ASSURED BRIEFING

June, 2023

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.

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In the research pipeline

Two Assured Reports are in the pipeline: 1) What’s a liability claim worth? We’ll answer that question with recently published data from New York City’s self-insurance program. 2) Our annual study of Atlantic hurricanes. We’re going to continue our collaboration with Verisk on trends in claim closure rates as we try to unravel the many forces distorting the diagonals of actuarial triangles.

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.
Personal Auto Insurance: Q: What’s the Right BI Trend? A: 10%

In a tough quarter for PPA insurers, three major insurers coalesced around a 10% BI trend

The first quarter of 2023 wasn’t kind to private passenger auto insurers. Stripping away the noise of an active 3-months for catastrophes, most reported seeing the underlying loss ratio for auto insurance rise by mid(ish) single digits. Losses are still being pressured by property inflation – long wait times for parts, a lack of skilled labor, and more total losses are common rationale. But **the focus of this note is on what appears to be increasingly widespread pressures on bodily injury severity.** We share graphs supporting these observations:

1. **Claim closure rates have slowed each of the past two accident years.** (Figure 1)

2. **The tail of auto liability claims appears to be lengthening.** In our YE22 reserve analysis we concluded that loss reserves for auto liability claims were adequate...just. But with relevance for future reserving risks and a lengthening tail, we’ve observed that **the amount of reserve development in calendar years 2022 and 2021 were higher (than previous periods) across all accident years.** (Figure 2)

3. We reviewed the YTD23 California Covid-19 questionnaires across most of the top 15 PPA writers in that state (our focus was on loss trends and development). Figures 3 and 4 include a number of quotes from top California writers. The quotes point to a **PPA liability claim environment characterized by rising attorney representation, slowing claim closure rates, and rising bodily injury severity.** Based on comments taken from management earnings calls and SEC filings **we believe these are largely nationwide trends** (though certainly some states will be worse than others).

4. We have our suspicions on **medical inflation and utilization patterns; both are regularly cited as a source of rising BI claims.** See our notes on the Medical CPI in this Briefing.

5. We’ve updated our metrics capturing real time commuting and crash information. **Our commuting index is 4% higher YTD ’23/’22, though there was some softening during April with the index down 2%.** Crashes in 8 states accounting for about 20% of industry auto premiums were 7% higher 1Q23/22 and 4% higher in April. (Fig. 6)

6. **Putting it all together, inflationary pressures on auto property coverages, which should be receding (or at least adequately priced) during 2023, are giving way to renewed pressures on liability claims.** Analysts are expecting 2024 to be a year where returns for auto insurers bounce solidly above historical averages. Our view – maybe, but **sticky inflationary pressures as from rising attorney rates and medical inflation can take time to catch and surpass.** Absent demonstrable progress during the next two quarters, 2024 may be yet another year of recovering, not recovered, margins. (Fig. 7)
Assured Briefing
June, 2023

Graphs Informing our Views

Our views are informed by the information found in Figures 1-7. As always, we welcome questions or comments on anything presented.

Figure 1: Claim Closure Rates are Slowing

<table>
<thead>
<tr>
<th>Year</th>
<th>Closed w/Payment % Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>50.3% 63.2% 65.2% 65.9% 66.1% 66.2% 66.2% 66.4% 66.3%</td>
</tr>
<tr>
<td>2014</td>
<td>49.5% 62.7% 64.6% 65.2% 65.5% 65.5% 65.7% 65.7% 65.6%</td>
</tr>
<tr>
<td>2015</td>
<td>48.8% 62.0% 64.1% 64.8% 64.9% 65.2% 65.3% 65.2% 65.2%</td>
</tr>
<tr>
<td>2016</td>
<td>48.3% 61.5% 63.5% 64.1% 64.5% 64.6% 64.6% 64.6% 64.6%</td>
</tr>
<tr>
<td>2017</td>
<td>47.4% 61.2% 63.0% 63.7% 64.1% 64.2% 64.2% 64.2% 64.2%</td>
</tr>
<tr>
<td>2018</td>
<td>47.1% 60.5% 62.4% 63.2% 63.2% 63.5% 63.5% 63.5% 63.5%</td>
</tr>
<tr>
<td>2019</td>
<td>45.3% 58.8% 61.0% 61.8% 61.8% 61.8% 61.8% 61.8% 61.8%</td>
</tr>
<tr>
<td>2020</td>
<td>43.4% 56.9% 59.3% 59.3% 59.3% 59.3% 59.3% 59.3% 59.3%</td>
</tr>
<tr>
<td>2021</td>
<td>40.4% 55.5% 55.5% 55.5% 55.5% 55.5% 55.5% 55.5% 55.5%</td>
</tr>
<tr>
<td>2022</td>
<td>41.5%</td>
</tr>
</tbody>
</table>

This data is taken straight from annual statements with no manipulations. It shows that claims closed with payment % reported claims.

It shows that in the calendar years 2019/2020 timeframe claims closed w/payment began to slow. By 2021/2022 every accident year/calendar year combination showed a lower % of closed claims (vs. reported claims).

Figure 2: Inflation and Slowing Closure Rates are Beginning to Manifest Along the Diagonal

The incremental reported loss ratio is higher in calendar year 2022 across all accident years (diagonal in red) – lengthening tail.
Medical Inflation a Concern; Changing Utilization Patterns Makes Quantifying Harder

We’ve expressed our concerns that medical inflation will rise in the years ahead; the days of benign 2-4% trend rates are waning we think. But in addition to that, we’re intrigued by the
still-limited clues suggesting that medical consumption, or utilization patterns are changing. Progressive wrote in a recent filings with CA regulators that they were seeing “Injury claims where these [pain management injection] treatments are used cost more than 3 times other injury claims, and we are seeing an increase in the utilization of these treatments.” Our work leads us to believe that the decline in opioid prescribing has been replaced by a rising utilization of peripheral nerve blockers (aka ‘pain management injection treatments’). We’re still working on this and other possible changes in treatment patterns, but can share in Figure 5 the rapid rise in medical literature citing this localized source for pain control across applications ranging from surgeries to accidents.

Commuting and Crashes are Higher YTD23/22
We recognize that more congested morning and afternoon commutes could, maybe should, result in lower-speed crashes and lower injury severities. But in a world where many car crashes see attorney involvement; more crashes = more attorneys = higher average severity and a lengthening tail.

Figure 6: Commuting Patterns (left) and Real-Time Crash Data (right)
We expect the anticipated resurgence of operating returns in 2024e at Allstate (ALL) and Progressive (PGR) is being driven by analysts’ expectations that auto insurers will have tamed both property and liability inflationary trends by 2H23. Our view, maybe...but sticky inflation can take time to catch and surpass. And with some 25% of auto premiums written in 2023 but earning into 2024 (assuming 6-month auto policies; or 50% in the event of 12-month policies), signs of insurers’ success will need to manifest soon.

Figure 7: Historical Operating ROEs 2000-2022; Anticipated ROEs 2023e and 2024e

Summary
What’s happening in personal auto insurance is too big and consequential to ignore. We start with that sentence recognizing that many of our subscribers aren’t directly vested in what’s happening in this line of insurance. But consider that the private passenger auto line accounts for about 1/3 of industry premiums at nearly $280 billion. With data back to 1973 it has produced a modest underwriting loss (103% CR, on average), but that CR rose to 112.3% in 2022 and was 22 points higher than the pandemic-low 2020 result. In other words, what’s happening in personal auto and the efforts to correct it will affect all manner of P/C insurance professionals, if even only indirectly as management teams focus on righting this ship.

We’ve observed that actuaries are adept at incorporating inflationary pressures in their pricing algorithms and so we’re surprised that auto results are still weak some two years after inflation began to spike. But interestingly, it seems like some of the reasons given for rising loss costs could be aptly described as ‘second order’ effects related to inflation: longer repair wait times and skilled labor shortages affecting property coverages, for instance. And increasingly, attorney involvement, slowing closure patterns, and medical inflation affecting BI coverages.
Commercial Auto: Two Steps Forward, One Step Back
Results worsened in 2022. One culprit – construction business in the South/Southeast

It takes a village. Some of our best research ideas come from subscribers, and sometimes they come from business partners. It’s the latter case here, with professionals at Verisk’s MarketStance business noticing that the commercial auto loss ratio in 14 states located in the South/Southeastern U.S. (“S/SE”) were notably higher than the rest of the U.S. Interesting...but wait - there's more. Specifically, the commercial auto loss ratio in the construction classes in these 14 states has averaged some 20 points higher than those same construction classes across the rest of the U.S. Commercial auto on construction classes in these focus states account for nearly $6 billion of premium (or ~40% of the $15 billion of construction/commercial auto premium nationally); 20 points is an extra $1.2 billion of losses...annually!

The graphs in this research note yield the following observations:

- Nationally, the commercial auto combined ratio (CR) climbed from about 102% to 106%. Both auto physical damage and liability contributed to the increase. (Fig. 1)

- MarketStance flagged for us 14 states in the S/SE where commercial auto loss ratios were higher than the U.S. national average. Using their data, we show in Figure 2 that the commercial auto loss ratios across all industries (sans Construction) in those focus states has been 7 points higher than across the rest of the U.S. (Fig. 2)

- That’s interesting, but what’s really interesting is that MarketStance also flagged the commercial auto L/R for construction classes in the 14 focus states has run 20 points higher, on average, than the rest of the U.S. We examined the auto L/R in the Transportation/Warehouse class as a point of contrast – there the L/R in the 14 state cohort averages just 5 pts higher. (Fig. 3)

- With the view that the construction class is a major culprit of the deterioration in commercial auto (at least in this 14-state cohort), we sought to examine economic indicators that might shed light on pressures in construction. We didn’t find any smoking guns but think it reasonable to assume that robust economic growth = more construction = more hiring = less experienced drivers. (Fig. 4)

- In our final graph we show a decade-long, widening gap between a measure of goods being moved around the country by truck and a trucking employment index. The period where the gap was widening most quickly (~2010 – 2019) corresponded to worsening underwriting results in this (now) $60 billion line of insurance.
Figure 1: The Commercial Auto Combined Ratios (Physical Damage and Liability)

Commercial Auto: Two Steps Forward, One Back

Physical Damage Combined Ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Combined Ratio</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>100.0%</td>
</tr>
<tr>
<td>2014</td>
<td>101.5%</td>
</tr>
<tr>
<td>2015</td>
<td>104.9%</td>
</tr>
<tr>
<td>2016</td>
<td>101.0%</td>
</tr>
<tr>
<td>2017</td>
<td>99.1%</td>
</tr>
<tr>
<td>2018</td>
<td>85.6%</td>
</tr>
<tr>
<td>2019</td>
<td>90.9%</td>
</tr>
</tbody>
</table>

The combined ratio for auto liability/physical damage combined rose to 106.4% in '22 from 101.7% in '21

Source: ©2022 AM Best Global Market Intelligence, Assured Research

Research and Analysis for Insurance and Investment Professionals

Figure 2: 14-State Cohort; LLAE Ratio Comparison and L/R, Premiums All Industries (x Construction)

Commercial Auto: Two Steps Forward, One Back

Focus on 14 South/Southeast States – L&LAE Ratio Past 3 Years

<table>
<thead>
<tr>
<th>State</th>
<th>3Yr Avg Commercial '20-22</th>
<th>Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>36.9%</td>
<td>71.3%</td>
</tr>
<tr>
<td>AR</td>
<td>63.5%</td>
<td>61.3%</td>
</tr>
<tr>
<td>FL</td>
<td>51.4%</td>
<td>92.1%</td>
</tr>
<tr>
<td>GA</td>
<td>48.3%</td>
<td>88.6%</td>
</tr>
<tr>
<td>KY</td>
<td>51.1%</td>
<td>64.3%</td>
</tr>
<tr>
<td>LA</td>
<td>60.9%</td>
<td>91.3%</td>
</tr>
<tr>
<td>MO</td>
<td>68.1%</td>
<td>73.3%</td>
</tr>
<tr>
<td>MS</td>
<td>58.3%</td>
<td>71.2%</td>
</tr>
<tr>
<td>NC</td>
<td>61.9%</td>
<td>65.0%</td>
</tr>
<tr>
<td>SC</td>
<td>59.7%</td>
<td>73.4%</td>
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<td>TN</td>
<td>64.0%</td>
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<td>TX</td>
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<td>VA</td>
<td>50.4%</td>
<td>63.5%</td>
</tr>
<tr>
<td>RV</td>
<td>56.5%</td>
<td>63.5%</td>
</tr>
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</table>

Rust U.S. Avg Median 14 58.5% 63.5%

The Loss Ratio in all Industries EXCEPT Construction is 7 pts higher

This data includes all industries EXCEPT construction. The premiums are substantial and the average L/R is about 7 points higher – interesting...

The loss ratios from MarketStance data are derived from up to 10 years of industry statistical data

Research and Analysis for Insurance and Investment Professionals
Figure 3: Construction Loss Ratio (Cohort vs. Nat’l Avg) and Transportation/Warehouse

Commercial Auto: Two Steps Forward, One Back

What’s Really Interesting? Construction L/R is 20 Points Higher!

In Transportation/Warehouse the Cmcl Auto LR is Only 5 points higher

The Construction data corresponds to NAICS 23 and the Transportation/Warehouse to NAICS 48. We chose NAICS 48 simply as a point of contrast.

Figure 4: Searching for Economic Indicators – Growth and Employment

Commercial Auto: Two Steps Forward, One Back

Clues in Economic Growth?

6 of 14 states outperformed national GDP growth; 4 modestly underperformed and 4 notably underperformed.

Clues in Unemployment Levels?

Nothing too compelling here, though strong economies surely pressure all manner of industries and particularly construction. More construction = more hiring = less experienced drivers (?)
Summary

Although our efforts to find any coincident economic indicators of the commercial auto liability CR fell short of what he had hoped, it may be worth monitoring the series in Figure 5. Quite simply, when trucking volumes are accelerating faster than trucking employment, that could lead to pressures which, in turn, weigh on underwriting results.

But equally, or perhaps more pragmatically, we think this exercise reveals the importance of coupling geographic analyses with industry segmentation. An executive fatigued with chronically poor commercial auto results in any one of our 14-state cohort, for instance, might be ready to quit on the entire state when what’s needed is a focus on industries causing the red ink. While robust economic growth is good for premium growth, it could also bring unique employment/training and experience pressures that lead to underwriting losses.

We’re grateful to Verisk’s MarketStance business for flagging this issue and can share that we have only scratched the surface with their data. For instance, we stopped at the state and 2-digit NAICS levels. Drilling further into sub-industries and more narrow geographies is possible. Ask us and we’ll put you in touch.

And in the Appendix to this note we’re happy to share a preview of more work we’re doing with Verisk (Well, again, their heavy lifting coupled with a small assist, here and there, from us.) Have you heard that the pandemic and resulting inflation impacts disrupted actuarial diagonals including claim closure patterns? Read on...
Appendix: Commercial Auto Claim Closure Patterns

Observations from Verisk’s rich dataset – the ISO Size of Loss Matrix

In this Appendix Verisk taps into their Size of Loss Matrix – a comprehensive industry leading data and analytics platform designed for many varied research needs including trend and profit drivers and insights for growth and profit decisions. Long term, 20+ year ground-up and excess loss development, trends, loss ratios and profit measures are available for 12 lines of business and 72 markets with a total of over 7 million triangles. Verisk’s focus here is on changing claim closure patterns and average loss severities in commercial auto insurance and the remainder of this Appendix was prepared by our colleagues at Verisk.

The waning pandemic disruptions, and resulting supply constrained inflation impacts, have had significant distorting impacts on claim severities, frequencies, closure rates and settlement patterns. Now 3 years from the onset of Covid, using Verisk’s comprehensive Size of Loss Matrix data and analytics platform, we can make comparisons of various actuarial factors to the prior 3 years. Below we zero in on the impact on closure patterns and average settlements. We analyzed both aggregated countrywide results, as well as the impacts on the Southern region. Consistent with the MarketStance analysis, we show that the Southern region over the last 3 years has experienced some 8-10 pts higher loss ratios than the rest of the U.S.

Figure 6 below shows a triangle with the ratio of incremental closed claims to estimated ultimate claims by accident quarter, as one test used to analyze closure patterns. The thicker black line in the triangle divides the pre and post Covid diagonals. The color coding signifies in red when claim closures were slower than average, while green signifies that settlements have been accelerated.

Figure 6: Closure Analysis – Incremental Paid Indemnity by Accident Quarter
While the claim settlements pre-Covid are distributed somewhat randomly to longer term averages in Figure 6, there is a clear impact on the next 6 to 8 quarters from 2020Q2 through year-end 2021 where closures are lower. The last 4 diagonals also indicate rather clearly that catch-up settlements are occurring. However, there is an interesting exception that the earliest establishment of claims at 3 months (1st column with recent reds) appears to be slow. **Maybe the claims department is robbing Peter to close Paul?** (1st evaluation claims to turn attention to later reported claims given staffing constraints as a hypothesis?)

In Figure 7 attention is turned to the Southern states where we show the dampening impact of the pandemic on settling claims starting in calendar quarter 2020Q2, affecting almost all the accident quarters. The delayed settlements, along with the impact of sticky and flexible inflation previously described by Assured Research, and other possible factors appears to significantly affect the average settlements. From this analysis, the higher Southern commercial auto loss ratio in the last 3 years is being driven by rising severity in zone-rated classes, local food delivery categories, and larger composite rated risk accounts.

**Fig. 7: Impact of Delayed Closures and Inflation on Paid Indemnity Average Severities - South**

![Diagram showing impact of delayed closures and inflation on paid indemnity average severities in Southern states.](image)

Source: Verisk (ISO Size of Loss Matrix), Assured Research. Left series shows cumulative development from 1st evaluation of each loss quarter using last 7 quarter LDFS. Right series shows current quarter (severity) divided by year earlier average severity.

The concern for the commercial auto line, and for many others, is that if average severities remain high, frequencies revert closer to pre-pandemic, closure catch-up continues to occur, and adverse development continues, that loss ratios could significantly increase soon as the pandemic abates. **Stay tuned for additional analyses and joint research!**
Liability Insurance: Disaggregating the Medical CPI

*Use for pricing/reserving with caution. Better yet, don’t use it!*

The Medical CPI has declined steadily since peaking in September of 2022 (y/y increase of 6% at that time down to a 1% increase in April, 2023). What gives? And should insurers/actuaries bake a low and decelerating medical cost trend into their pricing and reserving algorithms? No, is the answer to the latter question.

As to the former, lurking underneath the covers of the CPI are some volatile, irrelevant, and in some cases pandemic-distorted series that are driving the Medical CPI lower.

In this research note we disaggregate the major components of the Medical CPI to better understand its components and their recent behaviors. In the companion note to this we reconstitute a medical price index pertinent to workers’ compensation bodily injury claims with a big assist from data recently published by the NCCI.

The graphs in this research note yield the following observations:

- The Bureau of Labor Statistics (BLS) uses an indirect method to measure the cost of health insurance. It accounts for 9% of the Medical CPI index. That method, plus likely pandemic distortions, causes the series to be wonky (and declining sharply of late).

- Using a bit of algebra we can remove the impact of Health Insurance, but at just 9% of the index the Medical CPI series looks broadly similar even after it is removed.

- Which leads us to Physician Services at a 23% weighting. Physician services at Medicare and Medicaid reimbursement levels are clearly dragging the index down. The series for reimbursement at private payer rates – most relevant for P/C insurers – is low but rising.

- A series for Dental Services is included in the Medical CPI at an 11% weight. That series is mostly irrelevant to P/C insurers, we’d guess, and it has been volatile since 2020.

- The series for Hospital Services (28% of the index) shows a trend that could reasonably be described as rising from the 2-3% range to the 3-4% range.

Our takeaway from this exercise is that the Medical CPI is distorted by series that are either volatile (likely owing to the pandemic and changing governmental policies and consumer behaviors), or largely irrelevant (e.g., dental). It should be used with caution by P/C professionals engaged in pricing or reserving exercises; better yet, probably not at all.
Figure 1: Disaggregating the Medical CPI

Disaggregating the Medical CPI

Medical CPI Components/Weights

<table>
<thead>
<tr>
<th>Components of the Medical CPI (A+B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Medical Care Commodities (1+2)</td>
</tr>
<tr>
<td>1. Medicinal Drugs (a+b+c)</td>
</tr>
<tr>
<td>a. Rx Drugs</td>
</tr>
<tr>
<td>b. Non-Rx Drugs</td>
</tr>
<tr>
<td>2. Medical Equipment/Supplies</td>
</tr>
<tr>
<td>B. Medical Care Services (1+2+3)</td>
</tr>
<tr>
<td>1. Professional Services (a+b+c)</td>
</tr>
<tr>
<td>a. Physician</td>
</tr>
<tr>
<td>b. Dental</td>
</tr>
<tr>
<td>c. Other (Chiro, Social, etc.)</td>
</tr>
<tr>
<td>2. Hospital and Related Services (a+b)</td>
</tr>
<tr>
<td>a. Hospital Services</td>
</tr>
<tr>
<td>b. Other (Nursing homes, elderly)</td>
</tr>
<tr>
<td>3. Health Insurance</td>
</tr>
</tbody>
</table>

Medical CPI: Relatively Benign

We've left the scale intentionally wide to make a point that will become clear on subsequent graphs. Still, the medical CPI hasn't been as volatile as most economic series for goods or services.

Figure 2: Measurement of Health Insurance a Problem; Doesn’t Explain Everything

Disaggregating the Medical CPI

Health Insurance Gone Wonky

But CPI x Health Insurance; Not Much Changed

We've removed the impact of Health Insurance from the index and reconstituted it. The impact is limited because it's only 9% of the index.

In Figure 2 we show the two major components of the Medical CPI: 1) Medical Care Commodities at 18% of the index, and 2) Medical Care Services at 82%. Health insurance accounts for 9% of the total index (it’s part of the Services series); look at how volatile!
Summary: The Medical CPI is being distorted by series that are either volatile (owing to some combination of the pandemic or governmental policies, we suspect) or largely irrelevant. It should be used with caution – or not at all - for insurance pricing or reserving.
Liability Insurance: Reconstituting a Medical Index...
...most relevant for workers’ compensation claims. Food for thought, not a precise formula

If the Medical CPI isn’t currently a reliable source for medical cost trends, what is? Our answer: Beyond measuring the cost trends observed from one’s own claim data, there are myriad cost series (by which we mean some 10,000) in the producer price index (PPI).

In this research note we reconstitute a medical price index pertinent to workers’ compensation bodily injury claims with a big assist from data recently published by the NCCI in their annual State of the Line Report. To the NCCI – thank you!

The graphs in this research note yield the following observations:

- Two slides on WC medical claim costs, in particular, allowed us to search the BLS for PPI series closely replicating claim cost drivers.

- Specifically, there are six categories where we found PPI series that seemed on point with the components of WC claim costs: 1) physician services 41%, 2) outpatient and ambulatory surgery centers 27%, 3) inpatient costs 12%, 4) Rx 7%, 5) medical supplies 8%, and 6) Other at 5%.

- When we use these series to reconstitute a medical price index pertinent to WC claims, we observe that the reconstituted series could be reasonably described as low but rising...an entirely different pattern than the Medical CPI.

- Our reconstituted series pointed to a 2.3% increase in medical costs 2022/2021. That compares to the 2.5% calculated from the materials supplied by NCCI. Not perfect, but reasonably close.

Workers’ compensation reserves have been proven redundant every year since 2011, in part because medical inflation has been so low. This work shows that it remains low, but it is rising. As to bodily injury claims from auto accidents, it’d be our hope that this exercise points
to a process where actuaries and claims professionals could combine to determine the major medical cost drivers and then find proxies for cost trends. For example, we’d guess that auto BI claims involve a higher proportion of hospital-related cost drivers and a lower share of physician visits. Our effort is meant to provide food for thought, not a precise formula.

Figure 1: The NCCI Roadmap to Medical Cost Drivers

![NCCI Roadmap to Medical Cost Drivers Diagram]

The weighted average of the cost pressures was 2.5% from 2021 to 2022

Figure 2: The Six Major Cost Drivers; 3 on the Left and 3 on the Right

![Six Major Cost Drivers Diagram]

Reconstituting the Medical CPI

Physician and Outpatient Series are Low but Trending Higher. Inpatient Rise is Notable

Recent Rise in Medical Supplies; Other is 50% Lab/50% Imaging
The low, 1-2% trend observed over this period appears to be in line with a newly released and substantial report on WC medical costs released by the WCRI. It is free to download: WCRI’s Medical Price Index for Workers’ Compensation, 15th ed. For instance, from their section on Key Lessons: In terms of the average annual growth rate, the median increases in prices paid among the non-fee schedule states was 2.2 percent per year from 2008-2022 [through June, 2022], while the typical annual growth rate in prices paid among the fee schedule states was 1.2 percent per year. (Our note: We did not get a sense for whether the report indicates that prices paid have recently begun to accelerate, but that information may indeed be in the 187-page document.)

Summary

We doubt that many professionals are using the Medical CPI in their trending work – at least not without substantial modifications. But when headlines in the business sections blare that medical inflation is receding, that sentiment is probably difficult to keep out of the pricing expectations of commercial insurance buyers (and possibly agents and brokers).

Whereas the Medical CPI is being distorted by cost series that are either volatile or largely irrelevant, the reconstituted series in this note should, at a minimum, be more closely trained on the actual cost drivers of WC claims. The process could be repeated for other types of bodily injury claims with auto accidents the most obvious next step. If someone out there wants to work with us on a project such as this for auto BI claims (on a confidential basis, of course) we’d be happy to engage.
P/C insurers as a group return the bulk of their earnings to shareholders in the form of either dividends or share repurchases, and this is the correct strategy in mature industries.

Regarding capital deployments, it has become trendy for critics (particularly politicians) to criticize share repurchase programs. The 1% tax on net repurchases which was enacted in 2022 and became effective this year was partly aimed at curbing their growth, in addition to being a fund-raising tool.

With share repurchases and capital deployment in the news, we thought it a good time for a review of capital management strategies. We recognize that this is an extremely complex issue, and one that finance departments spend considerable time analyzing and modelling. We are mainly hitting the highlights to develop some perspective.

It’s all about industry life cycles and company opportunity costs

All industries go through life cycles similar to the one depicted in Figure 1 (next page). Those that are in the mature phase, such as P/C insurers, generally produce cash flow in excess of corporate needs. With that in mind, the most basic rule of capital management is that if funds cannot be deployed with returns that exceed a company’s hurdle rate (which is usually the cost of capital) they should be returned to shareholders. This is because making investments below a company’s cost of capital will destroy value (i.e., lead to lower returns).

With that in mind, the amounts that can (should) be returned to shareholders can be quantified using the standard return on equity formula:

\[
\text{Return on Equity} = \frac{\text{Growth}}{1 - \text{Earnings Distribution}}, \text{ which can be restated as:}
\]

\[
\text{Earnings distribution} = 1 - \left(\frac{\text{Growth}}{\text{Return on Equity}}\right)
\]

If you consider the normalized premium growth for the industry to be in the 3-4% range (about the growth of the last 25 years) and the target ROEs with normal leverage to be about 10-11%, then the table in Figure 1 suggests capital distributions should be roughly 60-75%.

The criticism of share repurchases has gotten so intense that it prompted Warren Buffett in his annual corporate letter to refer to critics as “economic illiterates” and “silver-tongued demagogues.”
Figure 1: Industry Life Cycle and Capital Distribution Calculations

![Industry Life Cycle and Capital Distribution Calculations](image)

Source: Various, Assured Research

Figure 2 shows the range of the distributions for 26 P/C insurers over the past decade.

**Figure 2: Capital Distributions as % of Operating Income: 2012-2022**

![Capital Distributions as % of Operating Income: 2012-2022](image)

Source: ©2023 S&P Global Market Intelligence, Assured Research

It’s all about opportunity costs!

Beyond graphs and mathematical calculations, determining the amount of funds to be retained and those to be returned to shareholders hinges on a very detailed analysis of a company’s opportunity costs. Specifically, the question is, what uses or needs does the company have for its capital? The following, which is a quote from Travelers’ various regulatory filings, gives a good example of all the factors that companies consider.
“In addition, the Company’s share repurchase plans depend on a variety of factors, including the Company’s financial position, earnings, share price, catastrophe losses, maintaining capital levels appropriate for the Company’s business operations, changes in levels of written premiums, funding the Company’s qualified pension plan, capital requirements of the Company’s operating subsidiaries, legal requirements, capital constraints, other investment opportunities (including mergers and acquisitions and related financings), market conditions, changes in tax laws (including the Inflation Reduction Act) and other factors.”

As you can glean from the Travelers commentary, liquidity is paramount, and after that near term underwriting opportunities and the current state of the market need to be considered. Of course, the stock price and valuation are also important since the price paid for any share buybacks will have an impact on reported results. Putting this together leads us to repeat the basic rule - if funds can’t be deployed at rates that exceed a company’s hurdle rate they should be returned to shareholders.

How should funds be returned to shareholders?

Once the amount of funds to be returned to shareholders is determined, the next decision is whether this should be done via dividends or share repurchases. Figure 3, which is a repeat of a chart we published recently, shows two important points for the 26 companies: 1) the bulk of the funds returned to shareholders were through share repurchases, and 2) repurchases are far more variable than dividends.

Figure 3: Capital Distributions as % of Operating Income: 26 Companies, 2006-2022

Share repurchases are “situational” based on results and opportunities, while dividends, by contrast, are generally “sticky” because companies are reluctant to make cuts even if results suggest they should be reduced.

The decision on how to repatriate funds is heavily influenced by a company’s shareholder base; it is imperative that companies know their shareholders’ preferences.
As Figure 4 shows, **companies employ a wide range of capital-return strategies**, from those that don’t pay dividends (Markel and Arch Capital, on the left) to those that pay only dividends (CNA and RLI) on the right. Within the dividend category, some companies rely on regular dividends while some also use special dividends to compensate shareholders when results warrant.

**Figure 4: Company Mix of Capital Distributions 2012-2022**

![Chart](image_url)

- **Chart is sorted from those that rely most on share repurchases (left) to those that pay out a higher percentage of dividends (right).**

**Source:** ©2023 S&P Global Market Intelligence, Assured Research

**Appendix available for those interested**

For those interested in how paying dividends or repurchasing stock affects book value and earnings per share, we have prepared an Appendix to this note providing a simple example. Please email us and we’ll be happy to share it.

**Summary**

Returning funds to shareholders is an important capital management strategy for P/C insurers and any negative commentary on share repurchases should not dissuade companies from buying back shares.