



Assured Research, LLC

CAS Spring Meeting
Economic and Social Inflation

Assured Research

May 16, 2022

Research and Analysis for Insurance and Investment Professionals

ABOUT ASSURED RESEARCH

- ◆ Assured Research is a research firm focused exclusively on the P/C insurance industry. (Re)insurers controlling some \$250 billion in premiums subscribe to the Assured Research Package.
- ◆ We also offer educational presentations to subscribers.
- ◆ We offer investment-oriented research through our affiliation with Gordon Haskett Research Advisors.
- ◆ Learn more and request free trial at www.assuredresearch.com
- ◆ Follow us on Twitter @AssuredResearch

OUTLINE OF EXHIBITS

- ◆ **Our Takeaways!**
- ◆ **Economic Inflation**
 - Causes
 - Tools for looking back/tracking in “real” time
 - Tools for looking ahead
- ◆ **Social Inflation**
 - Indicators that we are watching
 - Don’t expect tort reform
- ◆ **An Historical Look at the Impact of Inflation: (Re)insurers got this!**
 - U/W and inflation
 - ROEs and inflation
- ◆ **Summary and Looking Ahead**

IF YOU TAKEAWAY ONE POINT...

We don't mean to imply that anticipating or measuring economic inflation to build into insurance rates is an easy task...we're sure it is not.

But...

IF YOU TAKEAWAY ONE POINT...

Over the long arc of history and through many economic cycles, insurers have proven adept at neutralizing the negative impacts of inflation via pricing actions...

...while their investment income rises as inflation takes interest rates higher.

ROEs are positively correlated with inflation.

OUTLINE OF EXHIBITS

- ◆ **Our Takeaways!**
- ◆ **Economic Inflation**
 - **Causes**
 - **Tools for looking back/tracking in “real” time**
 - **Tools for looking ahead**
- ◆ **Social Inflation**
 - **Indicators that we are watching**
 - **Don’t expect tort reform**
- ◆ **An Historical Look at the Impact of Inflation: (Re)insurers got this!**
 - **U/W and inflation**
 - **ROEs and inflation**
- ◆ **Summary and Looking Ahead**

ECONOMIC INFLATION/RECESSION INTERRELATED

◆ Demand >> Supply

- D ↑ both during and “post” pandemic; initially for goods...increasingly services
- Against: S ↓ supply chain snarls (Covid lockdowns– ongoing in China, catastrophes), geopolitical standoffs/war, S (Labor) ↓, S(\$)
↑ both fiscal and monetary policies...stimulated demand ↻

◆ Concern: Rising inflation expectations into longer-lived contracts (wages, rents, annual contracts, multi-year labor agmt)

◆ Action: Raise interest rates, slow (or limit new) fiscal spending

◆ Risk: A “Volcker-style, Fed-induced” recession

TRACKING ECONOMIC INFLATION – MAIN POINTS

- ◆ **Looking Back...**
 - Many will subscribe to various industry sources of cost indicators, but...
 - Price indicators for many of the components of loss costs are available monthly (e.g., building materials/property; used car/materials for auto)...they are on your desktops
- ◆ **Useful to think about how inflation differs: sticky vs. flexible; goods vs. services**
- ◆ **Looking Ahead...**
 - An explosion of 'real time' indicators of activity
 - Many commodities have an active futures market.

Assured Research, LLC

A FABULOUS SOURCE FOR PRICE DATA (AND LOTS MORE)

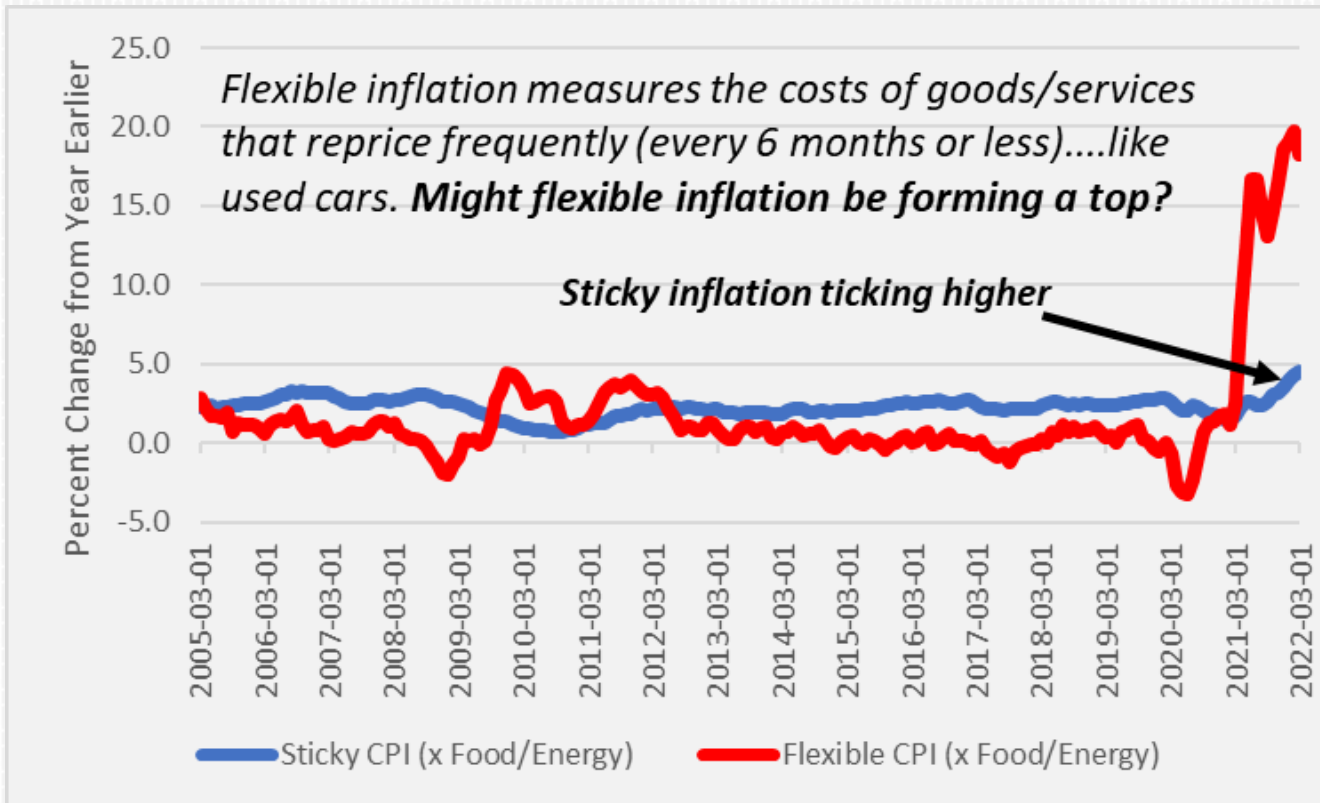


The [St. Louis Fed \(FRED\)](#) site includes thousands of time series across the economic spectrum; that includes myriad prices relevant to insurers' loss costs

Ex. PPI components!

Professionals

STICKY VS. FLEXIBLE INFLATION? STICKY IS RISING



Most components of auto inflation are flexible; contracts or prices that reprice regularly. Sticky = annual contracts like home/rent, medical, education...

Source: Federal Reserve Bank of Atlanta (via FRED), Assured Research

Research and Analysis for Insurance and Investment Professionals

MANHEIM USED CAR INDEX – FLEXIBLE INFLATION

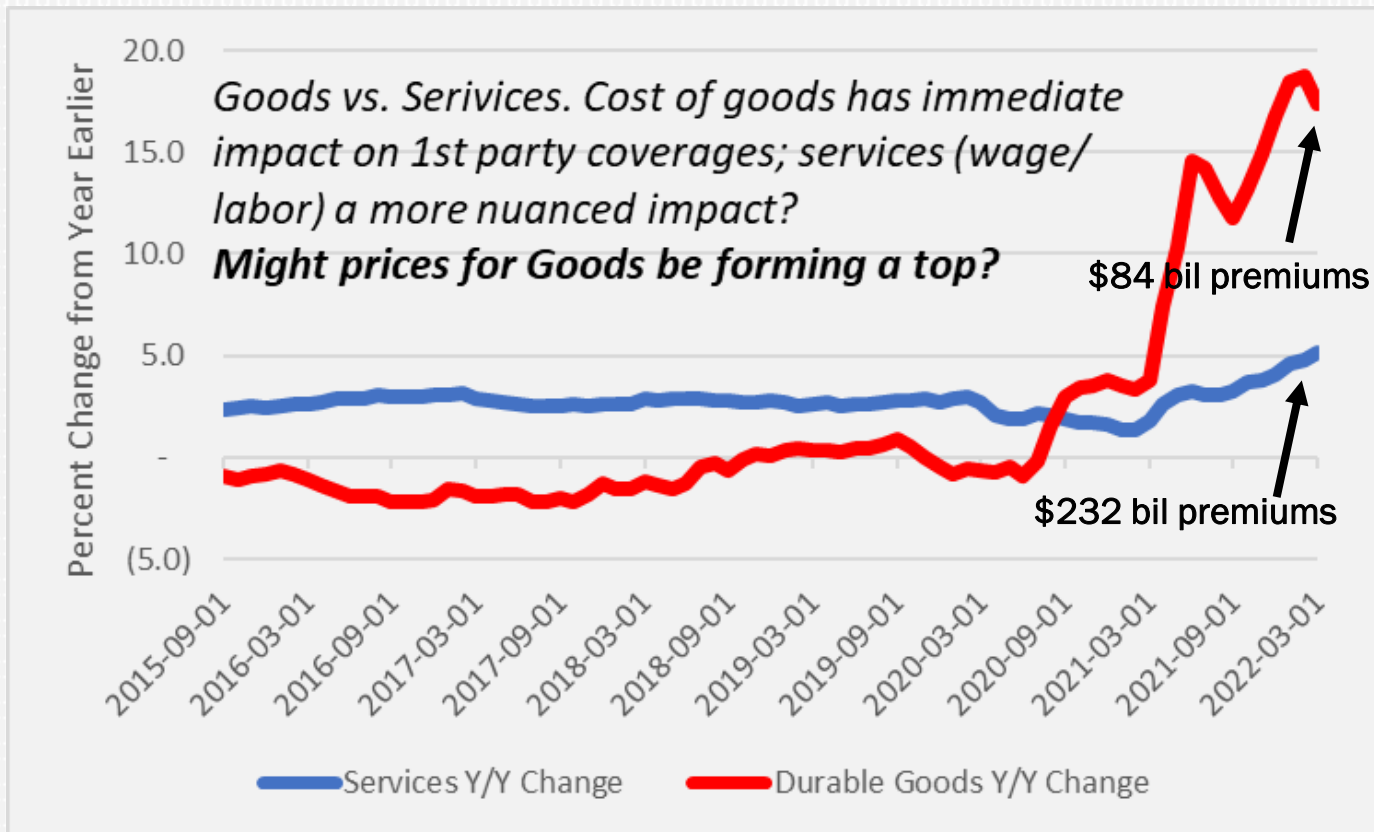
MANHEIM USED VEHICLE VALUE INDEX
Mid-April 2022



Changes in used car values explain the majority of PD (liability) and collision severity trends according to comments from Allstate and Progressive

Source: [Manheim.com](https://www.manheim.com), Assured Research

DEMAND DESTRUCTION FROM A FED-INDUCED RECESSION?



If interest rate increases overshoot, greater economic risk seems to be to the demand for goods and to longer-lived capital projects

Source: Federal Reserve Bank of Atlanta (via FRED), ISO MarketStance, Assured Research

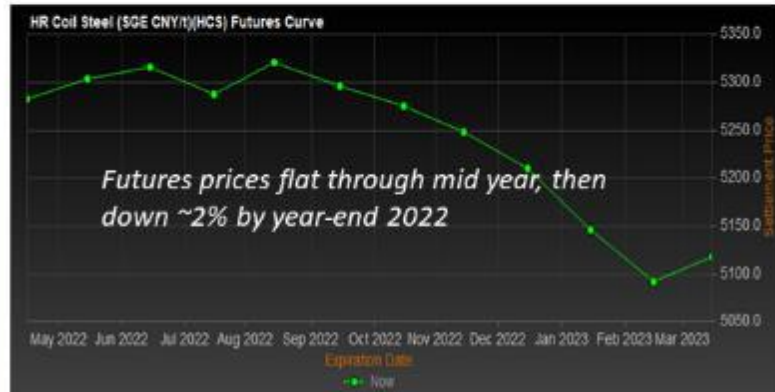
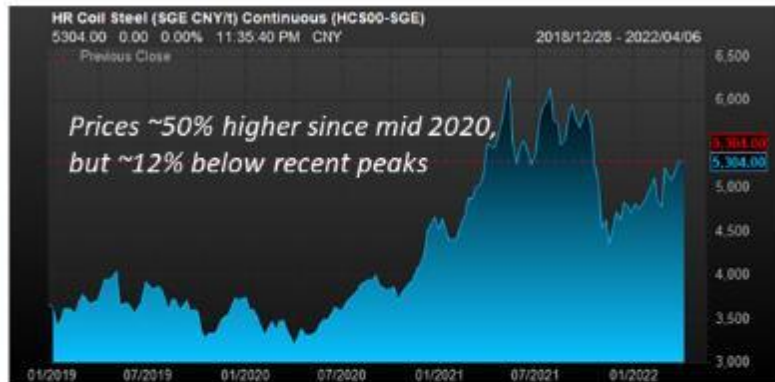
Research and Analysis for Insurance and Investment Professionals

OTHER TOOLS FOR TRACKING TRENDS THAT IMPACT LOSS COSTS

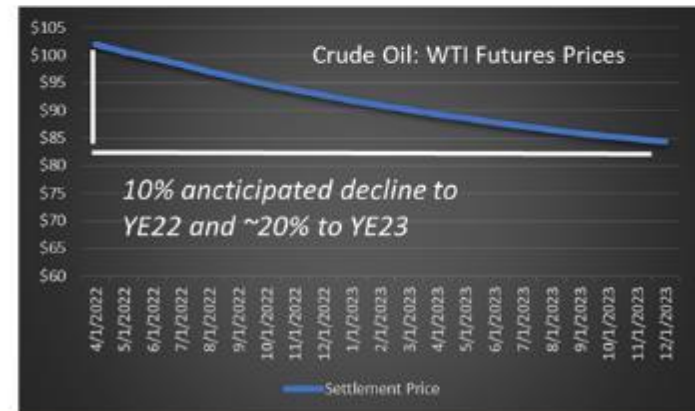
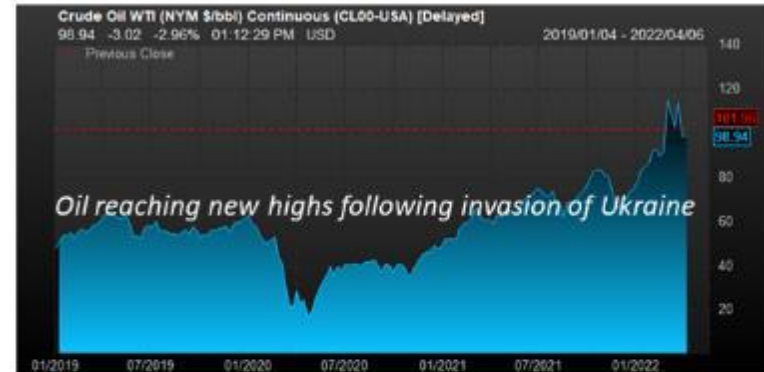
- ◆ Explosion of tools available to everyday users since onset of pandemic
- ◆ Google Trends and other mobility indicators
- ◆ Real time auto crash data available at a host of states
- ◆ Office occupancy indicators provide a view on commuting trends ([Kastle](#))
- ◆ Public transportation data available across the nation ([APTA](#))
- ◆ Publicly traded companies in areas where YOUR company has concentrations...sales, margins, trends in labor/staffing
- ◆ Many raw materials for 1st party claims have active futures markets

Assured Research, LLC

Steel



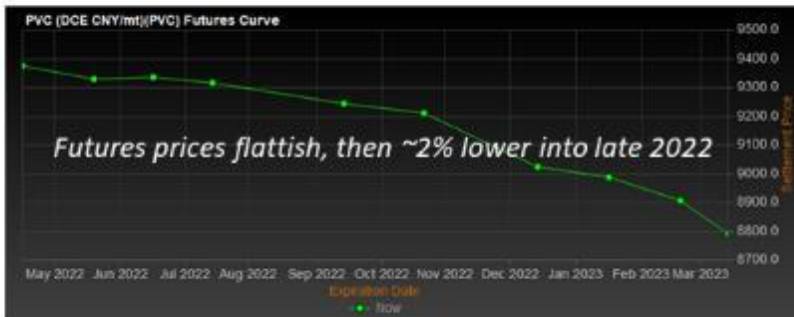
Oil



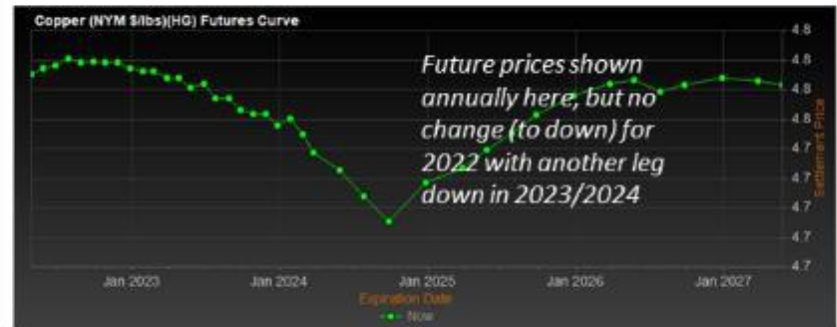
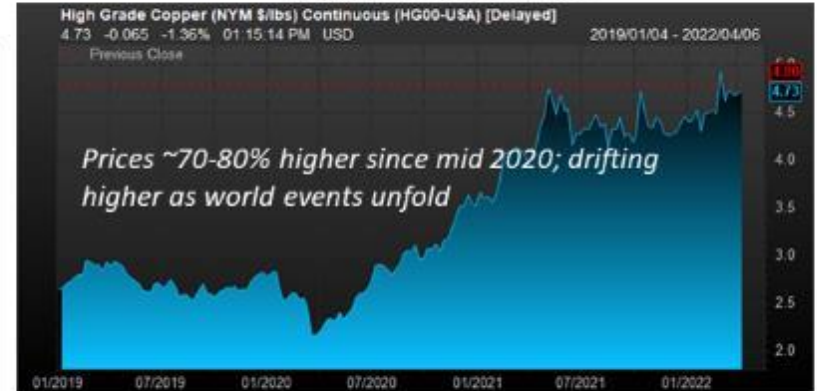
Source: FACTSET via Gordon Haskett, Assured Research. Prices as of 4/6/22

Assured Research, LLC

PVC



High Grade Copper

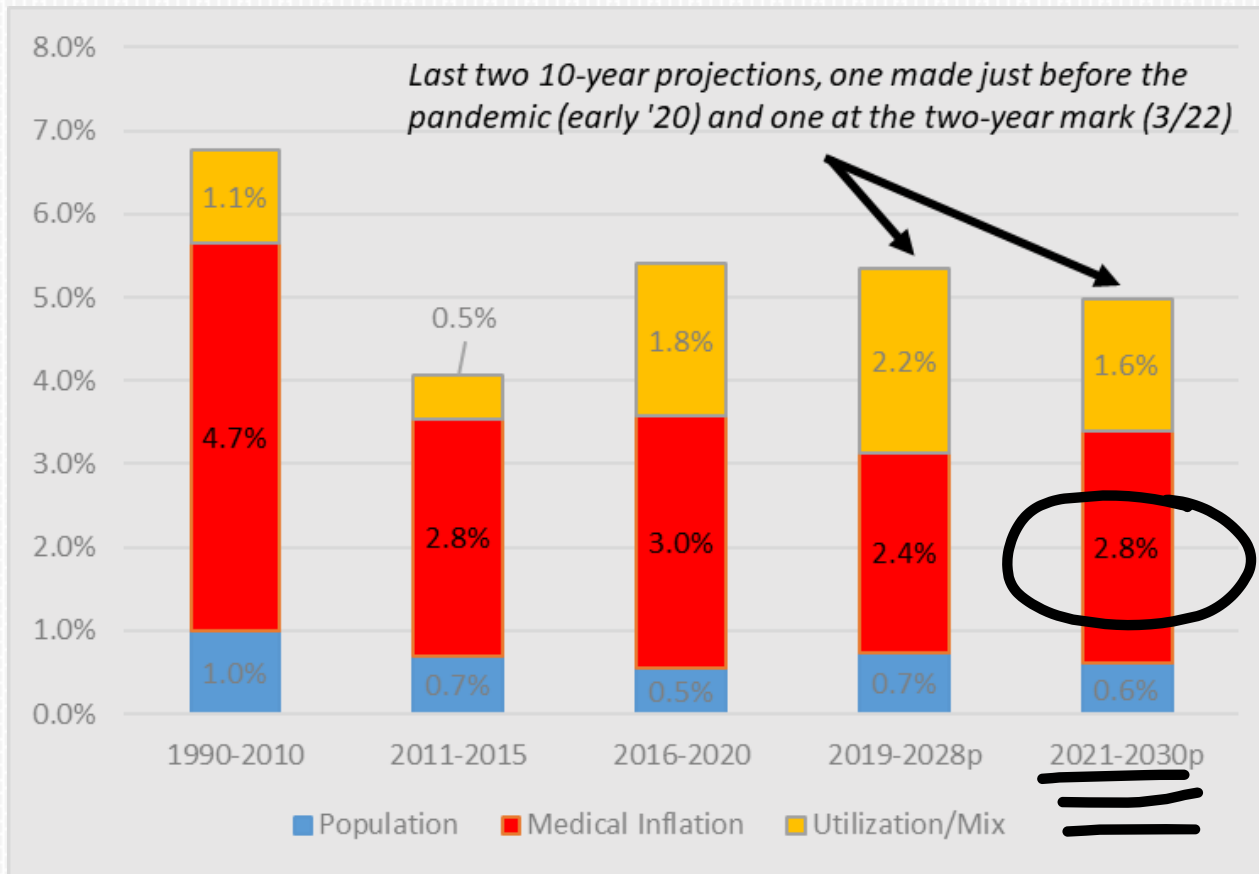


Source: FACTSET via Gordon Haskett, Assured Research. Prices as of 4/6/22

Research and Analysis for Insurance and Investment Professionals

Assured Research, LLC

MEDICAL INFLATION: NATIONAL HEALTH EXPENDITURES AND INFLATION



WC insurers enjoy a natural hedge against rising labor costs IF wage inflation exceeds medical cost inflation.

Source: [CMS Office of the Actuary](#), Assured Research

Research and Analysis for Insurance and Investment Professionals

OUTLINE OF EXHIBITS

- ◆ **Our Takeaways!**
- ◆ **Economic Inflation**
 - Tools for looking back/tracking in “real” time
 - Tools for looking ahead
- ◆ **Social Inflation**
 - Indicators that we are watching
 - Don’t expect tort reform
- ◆ **An Historical Look at the Impact of Inflation: (Re)insurers got this!**
 - U/W and inflation
 - ROEs and inflation
- ◆ **Summary and Looking Ahead**

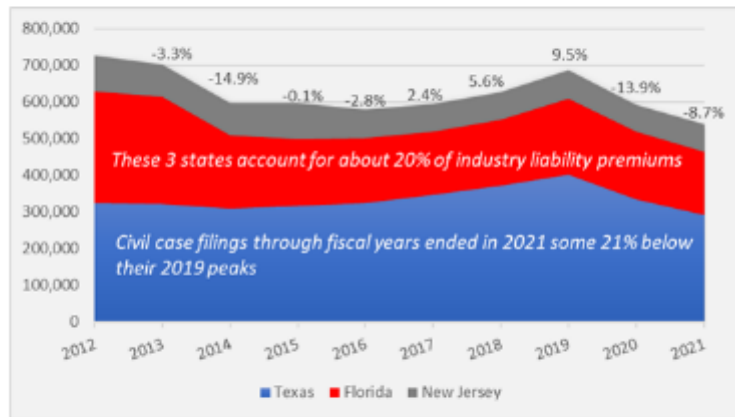
SOCIAL INFLATION – MAIN POINTS

- ◆ Whereas (we will show) insurers do a good job neutralizing economic inflation through pricing actions...
- ◆ Social inflation matters more than core inflation
- ◆ We're watching 'real wages' as a proxy for inequality
- ◆ We're watching Bellwether Trials from several mass tort filings/MDL
- ◆ We're not anticipating that tort reform will come to the rescue, except...
- ◆ In Florida where HO market shows parallels to the tort reform movement from the 1980s

*Social inflation is more relevant than core inflation
in P&C
Swiss Re '22 Investor Day*

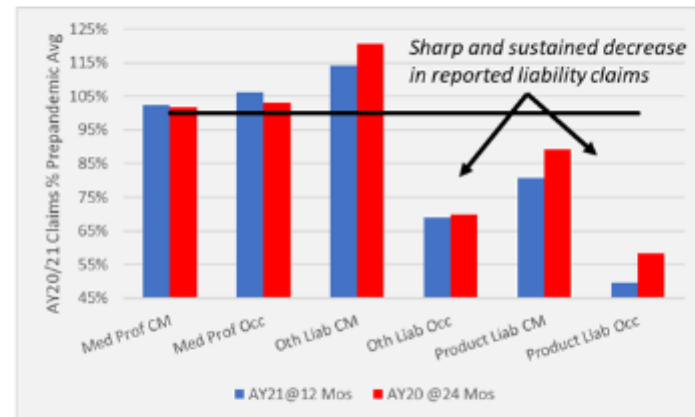
SOCIAL INFLATION: ISSUE IS SEVERITY; NOT FREQUENCY

Civil case filings fell in both 2020 and 2021



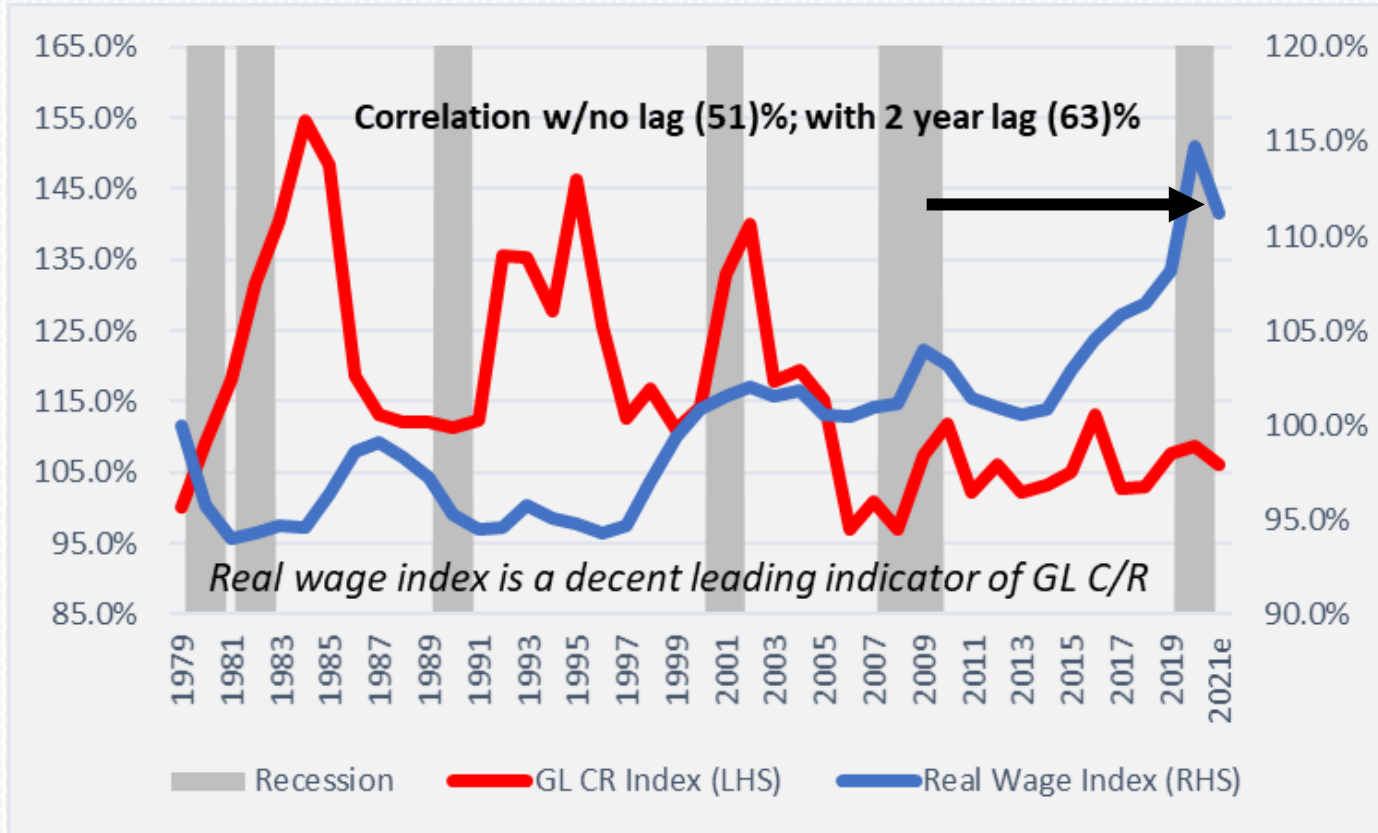
Source: ©2022 S&P Global Market Intelligence, State Court Websites, Assured Research

Reported liability claims down even further with...



...Other Liability Occurrence accounting for ~87% of claim volume across these liability lines

INEQUALITY: MAYBE REAL WAGES ARE AN INDICATOR?



“Inflation adjusted wages are falling faster than they have in 40 years”
 WSJ April 13th

Real wages fall, the liability loss ratio rises!

Sources: St. Louis Fed (FRED), ©2022 S&P Global Market Intelligence, Assured Research

Research and Analysis for Insurance and Investment Professionals

MDLS/MASS TORT CASES: LARGE CASE SETTLEMENTS BEGET LARGE CASE SETTLEMENTS

◆ Bayer/Monsanto--Roundup


- **Legal issue:** Does Roundup contain a carcinogen that leads to non-Hodgkin's lymphoma?
- Bayer lost first three trials but have recently won two.
- Proposed \$10 billion settlement for "current claimants," but Court rejected \$2 billion proposal for "futures claimants."
- Settlement talks on hold as company waits to see if Supreme Court hears its appeal

◆ Johnson & Johnson--Talcum Powder

- **Legal issue:** Does talcum powder cause ovarian cancer?
- Several trial losses and Supreme Court declines to review \$2.0 billion appeal
- Company placed talc claims in a separate (bankrupt) subsidiary.

◆ 3M--Combat Arms Earplugs

- **Legal issue:** Did faulty earplugs cause hearing loss among military personnel?
- 285,000 military claimants make this the largest MDL in history (by far).
- Bellwether case decisions have been split
- Our view: We expect a settlement; can't run all these cases through the courts!



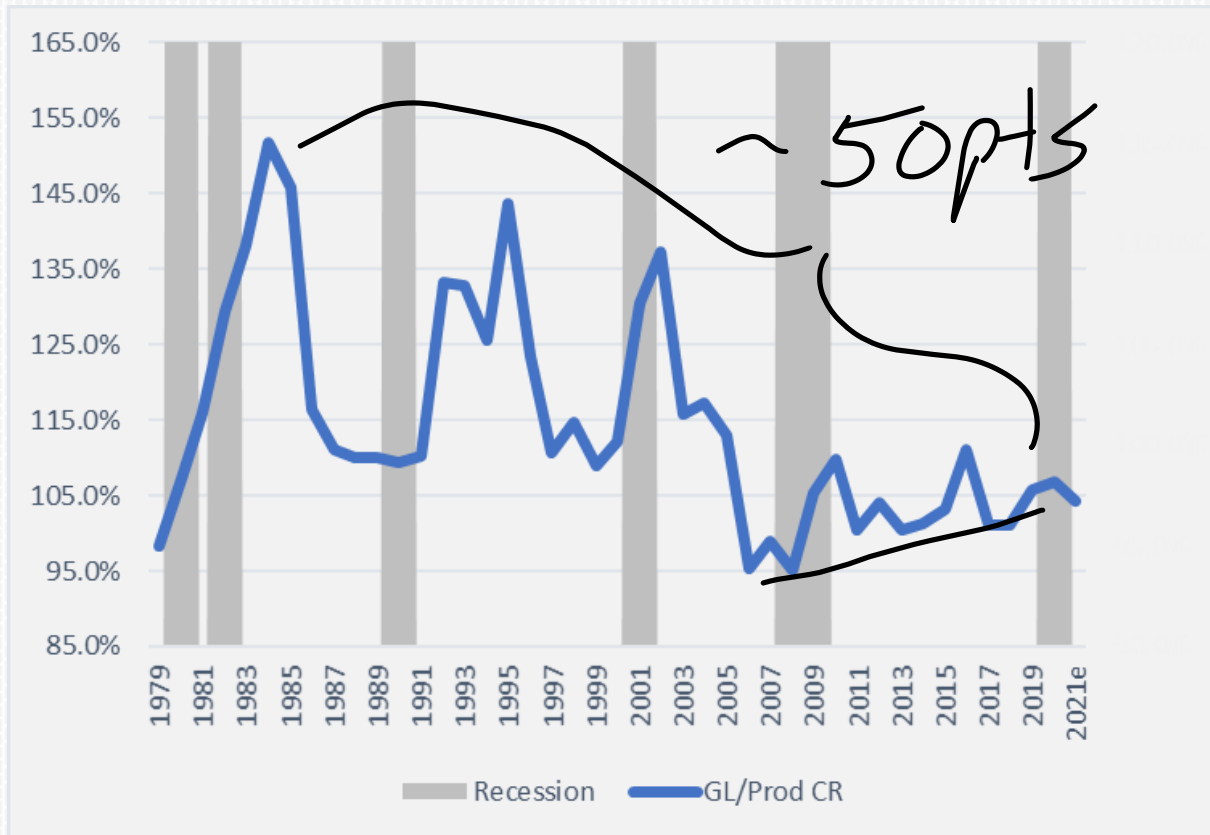
Watch
bellwethers,
they matter!

WATCH FOR EXPANDED GOVERNMENTAL ACTIONS

- ◆ **Buoyed by the \$26 billion opioid settlement; Attorneys General, will expand “public nuisance” and “consumer protection” actions**
- ◆ **Oil and gas companies re: climate change**
 - Many states have filed suits against companies arguing fossil fuels are a public nuisance
 - Current question is whether suits should be pursued in State or Federal Courts; will take years to determine
- ◆ **E-cigarettes re: cause addiction and engage in deceptive marketing**
 - Nine states have sued JUUL Labs
 - 39 states investigating health claims and marketing
 - JUUL settles \$40 million claim with North Carolina
 - Also, numerous civil suits including 3,300 claimants in MDL

NO MAJOR INCENTIVES FOR TORT REFORM

Liability (GL + Product) Combined Ratio since 1979: *Not that bad!*



An upward trend since ~2007/08 warrants correction; different order-of-magnitude from mid 1980s

Source: A. M. Best, ©2022 S&P Global Market Intelligence, Assured Research

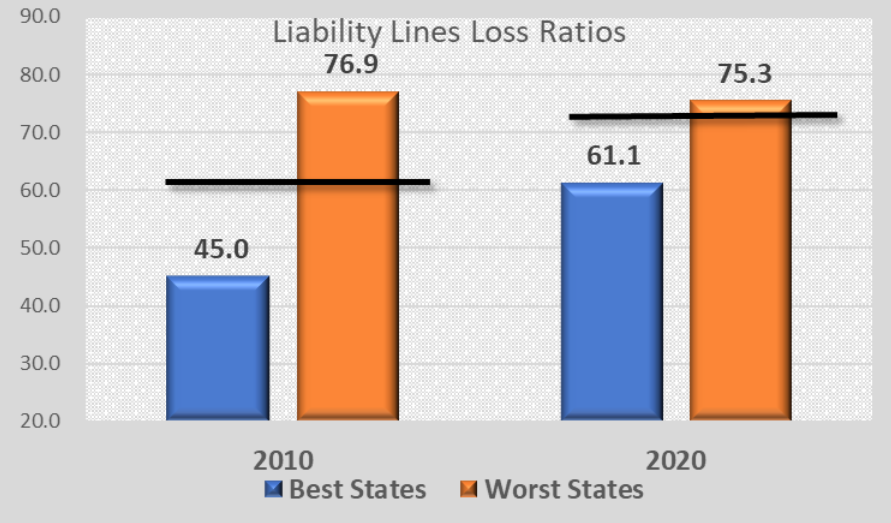
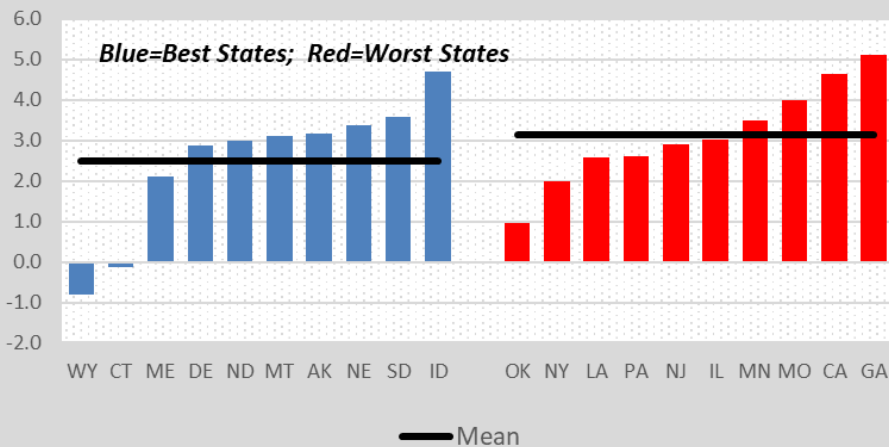
Research and Analysis for Insurance and Investment Professionals

NO MAJOR INCENTIVES FOR TORT REFORM

Economic growth in worst states is similar to the best states!

Loss ratios in worst states are higher, but not deteriorating!

10 year=2010-2020



Source: Institute for Legal Reform (state rankings), Bureau of Economic Analysis (GDP), S&P Global (loss ratios), Assured Research

Black lines = National Average

Research and Analysis for Insurance and Investment Professionals

Assured Research, LLC

FL EXCEPTION! Illustrates just how dire...before Gov't Rx

Income Statement \$000							Income Statement; % NPE						
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>		<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Net Premiums Earned	3,050,466	3,253,272	3,451,163	3,357,257	3,478,996	3,505,419	Net Premiums Earned	100%	100%	100%	100%	100%	100%
Losses Incurred	1,694,228	1,903,225	2,078,649	2,115,494	2,675,905	2,529,847	Losses Incurred	56%	59%	60%	63%	77%	72%
LAE Incurred	461,482	491,665	417,852	451,257	583,517	557,602	LAE Incurred	15%	15%	12%	13%	17%	16%
Other U/E Expense	1,082,407	1,119,142	1,190,347	1,142,933	1,055,781	1,139,799	Other U/E Expense	35%	34%	34%	34%	30%	33%
U/W Gain/(Loss)	-191,531	-264,761	-239,658	-356,332	-840,432	-727,008	U/W Gain/(Loss)	-6%	-8%	-7%	-11%	-24%	-21%
							Combined Ratio	106%	108%	107%	111%	124%	121%
Net Investment Income	93,061	106,903	127,568	144,276	115,165	77,406	Net Investment Income	3%	3%	4%	4%	3%	2%
Net Realized G/(L)	13,294	21,131	-3,240	18,472	127,449	7,897	Net Realized G/(L)	0%	1%	0%	1%	4%	0%
Other Income	19,107	5,295	50,519	28,087	11,129	27,066	Other Income	1%	0%	1%	1%	0%	1%
Net Income BT	-66,068	-131,432	-64,811	-165,498	-586,689	-614,639	Net Income BT	-2%	-4%	-2%	-5%	-17%	-18%
Net Income AT	-52,383	-74,518	-75,602	-145,876	-428,796	-562,660	Net Income AT	-2%	-2%	-2%	-4%	-12%	-16%
Resv Dev%NEP (+ Adverse)	1.4%	2.3%	4.7%	4.2%	1.6%	7.4%							
Premium Analysis \$000							Premium Analysis; % D&A						
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>		<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Direct & Assumed	6,516,425	6,910,665	7,227,530	7,898,533	8,963,003	9,629,349	Direct & Assumed	100%	100%	100%	100%	100%	100%
Ceded	3,465,782	3,572,276	3,799,878	4,583,528	5,547,871	5,939,227	Ceded	53%	52%	53%	58%	62%	62%
Net Written Premium	3,096,924	3,392,220	3,472,780	3,363,914	3,495,509	3,852,781	Net Written Premium	48%	49%	48%	43%	39%	40%

36 Insurers writing >50% FL HO Premiums

Source: ©2022 S&P Global Market Intelligence, Assured Research

Research and Analysis for Insurance and Investment Professionals

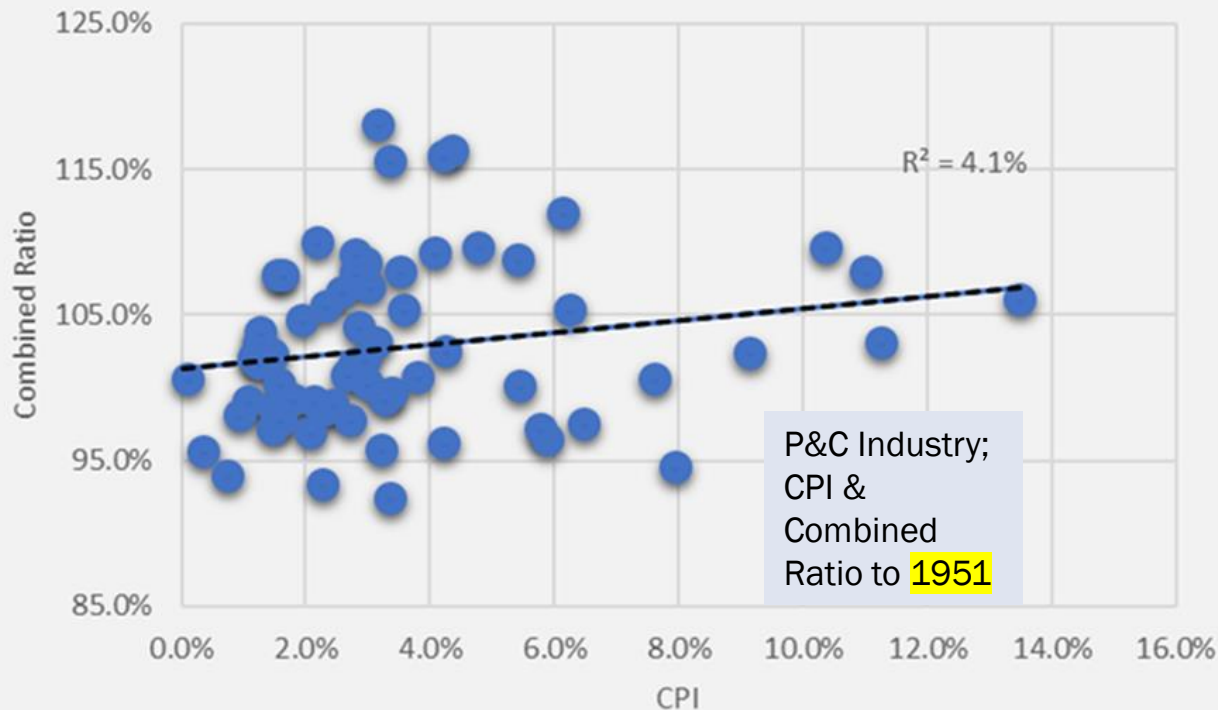
OUTLINE OF EXHIBITS

- ◆ **Our Takeaways!**
- ◆ **Economic Inflation**
 - Tools for looking back/tracking in “real” time
 - Tools for looking ahead
- ◆ **Social Inflation**
 - Indicators that we are watching
 - Don’t expect tort reform
- ◆ **An Historical Look at the Impact of Inflation: (Re)insurers got this!**
 - U/W and inflation
 - ROEs and inflation
- ◆ **Summary and Looking Ahead**

INFLATION: (RE)INSURERS GOT THIS!

- ◆ **Insurers do a good job neutralizing economic inflation through pricing actions...**
 - **No meaningful correlation between UW and CPI over ~all lines**
- ◆ **Weather impacts property and social inflation more impactful for liability**
- ◆ **But there is a notable correlation between inflation and ROEs. Why?**
- ◆ **Because investment returns rise with rising yields**

NO STRONG ASSOCIATION BETWEEN U/W AND INFLATION: INDUSTRY



“Inflation is top of mind for everyone in the P&C industry, which to its credit, has historically been adept at adequately responding to inflation trends.”

CEO of Arch Capital speaking on 1Q22 CC

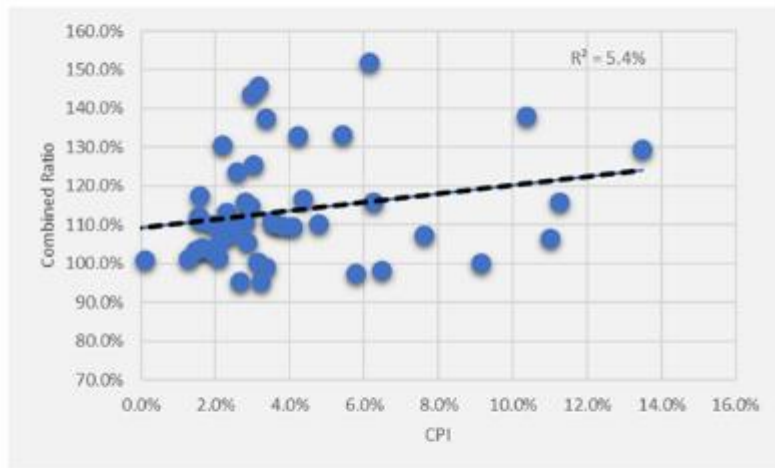
Source: A.M. Best, © 2022 S&P Global Market Intelligence, Assured Research

Research and Analysis for Insurance and Investment Professionals

Assured Research, LLC

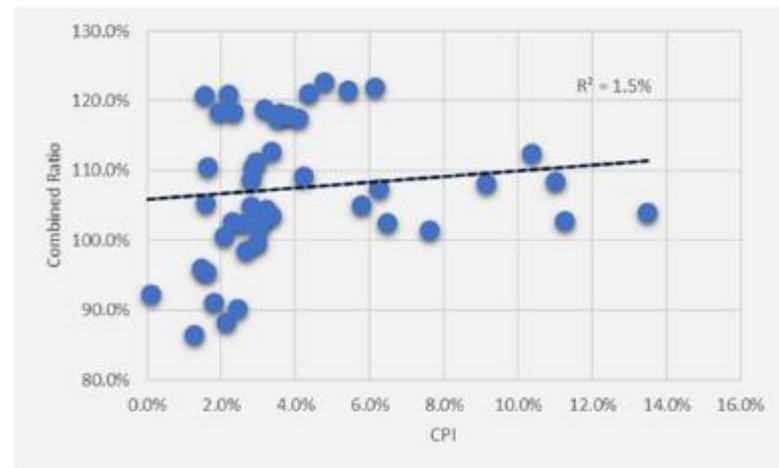
NO STRONG ASSOCIATION BETWEEN U/W AND INFLATION: COMMERCIAL LINES

Liability Lines: Combined Ratio and CPI



One Year Lag: CPI Yr. X and Insurance Datapoint Yr. X+2

Workers' Compensation: Combined Ratio and CPI



One Year Lag: CPI Yr. X and Insurance Datapoint Yr. X+2

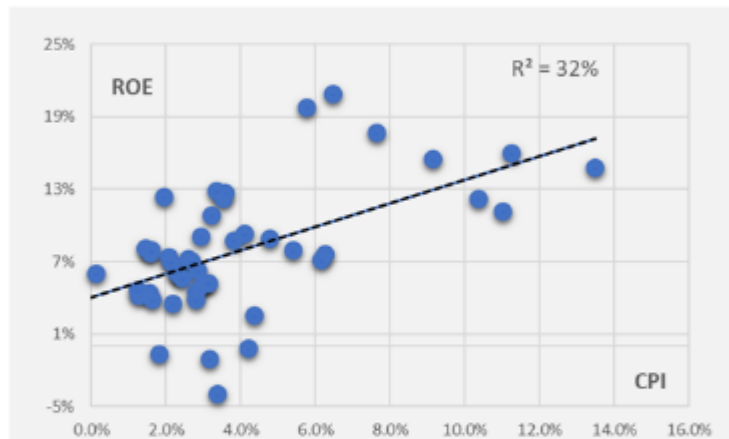
Source: A.M. Best, © 2022 S&P Global Market Intelligence, St. Louis Fed (FRED), Assured Research

Research and Analysis for Insurance and Investment Professionals

Assured Research, LLC

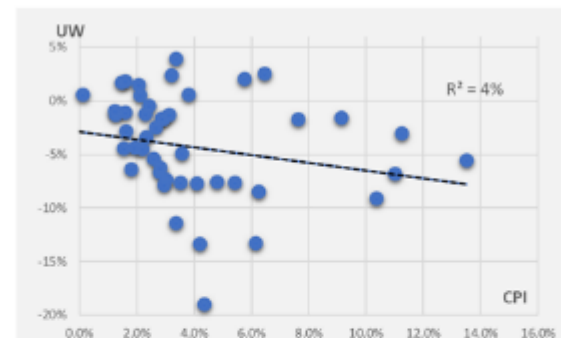
POSITIVE CORRELATION BETWEEN CPI AND COMMERCIAL LINES ROE

Commercial Lines: ROE and the CPI (1 Year Lag)

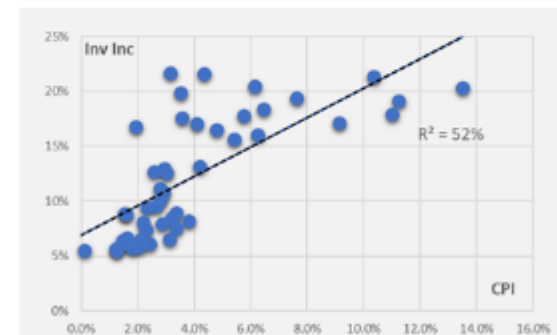


Source: A.M. Best, ©2022 S&P Global Market Intelligence, Assured Research

Commercial Lines: UW/CPI (1 Year Lag)



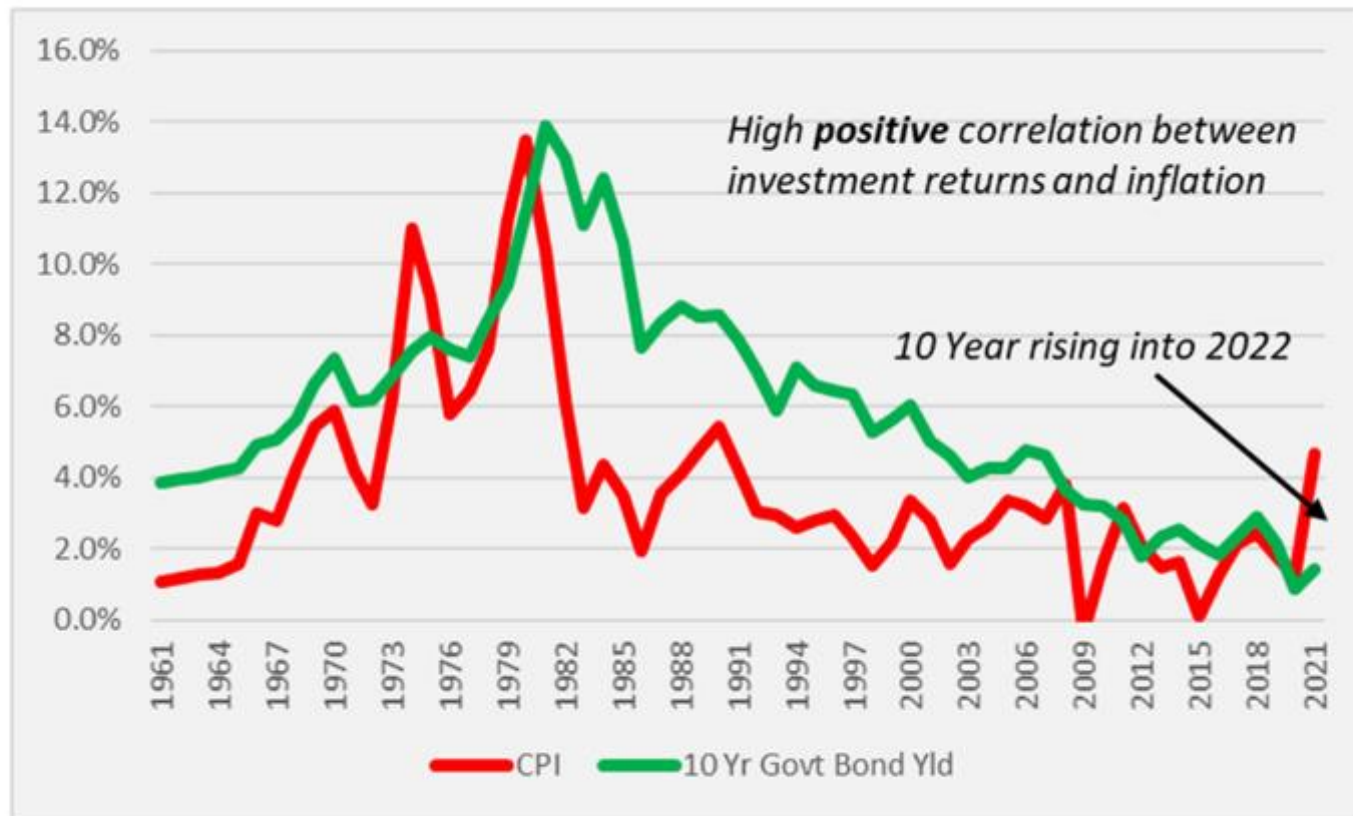
Commercial Lines: NII/CPI (1 Year Lag)



Research and Analysis for Insurance and Investment Professionals

Assured Research, LLC

STRONG POSITIVE CORRELATION CPI/INTEREST RATES



Research and Analysis for Insurance and Investment Professionals

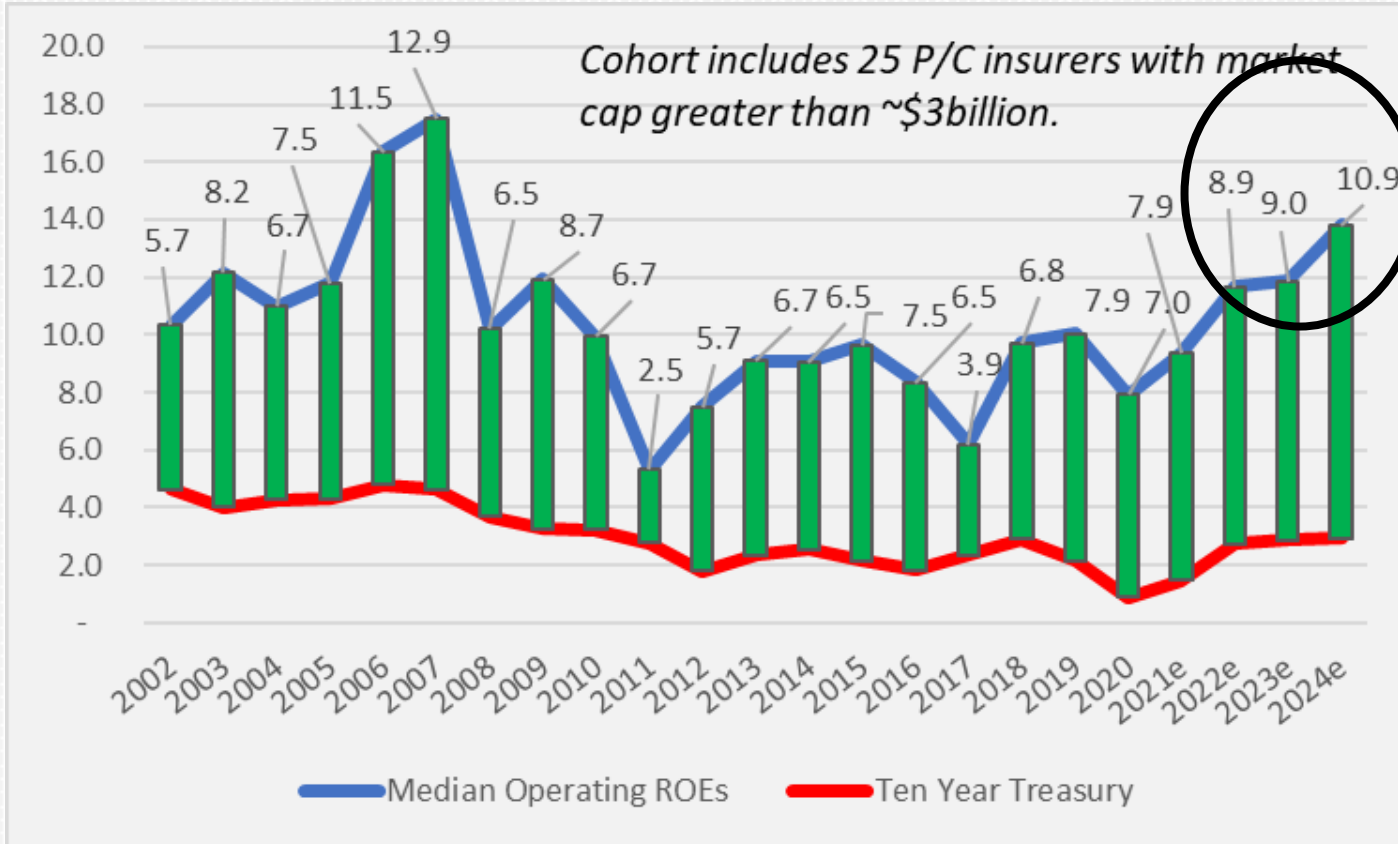
OUTLINE OF EXHIBITS

- ◆ **Our Takeaways!**
- ◆ **Economic Inflation**
 - Tools for looking back/tracking in “real” time
 - Tools for looking ahead
- ◆ **Social Inflation**
 - Indicators that we are watching
 - Don’t expect tort reform
- ◆ **An Historical Look at the Impact of Inflation: (Re)insurers got this!**
 - U/W and inflation
 - ROEs and inflation
- ◆ **Summary and Looking Ahead**

PUTTING IT ALL TOGETHER

- ◆ **History teaches us that the earnings cycle follows the pricing cycle**
 - CR tends to decline for ~ 3 years after the peak of each pricing cycle
- ◆ **Reserve balances appear broadly healthy with particular redundancies (we think) in workers' compensation**
- ◆ **Insurers are adept at neutralizing the adverse impact of inflation through pricing; investment income rises as interest rates increase**
- ◆ **That means...**
- ◆ **Insurers' ROEs can be expected to increase over the next few years**

EARNINGS FORECASTED TO RISE 2022-2024E



The earnings cycle follows the pricing cycle...and neither analysts nor insurers seem offput by rising economic inflation (or risk of recession)

Sources: ©2022S&P Global Market Intelligence, WSJ (Treasury forecast April, 2022), Assured Research. Pricing data as of 4/19/22



Assured Research, LLC

Thanks for
your
attention!

IA and CAS Spring Meeting
Economic and Social Inflation

Learn
more/request
free trial:

Assured Research

May 16, 2022



Research and Analysis for Insurance and Investment Professionals