Workers Compensation & the Property-Casualty Insurance Industry

The Industry Amid Cyclical Change

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Outline

- **Workers Compensation in the Property/Casualty Universe**
  - ***Small(er) but Still Mighty***
- **A Cyclical Shift Is Underway**
  - ***Where do the P/C industry and WC go from here?***
- **Economic Drivers of Workers Compensation**
  - ***Economic growth amid fragile labor markets—and worried workers***
- **Artificial Intelligence**
  - ***Opportunity or Apocalypse***
- **Summary and Q&A**

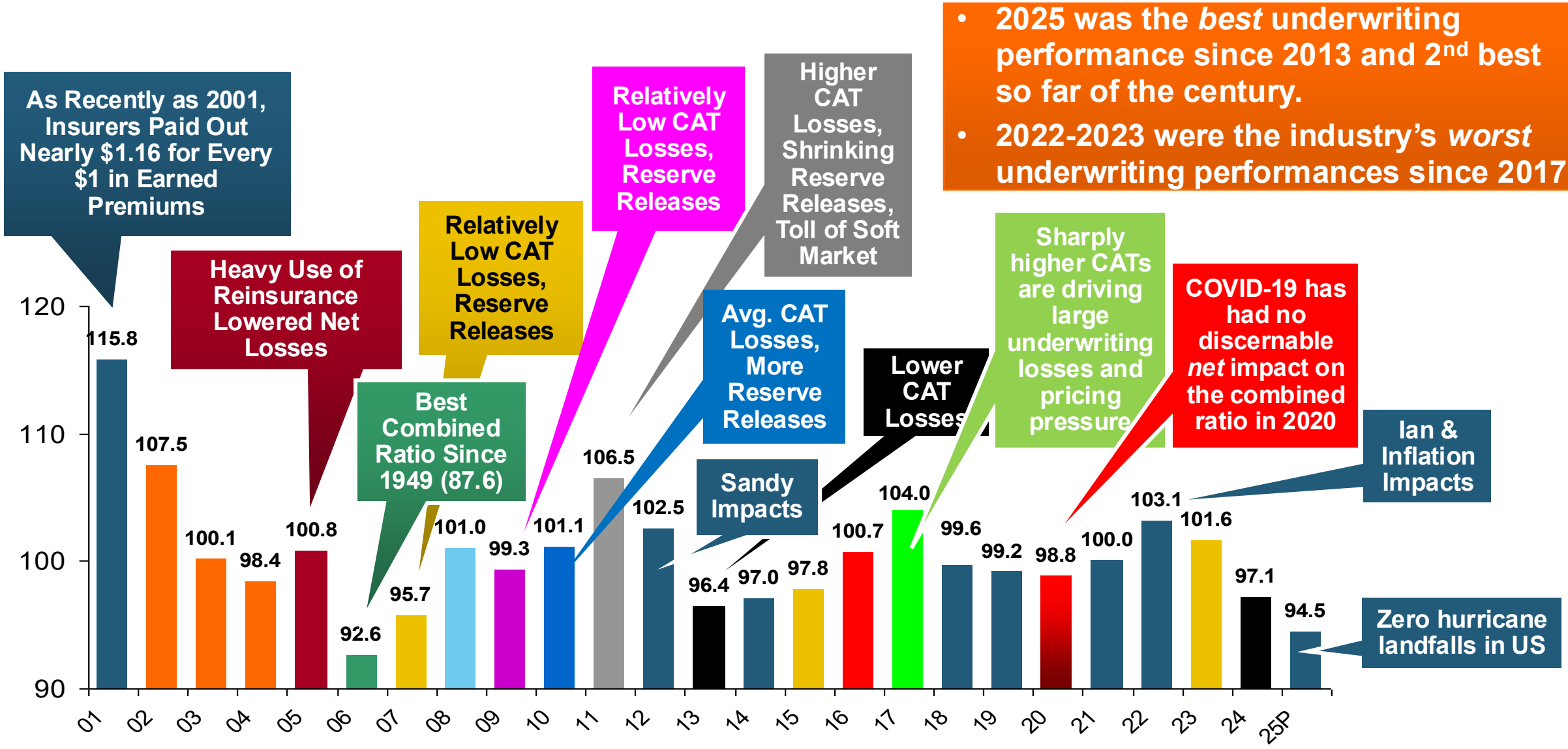
P/C Insurance Industry Financial Performance *Workers Compensation's Key Role*

2025: A Cyclical Zenith for P/C Insurance

WC: Small(er) but Mighty

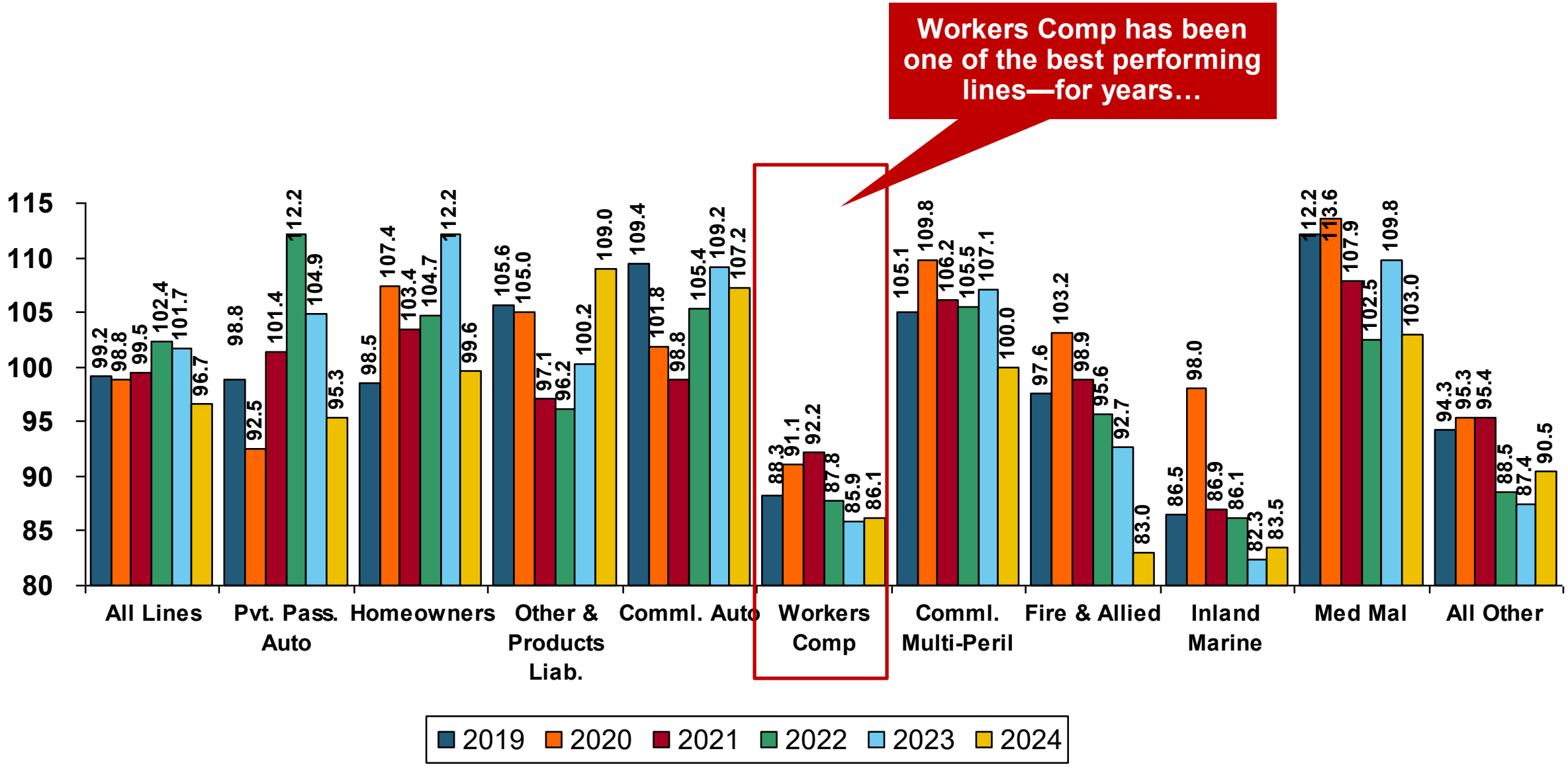
3

P/C Insurance Industry Combined Ratio, 2001–2025E*



*Excludes Mortgage & Financial Guaranty insurers 2008–2025F.
Sources: A.M. Best, ISO (2001-2023). S&P Global Intelligence (2024-2025P).

Combined Ratios by Line: 2019 – 2024*

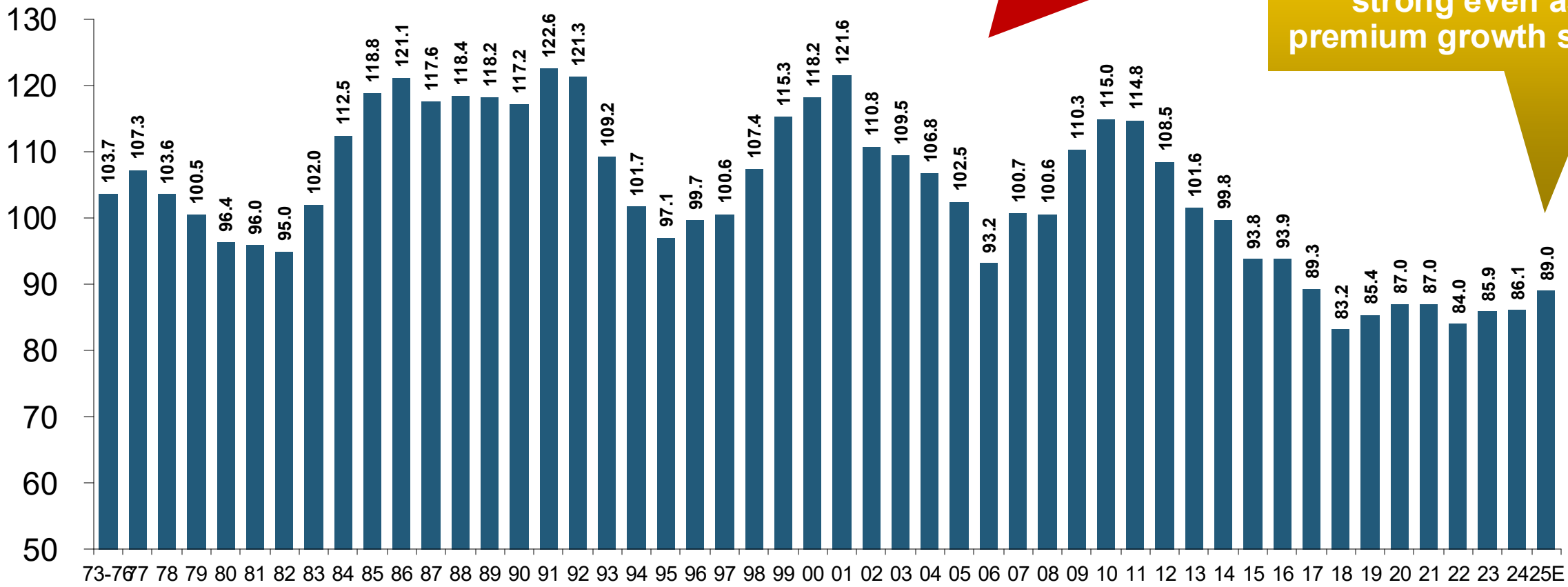


Source: A.M. Best *Review & Preview* (2019-2023) and *2024 P/C Snapshot* (as of June 26, 2025);. WC figures for 2023-2024p from NCCI; Univ. of South Carolina, Risk and Uncertainty Management Center.

Workers Comp Combined Ratios: 1973 – 2025E*

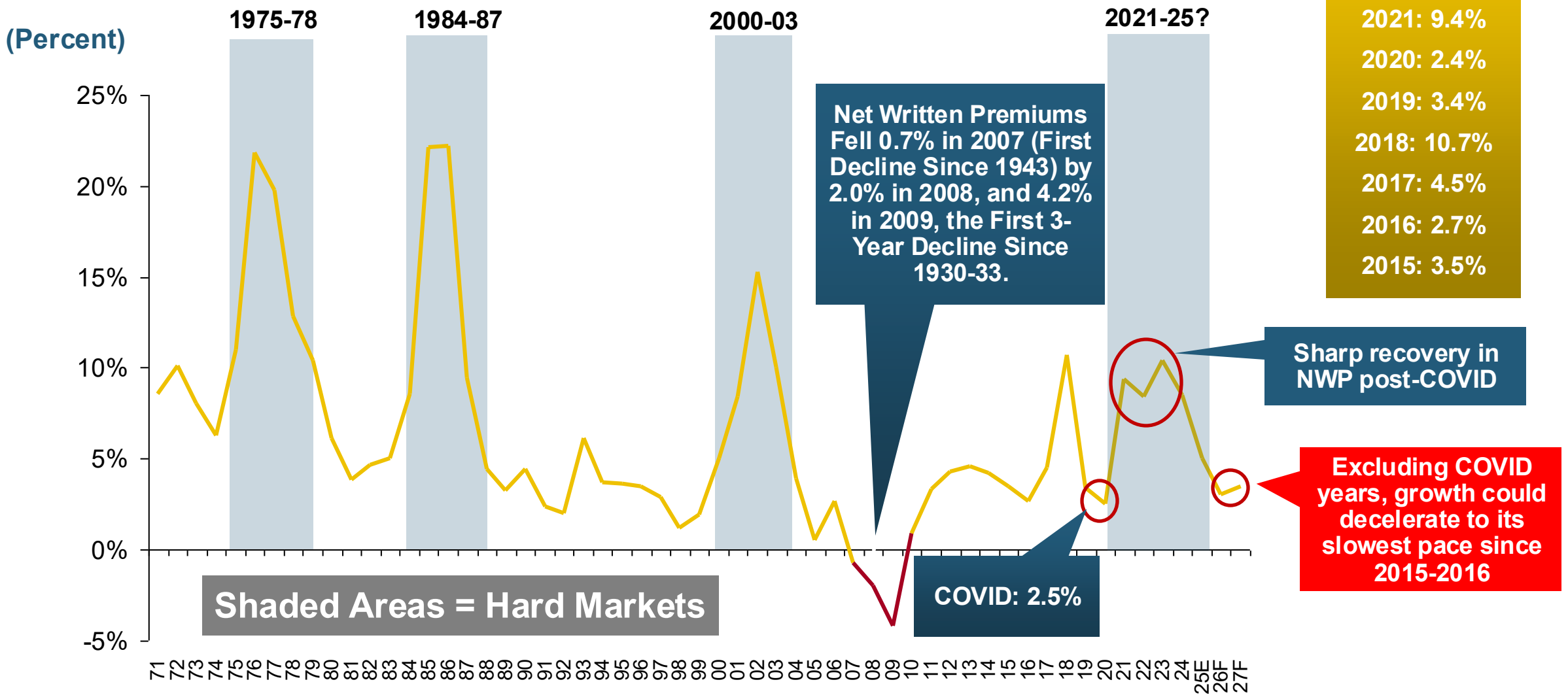
…that has not always been the case!

WC underwriting results remain relatively strong even as premium growth slows



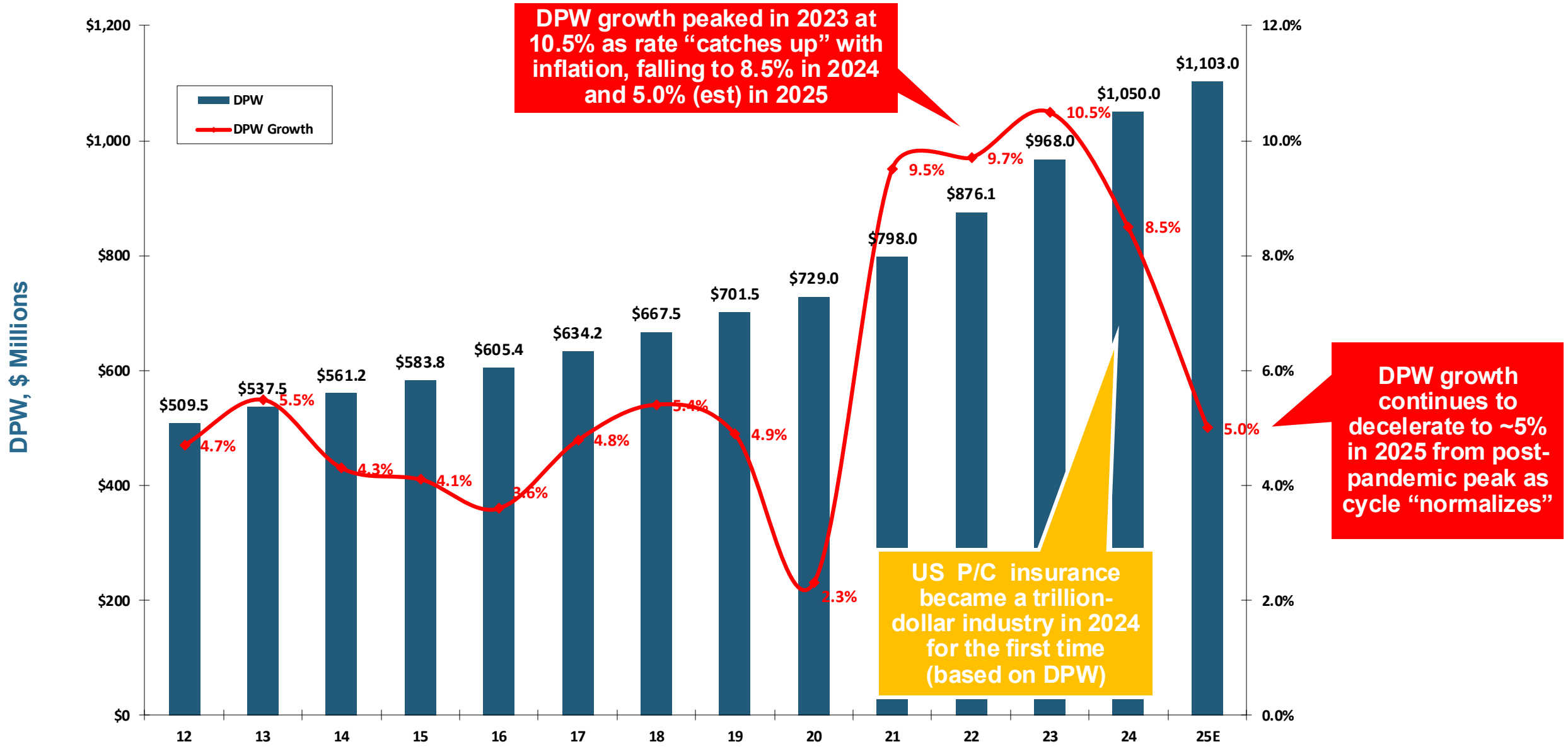
*2025E is midpoint of NCCI private carrier all state projection (https://www.ncci.com/Articles/Pages/Insights-2025-in-Sight-2024-in-Review.aspx).
Note: Data for 1973-1984 are calculated from incurred loss and expense data, excluding policyholder dividends, as sourced below, and are for stock companies only.
Sources: *Social Security Bulletin*, July 1988 (v. 51, n. 7) accessed at: https://www.ssa.gov/policy/docs/ssb/v51n7/v51n7p4.pdf; NAIC Annual Statement (1985-2022); NCCI (2023-24); University of South Carolina, Risk and Uncertainty Management Center .

Net Written Premium Growth (All P/C Lines): Annual Change, 1971–2027F



NOTE: Shaded areas denote “hard market” periods.
Sources: A.M. Best (1971-2013, 2020-2024), ISO (2014-2019); Risk & Uncertainty Management Center, Univ. of South Carolina

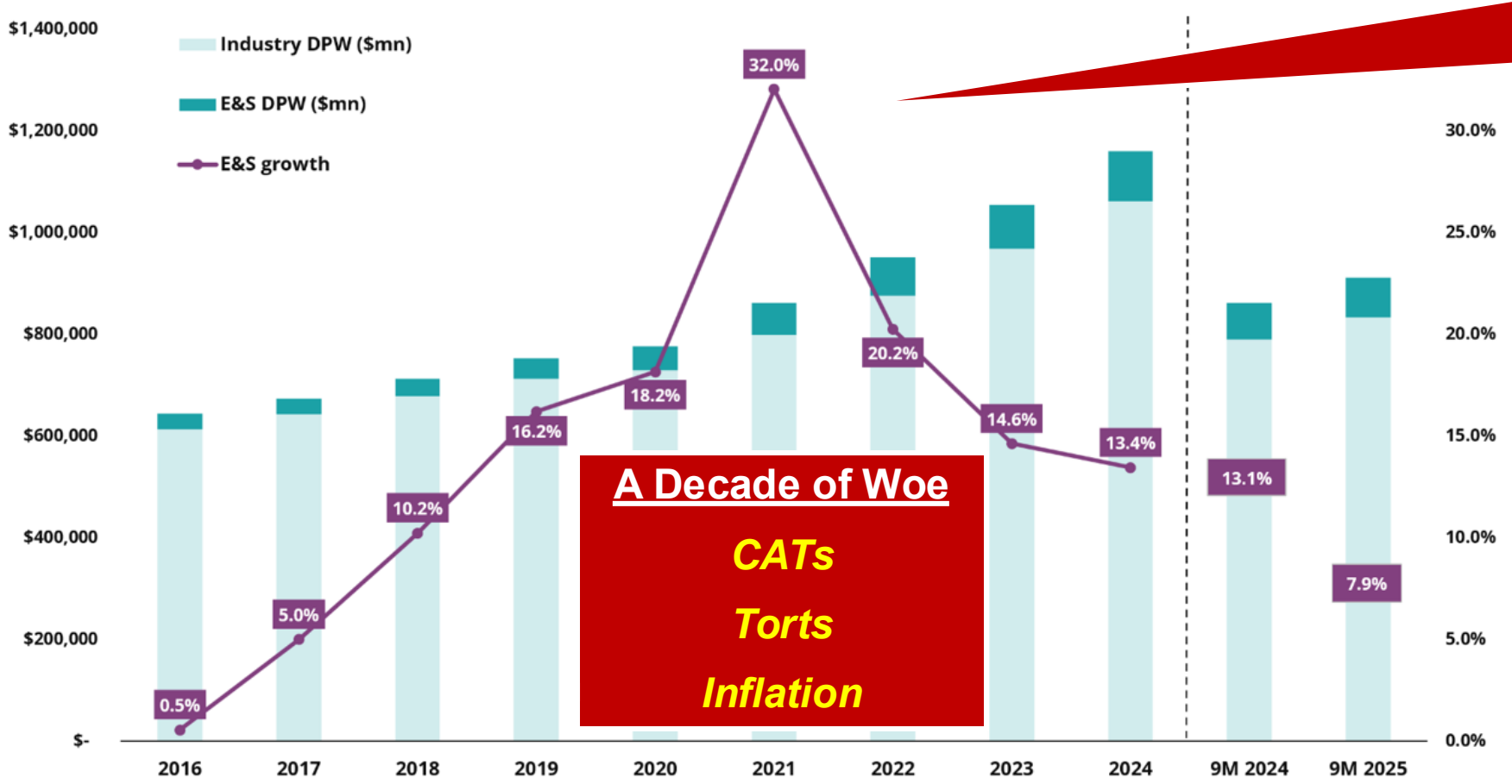
P/C Direct Premiums Written Volume and Growth, 2010–2025E



Sources: A.M. Best, NAIC and S&P Global (2010-2024); Forecast figures for 2025 from Swiss Re Institute "*US Property & Casualty Outlook:*," (Jan. 2026), accessed at: https://www.swissre.com/dam/jcr:b2178beb-350f-406e-8714-63ea4b3fe2e1/swiss-re-institute-us-pc-dog-days-are-over.pdf.

US Excess & Surplus DPW and DPW Growth vs. Total P/C Industry, 2016 – 2025:9M

$ Millions



A Decade of Woe

CATs

Torts

Inflation

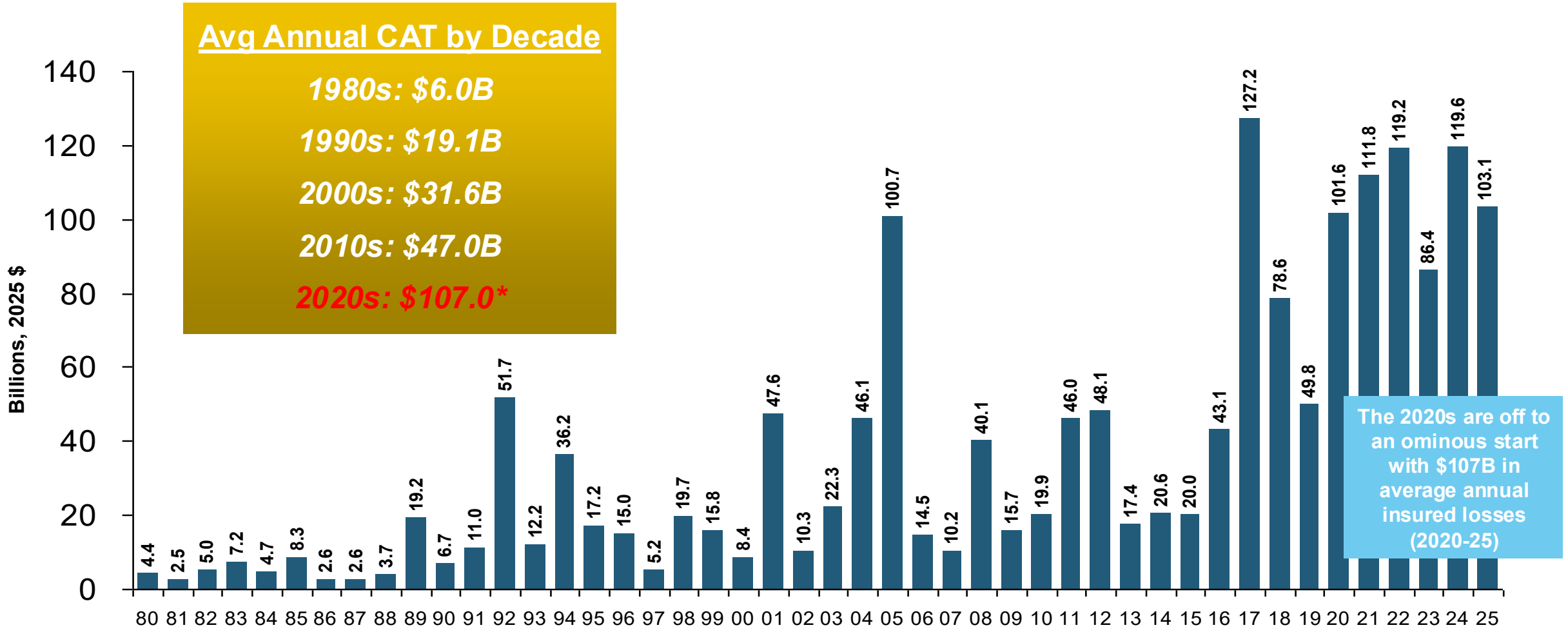
Challenging conditions in Property and certain (non-WC) casualty lines have fueled rapid E&S market growth for the better of a decade

Worker Comp has served as a calm and stable refuge from an underwriting and profitability perspective over the past decade

This a major shift for WC, which in previous cycles had been a major contributor to the industry's deteriorating underwriting and worsening profitability

Source: S&P Capital IQ, Insurance Insider US Research.

U.S. Inflation-Adjusted Insured CAT Losses: 1980 – 2025

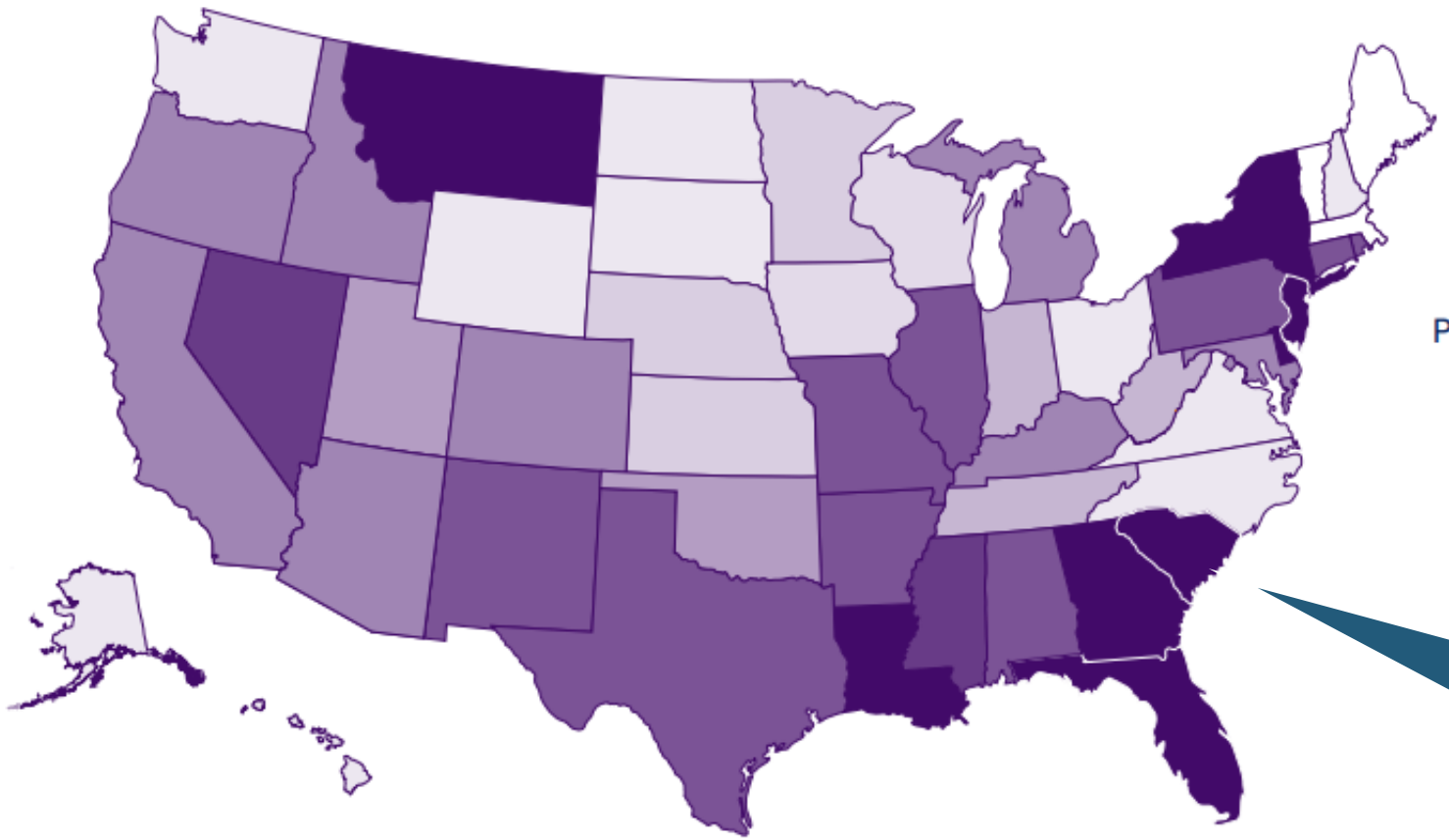


Average Insured Loss per Year
1980-2025: $36.5 Billion
2017-2025: $99.7 Billion

*Average for the years 2020 – 2025.

Sources: Property Claims Service, a Verisk Analytics business (1980-2016); 2017-2025 figures from Aon. University of South Carolina, Risk & Uncertainty Management Center.

Tort Costs as Percent of State GDP, by State (2022)

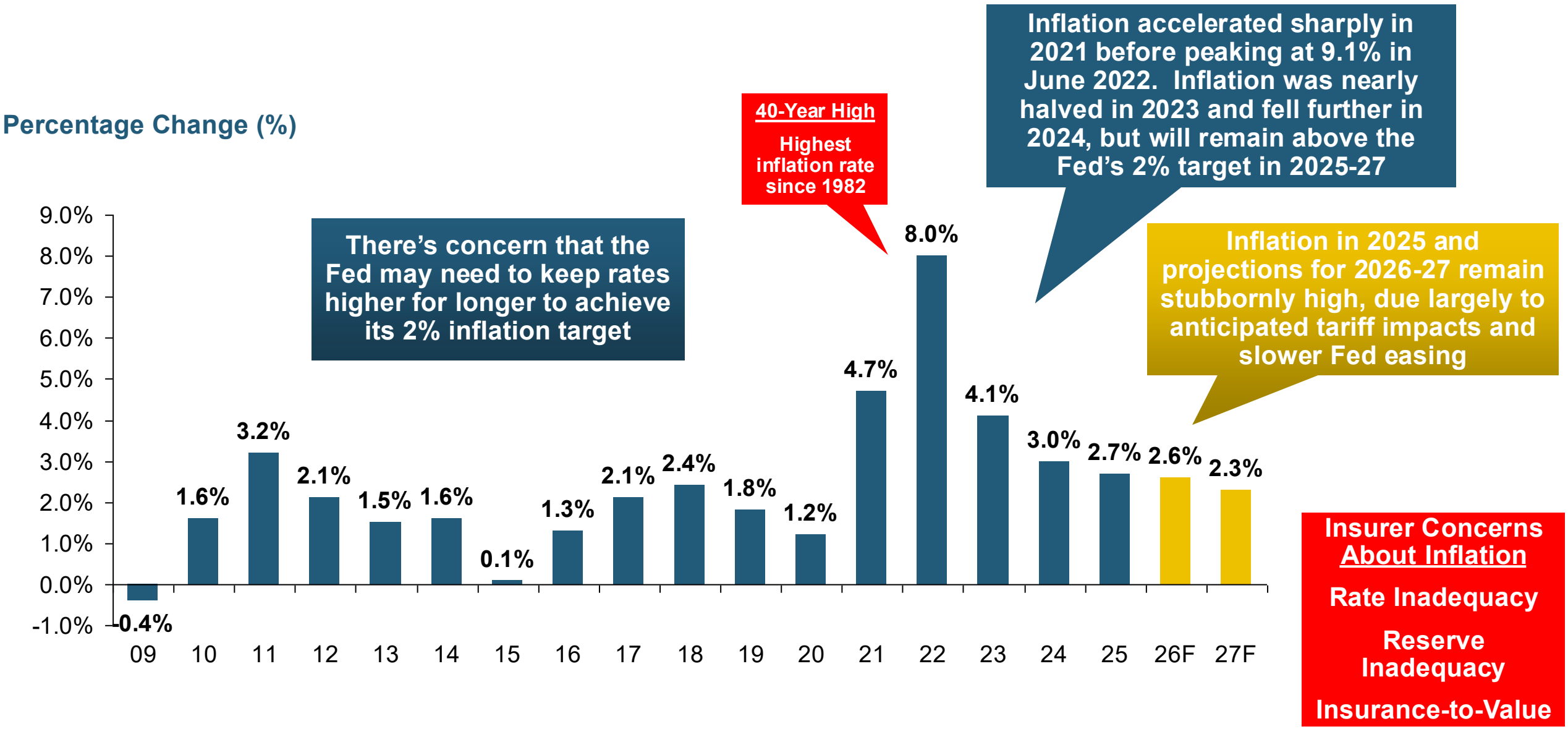


On a Per Household basis, the US "tort tax" equated to $4,207 in 2022

Tort costs as a share of GDP stood at 2.07% for the US overall in 2022 but are materially higher in the Southeast

Source: US Chamber of Commerce Institute for Legal Reform (Nov. 2024), "Tort Costs in America: An Empirical Analysis of Costs and Compensation of the U.S. Tort System" (3rd Edition) accessed at: https://instituteforlegalreform.com/research/tort-costs-in-america-an-empirical-analysis-of-costs-and-compensation-in-the-u-s-tort-system-third-edition/. Risk and Uncertainty Management Center, Univ. of South Carolina.

U.S. Inflation Rate: 2009-2027F*



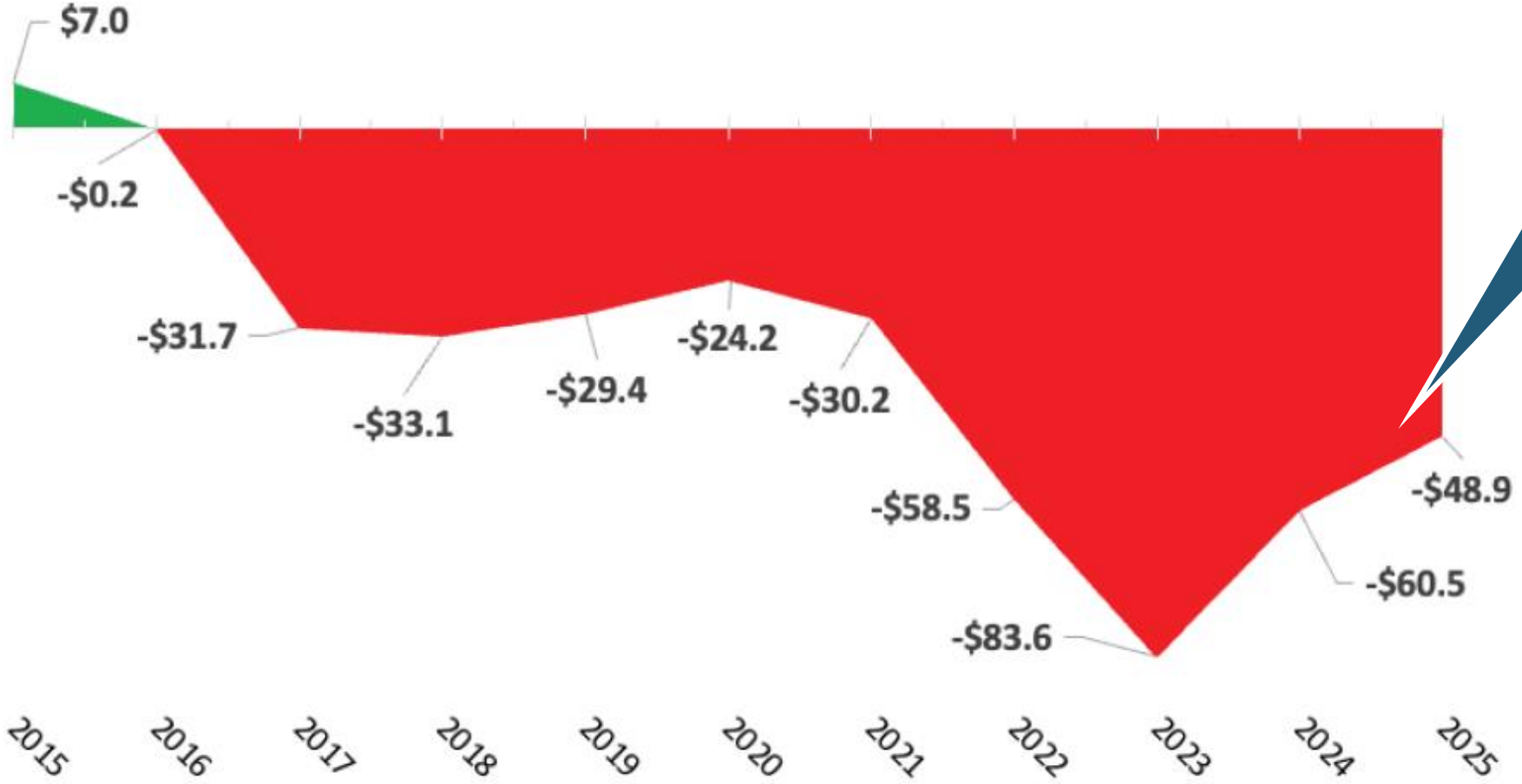
Insurer Concerns About Inflation

- Rate Inadequacy
- Reserve Inadequacy
- Insurance-to-Value

*Annual change in Consumer Price Index for All Urban Consumers (CPI-U).

Source: U.S. Bureau of Labor Statistics; Wells Fargo Securities (2/26); USC Center for Risk and Uncertainty Management.

P/C Cumulative 10-Year Underwriting Losses
($ Billions of 2025 Dollars)



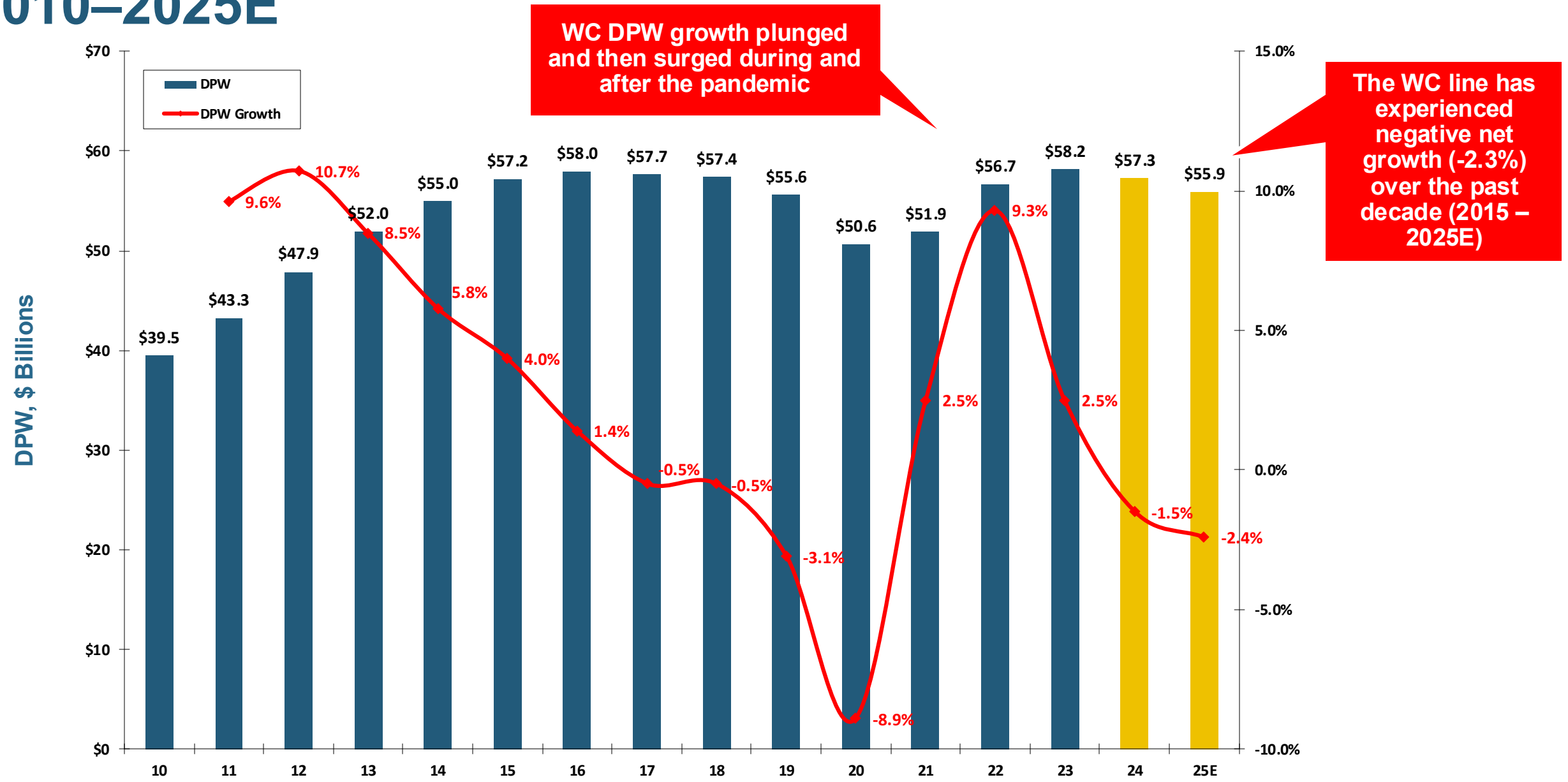
The P/C insurance industry is digging itself out of huge underwriting hole

WC has been helping to fill it!

*Net Reported Underwriting Gain or Loss after Policyholder Dividends, July 1, 2015 to June 30, 2025, adjusted by CPI.

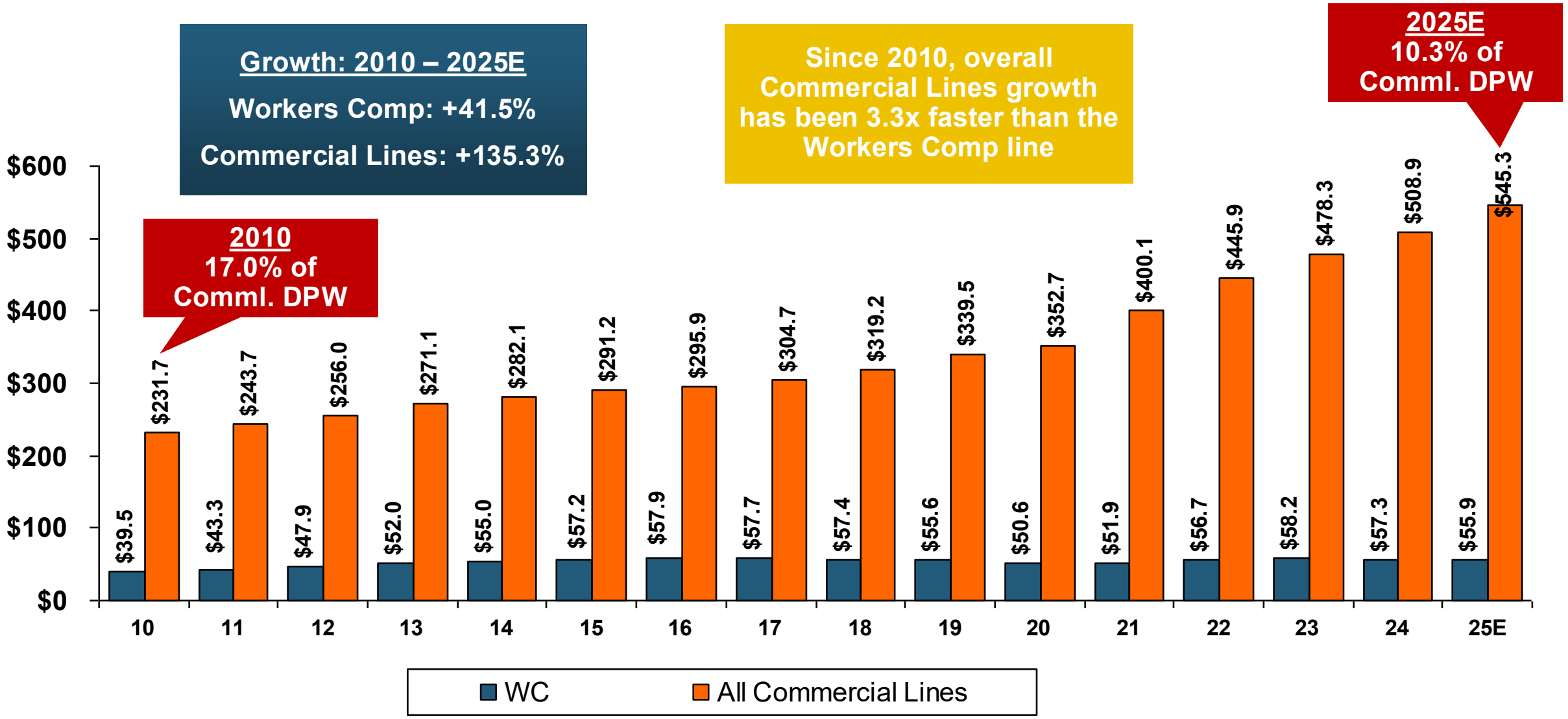
Source: APCIA from S&P Global data as of Oct. 8, 2025.

Workers Comp Direct Premiums Written Volume and Growth, 2010–2025E



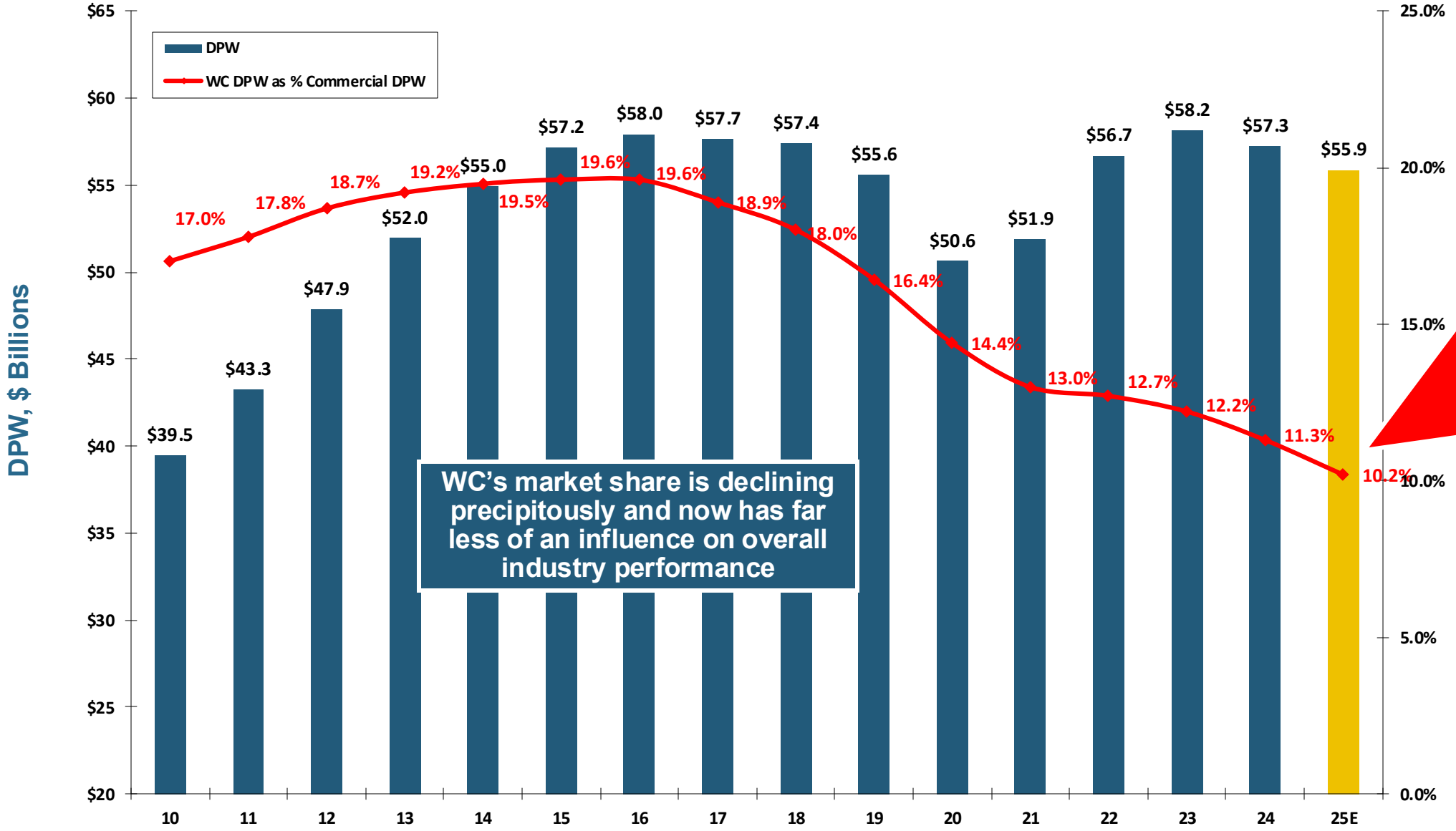
Sources: APCIA vis S&P Global. 2025 figure is estimate based on data through Q3.

WC vs Commercial All Lines DPW: 2010 – 2025E



*2025 figures are annualized based on actuals through 9M.
Source: APCIA via S&P Global Market Intelligence; Univ. of South Carolina, Risk and Uncertainty Management Center.

Workers Comp DPW and as a Percent of Commercial Lines DPW, 2010–2025E



WC DPW as % of Commercial Lines DPW fell by nearly half from 2026 to 2025—from 19.6% to 10.2%.

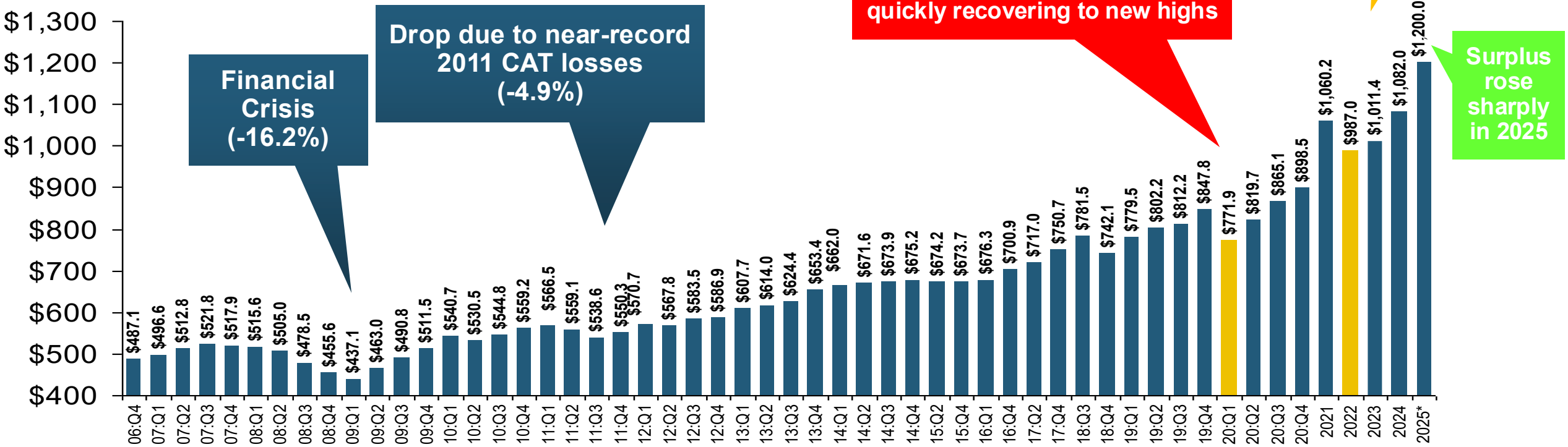
Why?

WC premium volumes have remained roughly flat over the past decade while most other major commercial lines experienced hard market conditions

Sources: APCIA vis S&P Global. 2025 figure is estimate based on data through Q3.

Policyholder Surplus (Capacity), 2006:Q4 – 2025:9M

($ Billions)

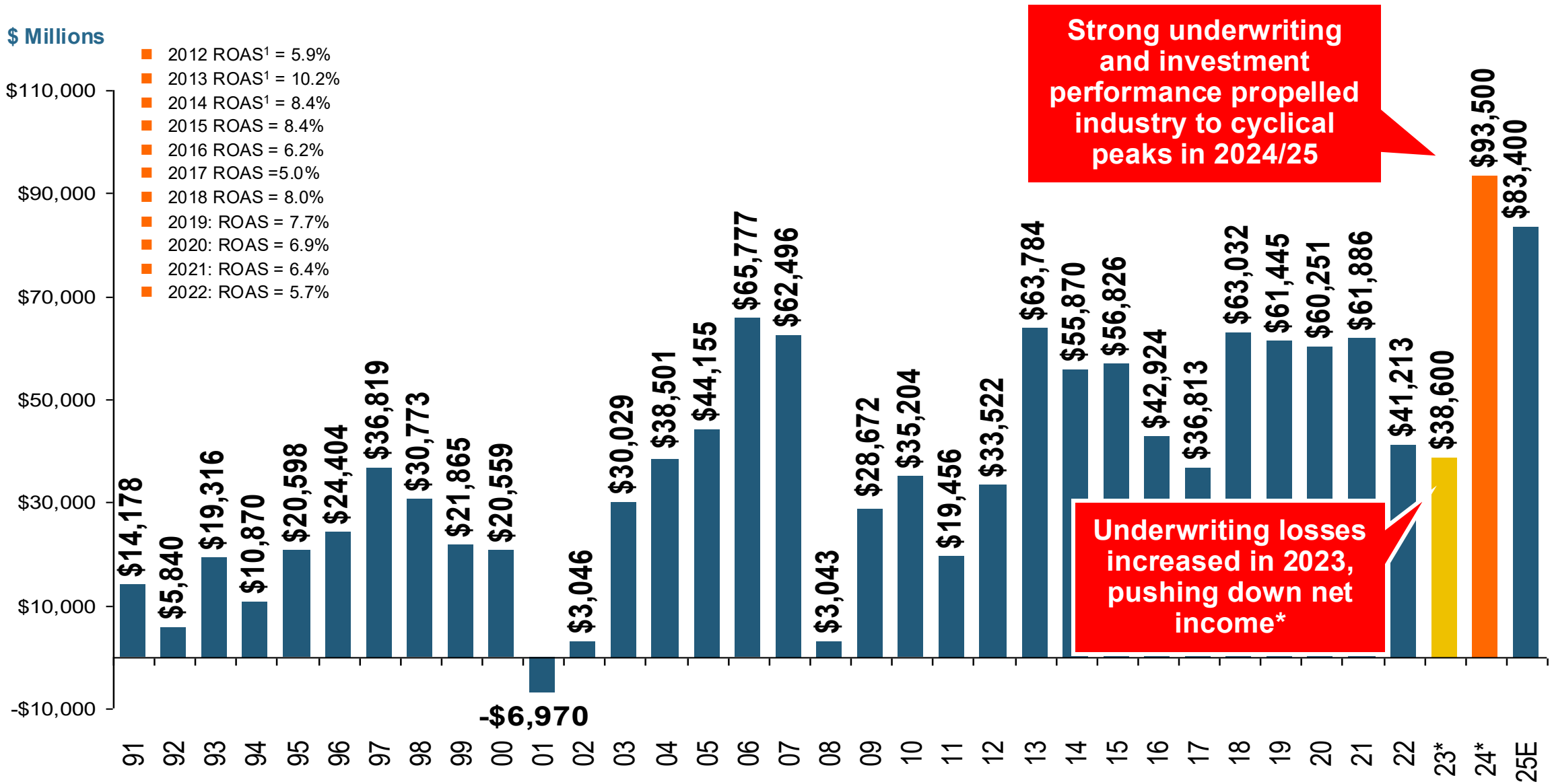


Policyholder Surplus is the industry's financial cushion against large insured events, periods of economic stress and financial market volatility. It is also a source of capital to underwrite new risks.

Note: Through Sept. 30, 2025.

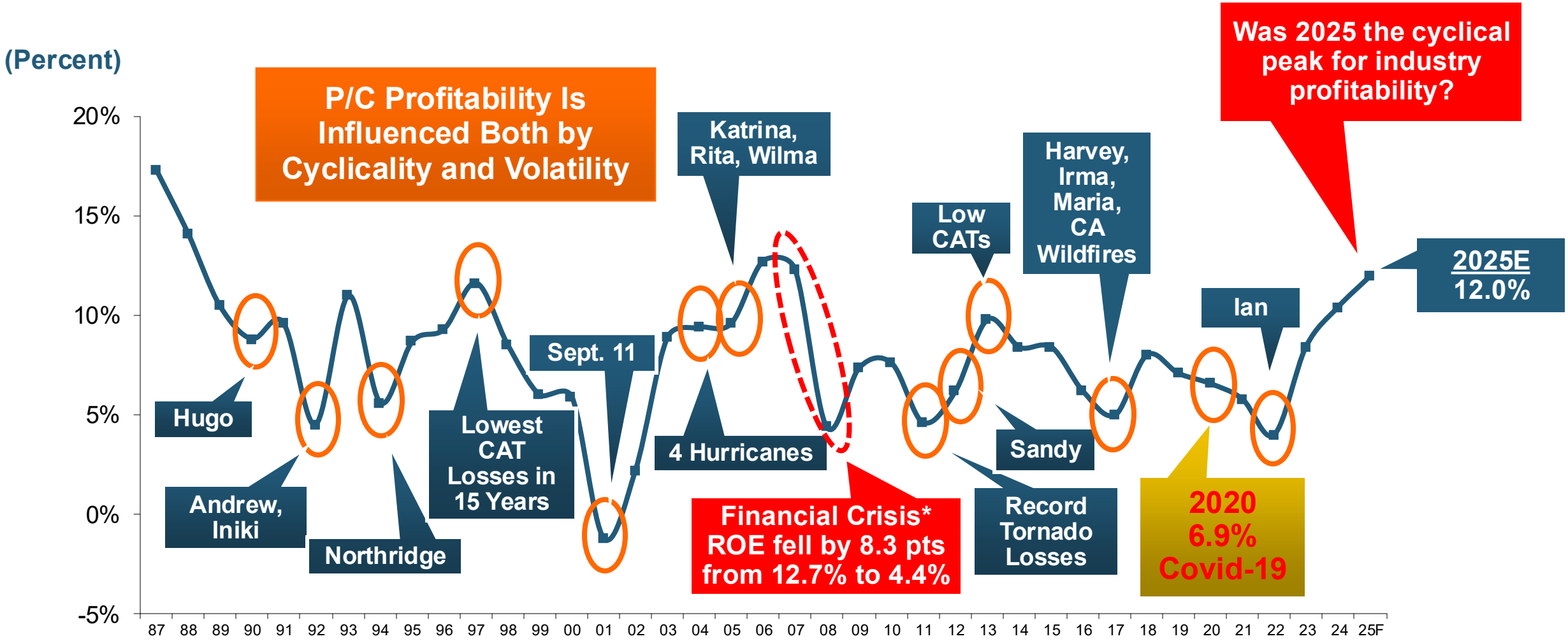
Sources: ISO, A.M. Best, NAIC. Risk and Uncertainty Management Center, University of South Carolina.

P/C Industry Net Income After Taxes, 1991–2025E*



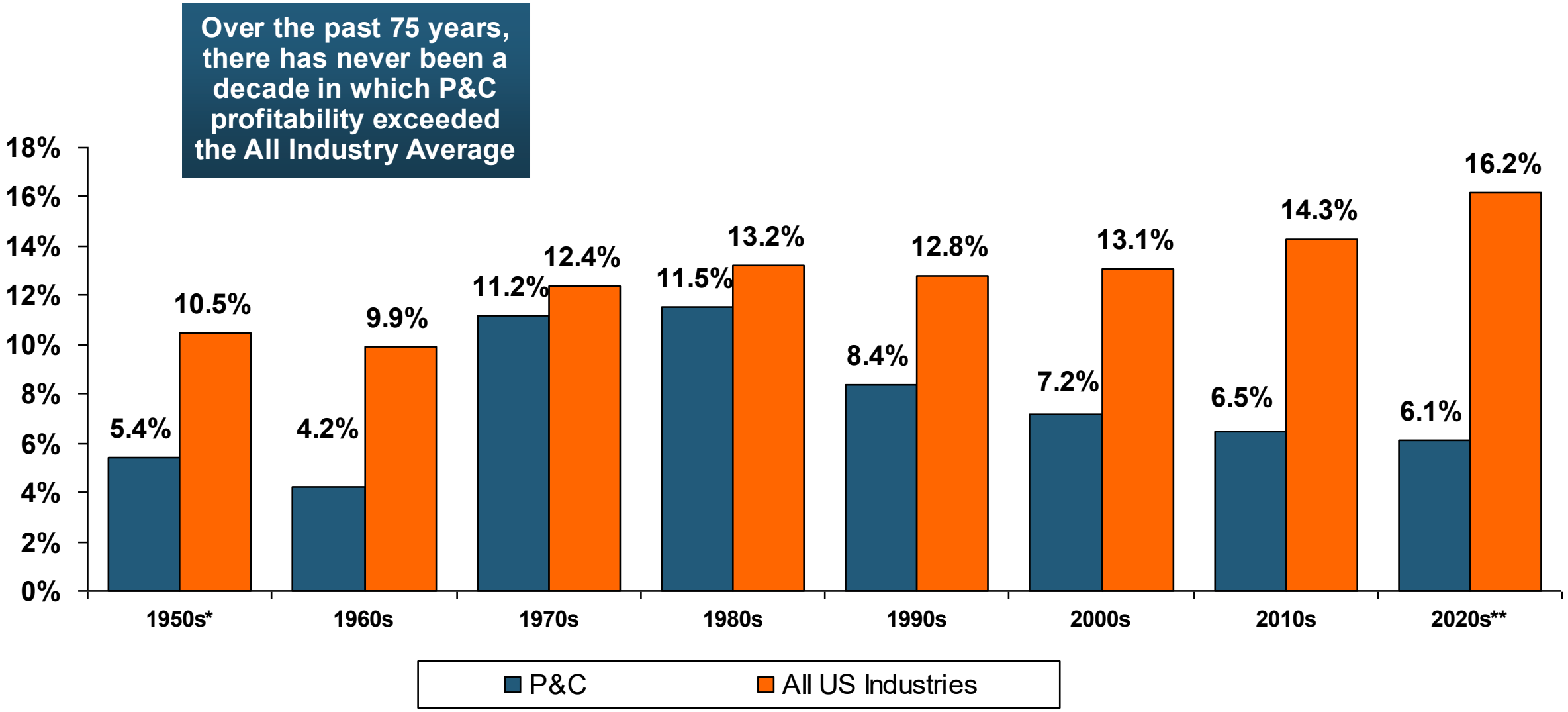
*2023 and 2024 figures are adjusted is adjusted to reflect $50B realized gain from a large reinsurer (National Indemnity). Including this gain, net income after tax is $86.6B in 2023 and $94.7B in 2024:H1.
Note: ROE figures are GAAP; [1]Return on avg. surplus. Excludes Mortgage & Financial Guaranty insurers for years (2009-2014).
Sources: A.M. Best, ISO, APCIA.

ROE: Property/Casualty Insurance by Major Event, 1987–2025E



*Excludes Mortgage & Financial Guarantee in 2008 – 2025F.
Sources: A.M. Best, ISO, *Fortune,* APCIA; USC RUM Center.

Average ROEs by Decade: 1950s – 2020s*



*2020s: 2020-2023
**1950s:1952-1959
Source: NAIC, NCCI;. Univ. of South Carolina, Risk and Uncertainty Management Center.

ROE: WC vs. P/C All Lines and Fortune All Industry, 2009–2023*

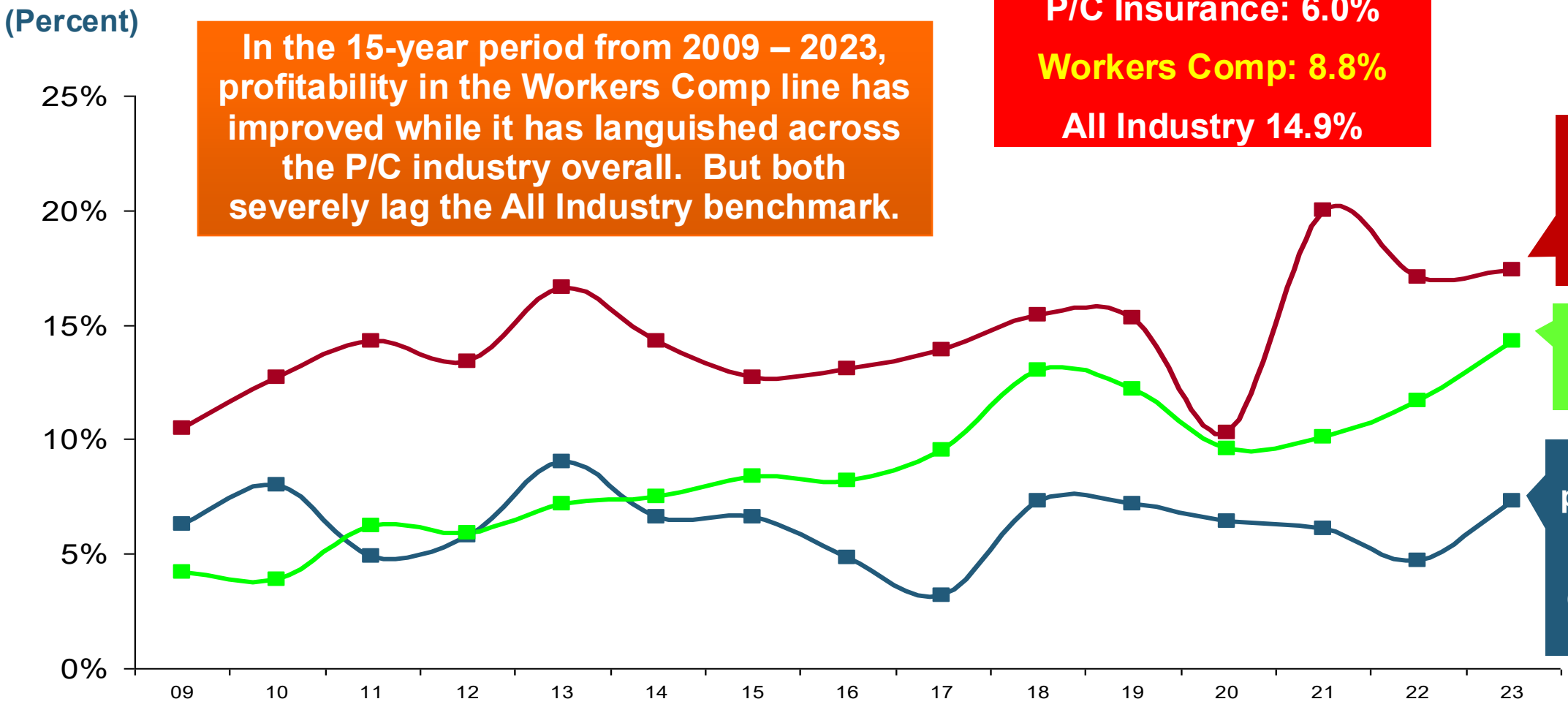
Avg. ROE*

P/C Insurance: 6.0%

Workers Comp: 8.8%

All Industry 14.9%

In the 15-year period from 2009 – 2023, profitability in the Workers Comp line has improved while it has languished across the P/C industry overall. But both severely lag the All Industry benchmark.



All Industry profitability is near its decade high

WC profitability has improved steadily

P/C Insurer profitability rose in 2023 after trending downward from 2018 - 2022

*Latest available from NAIC Profitability by Line, by State reports available at: https://content.naic.org/sites/default/files/publication-pbl-pb-profitability-line-state.pdf.
Sources: NAIC; USC RUM Center.

P&C Insurance:
A Cyclical Shift Is Underway

Will the Market Ahead Be Soft or Sideways?

Commercial Lines Hard Market Began in 2017—
But Workers Comp Was Left Out

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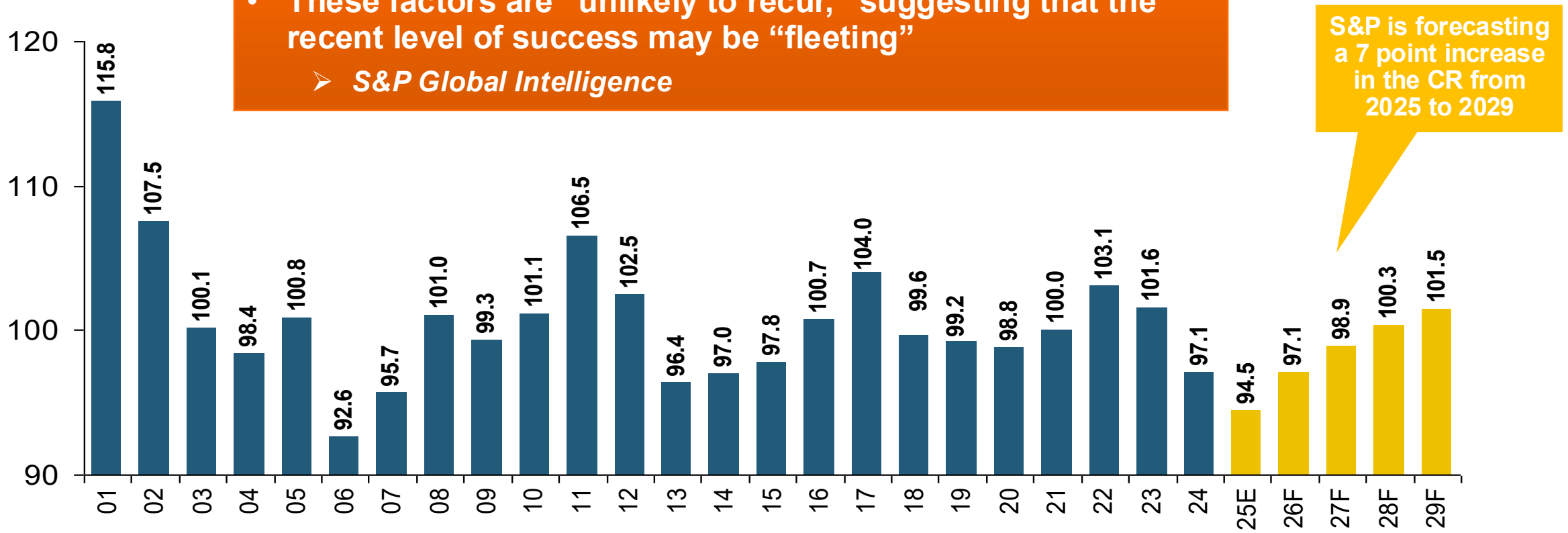
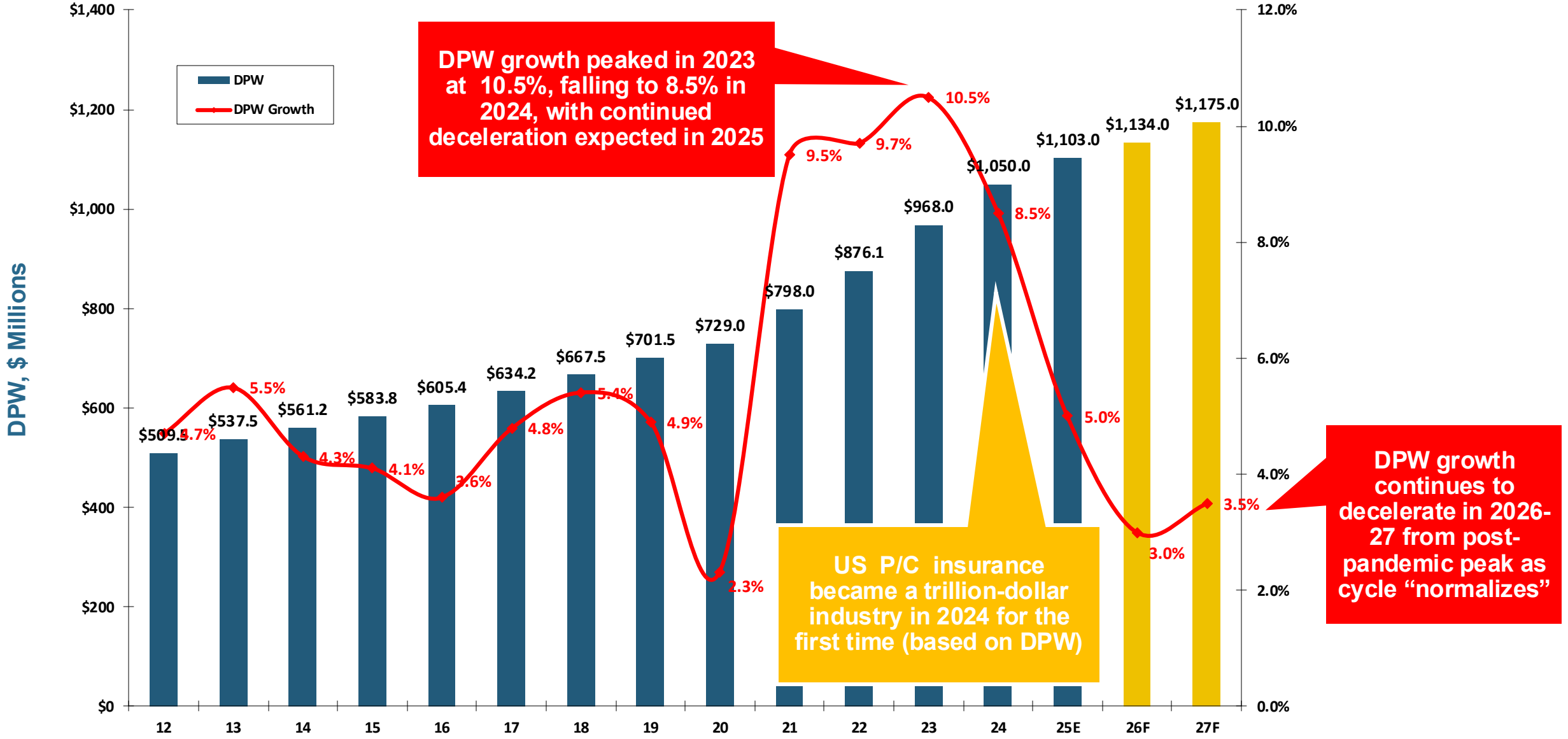
P/C Insurance Industry Combined Ratio, 2001–2029F

- 2025 represented the end of a “generational” hard market in personal lines as well as a “benign” year for CAT losses
- These factors are “unlikely to recur,” suggesting that the recent level of success may be “fleeting”
  - ➢ *S&P Global Intelligence*



Sources: A.M. Best, ISO (2001-2023). S&P Global Intelligence (2024-2029F).

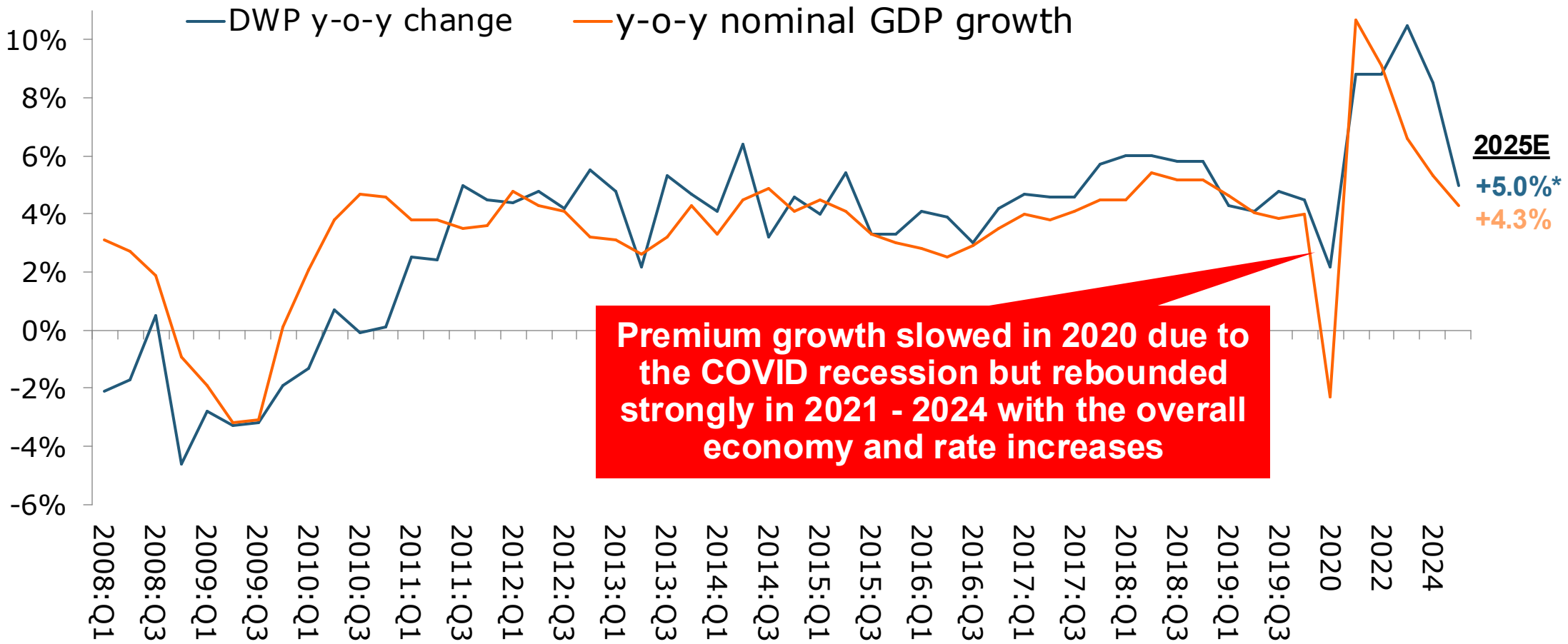
P/C Direct Premiums Written Volume and Growth, 2010–2027F



Sources: A.M. Best, NAIC and S&P Global (2010-2024); Forecast figures for 2025 from Swiss Re Institute "*US Property & Casualty Outlook:*," (Jan. 2026), accessed at: https://www.swissre.com/dam/jcr:b2178beb-350f-406e-8714-63ea4b3fe2e1/swiss-re-institute-us-pc-dog-days-are-over.pdf.

The Economy Drives P/C Insurance Industry Premiums: 2006:Q1–2025F*

Direct Premium Growth (All P/C Lines) vs. Nominal GDP: Quarterly Y-o-Y Pct. Change

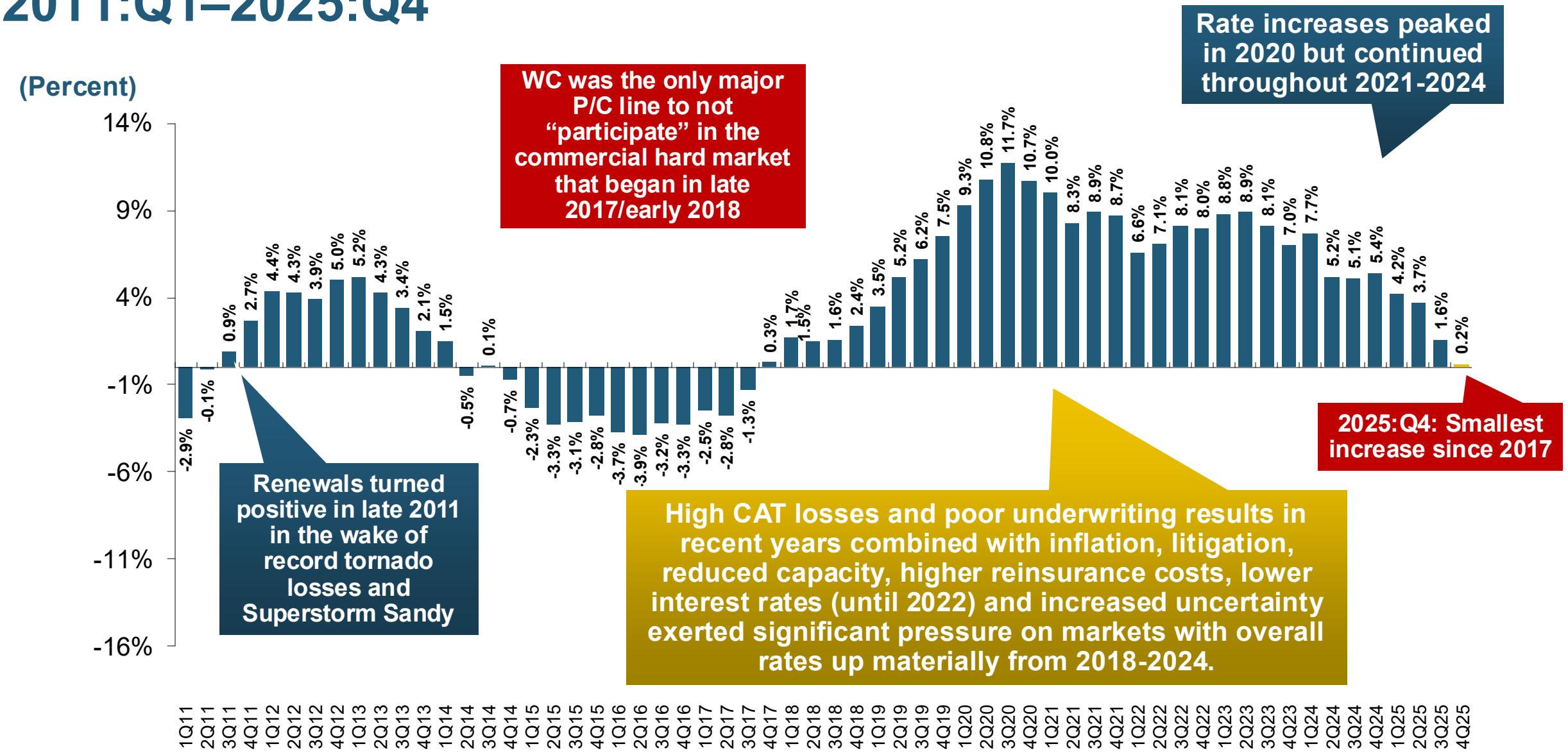


Direct written premiums track nominal GDP fairly tightly over time, suggesting the P/C insurance industry's growth prospects inextricably linked to economic performance.

*2020-25F figures are annual.

Sources: SNL Financial; U.S. Commerce Dept., Bureau of Economic Analysis; ISO;, Swiss Re (2025E) I.I.I.; Risk and Uncertainty Management Center, University of South Carolina.

CIAB: Average Commercial Rate Change, All Lines, 2011:Q1–2025:Q4

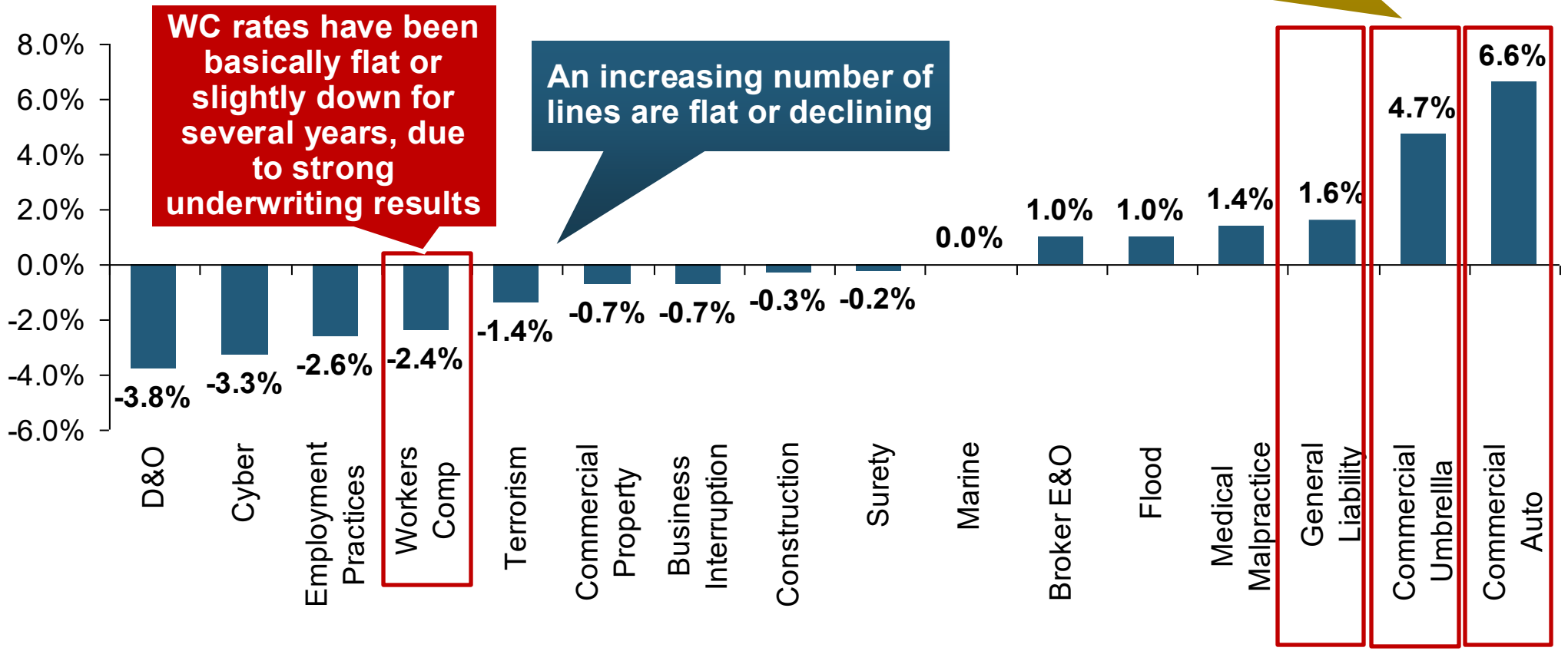


Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents & Brokers; Center for Risk and Uncertainty Management, Univ. of South Carolina.

Change in Commercial Rate Renewals, by Line: 2025:Q4

Commercial Auto, Umbrella and GL are adversely impacted by legal system abuse/social inflation. Commercial Property increases have eased substantially after years of sharp increases due to high CAT losses, inflation and expensive reinsurance.

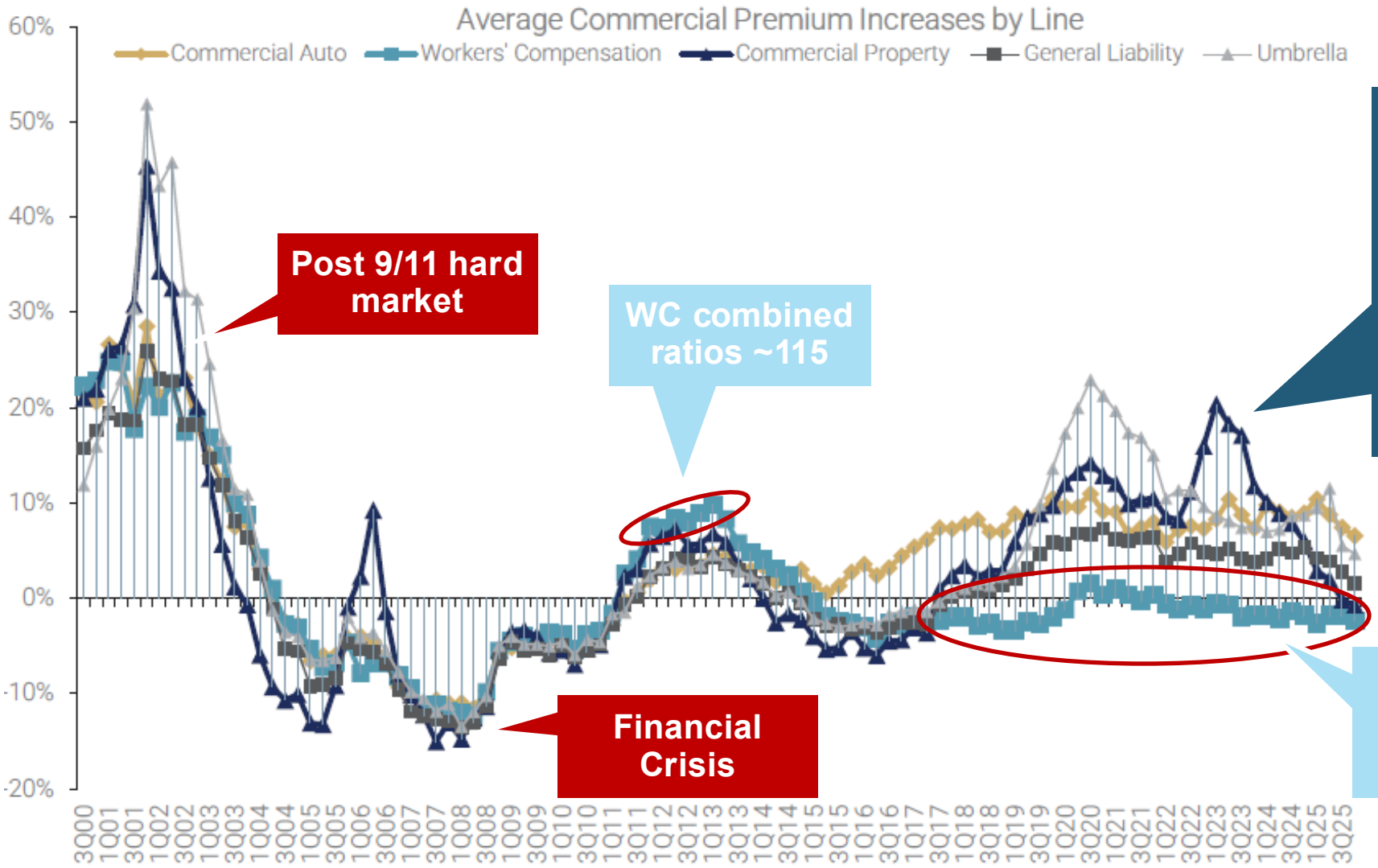
(Percent Change)



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.

Source: Council of Insurance Agents and Brokers; USC Center for Risk and Uncertainty Management.

Average Commercial Premium Increase by Line, 2000:Q3 – 2025:Q4



Post 9/11 hard market

WC combined ratios ~115

Financial Crisis

WC combined ratios hit the mid-80s.

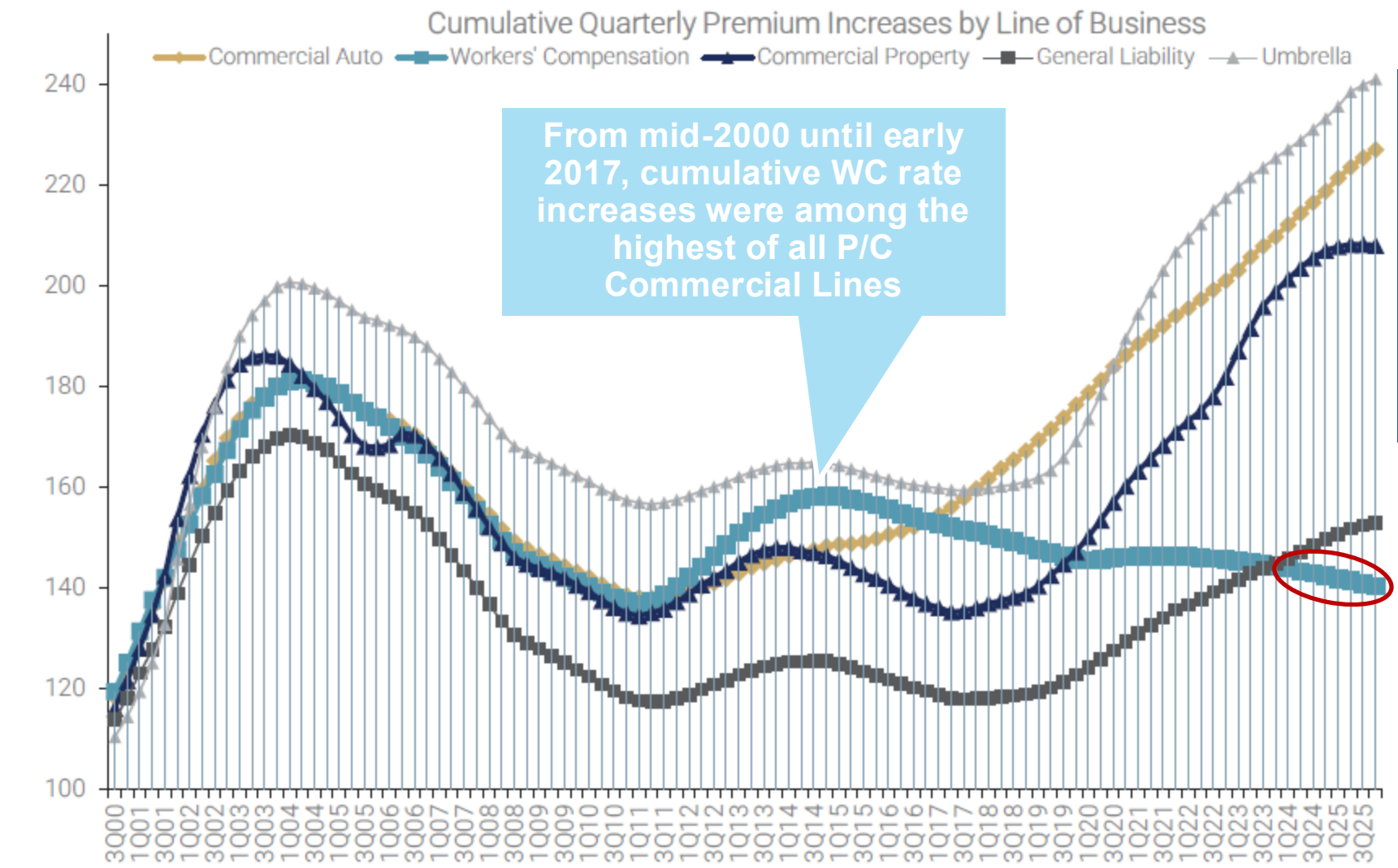
8-year long P/C hard market (2017-2025)driven primarily by CATs, torts and inflation.

WC was the only major P/C line not along for the ride

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.

Source: Council of Insurance Agents and Brokers; USC Center for Risk and Uncertainty Management.

Cumulative Quarterly Premium Increases by Line, 2000:Q3 – 2025:Q4



From mid-2000 until early 2017, cumulative WC rate increases were among the highest of all P/C Commercial Lines

8-year long P/C hard market (2017-2025)driven primarily by CATs, torts and inflation.

WC was the only major P/C line not along for the ride

Cumulative WC rate increases now lag far behind most the major P/C commercial lines

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.

Source: Council of Insurance Agents and Brokers; USC Center for Risk and Uncertainty Management.

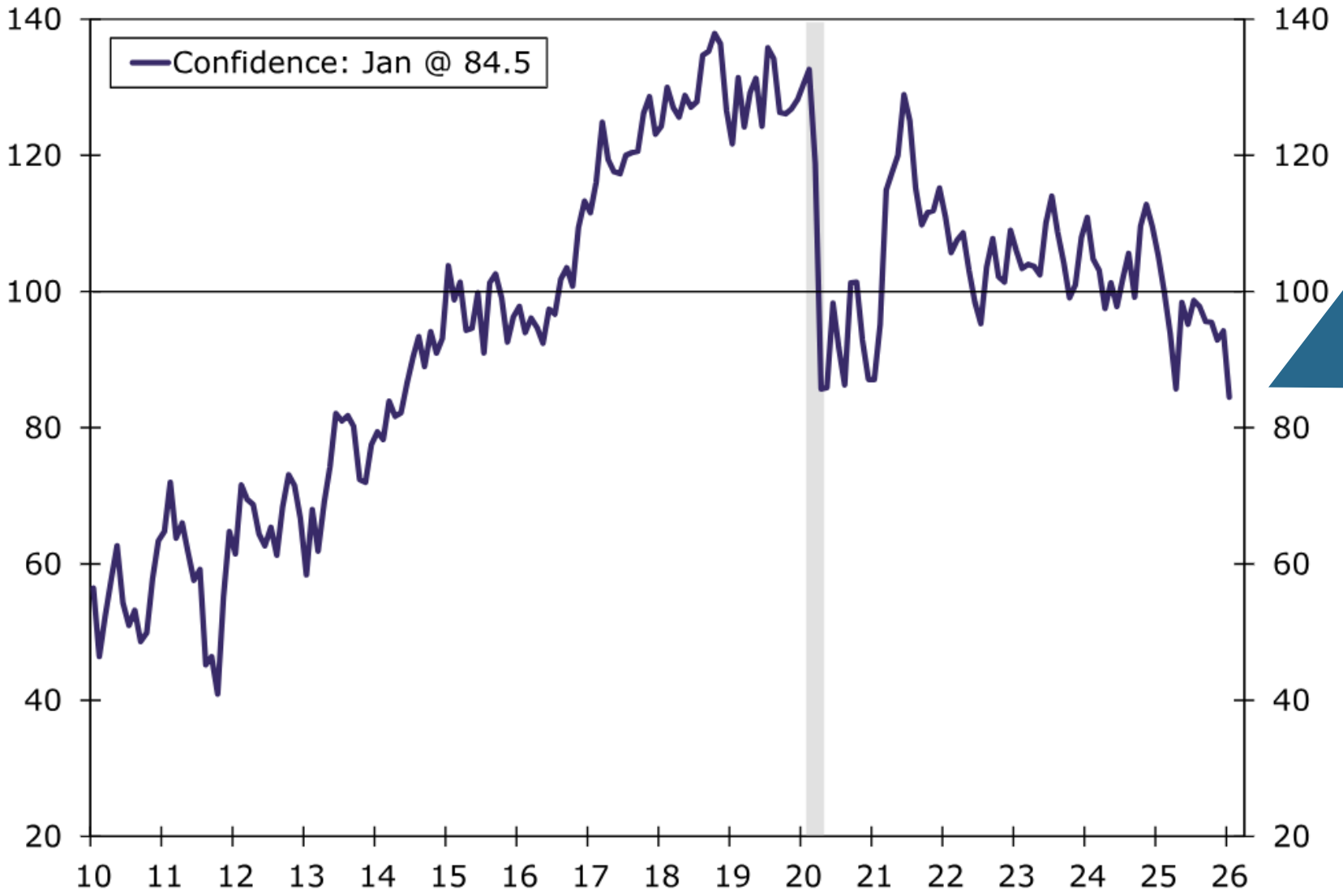
Economic Overview
The U.S. Economy Remains Resilient but Consumer Gloom is Returning

Inflation, Geopolitical Conflicts, High Interest Rates, Tariffs and Job Jitters Have Weighed Heavily on Consumer (and Business) Sentiment

Tariffs Are Resulting in Some Inflationary Pressure—As Might a Prolonged Middle East Conflict

34

Consumer Confidence Is Sliding on Labor Market Worries
2015 – 2025*

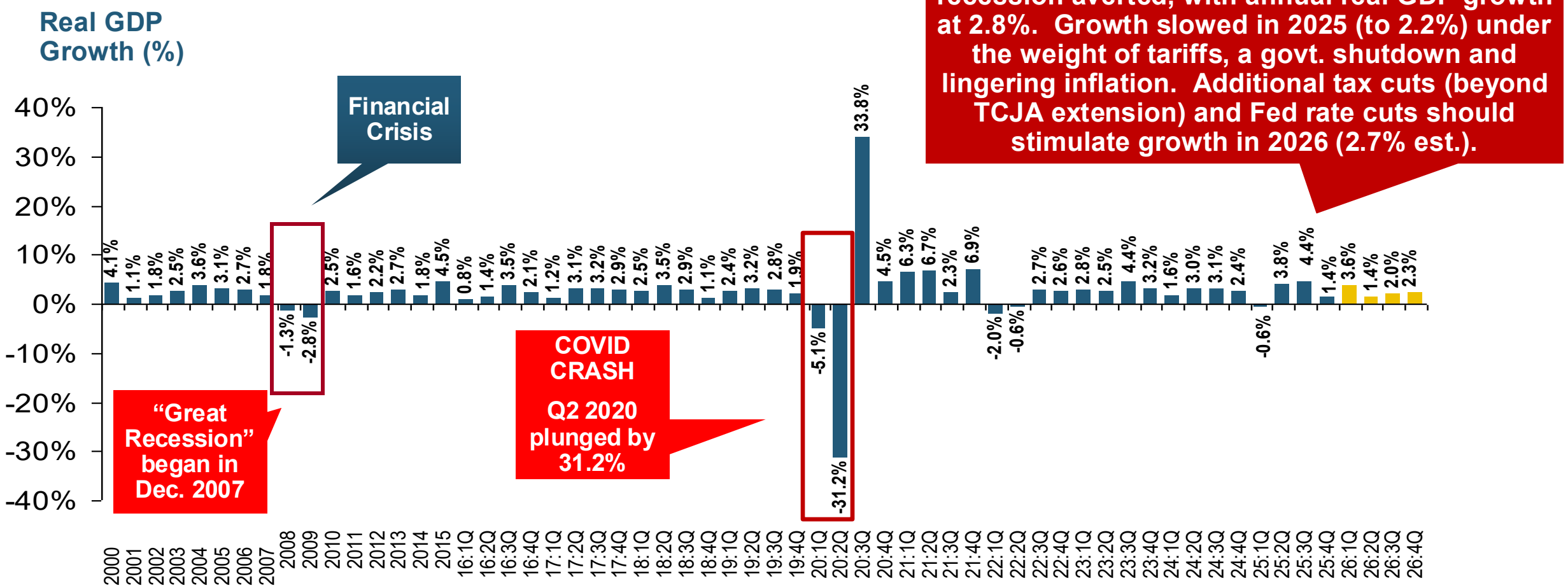


The unemployment rate remains low, but job jitters are real

- Job growth has slowed dramatically
- Job growth is heavily concentrated in one industry: Heathcare
- Length of job searches is increasing
- Fears AI will destroy jobs

Sources: The Conference Board and Wells Fargo Economics.

US Real GDP Growth, 2000 – 2026F*



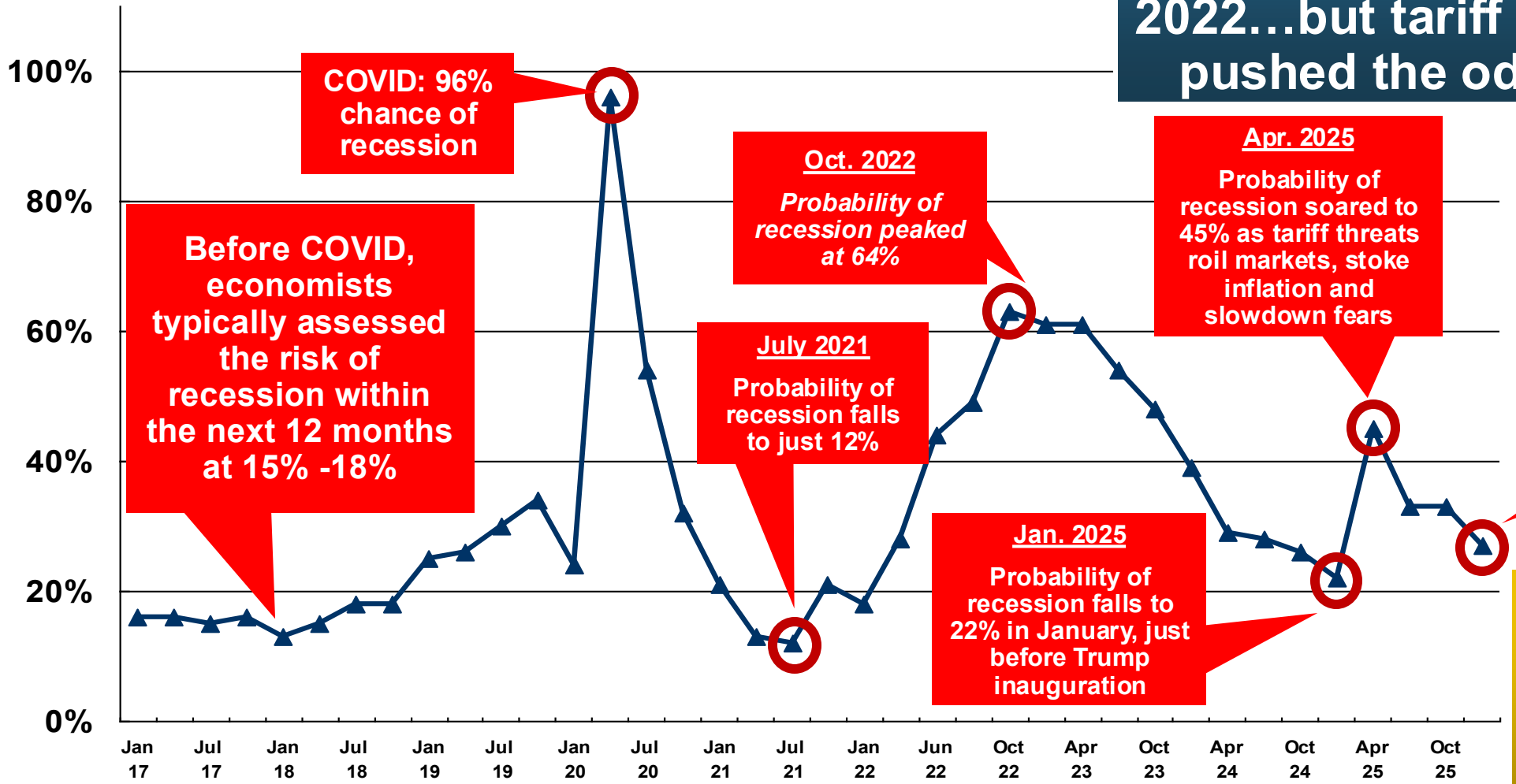
Demand for Insurance Increased Materially in 2021/22 During Recovery from the Pandemic—Particularly in Economically Sensitive Commercial Lines Such as WC. Premium growth will likely slow as Economy Slows in 2025-26.

* Estimates/Forecasts from Wells Fargo Securities.

Source: US Department of Commerce, Wells Fargo Securities (2/26); Center for Risk and Uncertainty Management, University of South Carolina.

Probability the U.S. Is in a Recession Within Next 12 Months: Jan. 2017 – Jan. 2026*

Recession odds decreased substantially since 2022…but tariff concerns are pushed the odds back up

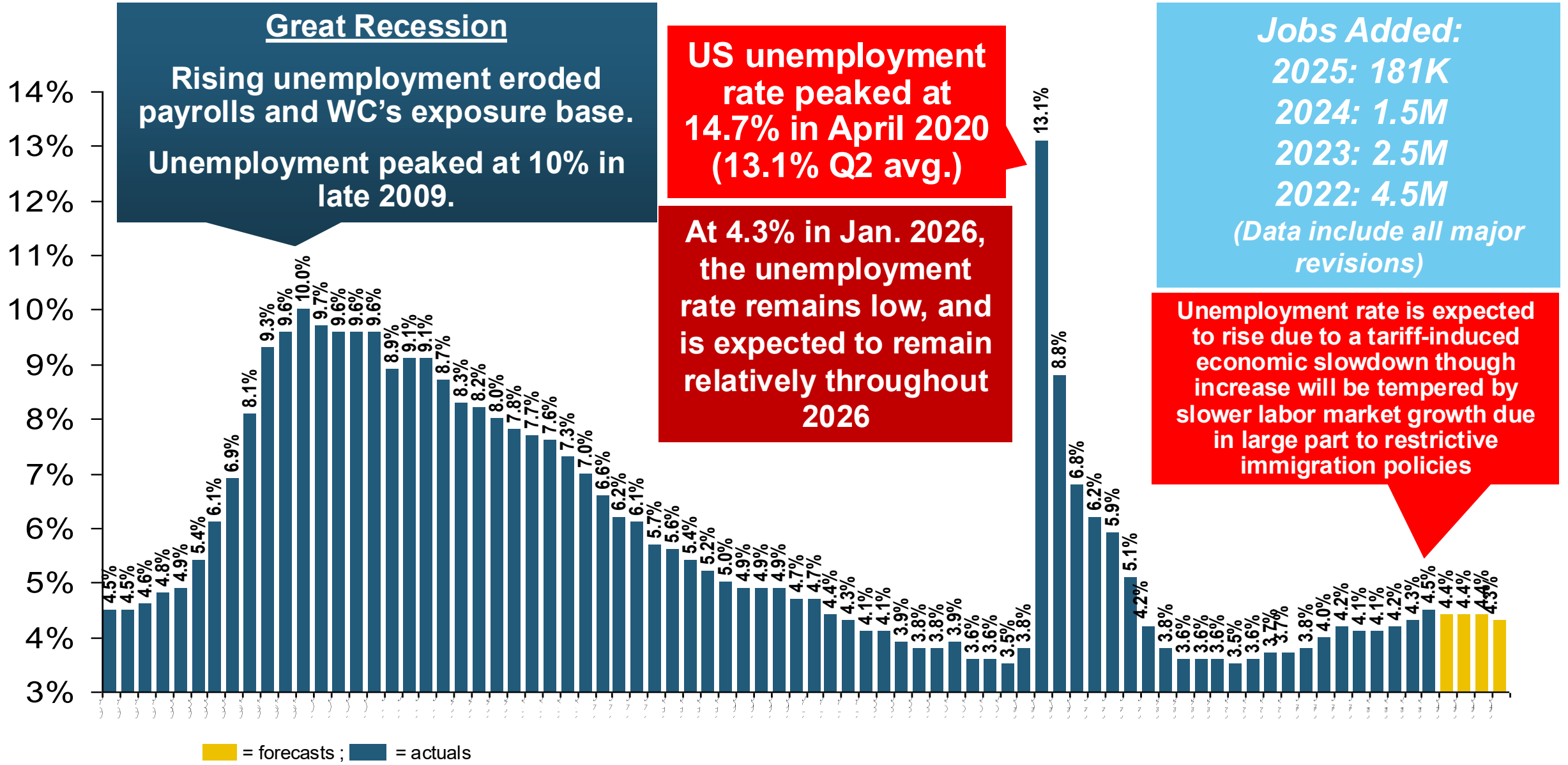


Recession?

The economy achieved a "soft landing" in 2024, averting a recession most thought would result from higher interest rates—though tariffs led to elevated recession worries

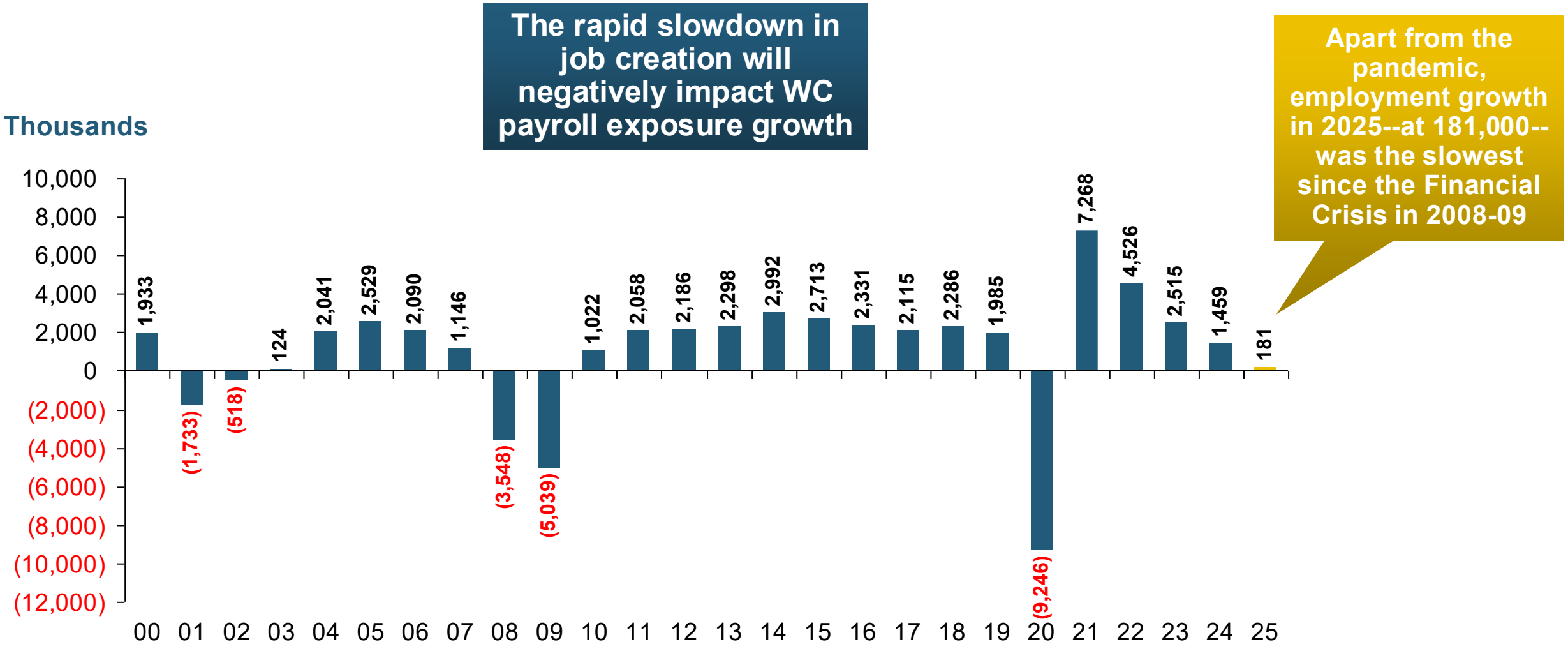
*Jan. 2026 survey included the responses of 74 economists.
Source: Wall Street Journal surveys of economists: https://www.wsj.com/economy/economist-survey-2026-growth-outlook-7e5d8feb?mod=Searchresults&pos=1&page=1; Risk and Uncertainty Management Center, University of South Carolina.

US Unemployment Rate Forecast: 2007:Q1–2026:Q4



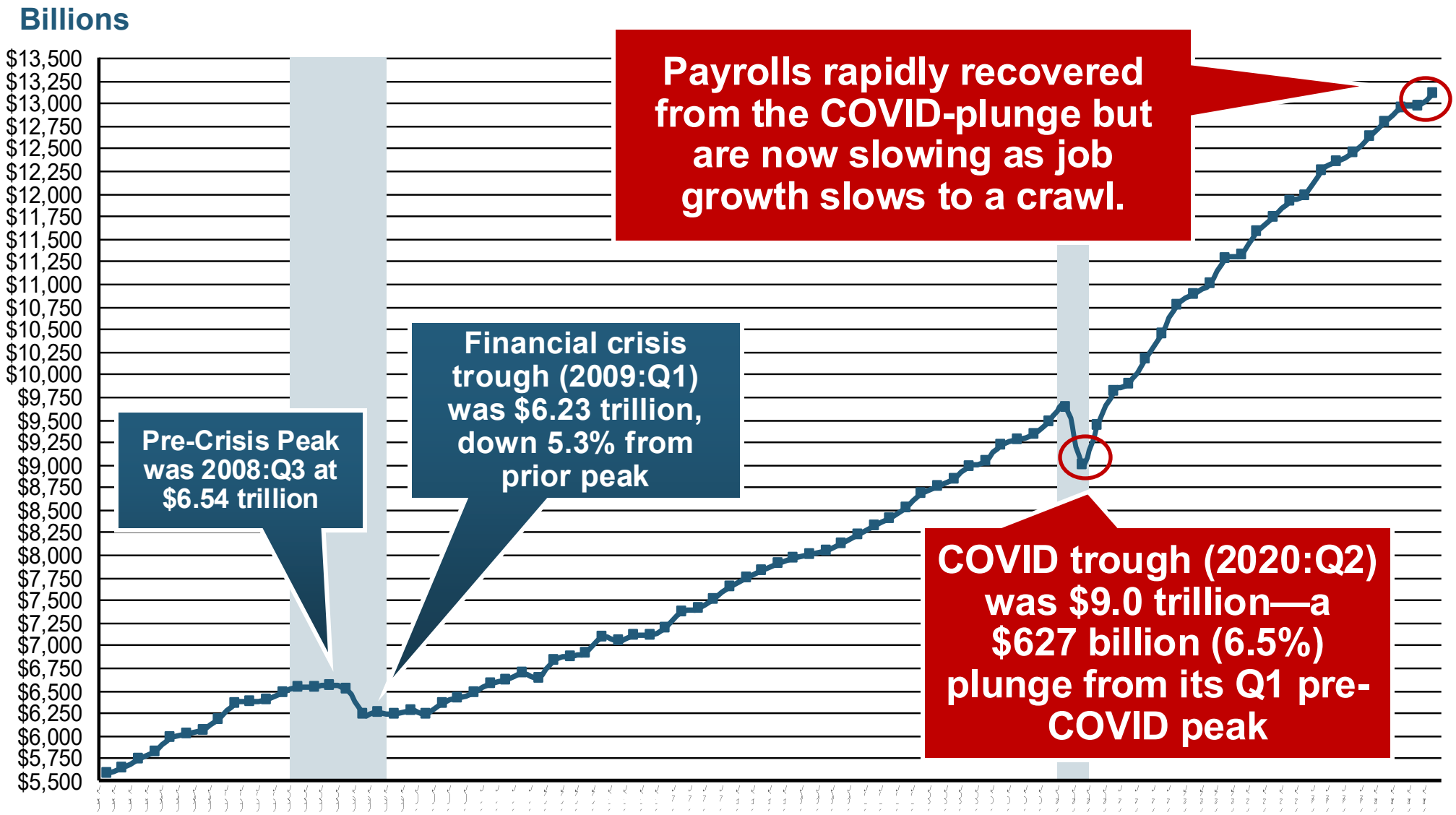
Sources: US Bureau of Labor Statistics; Wells Fargo Securities (2/26 edition); Risk and Uncertainty Management Center, University of South Carolina.

Annual Change in Total Nonfarm Employment: 2000-2025*



Source: U.S. Bureau of Labor Statistics; FRED https://fred.stlouisfed.org/series/PAYEMS (Series ID: CES0000000001); USC Center for Risk and Uncertainty Management.

Nonfarm Payroll (Wages and Salaries): Quarterly, 2005:Q1–2025:Q4



2025 Payroll growth decelerated to its slowest pace since Covid

Growth rates

2025: 3.8%
2024: 5.9%
2023: 5.4%
2022: 7.8%
2021: 9.0%
2020: 1.5%
2019: 4.8%
2018: 4.6%
2017: 4.5%
2016: 3.4%
2015: 3.2%
2014: 4.9%
2013: 5.2%
2012: 2.3%
2011: 3.9%
2010: 5.5%

Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.
Sources: http://research.stlouisfed.org/fred2/series/WASCUR; National Bureau of Economic Research (recession dates).

Job Openings, Jan. 2001 – Dec. 2025

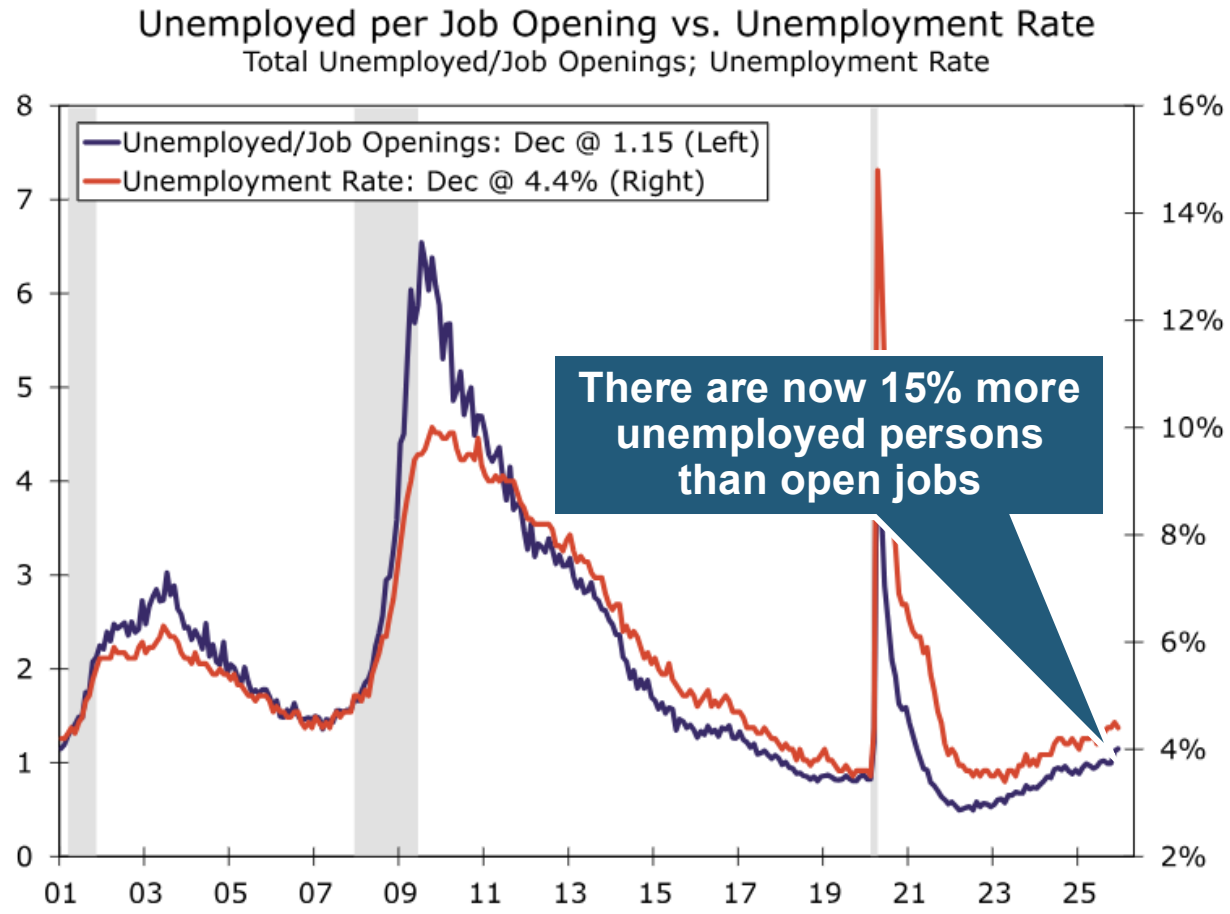
(Millions, Seasonally Adjusted)

The job market remains very sluggish

Job openings in Dec. 2025 fell to 6.5M, down nearly 10% since Dec. 2024, the lowest since the pandemic era recover--and 2017 before that

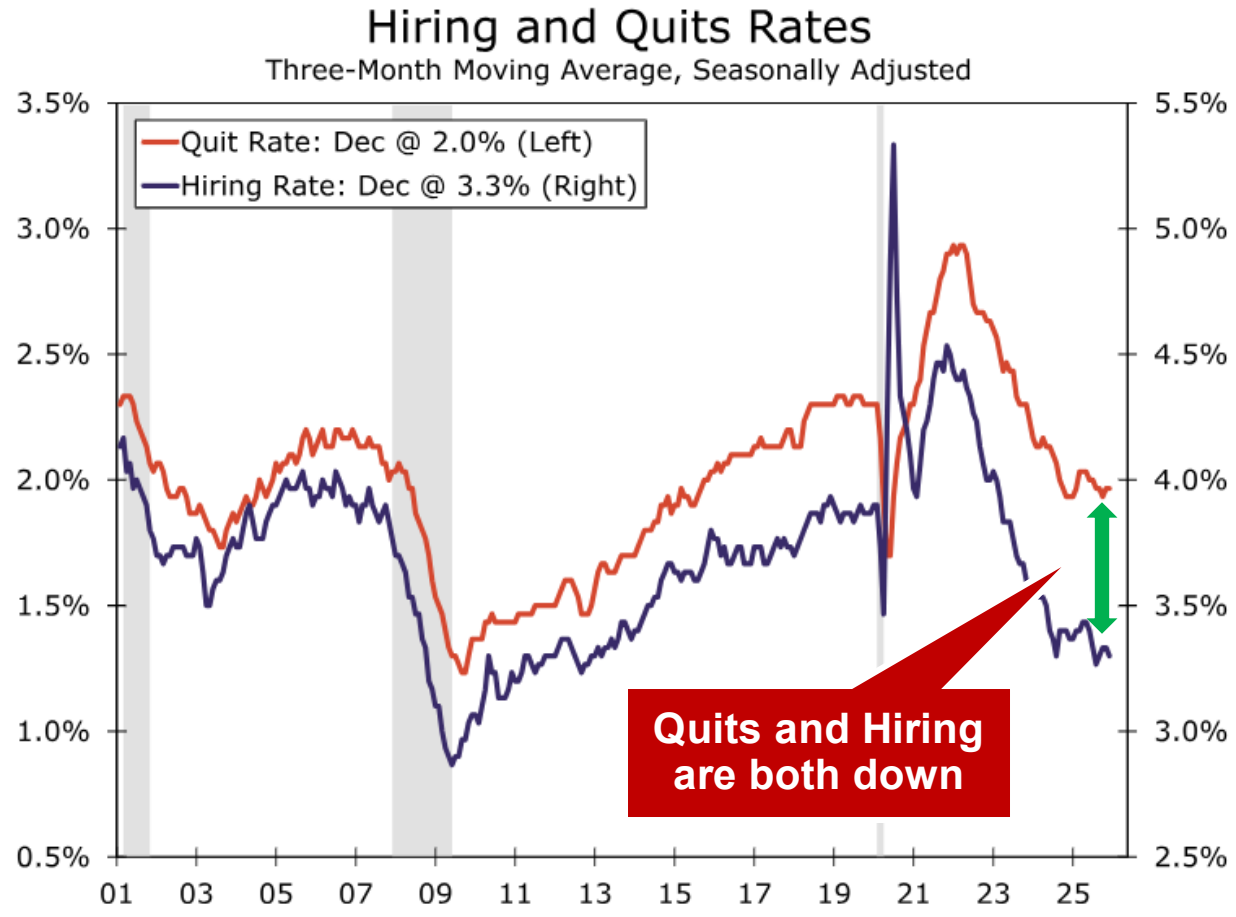
Source: U.S. Department of Labor and Wells Fargo Economics.

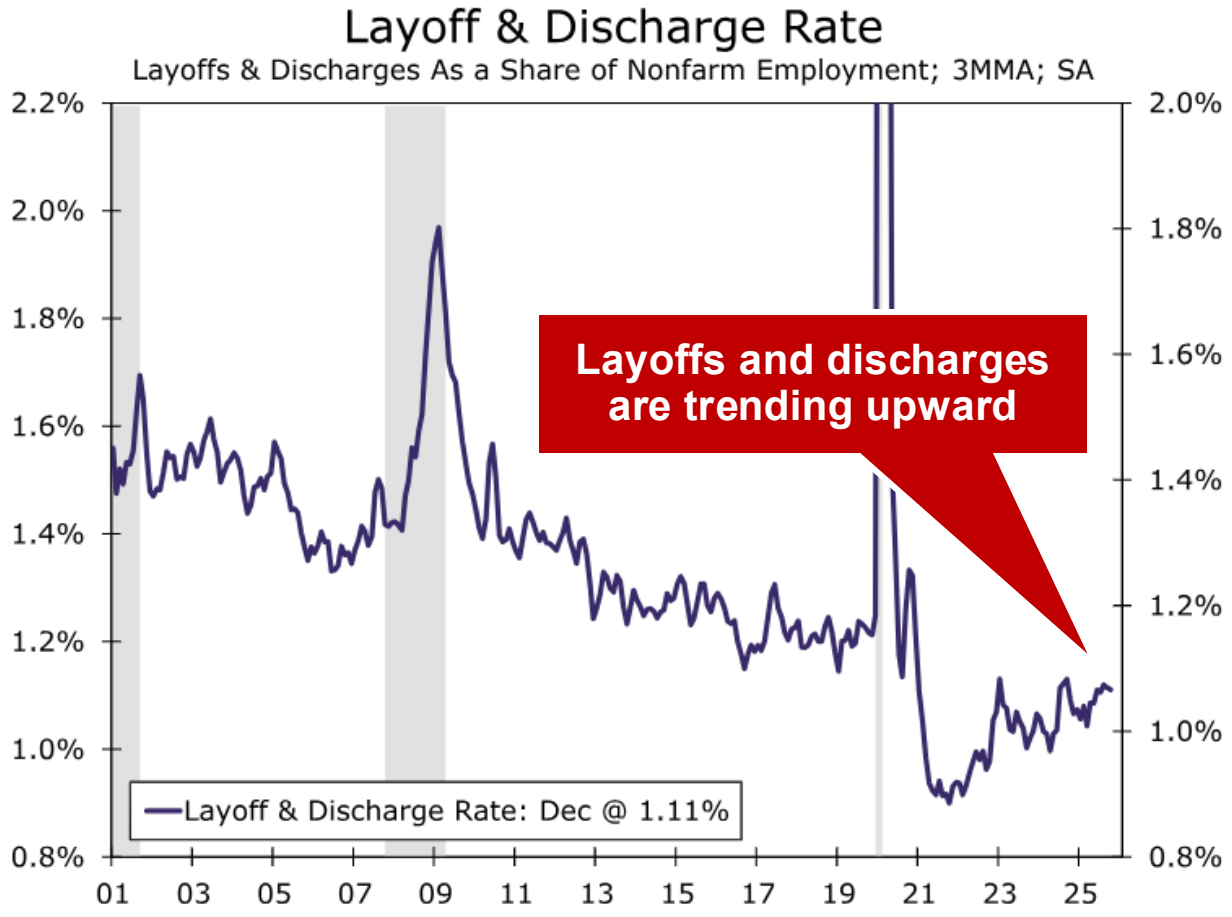
Job Openings: Increasing Challenges for Job Seekers



Source: U.S. Department of Labor and Wells Fargo Economics.

Job Openings: Increasing Challenges for Job Seekers

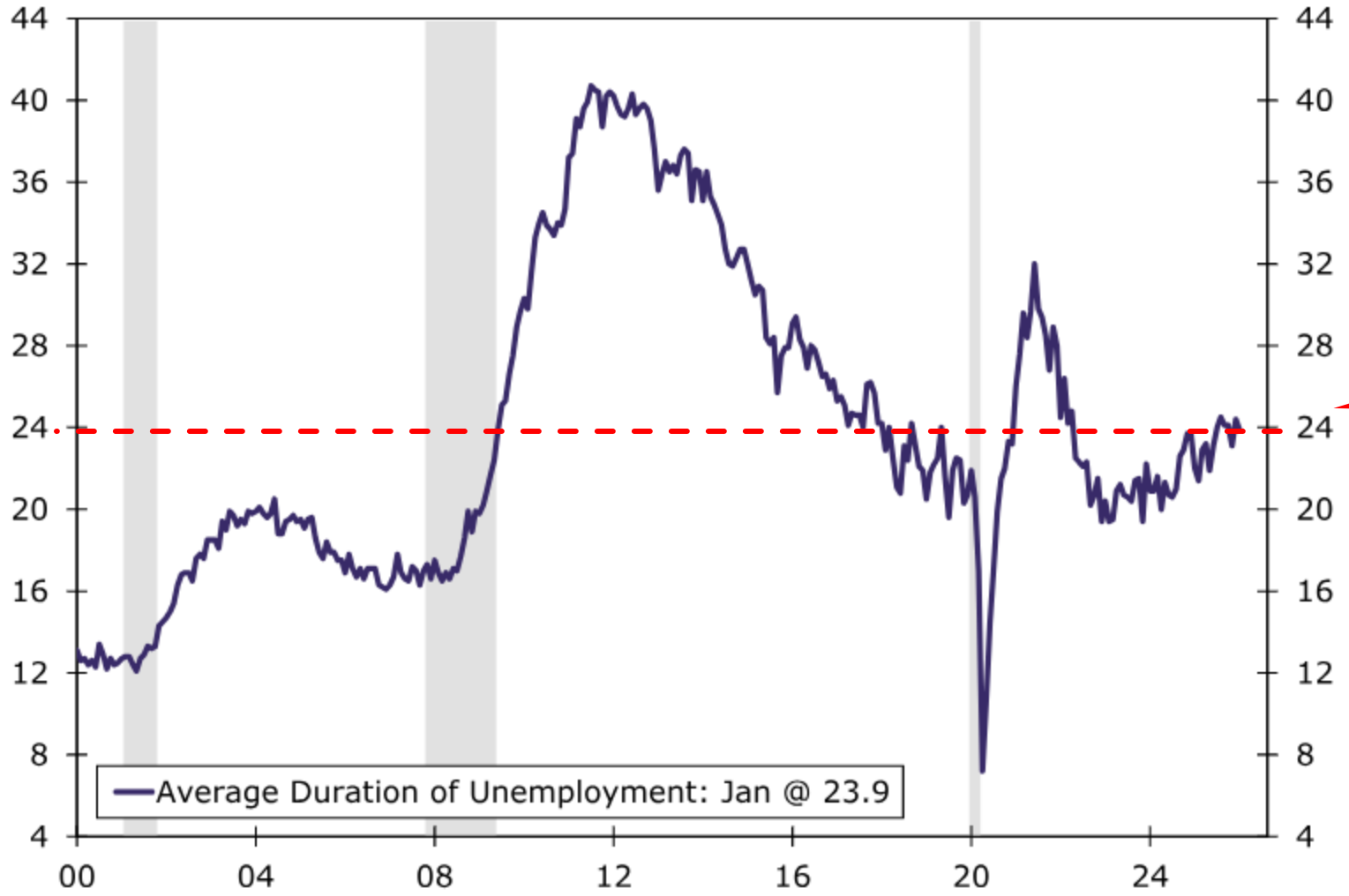




Source: U.S. Department of Labor and Wells Fargo Economics.

Average Duration of Unemployment, Jan. 2000 – Jan. 2026

(Weeks Unemployed)

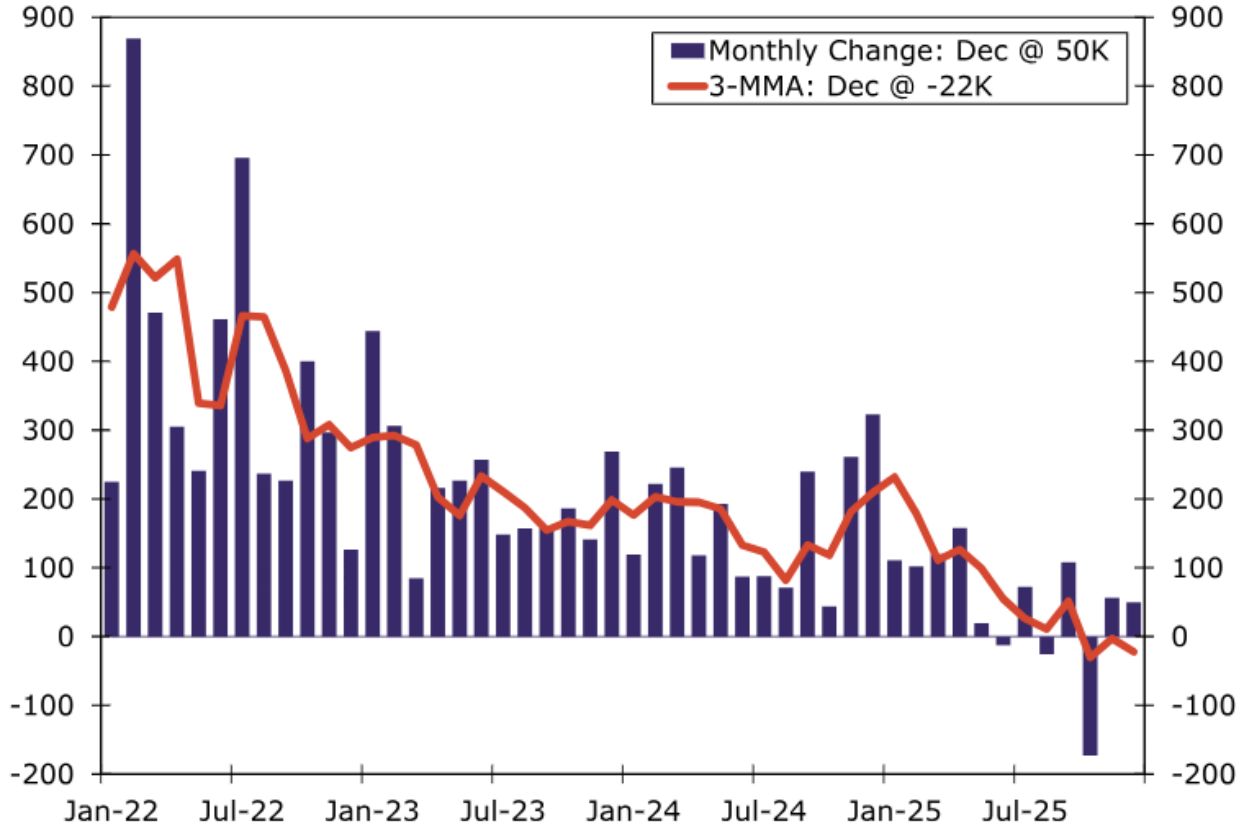


The average length of jobs searches is rising—standing at 23.9 weeks in Jan. 2026—up about 4 weeks over the past two years

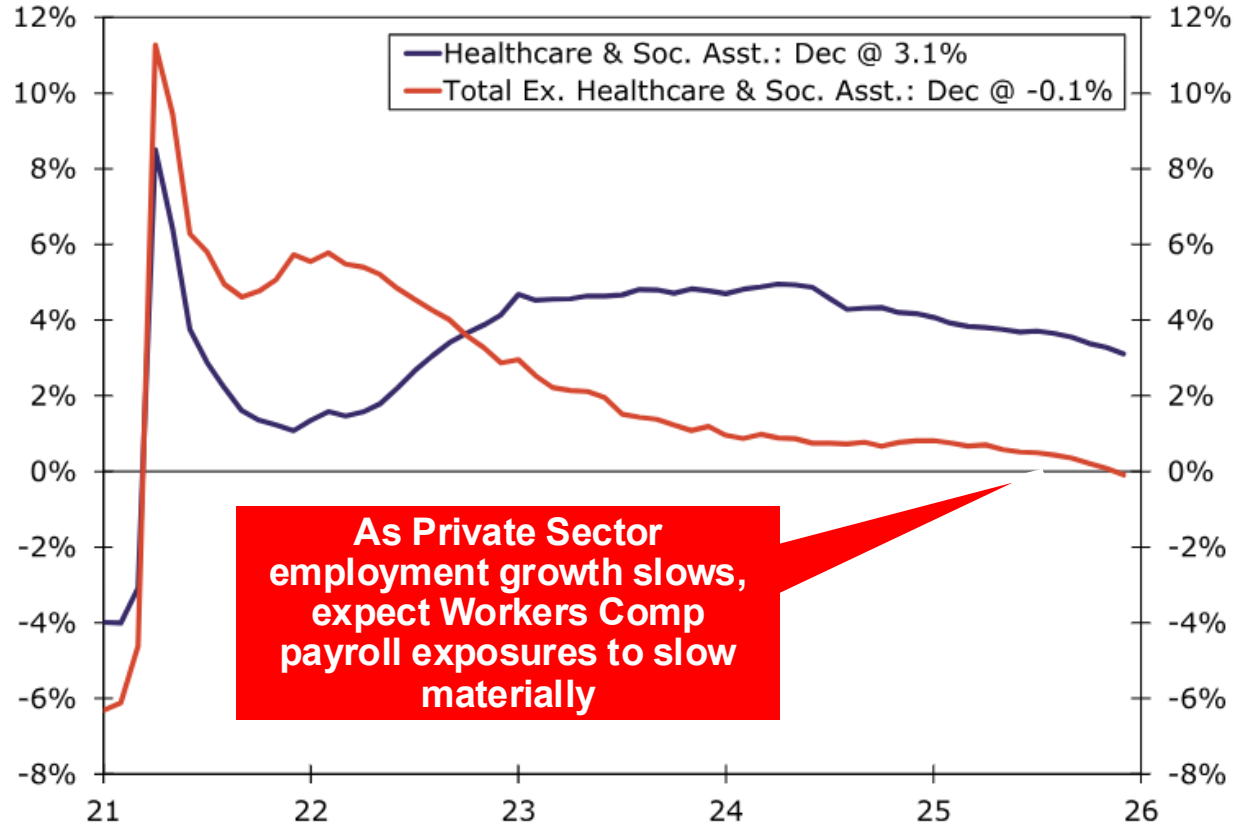
Source: U.S. Department of Labor and Wells Fargo Economics.

Shrinking Employment Growth: Adverse Impact on WC Comp Payroll Exposures

US Nonfarm Employment Change (000s)

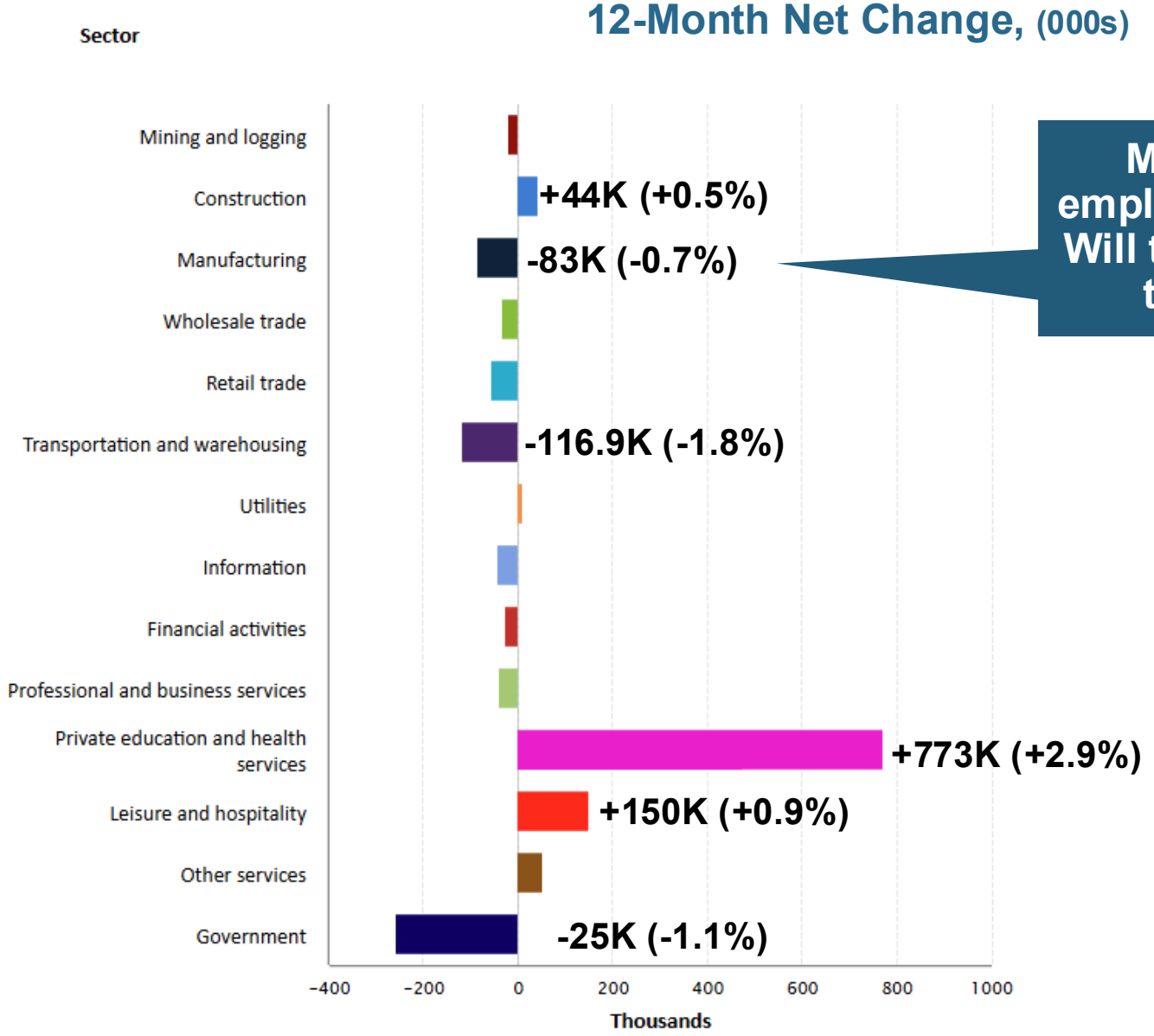


Cyclical Employment Growth Is Near Zero



Source: US Dept. of Labor and Wells Fargo Economic Research.

Employment Change by Industry: Jan. 2025 – Jan. 2026

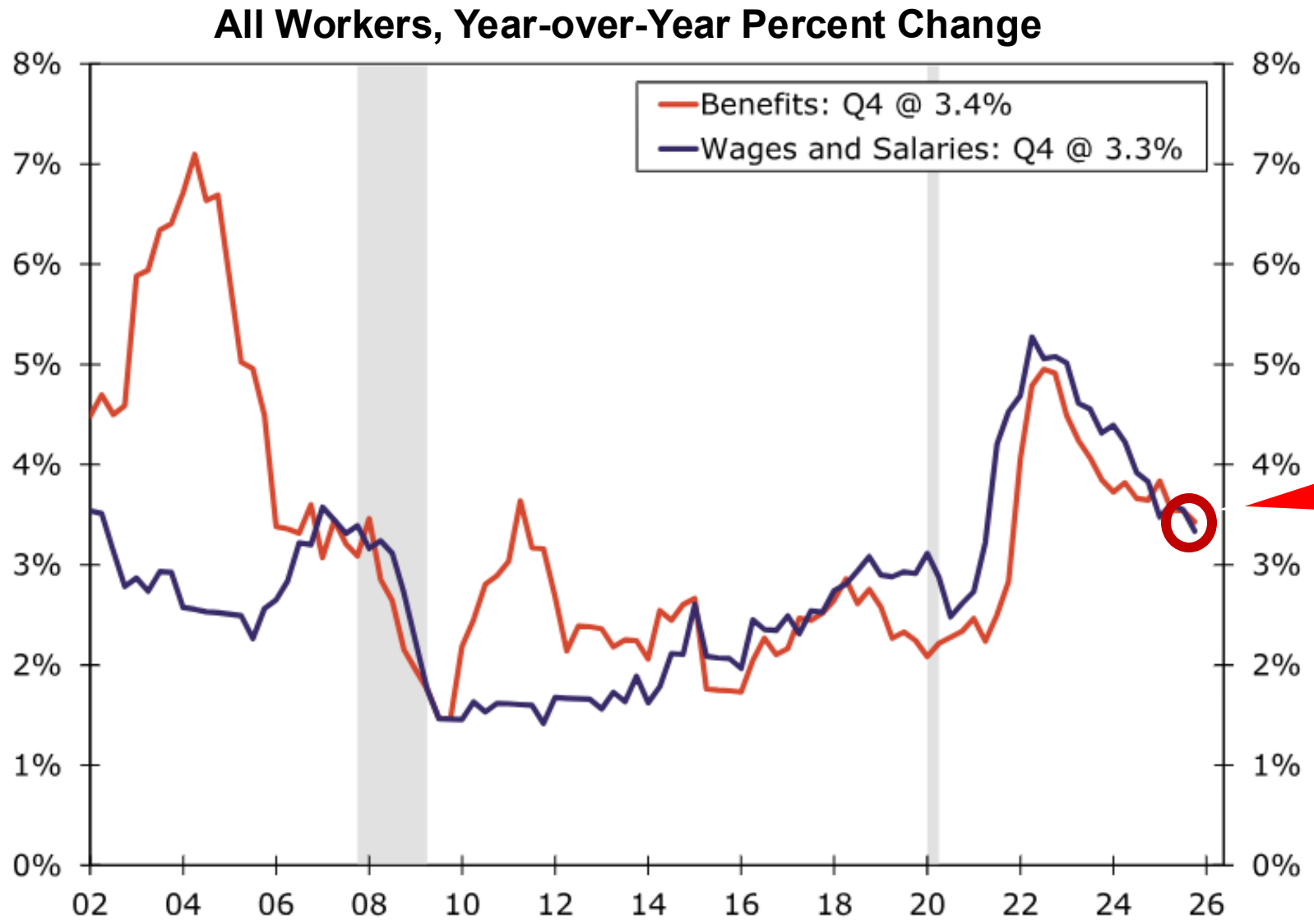


Manufacturing employment is down. Will trade policy turn this around?

Virtually all job growth over the past year is driven by Healthcare, suggesting many recently unemployed lack the skills or experience for the jobs that are available

Source: US Dept. of Labor Statistics; Accessed at: https://www.bls.gov/charts/employment-situation/employment-by-industry-monthly-changes.htm.

Employment Cost Index: Wages and Salaries vs. Benefits Growth

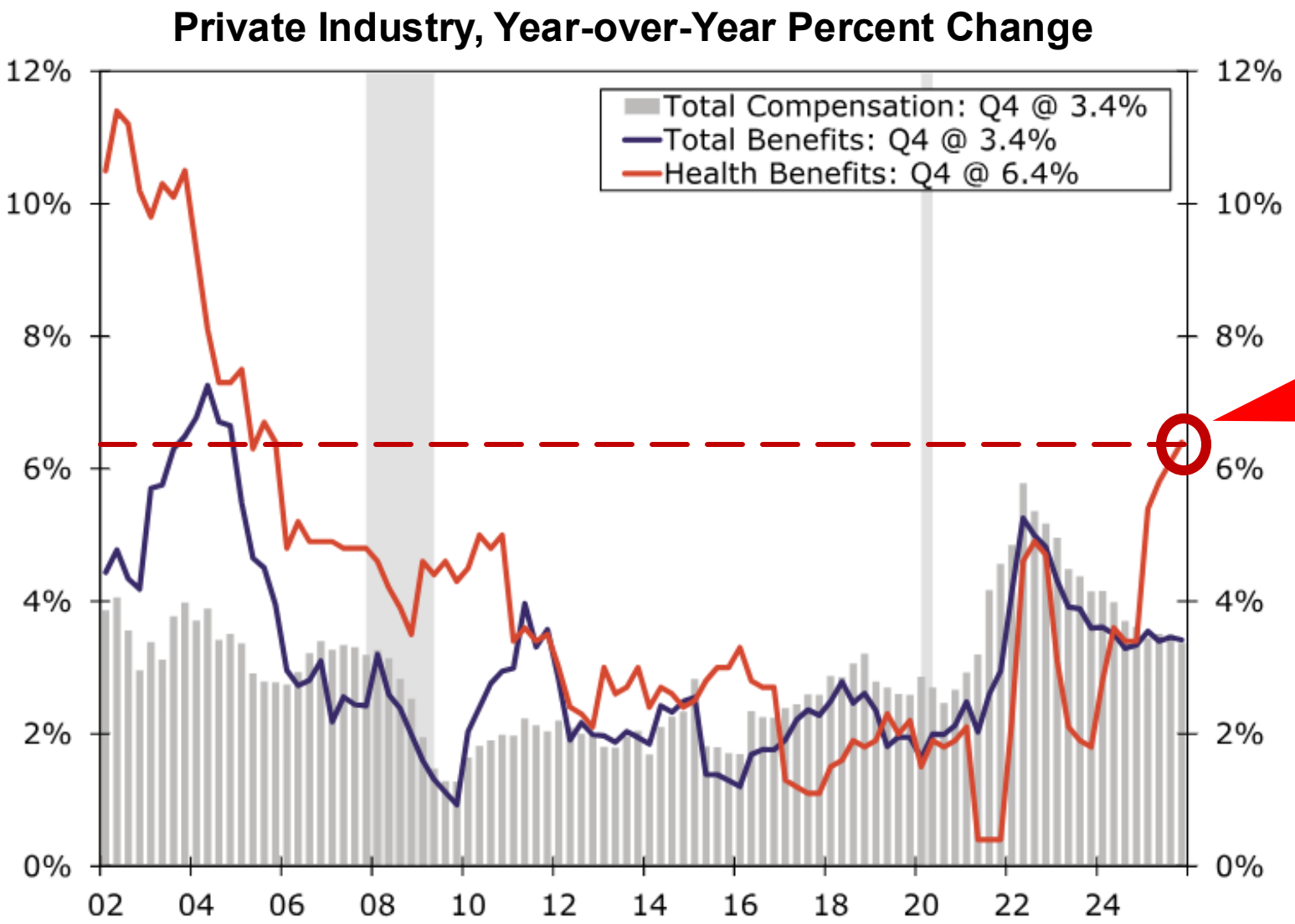


+Overall labor costs were up 3.4% in 2025 (vs. 3.8% in 2024)--the slowest pace since early 2021 and is indicative of a softening labor market

The ECI incorporates wage, salary and benefits costs

Source: U.S. Department of Labor and Wells Fargo Economics.

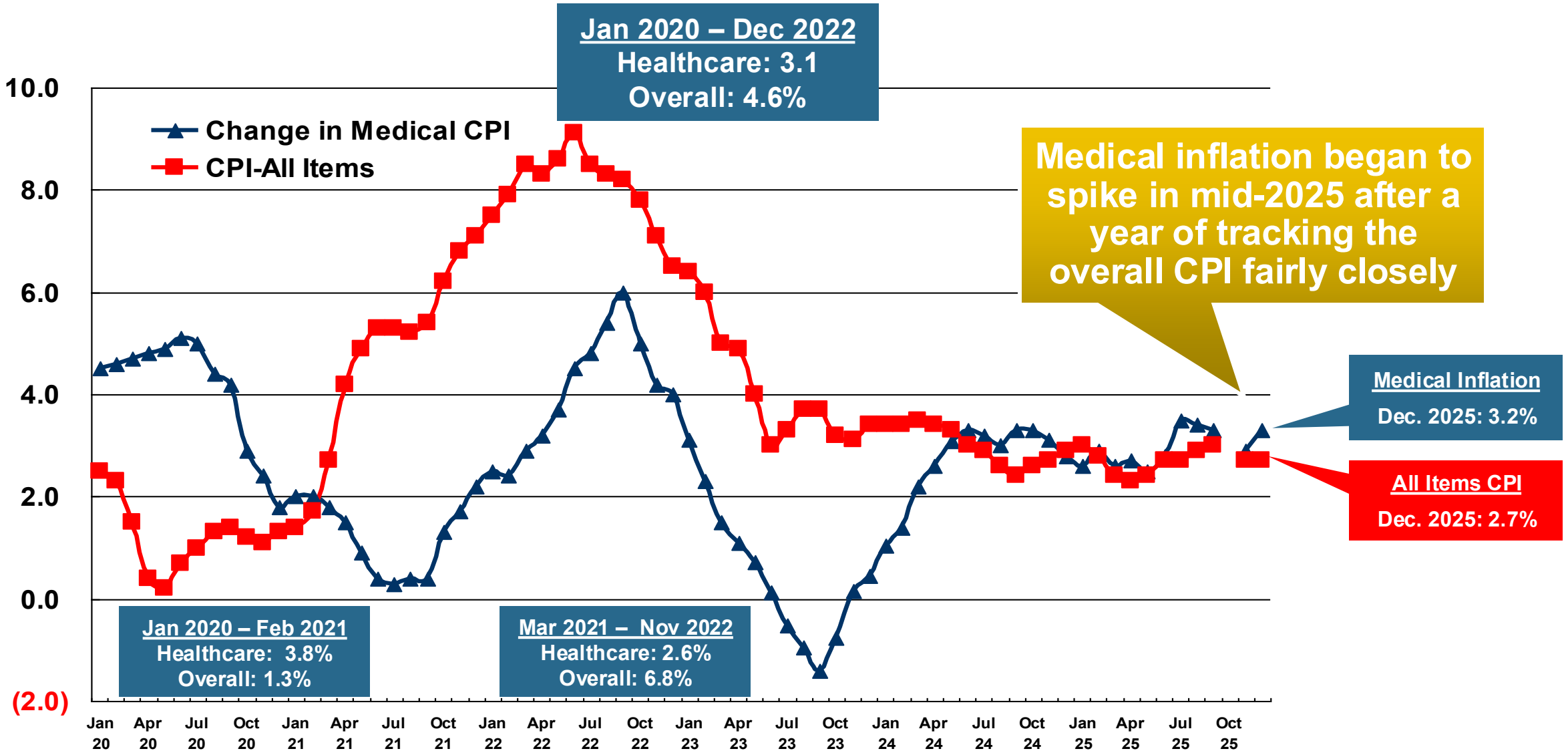
Employment Costs: Health Benefits



Health Benefits costs are soaring, up 6.4% in Q4 2025 (on a Y-o-Y basis)—the largest increase since early 2006

Source: U.S. Department of Labor and Wells Fargo Economics.

Medical Cost Inflation vs. Overall CPI Since COVID, Jan. 2020 – Dec. 2025 *(Percent Change from Year Ago)*



Sources: US Bureau of Labor Statistics via Federal Reserve Bank of St. Louis: https://fred.stlouisfed.org/series/CPIMEDSL; Risk and Uncertainty Management Center, University of South Carolina.

American Voters' #1 Concern: Affordability

THE WALL STREET JOURNAL.

MARKETS & FINANCE

The Uproar Over Affordability Is Coming for Insurers

The industry's financial well-being is at odds with customers who have endured large rate increases

By Jean Eaglesham Follow

Jan. 22, 2026 5:30 am ET

Gift unlocked article | Listen (6 min)

https://www.wsj.com/finance/the-uproar-over-affordability-is-coming-for-insurers-3a85723a?mod=author_content_page_1_pos_1.

HEALTH | HEALTHCARE

Health Insurance Is Now More Expensive Than the Mortgage for These Americans

Monthly health-insurance bills are rocketing higher for middle-income earners who rely on Obamacare

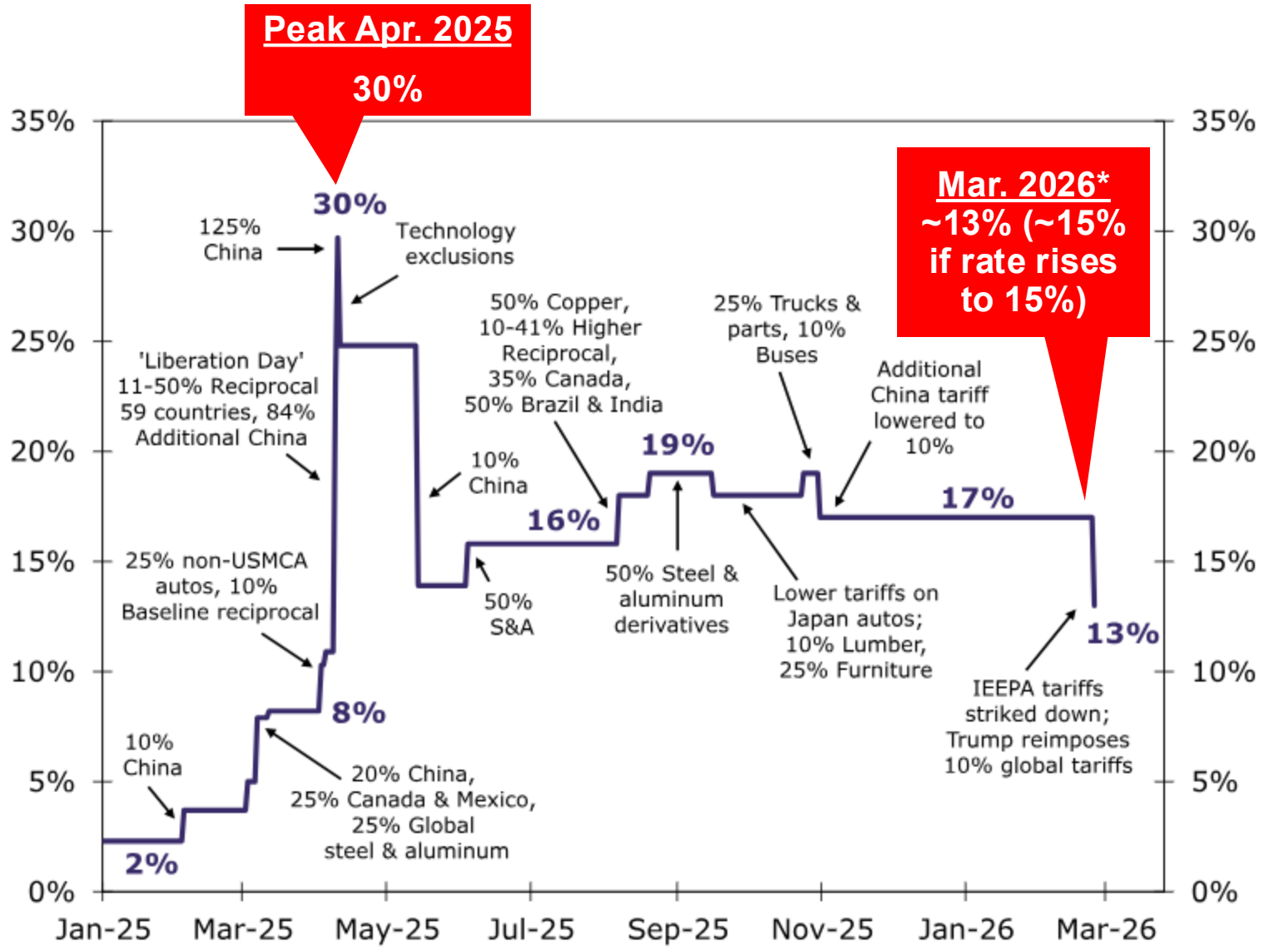
By Rachel Louise Ensign Follow

Jan. 26, 2026 5:30 am ET

1476 | Gift unlocked article | Listen (8 min)

https://www.wsj.com/health/healthcare/aca-health-insurance-cost-subsidies-expire-37a595a9?mod=hp_lead_pos8.

Est. US Average Effective Tariff Rate, Jan. – Nov. 2025*



Effective tariff rates have fluctuated wildly since early 2025, starting the year ~2%, peaking at 30% and currently ~13% - 15% post-IEEPA ruling

SCOTUS IEEPA decision injects new uncertainty for 2026

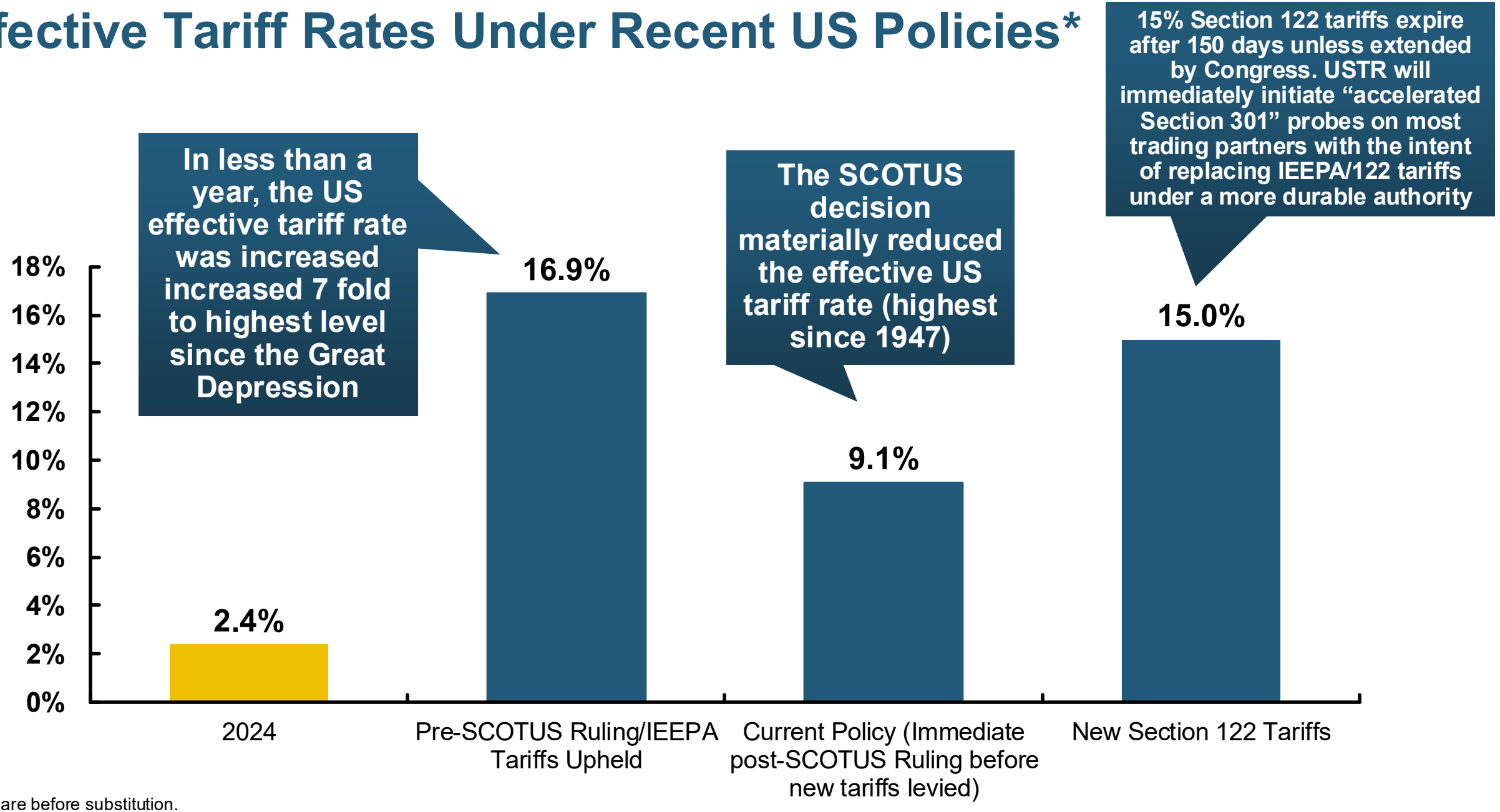
Estimated Impact of Tariffs

New Home Price: $9,200 (NAHB)

New Car Prices: $2,000 - $15,000 (Anderson Economics Group)

*Estimates based on information available as of 2/26/26.
Source: US Dept. of Commerce and Wells Fargo Economics.

Effective Tariff Rates Under Recent US Policies*



*Figures are before substitution.

Source: Yale Budget Lab, *State of Tariffs: February 22, 2026* at https://budgetlab.yale.edu/research/state-tariffs-february-21-2026; Section 122 estimate assumes 15% tariff becomes effective, up from Feb. 2026 level of 10%. Risk & Uncertainty Management Center, University of South Carolina.

Artificial Intelligence

How Will AI Impact the Economy, Labor Markets and Workers Compensation?

AI Occupation Exposure
AI Industry Exposure
AI Geographic Exposure

Is AI Really Killing Jobs—Or Is it Just AI-Washing?

Bloomberg

March 1, 2026

Jack Dorsey's 4,000 Job Cuts at Block Arouse Suspicions of AI-Washing

THE WALL STREET JOURNAL.

UPS Cuts 48,000 Jobs in Management and Operations

Shipper discloses 34,000 job cuts in operations; shares jump

By Esther Fung Follow and Connor Hart Follow

Updated Oct. 28, 2025 12:35 pm ET

Gift unlocked article | Listen (3 min)

THE WALL STREET JOURNAL.

Oct. 29, 2025

Tens of Thousands of White-Collar Jobs Are Vanishing as AI Starts to Bite

Layoffs at companies ranging from Amazon to Target are sending young and experienced workers alike into an unwelcoming market.

1,970 | 6 min read

- Paramount Lays Off Thousands

GM Lays Off Thousands of EV Workers in U.S. Plants

The automaker is cutting jobs in Michigan, Ohio and Tennessee as it adapts to an evolving regulatory environment.

yahoo!finance

Chemical maker Dow is cutting 4,500 jobs, will rely on AI

Jan. 26, 2026

USA TODAY

Doomsday scenario or reality? Mass layoffs fuel fear of AI Armageddon

Jessica Guynn
USA TODAY

Feb. 26, 2026 | Updated Feb. 27, 2026, 3:55 p.m. ET

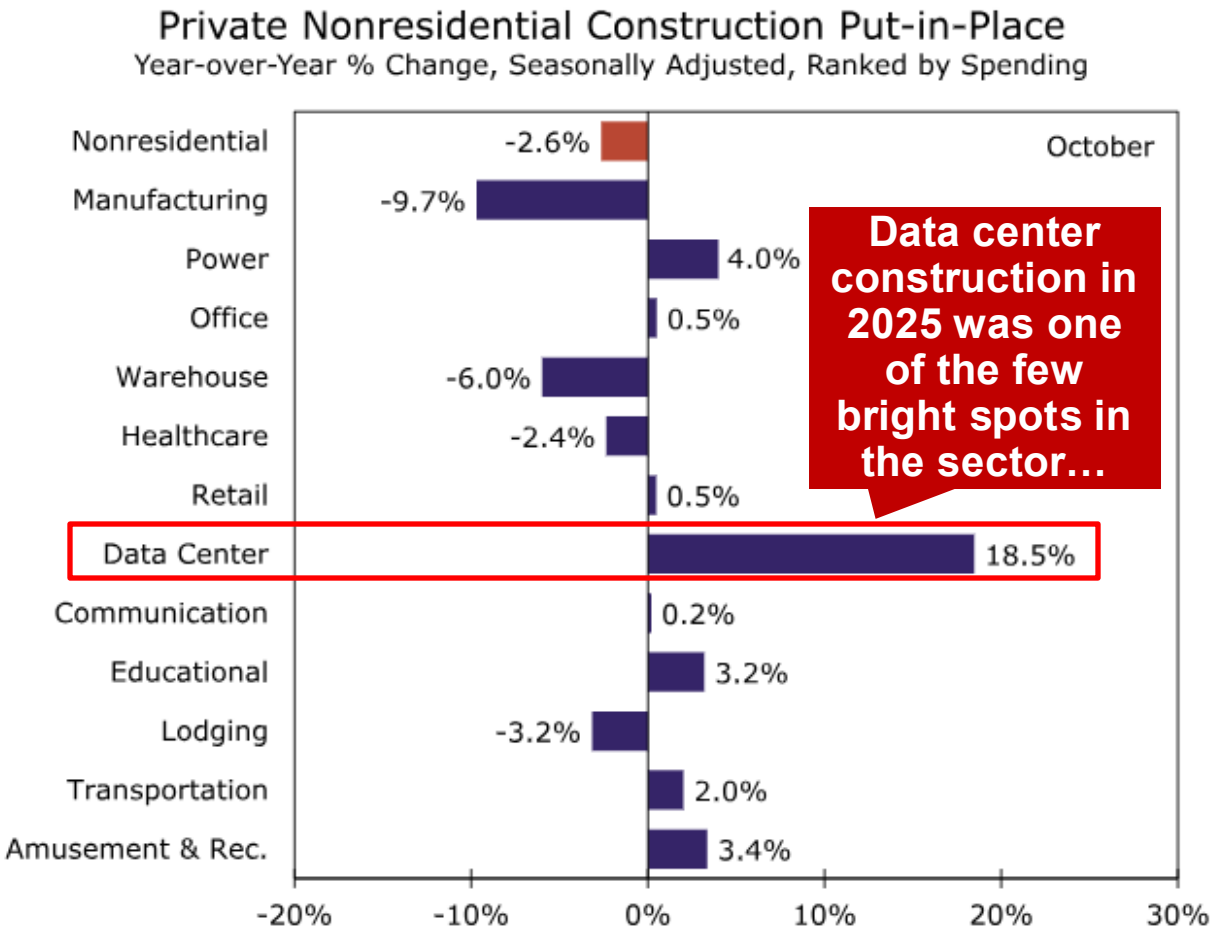
Amazon to announce largest layoffs in company history, source says

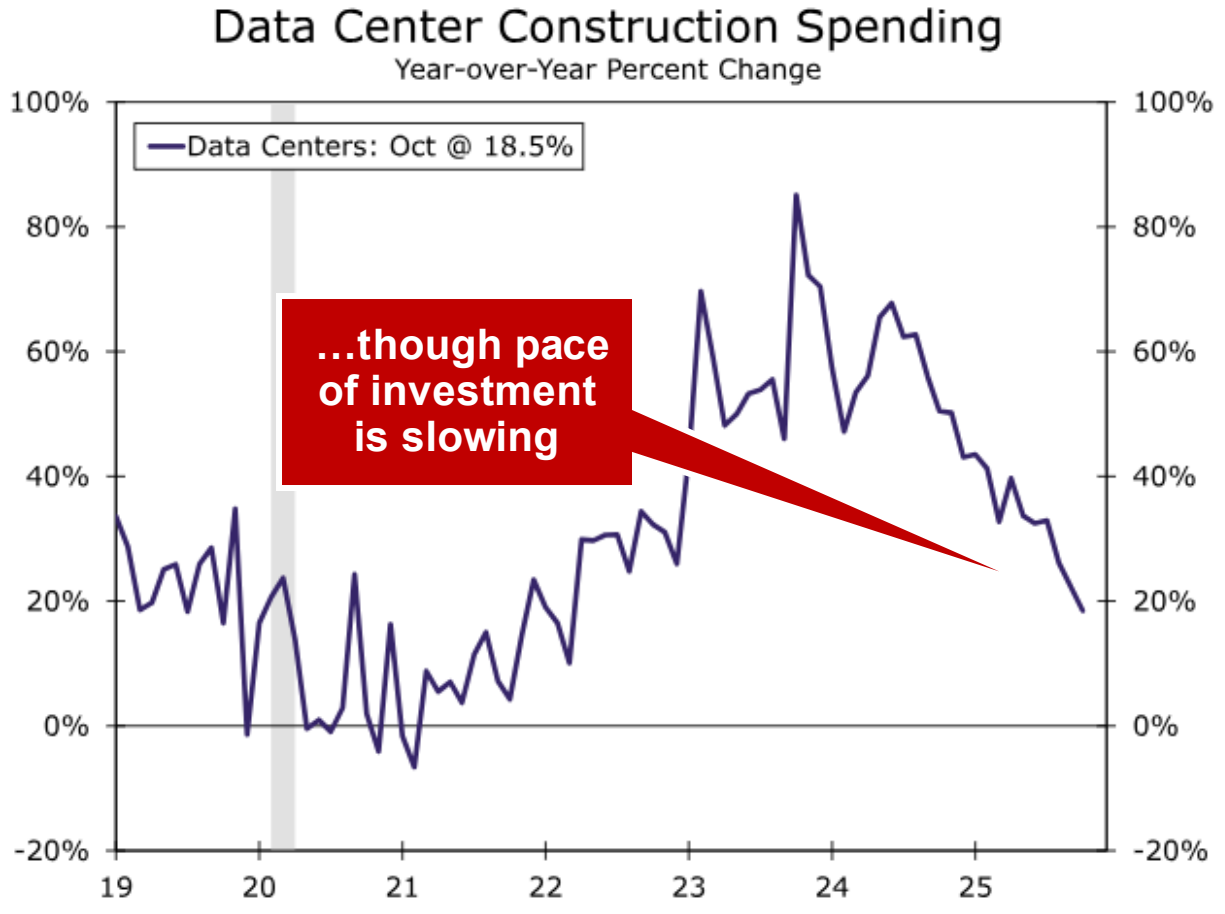
CNBC

PUBLISHED MON, OCT 27 2025·4:03 PM EDT | UPDATED TUE, OCT 28 2025·10:08 AM EDT

amazon

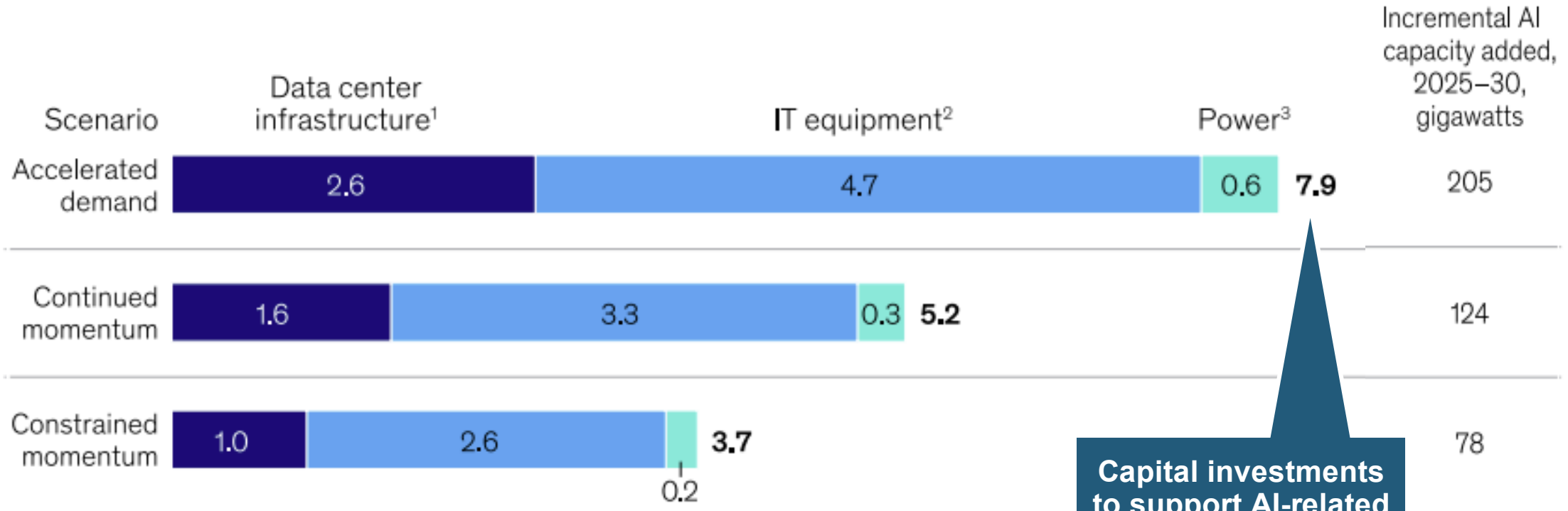
Data Center Investment Is a Major Driver of Construction Employment: Can the Trend Last?





Source: US Department of Commerce and Wells Fargo Economics.

Global Data Center Total Capital Expenditures Driven by AI, by Category, 2025 – 2030 ($ trillions)

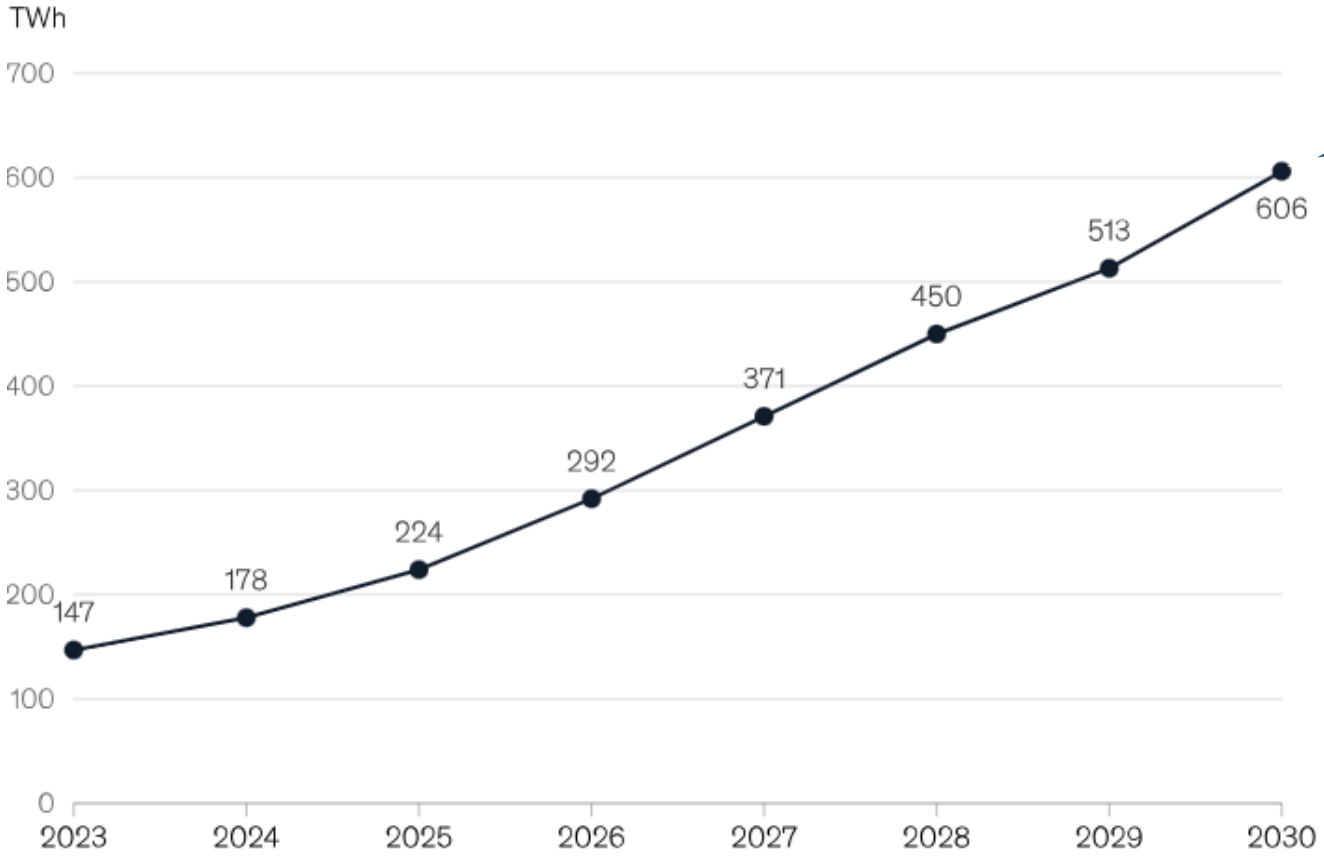


Note: Figures may not sum to totals, because of rounding.
[1]Excludes IT services and software (eg, operating system, data center infrastructure management), since they require relatively low capex compared with other components.
[2]Includes server, storage, and network infrastructure. IT capex also accounts for replacing AI accelerators every 4 years.
[3]Assumes $2.2 billion–$3.2 billion/gigawatt (including power generation and transmission cost) to account for a range of power generation scenarios (eg, fully powered by gas, a combination of gas power and storage, and solar) and regional cost differences. Distribution cost is neglected, as most AI centers are expected to be >50 megawatt scale and connected to a transmission grid.

Capital investments to support AI-related data center capacity demand could range from about $4 trillion to $8 trillion by 2030

Source: McKinsey Quarterly (Apr. 2025). The Cost to Compute: A $7 trillion Race to Scale Data Centers. Accessed at: https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-cost-of-compute-a-7-trillion-dollar-race-to-scale-data-centers#/.

US Data Center Energy Consumption, 2025 – 2030
(Terawatt-hours (TWh) of Electricity Demand)



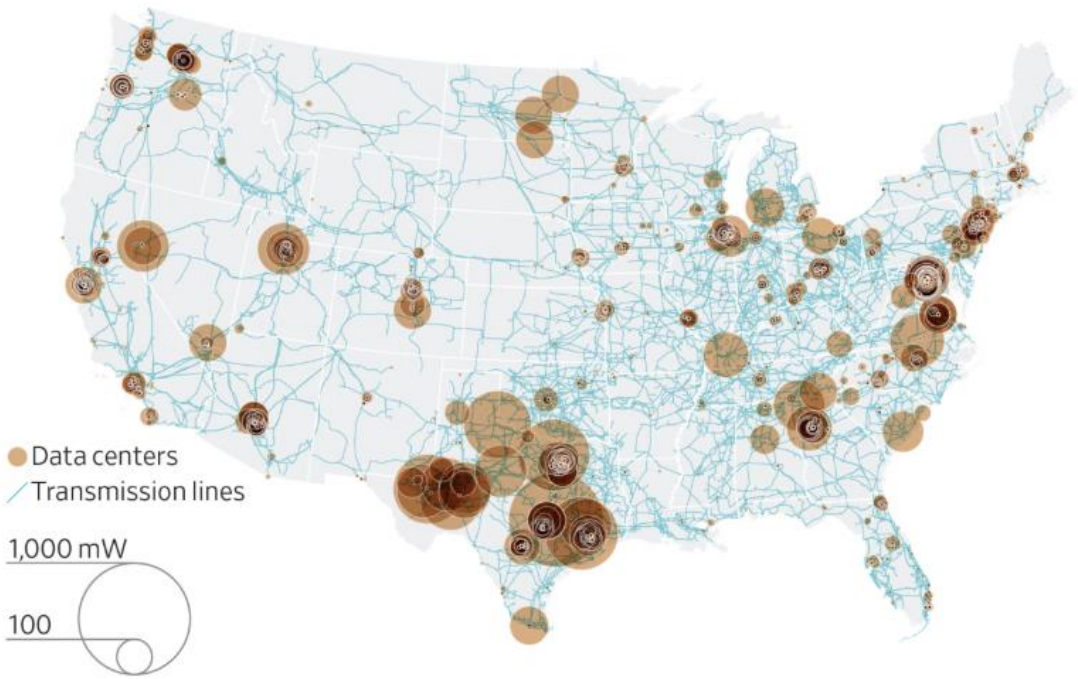
Data center demand for electricity is forecast to rise by more than 300% from 2023 – 2030, fueled primarily by AI

	2023	2024	2025	2026	2027	2028	2029	2030
Share of US Power Demand (%)	3.7	4.3	5.2	6.5	8.0	9.3	10.3	11.7

Data centers are expected to consume a rapidly increasing share of US electricity production

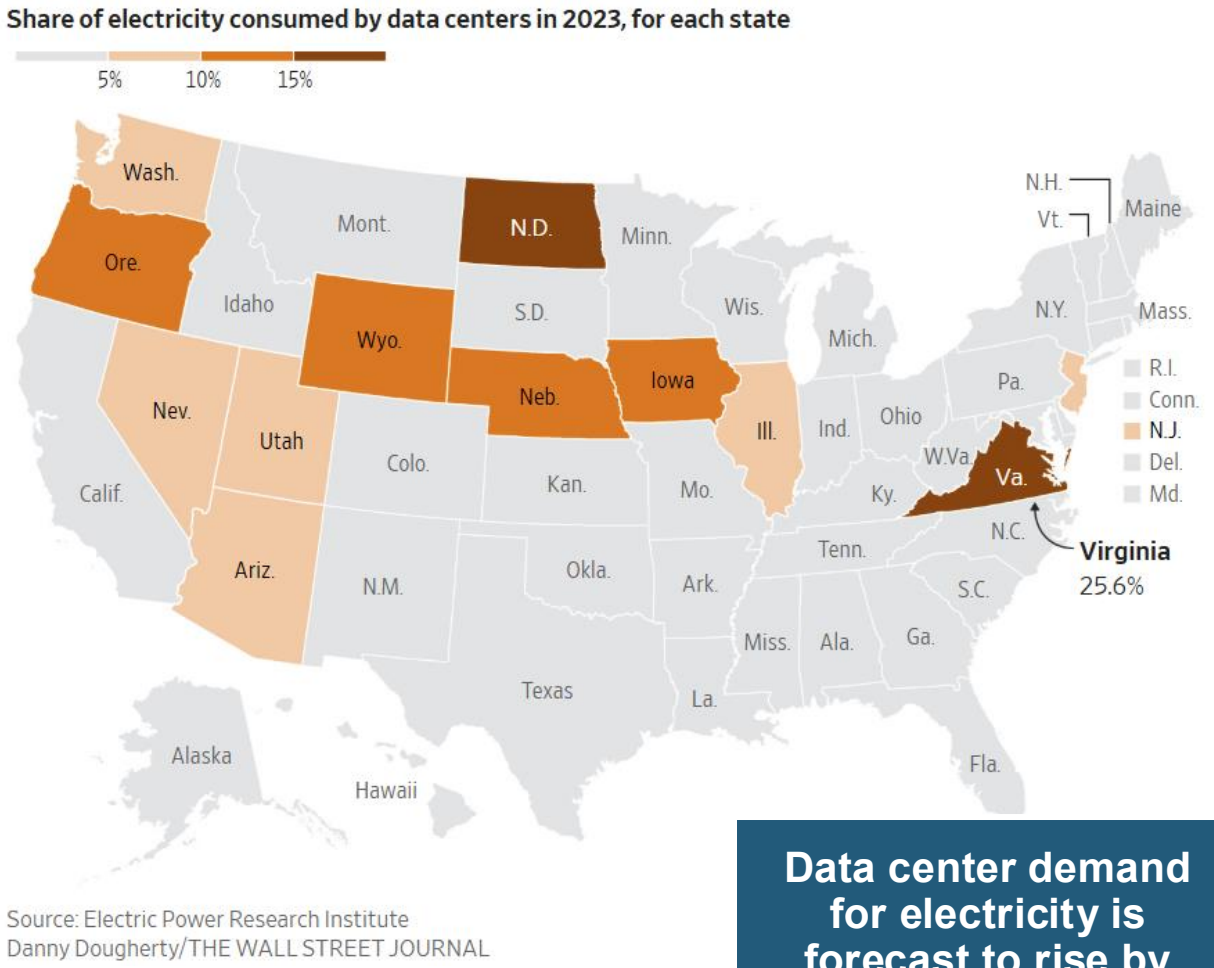
Source: Global Energy Perspective 2023 from McKinsey & Co. “Scaling bigger, faster, cheaper data centers with smarter designs” (Aug. 1, 2025) accessed at: https://www.mckinsey.com/industries/private-capital/our-insights/scaling-bigger-faster-cheaper-data-centers-with-smarter-designs.

AI Data Centers: An Insatiable Demand for Electricity



AI Data Centers, Desperate for Electricity, Are Building Their Own Power Plants

Utilities are pushing to increase supply, but meeting the surge in demand won't be easy or fast. Tech companies aren't waiting around.

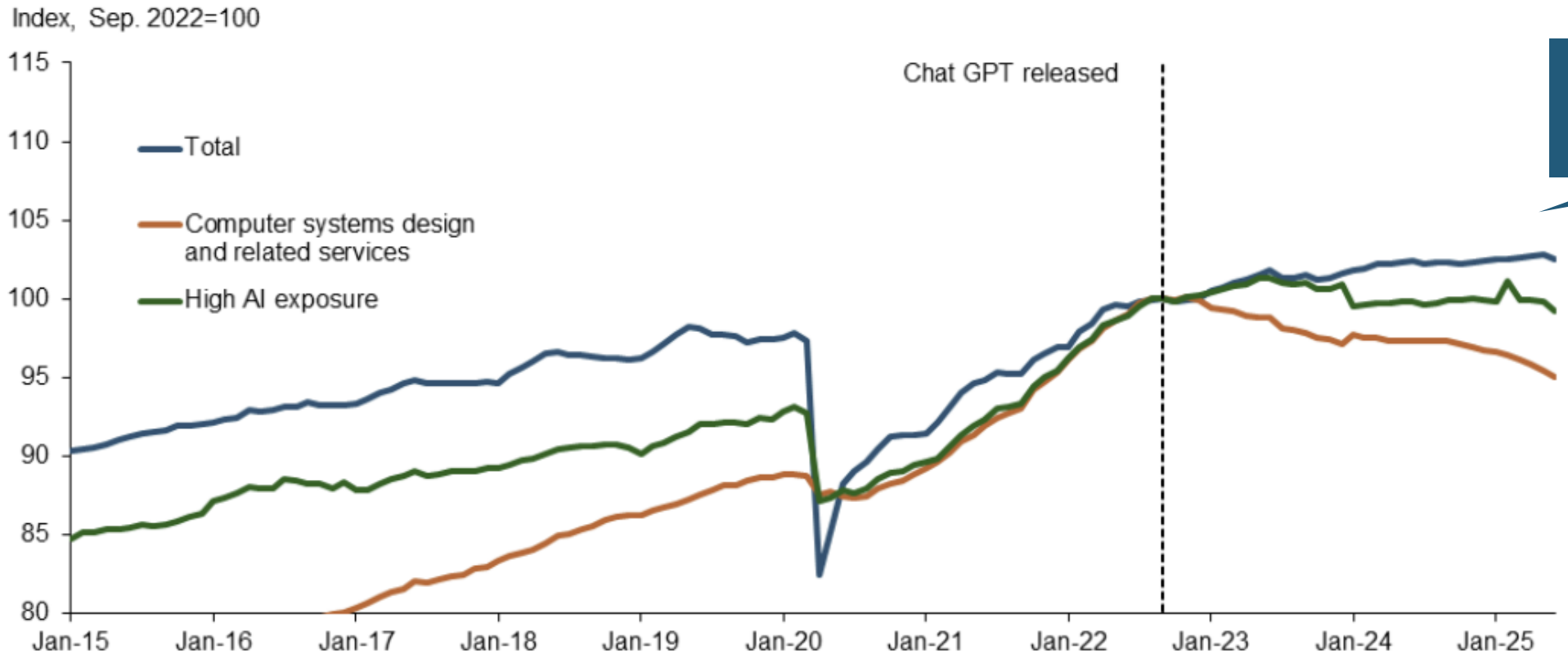


Source: Electric Power Research Institute
Danny Dougherty/THE WALL STREET JOURNAL

Data center demand for electricity is forecast to rise by more than 300% from 2023 – 2030, fueled primarily by AI

Source: Wall Street Journal (Oct. 16, 2025). "AI Data Centers, Desperate for Electricity, Are Building Their Own Power Plants, accessed at: https://www.wsj.com/business/energy-oil/ai-data-centers-desperate-for-electricity-are-building-their-own-power-plants-291f5c81?mod=hp_lead_pos7

Since Release of Chat GPT, Total US Employment Rises While Employment in Computer Systems Design and High AI-Exposure Occupations Slumps



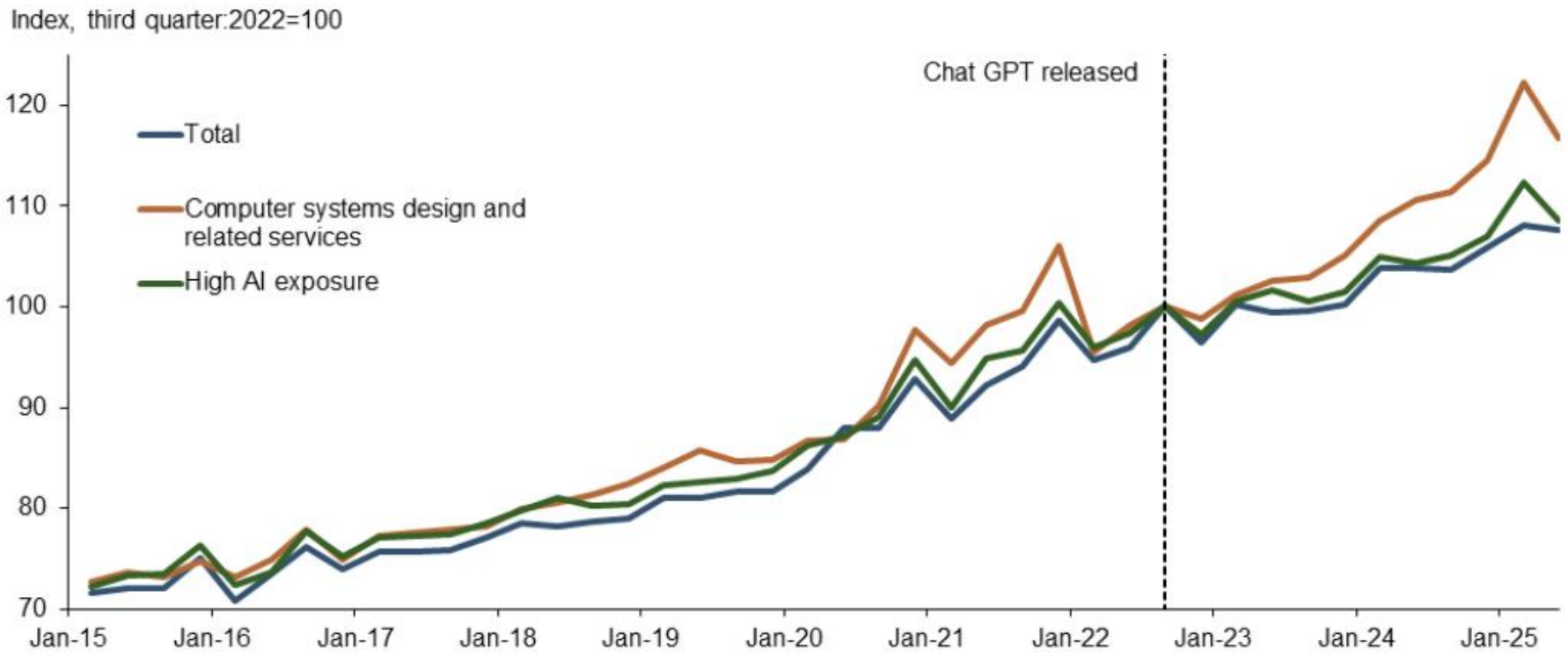
Total employment continues to rise since the release of Chat GPT

Computer systems design and other occupations with high AI exposure decline

NOTES: High artificial intelligence (AI) exposure is the simple average of indexed employment across the four-digit NAICS industries above the 90th percentile in AI exposure in Felten, Raj and Seamans (2021).
SOURCES: Bureau of Labor Statistics and "Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses," by Edward W. Felten, Manav Raj and Robert Seamans, Strategic Management Journal, 2021.

Note: Data run through June 30, 2025.
Sources: Federal Reserve Bank of Dallas, “AI is simultaneously aiding and replacing workers, wage data suggest.” (Feb. 24, 2026) accessed at: https://www.dallasfed.org/research/economics/2026/0224.

Average US Weekly Wage Continues to Trend Higher Even for AI-Exposed Occupations



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SOURCES: Bureau of Labor Statistics and "Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses," by Edward W. Felten, Manav Raj and Robert Seamans, Strategic Management Journal, 2021.

Wages continue to rise in AI-exposed occupations even as employment falls

Suggests that AI is not simply "automating" jobs, but is augmenting the productivity of experienced workers.

As a result, some entry-level workers may have a more challenging time entering the workforce, whose roles AI may more easily substitute.

Note: Data run through June 30, 2025.
Sources: Federal Reserve Bank of Dallas, "AI is simultaneously aiding and replacing workers, wage data suggest." (Feb. 24, 2026) accessed at: https://www.dallasfed.org/research/economics/2026/0224.

Occupations with the Highest and Lowest AI Occupational Exposure

Occupations most highly exposed to AI are white collar are typically "white collar" requiring computational skills or very broad ranges of knowledge

Rank	Highest scoring	Lowest scoring
1	Genetic counselors	Dancers
2	Financial examiners	Fitness trainers and aerobics instructors
3	Actuaries	Helpers—painters, paperhangers, plasterers, and stucco masons
4	Purchasing agents, except wholesale, retail, and farm products	Reinforcing iron and rebar workers
5	Budget analysts	Pressers, textile, garment, and related materials
6	Judges, magistrate judges, and magistrates	Helpers—Brickmasons, Blockmasons, stonemasons, and tile and marble setters
7	Procurement clerks	Dining room and cafeteria attendants and bartender helpers
8	Accountants and auditors	Fence erectors
9	Mathematicians	Helpers—roofers
10	Judicial law clerks	Slaughterers and meat packers
11	Education administrators, postsecondary	Landscaping and Groundskeeping workers
12	Clinical, counseling, and school psychologists	Athletes and sports competitors
13	Financial managers	Fallers
14	Compensation, benefits, and job analysis specialists	Structural iron and steel workers
15	Credit authorizers, checkers, and clerks	Cement masons and concrete finishers
16	History teachers, postsecondary	Terrazzo workers and finishers
17	Geographers	Rock splitters, quarry
18	Epidemiologists	Plasterers and stucco masons
19	Management analysts	Brickmasons and Blockmasons
20	Arbitrators, mediators, and conciliators	Roofers

Note: Occupations are ranked by their constructed AIOE measure at the six-digit Standard Occupational Classification (SOC) level. See draft for a detailed description of the construction of the AIOE measure. Occupation titles are taken from the O*NET database. Highest-scoring occupations are ranked in descending order based on the AIOE measure. Lowest-scoring occupations are ranked in ascending order based on the AIOE measure.

Unsurprisingly, the occupations deemed to have the lowest AI exposure involve a high degree of manual labor ("blue collar") or physical ability

Source: Strategic Management Journal. *Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses.* (Dec.. 2021). Accessed at: https://sms.onlinelibrary.wiley.com/doi/epdf/10.1002/smj.3286.

Industries with the Highest and Lowest AI Occupational Exposure

Information, financial services are among the most highly AI exposed industries—including insurance!

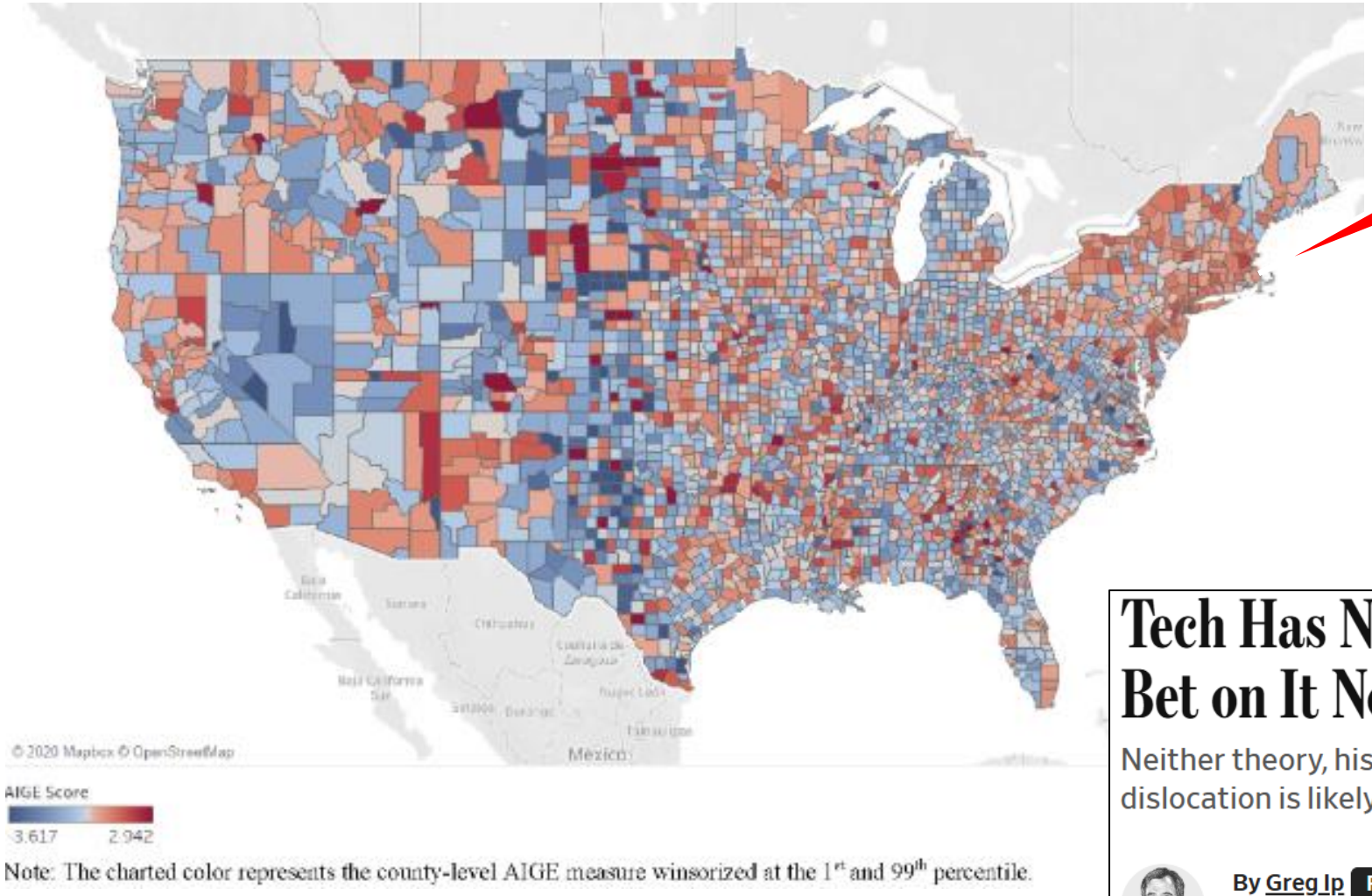
Rank	Highest scoring	Lowest scoring
1	Securities, commodity contracts, and other financial investments and related activities	Support activities for crop production
2	Accounting, tax preparation, bookkeeping, and payroll services	Services to buildings and dwellings
3	Insurance and employee benefit funds	Foundation, structure, and building exterior contractors
4	Legal services	Animal slaughtering and processing
5	Agencies, brokerages, and other insurance related activities	Building finishing contractors
6	Nondepository credit intermediation	Warehousing and storage
7	Other investment pools and funds	Fiber, yarn, and thread Mills
8	Insurance carriers	Support activities for rail transportation
9	Software publishers	Sawmills and wood preservation
10	Lessors of nonfinancial intangible assets (except copyrighted works)	Support activities for water transportation
11	Agents and managers for artists, athletes, entertainers, and other public figures	Logging
12	Credit intermediation and related activities (5,221 and 5,223 only)	Other specialty trade contractors
13	Computer systems design and related services	Waste collection
14	Management, scientific, and technical consulting services	Postal service (federal government)
15	Monetary authorities-central Bank	Highway, street, and bridge construction
16	Office administrative services	Truck transportation
17	Other information services	Apparel knitting Mills
18	Data processing, hosting, and related services	Seafood product preparation and packaging
19	Business schools and computer and management training	Local messengers and local delivery
20	Grantmaking and giving services	Utility system construction

Note: Industries are ranked by their constructed AIIE Measure at the four-digit North American Industry Classification System (NAICS) level. See draft for a detailed description of the construction of the AIIE Measure. Industry titles are taken from the Bureau of Labor Statistics. Highest-scoring occupations are ranked in descending order based on the AIIE Measure. Lowest-scoring occupations are ranked in ascending order based on the AIIE Measure.

Industries where manual labor is key are less exposed to AI

Source: Strategic Management Journal. *Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses.* (Dec.. 2021). Accessed at: https://sms.onlinelibrary.wiley.com/doi/epdf/10.1002/smj.3286.

Geographic Exposure to AI-Vulnerable Jobs



Note: The charted color represents the county-level AIGE measure winsorized at the 1st and 99th percentile.

Most of the Northeast, including Boston is heavily exposed

RED = More Exposed
BLUE = Less Exposed

THE WALL STREET JOURNAL.

Tech Has Never Caused a Job Apocalypse. Don't Bet on It Now.

Neither theory, history nor the latest data suggests a recession driven by AI job dislocation is likely

By Greg Ip **Follow**

Feb. 27, 2026 5:30 am ET

Source: Strategic Management Journal. *Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses.* (Dec.. 2021). Accessed at: https://sms.onlinelibrary.wiley.com/doi/epdf/10.1002/smj.3286.

Summary

- Workers Comp Has Been Among the Strongest Performing P/C Lines
- Overall Premium Growth Over the Past Decade Has Been Flat-to-Down Despite Consistent Employment and Wage Growth
- An 8-Year Long Hard Market Across Most Property and Casualty Lines—with the Exception of WC Means that the Line Has Shrink Significantly in Relative Terms
- WC Has Less Influence on Industry Results—But Because the Line Is More Profitable, its Influence Is More Beneficial to the Industry than in the Past
- AI Could Have a Material Impact on WC's Industry Mix
- Over Time, Industry Mix Could Tilt Back to "Blue Collar" Occupations

UNIVERSITY OF
SOUTH CAROLINA
Darla Moore School of Business

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