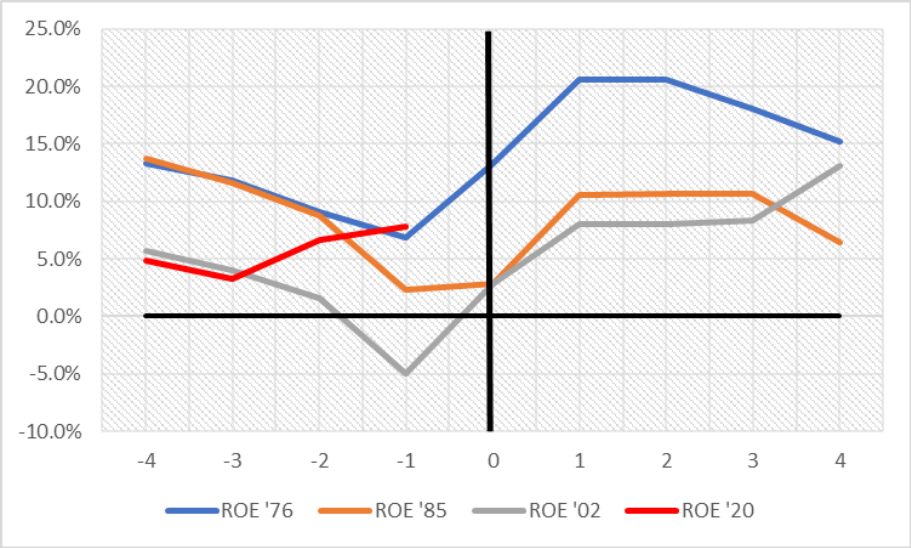
Figure 3: Investment Income Contribution to ROE Preceding and After Past Hard Markets



…is that the contribution to industry ROEs from NII is lower than in cycles past. The only lever available to improve ROEs is through u/w and pricing. And now we're in another lower-for-longer era

Source: A.M. Best, S&P Global, Assured Research

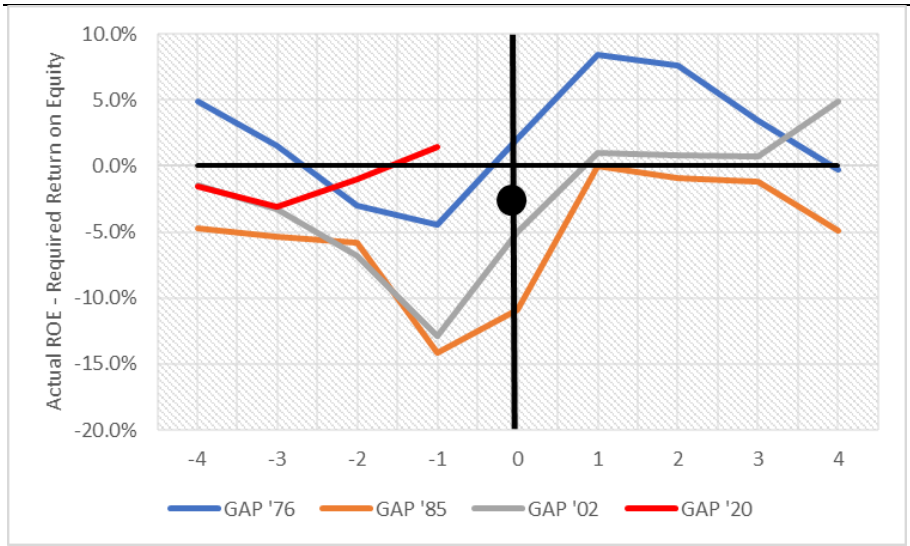
Figure 4: Return on Equity (ROEs) Preceding and After Past Hard Markets



The current ROE looks about as anemic as in cycles past. This argues for higher pricing, with one additional consideration…

Source: A.M. Best, S&P Global, Assured Research

Figure 5: Actual – Required Return on Equity Preceding and After Past Hard Markets



…after adjusting for lower interest rates (so, lower required returns), the case for dramatically higher pricing is blunted; ***ROEs are too low, but nothing like the cycle of industry lore…yet***

Source: A.M. Best, S&P Global, Assured Research, NYU for parameters used to calculate past required returns on equity.

Summary

Property rates need to move higher for fundamental reasons – the catastrophe burden is rising (our next note). And if *covflation* accelerates, we can bet that commercial casualty rate hikes will accelerate as well. **We've added the circle to Figure 5 to connote the possible 2020 datapoint if the industry ROE is about 2.6%** (the forecast from our previous note) **and the cost of capital is about 5%** - remember the 10-year treasury is just 0.7% presently. The industry seem likely to fall below its cost of capital in 2020 so rates will continue to move higher into 2021. A hard market of industry lore? That remains to be seen.

Property Catastrophe: National Cat Data Supports Rising Rates

Probably another leg up; participants smart to hold back capacity at mid-year renewals

Our review of national catastrophe data supports the largely-consensus view that **property catastrophe reinsurance rates (and frankly catastrophe-exposed primary property rates) will continue to rise into at least January 1st renewals**. There are many cyclical and supply/demand arguments supporting that assertion, but **the main need for rate increases comes from the clear evidence that the national catastrophe burden from large (>$1 bil.) losses is on the rise**.

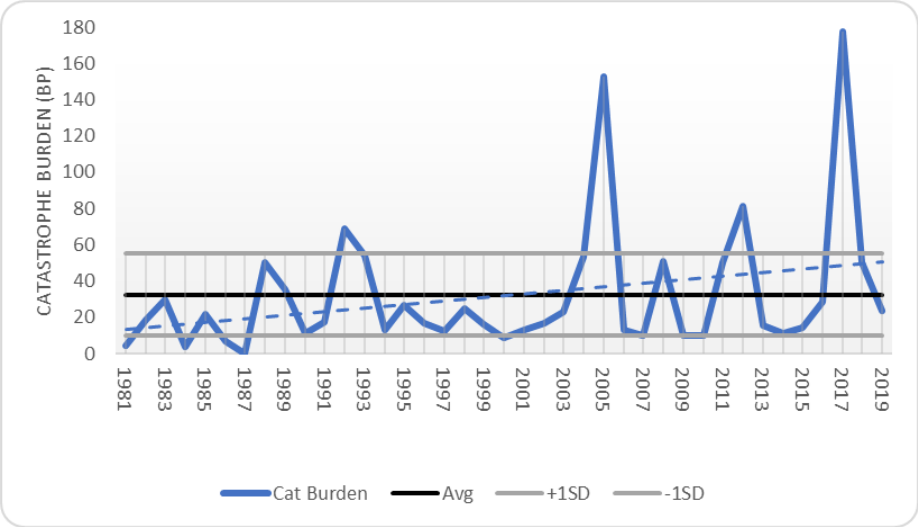
Our nearby sidebar describes our data and defines the national catastrophe (cat) burden.[3] **Our main conclusions**, documented in the charts following **include**:

1. **The national cat burden** (Fig. 1) **is rising**, though losses from Katrina (2005) and the hurricanes and wildfires of 2017 pull the trendline higher.

Our database of inflation-adjusted losses comes from the National Centers for Environmental Information (NCEI). The losses represent total economic losses (i.e., both insured and uninsured losses) from seven perils where the losses exceed $1 billion.

Throughout this report our use of the term 'burden' conveys that we have divided catastrophes, or property premiums, by GDP to provide a normalized sense for the cost of cats or premiums to the U.S. economy.

Figure 1: National Catastrophe Burden: 1981-2019

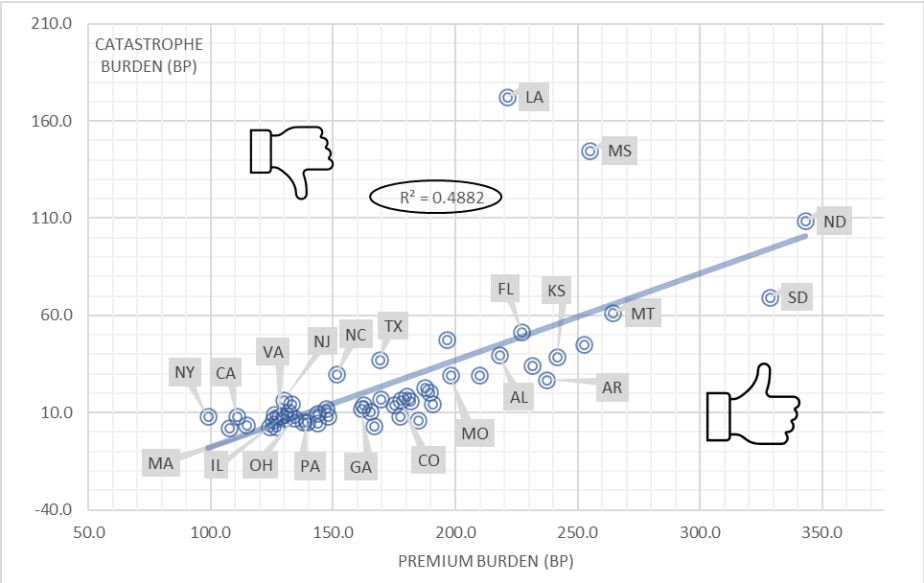


Losses greater than $1 billion in size increasingly weigh on our economy averaging about 32 basis points each year. We believe exposure growth is the main reason for the rise.

Source: NCEI, Federal Reserve (via FRED), Assured Research

[3] Perils include droughts, flooding, freezes, severe storms, hurricanes, wildfires, and winter storms. As of late May, the NCEI database included 265 events totaling $1.8 trillion in current (CPI-adjusted) values.

Figure 2: Cat Premium (2019) and Avg. Loss Burdens by State



States falling below the line are <u>relatively</u> better (from the insurer's perspective) insofar as the premium burden is incrementally higher than the 'predicted' cat burden…

Source: NCEI, Federal Reserve (via FRED), S&P Global, Assured Research. Losses by state averaged over 1980-1Q2020

2. **There aren't too many states where the premium burden and catastrophe burdens appear clearly 'out of whack'** (Fig. 2). To capture the premium burdens, we use S&P Global's definition of catastrophe premiums.[4]

   This is not to suggest that the national property insurance 'problem' can be fixed solely by raising rates dramatically in Louisiana and Mississippi, though that's where catastrophes and premiums are most clearly mismatched (and need to rise sharply). **Large losses are increasing nationally due to economic and population concentration; premiums need to increase in many/most states**.

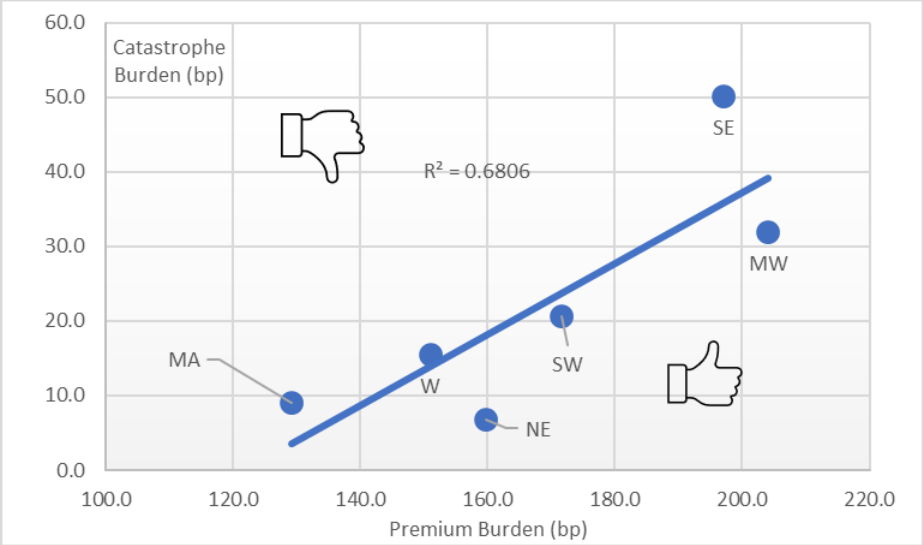
The 2020 edition of Swiss Re Sigma's annual Natural Catastrophe Study (No. 2/2020) asserts that the rising trend of losses from weather events is mostly due to economic growth and changing exposures (and exposure concentration). The impact from climate change, they assert, will be felt over upcoming decades.

*We agree and wrote on the topic extensively in 2018 and 2019. The good news – **it's easier to correct pricing for changing exposures than it is for changing perils**.*

3. Driven largely by experience in LA and MS (in turn, losses from Hurricane Katrina), **when experience is grouped by region** (Fig. 3), **we see that the Southeast states show an outsized catastrophe burden relative to premiums collected by insurers**.

[4] Catastrophe premiums include: HO/FO, Allied Lines, CMP (Property), Personal and Commercial Auto Physical Damage, Inland Marine, Flood and Crop.

Figure 3: Cat Premium and Avg. Loss Burden by Region



…but falling above or below the line doesn't mean the cat loss ratio is where insurers want them to be. Fig 4 (next page) shows the cat loss ratio is still rising nationally over time.

Source: NCEI, Federal Reserve (via FRED), S&P Global, Assured Research

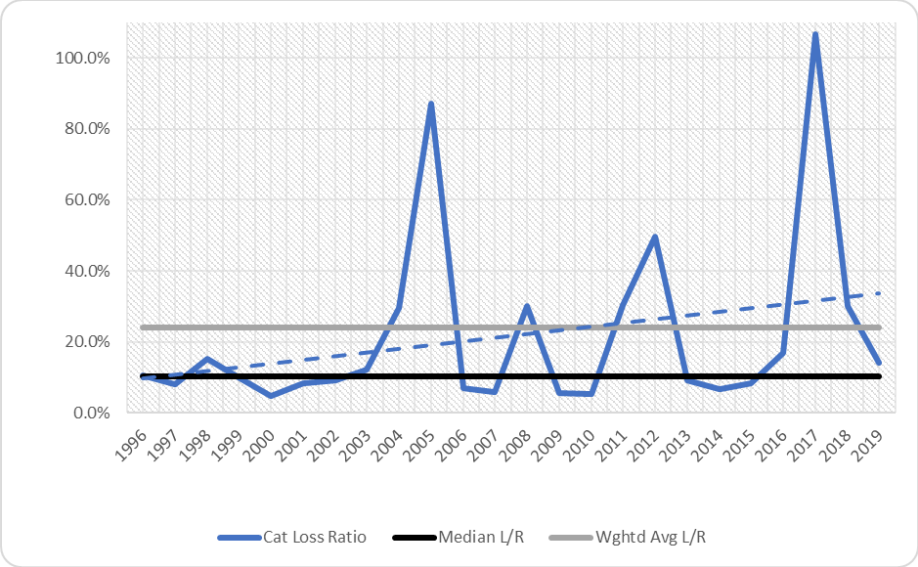
4. When mega catastrophe losses (trended losses > $1 bil. and averaged since 1980) are compared to 2019 property premiums (Fig. 4, next page) **we see a steadily rising cat loss ratio trend** pulled higher by large loss years from hurricanes and flooding in 2005 and 2008, tornadoes in 2011, and the double whammy of hurricanes and wildfires in 2017 and 2018. Of course, those events spanned numerous states and the diversity of the perils illustrates that **the "catastrophe load" embedded in property premiums needs to keep rising to keep pace with economic developments and concentrations…not to mention the gradual impact of climate change**.

Our data is inherently mismatched insofar as our measure of catastrophes includes economic losses (i.e., insured and uninsured) while premiums, by definition, account only for insured events.

That will skew our scales (most clearly in Fig. 4 showing the cat loss ratio) and our comparisons of the cat and premium burdens somewhat, but we think the composition and construction of the data is sufficiently consistent to draw helpful conclusions about the relative adequacy and necessary direction of pricing for large (>$1 bil.) catastrophe losses.

5. Turning attention to **property catastrophe reinsurance rates** (Fig. 5, next page), **the overall rate online index** (promulgated by Guy Carpenter) **has been trending slightly lower since the early 1990s while the Cat burden has been trending higher**. **NOT GOOD!** Now, the development and increasing ubiquity of alterative catastrophe reinsurance products over the past decade has surely influenced that trend line since those alternative sources of capital have, until very recently, constrained the traditional property catastrophe rates measured by this index.

Figure 4: Catastrophe Loss Ratio from Events Greater than $1 Billion

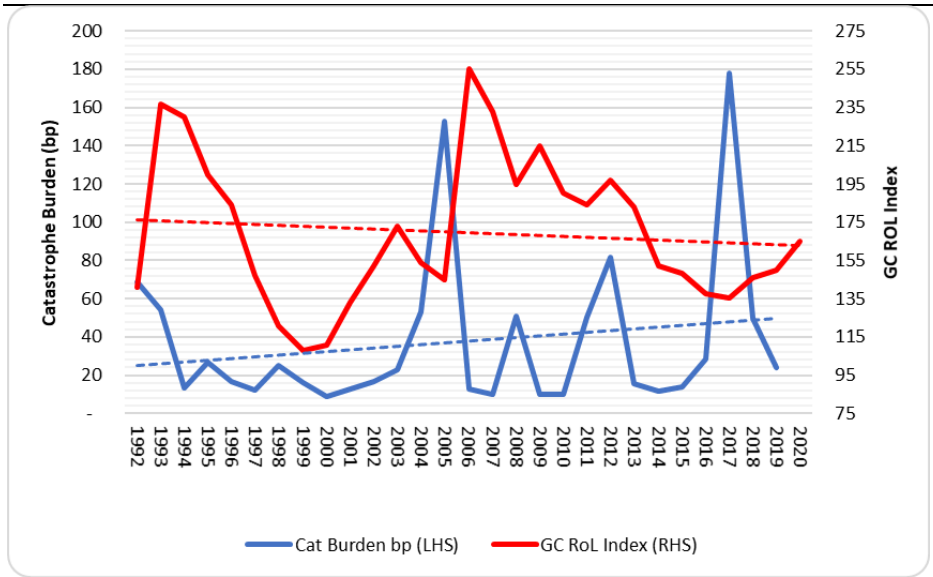


The median cat loss ratio from these mega events is 10%, but the weighted average loss ratio is 24% thanks esp. to the years 2005 and 2017. ***Cat loads in property premiums need to keep rising.***

Source: NCEI, Federal Reserve (via FRED), S&P Global, Assured Research. Losses, premiums, and GDP in original $

The property catastrophe rate online index, not surprisingly, is both cyclical and driven by mega catastrophes. **Looking ahead to 2H20 and possibly 2021, we expect rates to go higher**. **The national cat burden is rising**, as we've shown, **but additionally the pricing power of reinsurers relative to primary companies is on the rise**. Primary insurers unable to quantify COVID-19 losses as asset markets suddenly become more precarious are not in a position to retain more cat risk as a means of escaping, or blunting, rising reinsurance rates.

Figure 5: Catastrophe Burden and Property/Cat Rate Online Index



Property catastrophe rates seem likely to go higher into January 1st renewals and possibly beyond. The national cat burden seems on an inexorable trend higher.

Source: NCEI, Federal Reserve (via FRED), Guy Carpenter Rate online Index (via Artemis as of June 25th), Assured Research

Liability Claim Trends: Social Inflation in NYC Cooled in 2019…2020?

Our third look at personal injury/tort claims filed against and settled by New York City

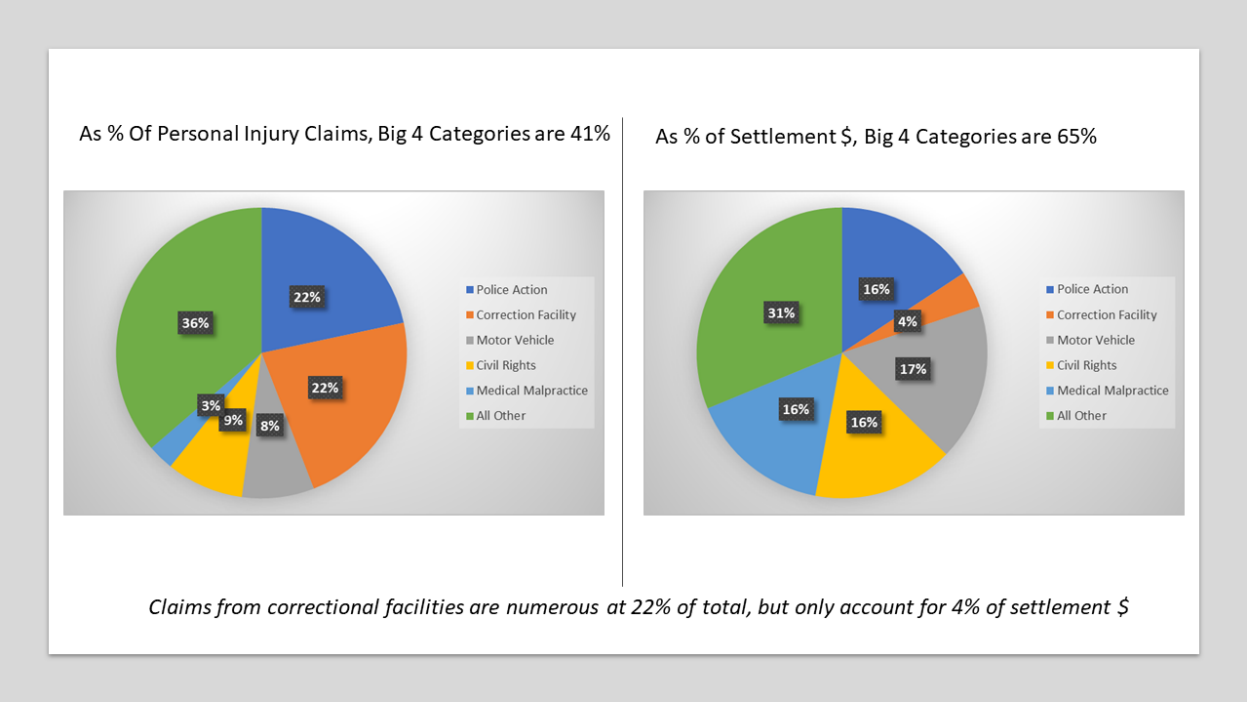
In our June *Assured Briefing* we wrote that social inflation is alive and well though it's currently sheltering in place. Apparently, the New York City Comptroller's Office didn't read our work. **In this, our third examination of NYC's tort personal injury claims, we were surprised to learn** that the city enjoyed a surprisingly benign year during their fiscal year 2019 (FY19: July 1, 2018 – June 30, 2019). **Personal injury (PI) claims across all claim types fell 5.6% y/y and claim settlements fell 7.3%**; surprising considering rampant legal advertising and cries of social inflation heard from all corners of the insurance industry (with us leading the chant).

We'll state the obvious: **NYC is no small sample size**. The city faces about 17,00 PI claims per year and annual settlements amount to roughly $650 million. Of the 1,154 P/C insurance groups and individual companies in our database, only 70 face larger annual incurred losses.

Our focus in this report is on the city's personal injury claims which consistently account for 99% of annual settlements. Later, our attention will turn to the **'Big 4' claim categories: Police Action, Motor Vehicles, Civil Rights, and Medical Malpractice. These four claim types represent about 40% of NYC's annual PI claims but account for 2/3 of settlements dollars**.

Personal Injury Claims by Type

Figure 1: Personal Injury Claim Categories by Claim Count (Left) and Settlement $ (Right)



Source: NYC Office of the Comptroller, Claims Report FY19, Assured Research

As noted, the Big 4 claim categories is where we'll focus our attention in this report. It's no great insight to observe that **the prominence of** these claims will grow in the city's FY20 and FY21 with **Police Actions and Civil Rights claims likely to escalate in the wake of the racial justice protests sweeping the nation** – and NYC – this summer.

One other note on Figure 1: We included the claim category - Correctional Facilities – to show that while that category accounts for some 22% of annual claims (nearly 4,000 pa), the settlement values are relatively small and the category only accounts for 4% of annual settlement dollars.

We've harnessed the NYC data for three years and have claim filings and settlements going back to 2008. (Re)insurers with municipal programs might be interested to compare the claim patterns and severities to their own books of business.

We're happy to share the data.

Personal Injury Claim Trends

In Figure 2 we examine PI claim trends across all categories of claims. The graph on the left shows that filed PI claims are gradually trending down from a recent peak in 2014 while total settlement dollars are rising (though the sharp decline from FY18 is evident). In the graph on the right, we see that settled claim severity is rising about 6% per annum (the denominator here uses annual settled claims, not the larger – filed – claims). NYC settles about 37-40% of its claims each year.

Figure 2: PI Claims Trends Across All Claim Types

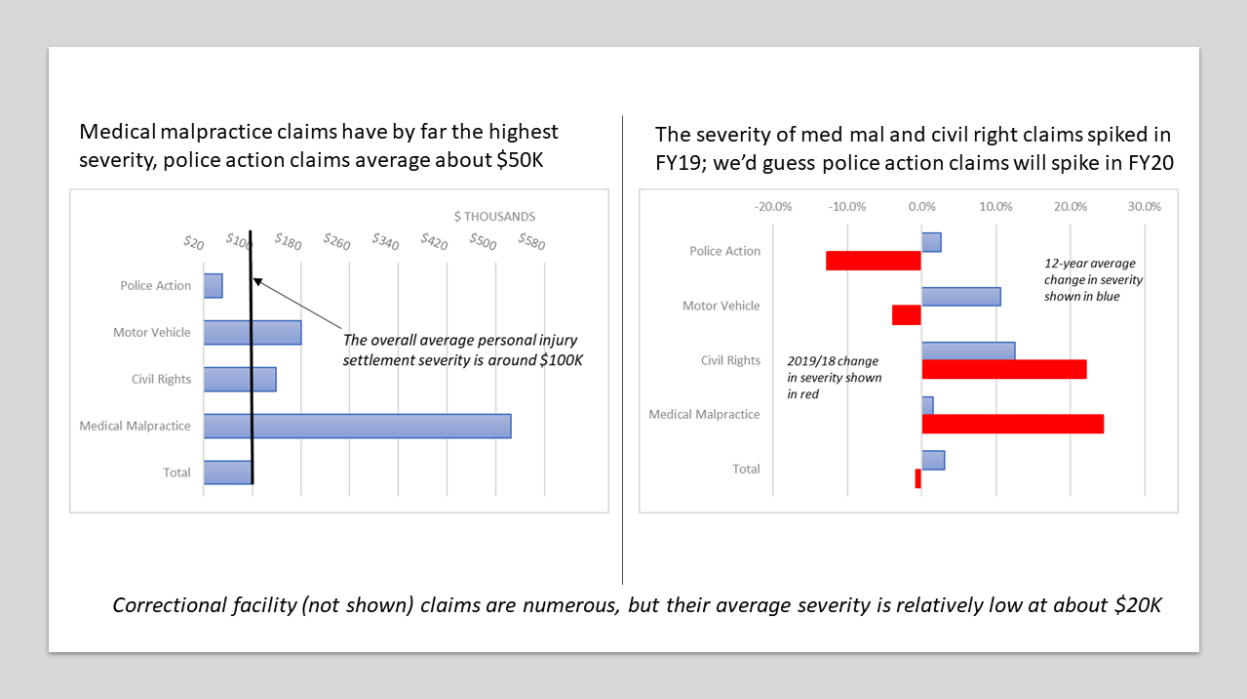
Source: NYC Office of the Comptroller, Claims Report FY19, Assured Research

A Focus on the Big 4 Claim Categories

Both the numbers and intuition support the assertion that these claim categories will be seeing a lot of action as a result of the pandemic and recent (ongoing) protests for racial justice: Police Action, Civil Rights, and Medical Malpractice.

A few observations from Figure 3 warrant mention. First, the average severity of Police Action claims (graph on the left) is one-half the NYC overall average for settled claims – or around $50,000. **The average cost of settled Med Mal claims is 10x higher than Police Action – or $500,000**. And at least for NYC's FY19, recent trends were vastly different as well (graph on the right of Fig. 3). The settlement cost of Police Action claims fell by more than 10% FY19/FY18, while the average Med Mal claim settlement increased by 25%. The geometric severity trend over the past 12-years show that positive cost trends, not surprisingly, are the norm.

Figure 3: Focus on the Big 4 Claim Types: Average Severity (Left) and Severity Trend (Right)



Source: NYC Office of the Comptroller, Claims Report FY19, Assured Research

Summary

People frequently ask us some variation of the question: *What's a claim worth?* The answer (in NYC) is: *A PI claims is worth about $100,000.* But there is substantial variation across the frequency and average settlement value by type of claim. And all can agree that municipal liability claims will rise from both strained, city-operated hospitals fighting pandemics and police and civil rights claims from the protests recently sweeping the nation.

(Re)insurers or brokers with municipal liability books might be interested in this data.

Reinsurance: Examination of Purchasing Patterns and Underlying Results

Primaries purchasing more reinsurance show lower profitability; only sometimes less volatility

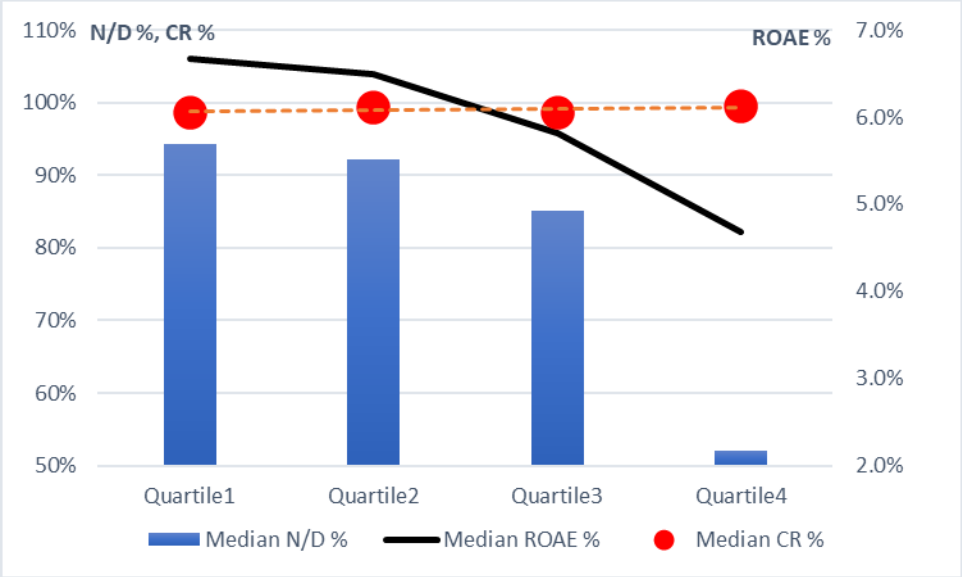
With the reinsurance market hardening rapidly and new capital flowing into the space, it seems a good time to refresh an analysis we undertake from time-to-time: **An examination of the relationships between the volume of reinsurance purchased by different types of insurers and their underlying measures of profitability and volatility.**

Our overarching observation is that mutual and personal-lines-focused insurers appear to present the most consistently appealing risks to reinsurers. Meanwhile, at the individual company level, the quantum of reinsurance purchased and reasons for doing so clearly matter – more is not always better for either insurer or reinsurer. In fact, companies purchasing less reinsurance tend to produce higher ROEs.

Our specific observations include:

The purchase of **more reinsurance** (i.e., a lower net-to-direct ratio) **tends to be associated with *slightly* higher combined ratios and lower returns on surplus** reported by the primary (or, ceding) companies. See Figure 1 where we have sorted the industry into quartiles based on the volume of reinsurance purchased.[5]

Figure 1: Entire P/C Industry. 5-Yr Median Net-to-Direct; ROAE; Combined Ratio (CR)



Declining returns on average equity are generally associated with higher reinsurance cessions (lower N/D ratios). CRs tend to rise (slightly) as cessions increase.

Source: S&P Global, Assured Research

[5] When using statutory data (Figures 1-8) we use direct WP instead of the more common gross WP measure. Our choice was predicated on using consistently available data, though since we use Group filings and exclude reinsurers from our analysis the differences should be modest.

This trend is most pronounced when comparing insurers focused on personal lines against commercial writers. **The highest reinsurance-purchasing personal writers clearly show higher combined ratios** (vs. their peers) **and lower ROEs** when compared to their commercial-focused counterparts. Figures 2-5 illustrate these and related points.

Looking at volatility, the results for the personal lines group are likely influenced by a sizable cohort of insurers that buy substantial volumes of reinsurance, yet still produce more volatile net (of reinsurance) combined ratios. See Fig. 6. While the relationship is not strong, commercial insurers demonstrate the more intuitive relationship – more reinsurance purchased equates to less volatile net underwriting results.

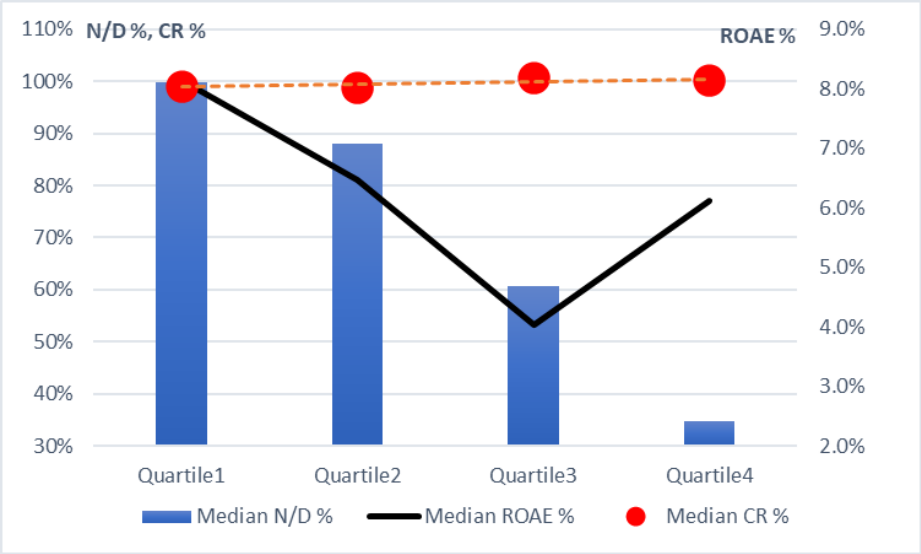
Mutuals and personal-lines focused insurers cede the most favorable results to reinsurers. Stock and commercial lines focused companies have, at times, shown higher ceded loss ratios than direct loss ratios, in turn benefitting their net loss ratio by offloading disproportionate losses to reinsurers. See Fig 7.

When studying GAAP results (Fig. 8) **we see a mild, positive relationship between retained premiums and ROEs**. That is, **companies retaining more of their own business (ceding less) tended to show higher ROEs**; conversely those ceding more business produced lower ROEs.

Statutory Data: Stock vs. Mutual Insurers; Personal vs. Commercial Writers

Using statutory data, Figure 1 on the preceding page shows three measures for the U.S. P/C industry: 1) net-to-direct premiums for 410 insurance groups writing $610 bil. of premiums. The industry is split into quartiles based on their net-to-direct ratios; 2) the median combined ratio for each quartile; and 3) their median return on surplus…all over the past five years.

Figure 2: Stock Companies. 5-Yr Median Net-to-Direct; ROAE; Combined Ratio (CR)

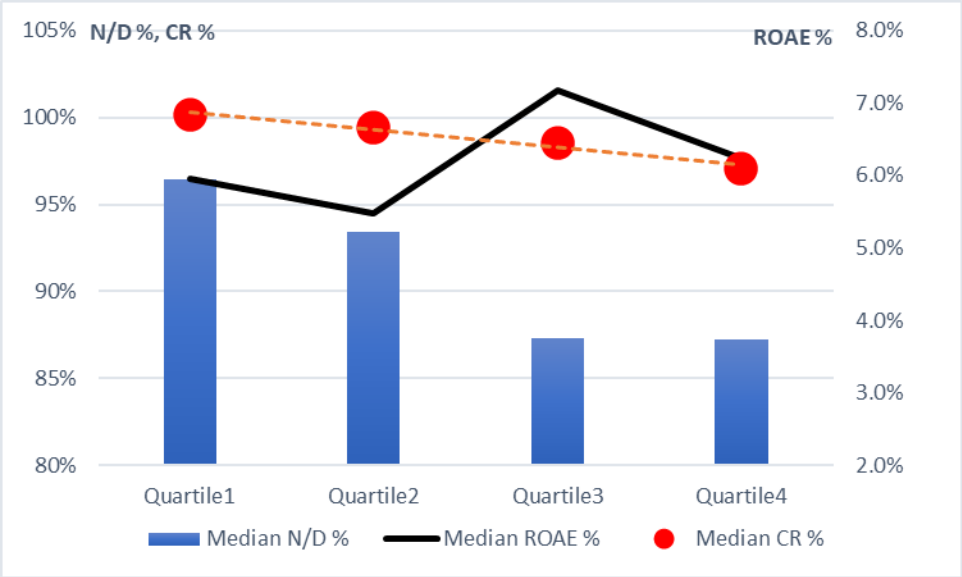


Stock companies purchase more reinsurance than mutuals and those that do tend to produce lower returns on a slightly rising combined ratio.

Source: S&P Global, Assured Research

Figures 2 (preceding page) and 3-5 are constructed similarly.

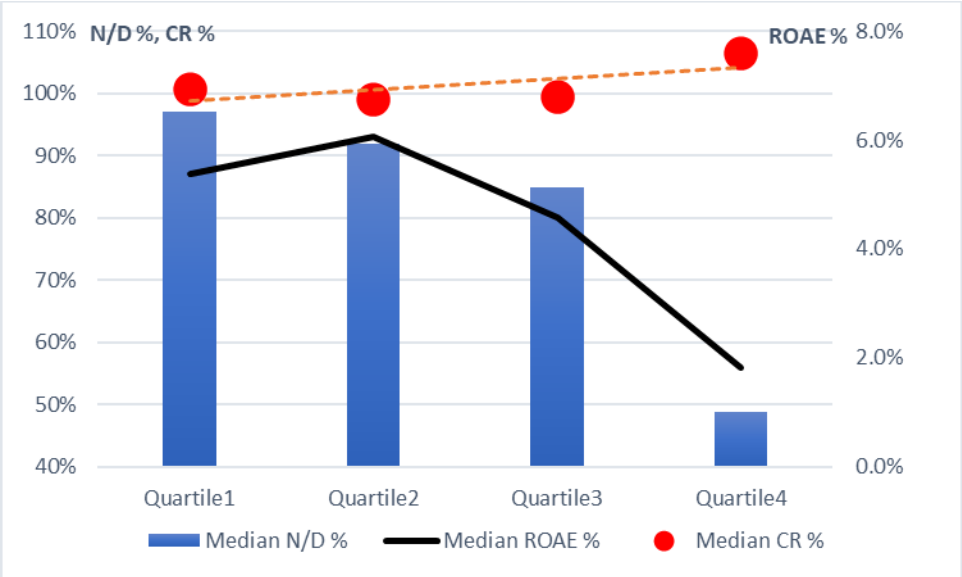
Figure 3: Mutual Companies. 5-Yr Median Net-to-Direct; ROAE; Combined Ratio (CR)



Mutual insurers purchase less reinsurance than stock cos, but those that do tend to have slightly higher ROAEs on declining combined ratios.

Source: S&P Global, Assured Research

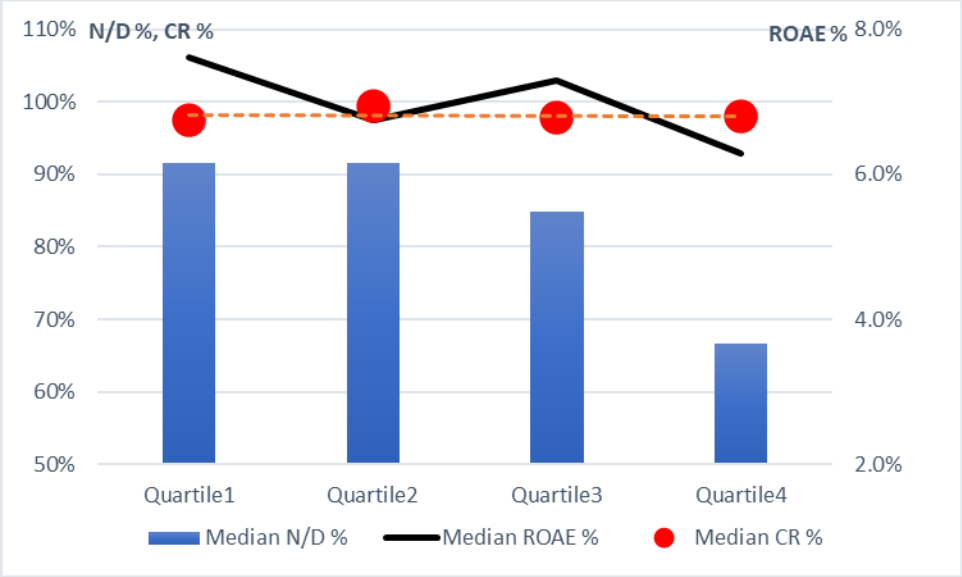
Figure 4: Personal Lines Writers. 5-Yr Median Net-to-Direct; ROAE; Combined Ratio (CR)



Fairly clear relationship here: Personal writers buying more reinsurance tend to have lower ROAEs and higher combined ratios. The 10-year trends are similar.

Source: S&P Global, Assured Research

Figure 5: Commercial Writers. 5-Yr Median Net-to-Direct; ROAE; Combined Ratio (CR)

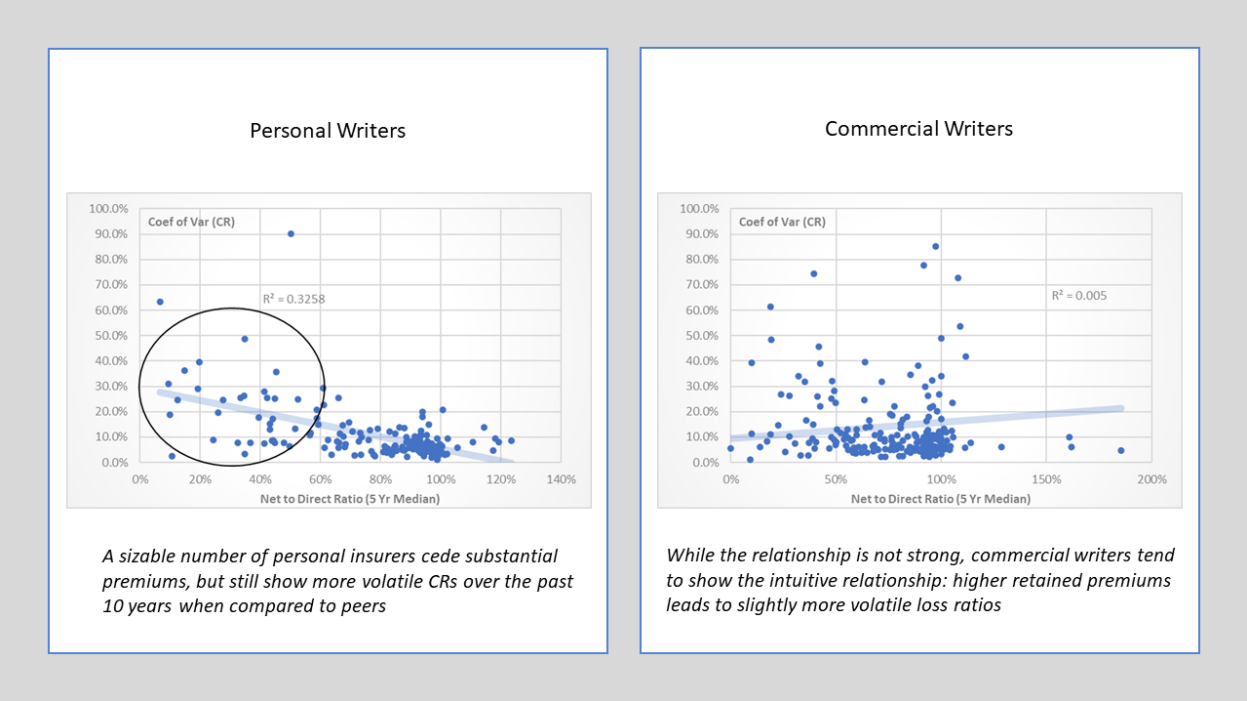


Interesting to observe that over past five years the CR has generally not changed with reinsurance cessions, though the ROAE declines slightly with rising cessions

Source: S&P Global, Assured Research

Figure 6 compares results for personal and commercial writers. Specifically, the Y-axis is the coefficient of variation of the CR (the standard deviation of the CR for each company divided by its mean over 10 years). The X-axis is the net-to-direct ratio.

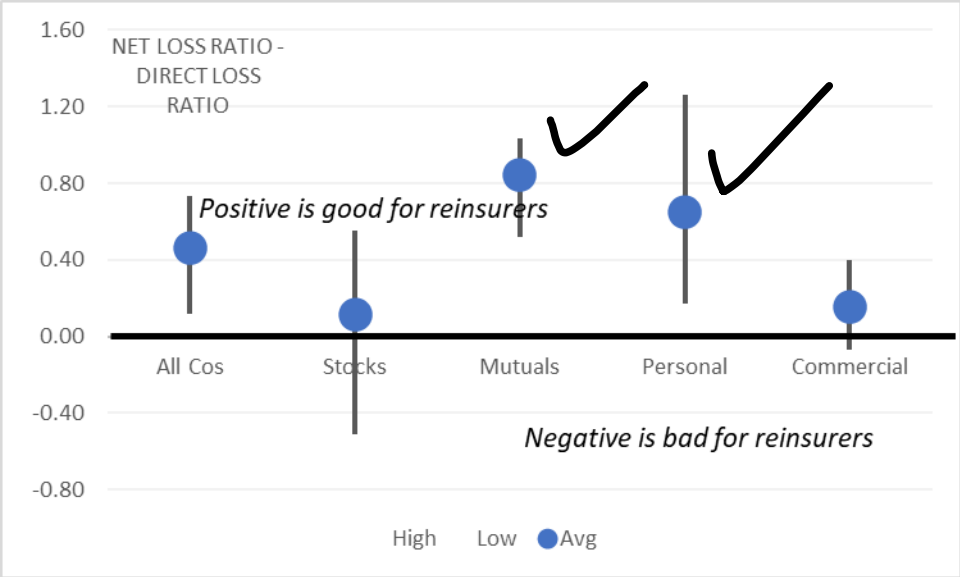
Figure 6: Comparing Cession Rates and Combined Ratio Volatility – Personal vs. Commercial



Source: S&P Global, Assured Research. This graph uses ten years of statutory data (Figures 1-5 use 5 years).

Figure 7 introduces a new metric – the net L/R minus direct L/R - which can be a bit of a mind bender. So, allow us to explain that **when the net L/R is HIGHER than the direct L/R (a positive number), it means that the ceded loss ratio must have been LOWER than the direct L/R; that's GOOD for reinsurers**. Of course, the opposite is true so when this metric is negative it's BAD for reinsurers.

Figure 7: Net Loss Ratio Minus Direct Loss Ratio; 5-Year Medians

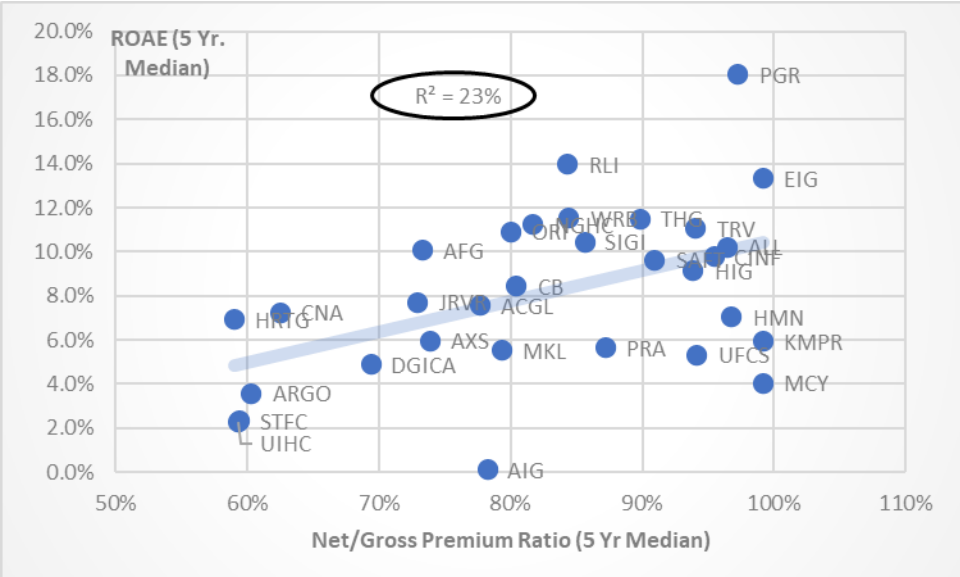


If you are a reinsurer, mutual companies with a personal lines focus ceded the most favorable results. Watch out for stock companies writing commercial business!

Source: S&P Global, Assured Research

GAAP Data

Figure 8: Relationship Between Net/Gross Premiums and ROAE; 5-Year Medians



The relationship using GAAP data is not statistically strong, but this does suggest that that ***companies buying less reinsurance tend to produce better ROEs.***

Source: S&P Global, Assured Research