Pandemics, Politics and the Economics of Workers Compensation:

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Pandemics & P/C Insurance: Outline

- **P/C Insurers: Overcoming Uncertainty With Strength**
  - Financial Overview: The Industry's Financial Position Amid the COVID-19 Pandemic
- **The Economy, Investment Markets and COVID-19: Overview & Outlook**
- **Workers Compensation Performance & Exposure Overview**
- **Federal & State COVID-19 Initiatives Impacting Commercial Insurers**
- **Summary and Conclusions**
- **Q&A**

P/C Insurance Industry: Financial Overview Amid the COVID-19 Pandemic

The P/C Insurance Industry Entered the COVID-19 Pandemic from a Position of Financial Strength

Economic, Financial Market, Regulatory and Tort Risks Are Major Challenges Going Forward

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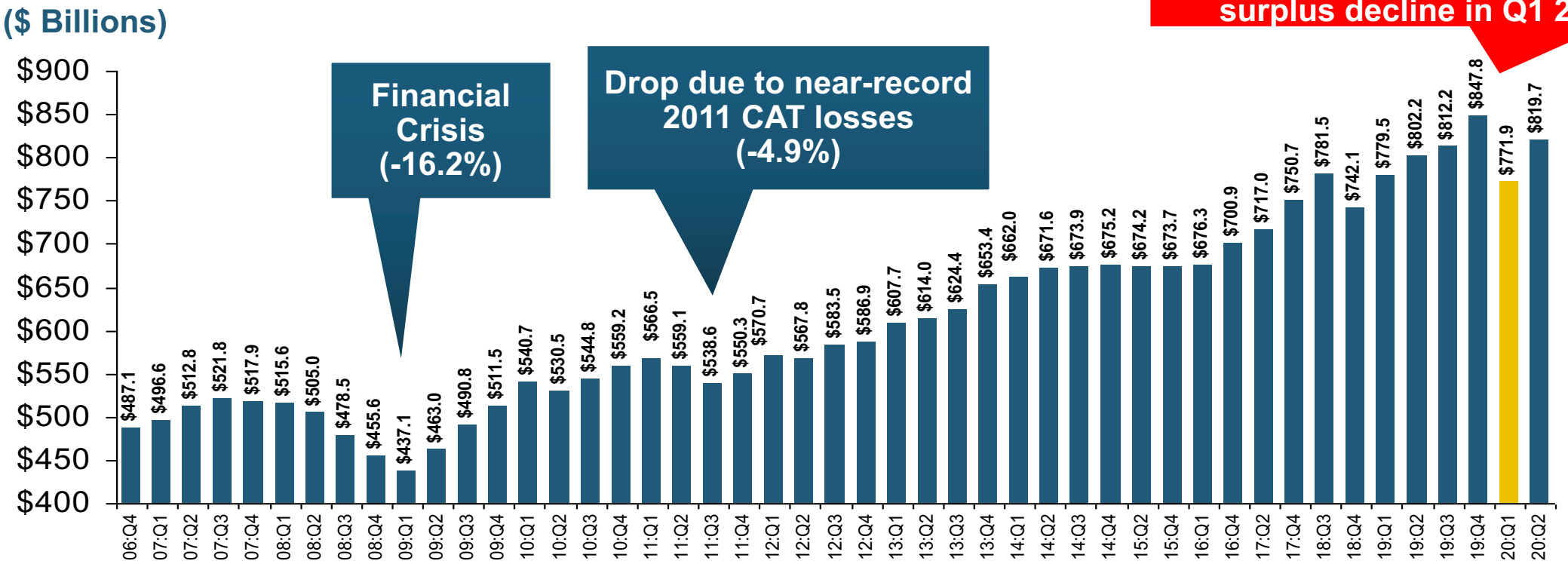
Policyholder Surplus (Capacity), 2006:Q4–2020:H1

The P/C insurance industry entered the COVID-19 pandemic from a position strength and was able to withstand the 9.0% surplus decline in Q1 2020

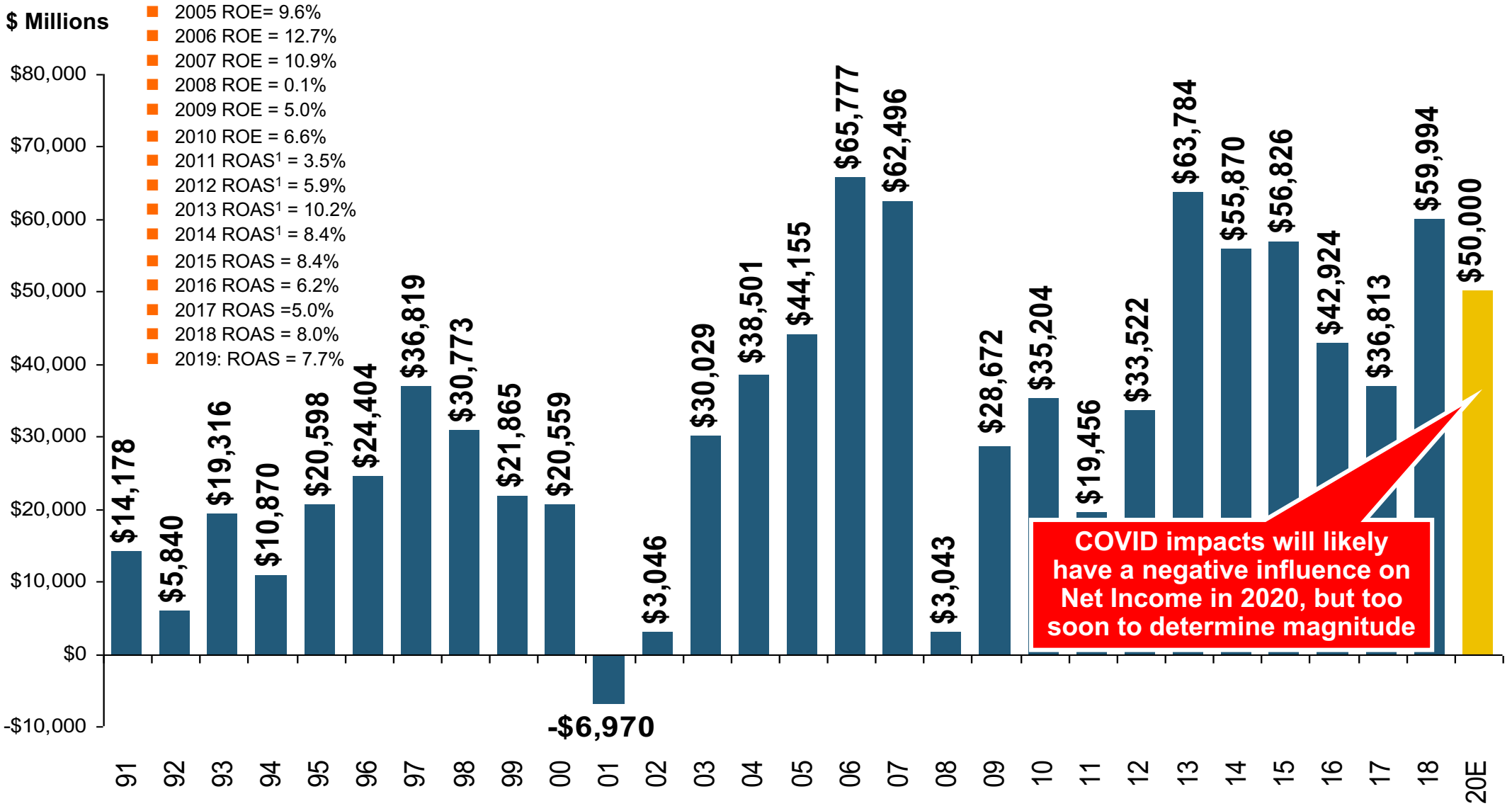


2010:Q1 data includes $22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business.

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.

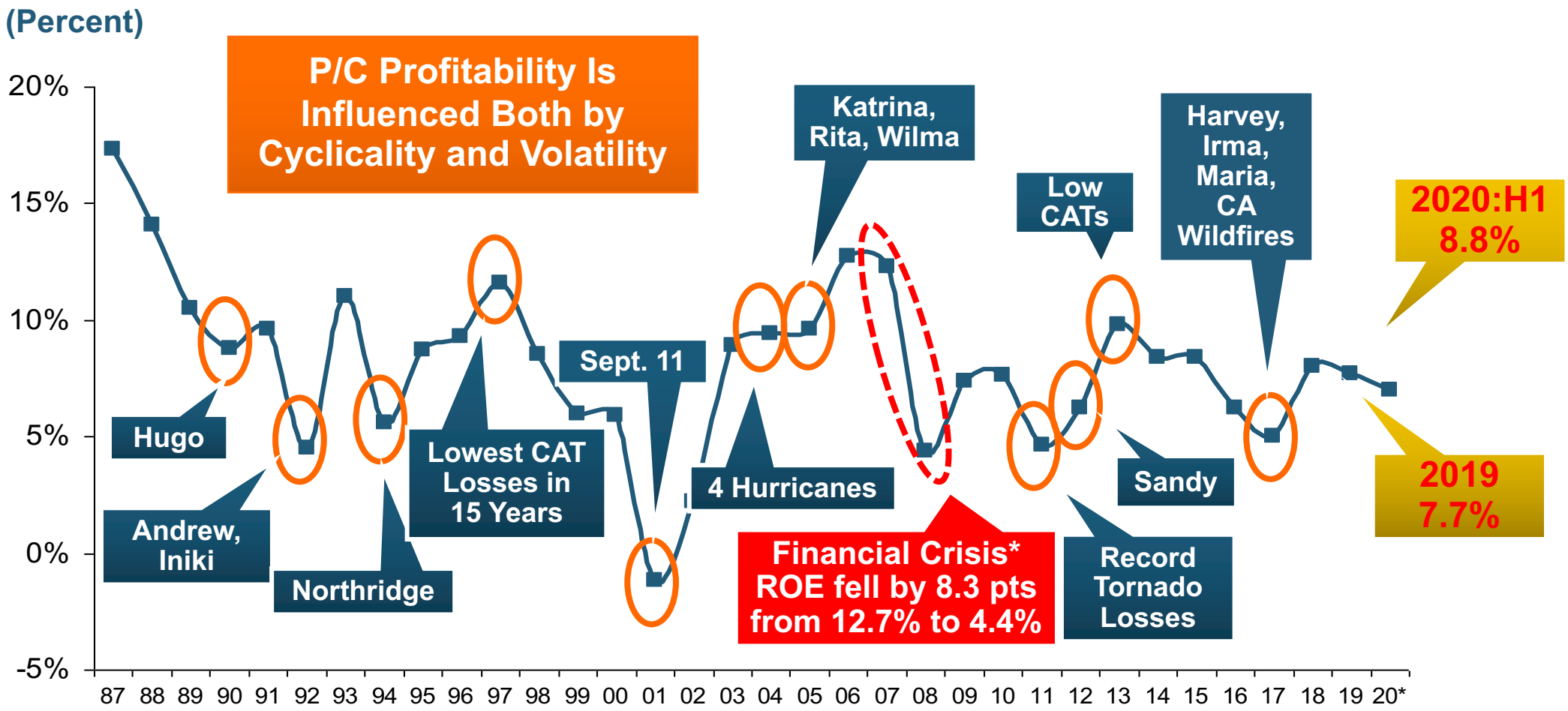
Sources: ISO, A.M .Best; Risk and Uncertainty Management Center, University of South Carolina.

P/C Industry Net Income After Taxes, 1991–2020E*



*2020 estimate based on annualized actual 1H:20 figure of $25.0B. ROE figures are GAAP; [1]Return on avg. surplus. Excludes Mortgage & Financial Guaranty insurers for years (2009-2014).
Sources: A.M. Best, ISO.

ROE: Property/Casualty Insurance by Major Event, 1987–2020:H1* (est.)

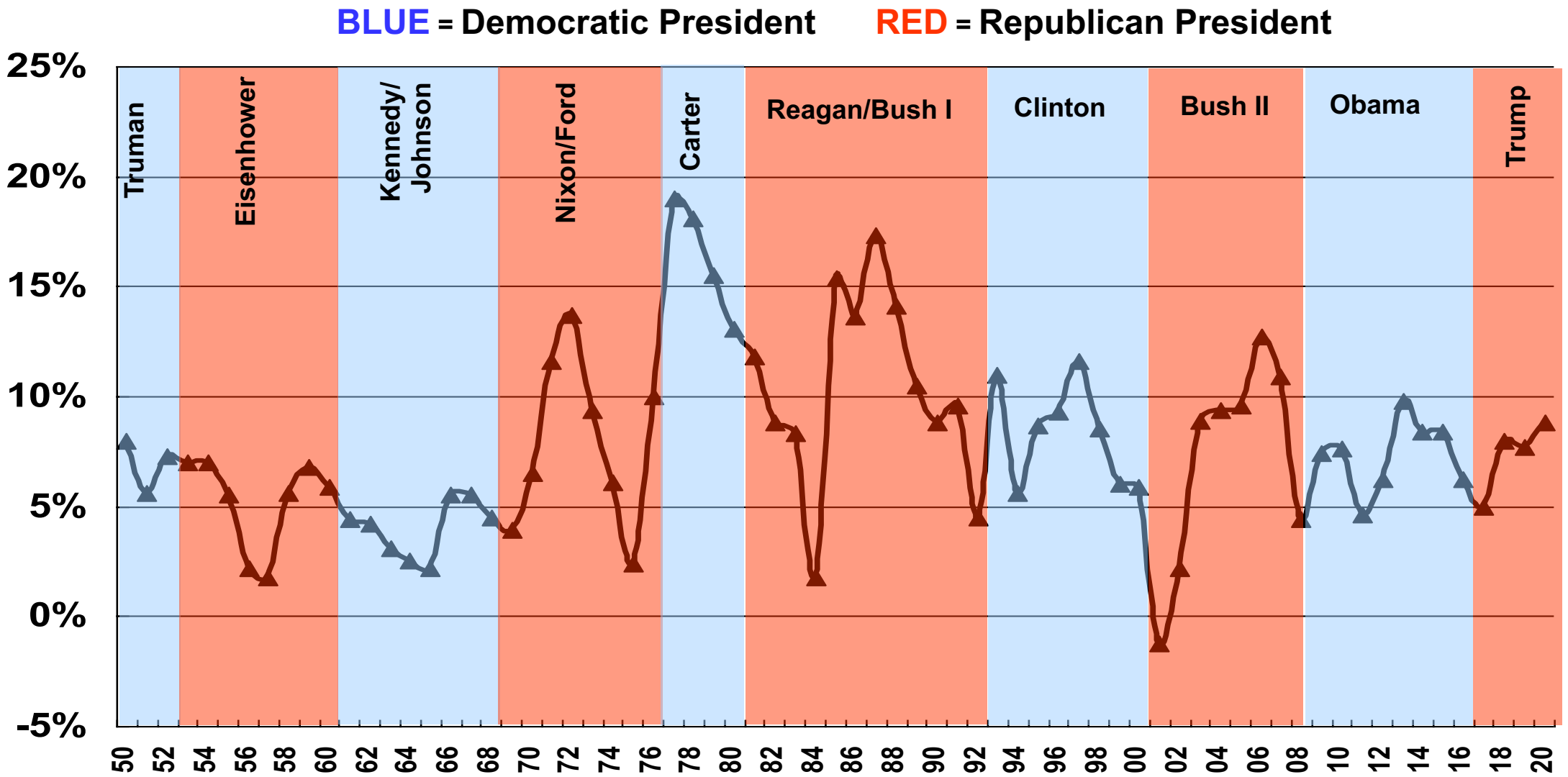


*Excludes Mortgage & Financial Guarantee in 2008 – 2014. 2020:H1 estimate is based on actual Q1 2020 figure of 8.8%.
Sources: ISO, *Fortune*; USC RUM Center.

Profitability & Politics

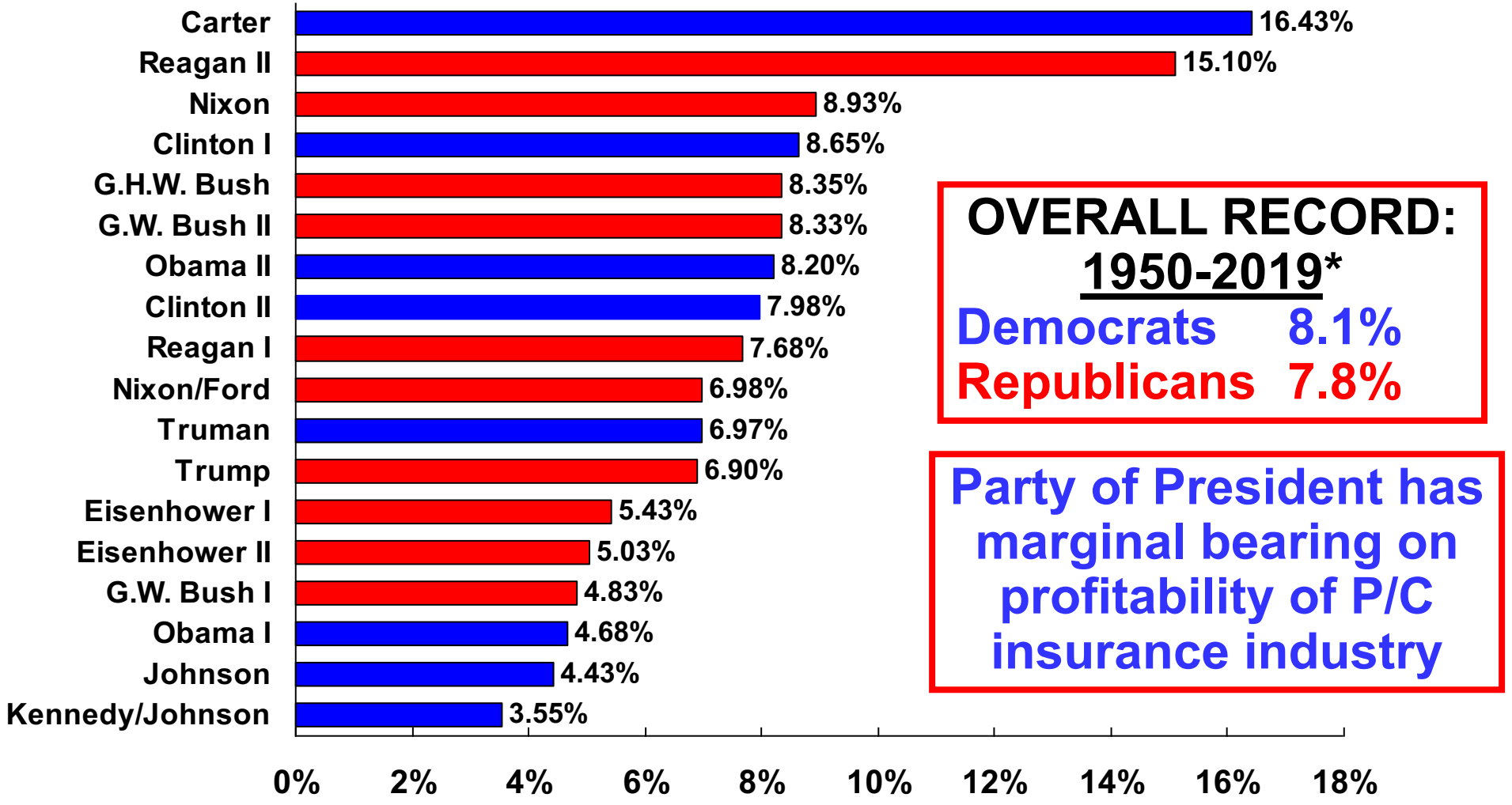
How Is Profitability Affected by the President's Political Party?

P/C insurance Industry ROE by Presidential Party Affiliation, 1950- 2020*



*2020 figure is for Q1 only. ROEs for the years 2008-2014 exclude mortgage and financial guaranty segments.
Source: Risk and Uncertainty Management Center, University of South Carolina.

P/C Insurance Industry ROE by Presidential Administration, 1950-2019*

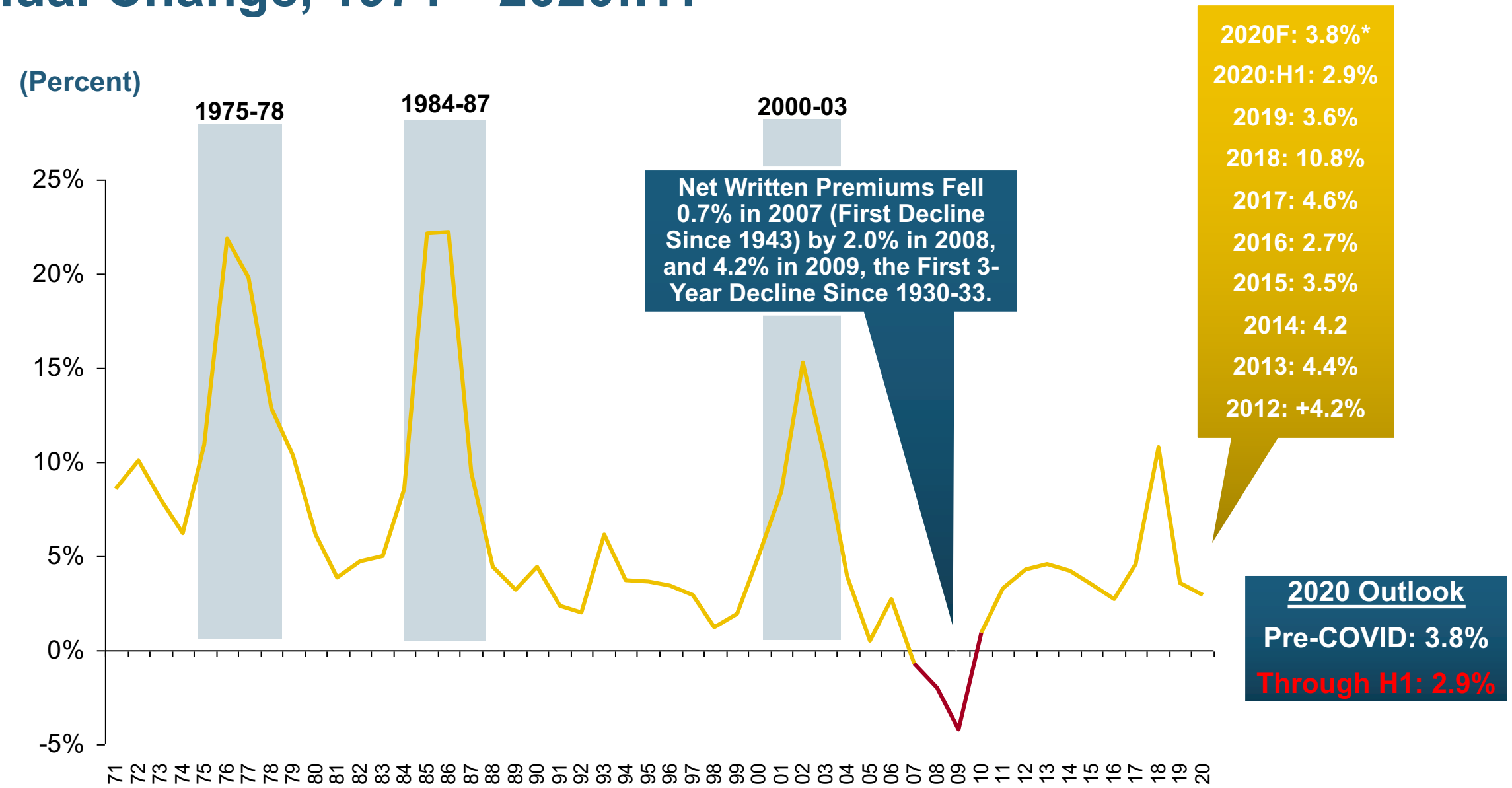


OVERALL RECORD:
1950-2019*
Democrats 8.1%
Republicans 7.8%

Party of President has marginal bearing on profitability of P/C insurance industry

*Trump figure is 2017-2019 average. ROEs for the years 2008-2014 exclude mortgage and financial guaranty segments.
Source: Risk and Uncertainty Management Center, University of South Carolina.

Net Premium Growth (All P/C Lines): Annual Change, 1971—2020:H1



*Pre-COVID-19 forecast from A.M. Best Review & Preview (Feb. 2020). NOTE: Shaded areas denote "hard market" periods
Sources: A.M. Best (1971-2013, 2020F), ISO (2014-19); Risk & Uncertainty Management Center, Univ. of South Carolina .

Potential Impacts of COVID-19 on *Written Premium* in 2020, by Key Line

Line	Estimated Premium Impact
Workers Compensation	12.5% to 25% reduction in premium written in 2020 ***(equates to $5.9B to $11.75B DWP)***
Business Interruption & Contingency	7% to 13% reduction in premium volume (US & UK)
General Liability*	$1.5B to $6.3B premium reduction in US
Personal Auto	~$10B in refunds, rebates (equates to ~4% of DWP)
Personal Travel Insurance	29% to 78% reduction in premium written (US & UK)
Personal/Comm. Motor	~10% reduction in US; 0% to 11% reduction in UK
Marine/Aviation/Transport	$0.7B-$1.5B (US); $0.6 - $1.2B (UK)

*Includes nursing home professional liability.

Source: Derived from Willis Towers Watson, *Scenario Analysis of COVID-19 Pandemic* (Fig.11, 14), May 2020. and other sources; Risk and Uncertainty Management Center, University of South Carolina.

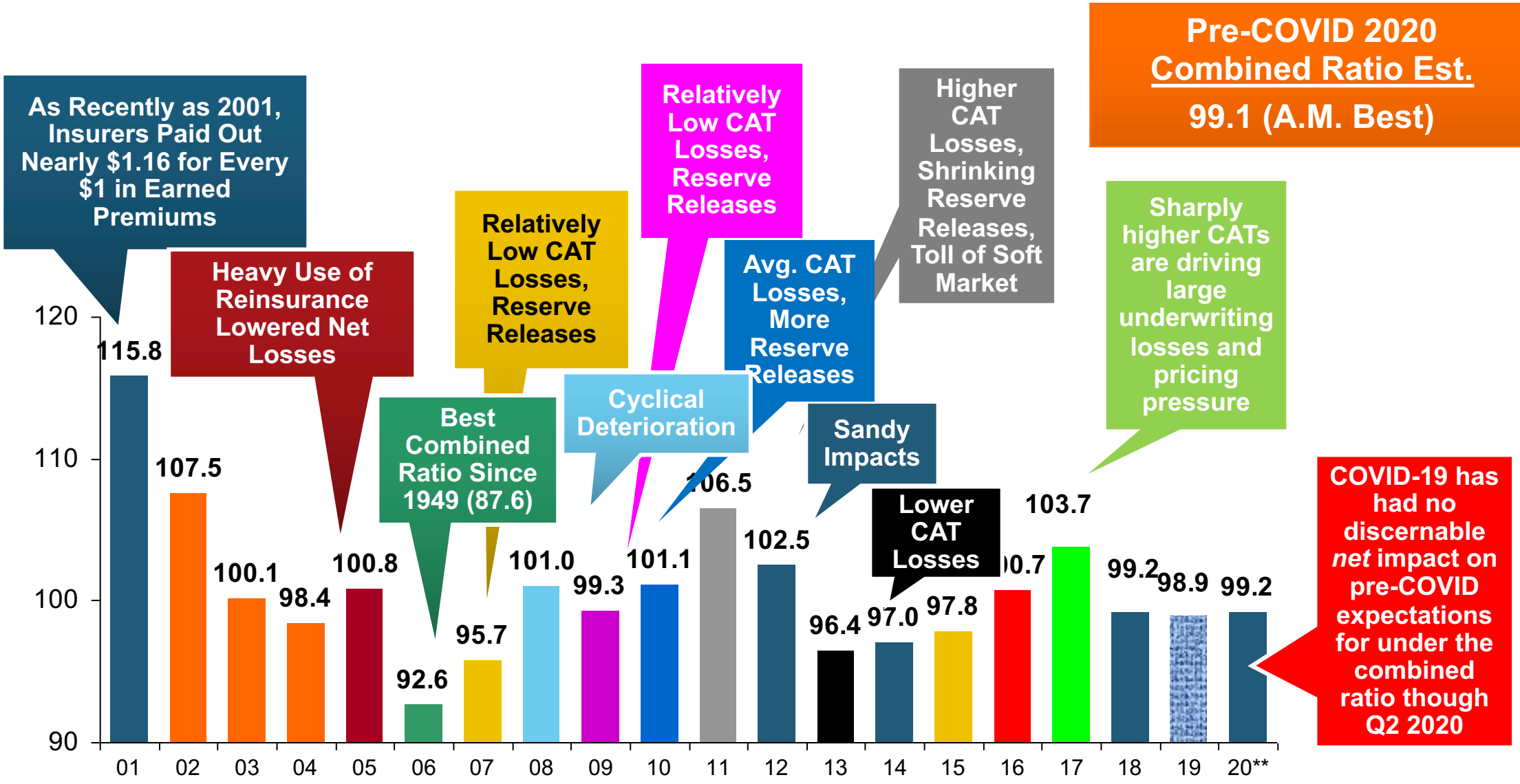
Potential Impacts of COVID-19 on *LOSSES* in 2020, by Key Line

Line	Estimated Loss Impact
Workers Compensation	$0.2B - $92B ***(depends on severity of pandemic and "presumption" determination)***
Business Interruption & Contingency	$2B - $22B (US); $1.1B - $13.9B (UK)
General Liability*	$0.7B to $27B loss across US & Bermuda markets
Personal/Comm. Motor	$26B - $57B reduction in personal auto and $4.2B - $9.4B commercial (US); $1 - $7B overall reduction in UK
Mortgage	$0 - $1.7B loss across US & Bermuda markets
D&O	$0.6 - $4.0 loss across US & Bermuda markets
Marine/Aviation/Transport	$0.3B-$1.3B reduction (US); $0.6 - $1.1B (UK)

*Includes nursing home professional liability.

Source: Derived from Willis Towers Watson, *Scenario Analysis of COVID-19 Pandemic* (Fig.11, 14), May 2020. and other sources; Risk and Uncertainty Management Center, University of South Carolina.

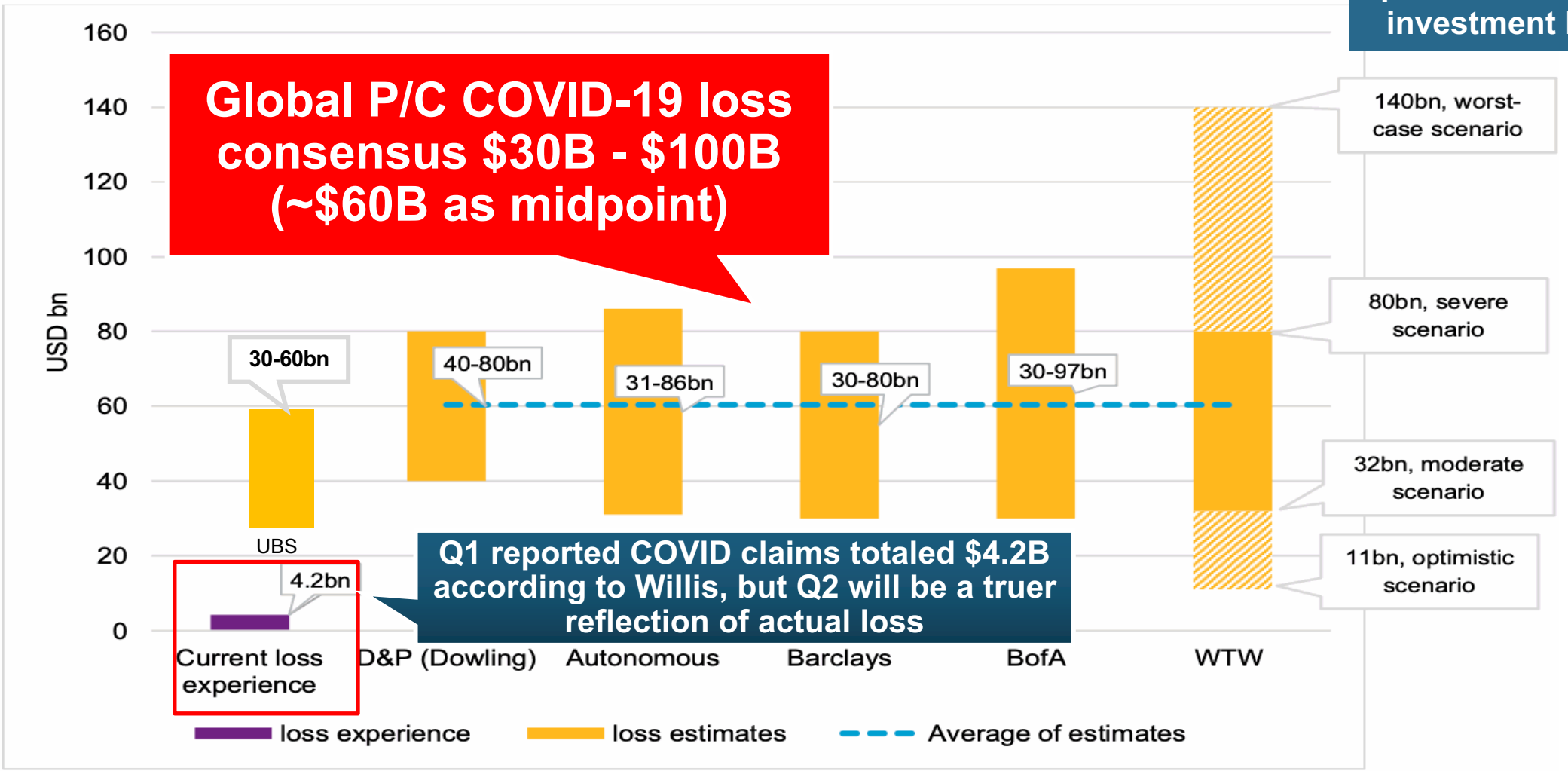
P/C Insurance Industry Combined Ratio, 2001–2020:H1*



*Excludes Mortgage & Financial Guaranty insurers 2008--2014.
*First Half 2020.
Sources: A.M. Best, ISO (2014-2019).

COVID-19 Announced Losses vs. Top-Down Industry Estimates (as of May 12, 2020)

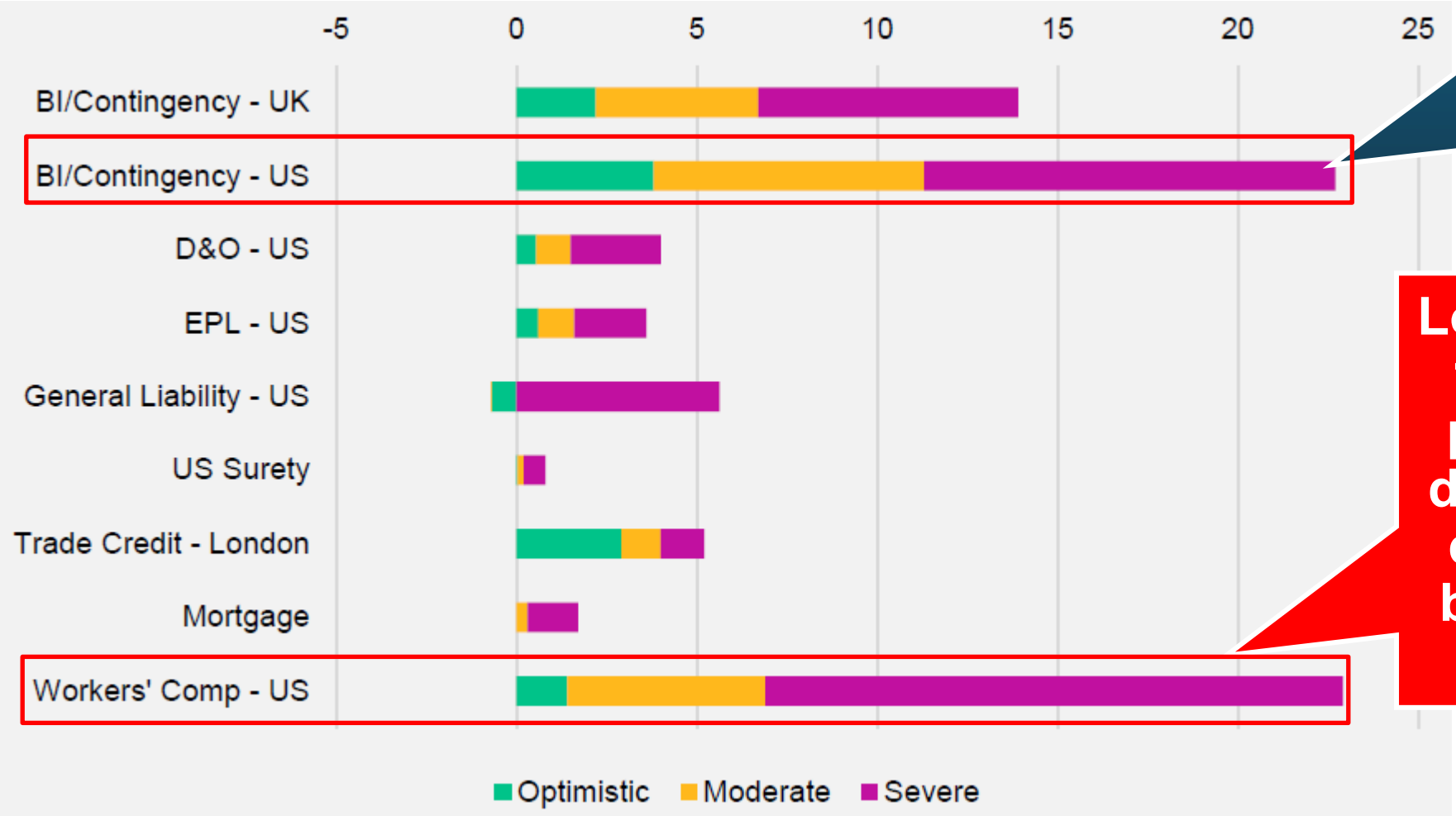
Lloyd's: Says its own p/c claims could reach $4.3B by June 30. Estimates global p/c losses at $107B; Global investment losses = $96B*



*Lloyd's CEO John Neil appearance on CNBC, May 14, 2020: https://www.cnbc.com/2020/05/14/lloyds-of-london-coronavirus-will-be-largest-loss-on-record-for-insurers.html

Sources: Company disclosures, Dowling & Partners, Barclays Research, Autonomous Research, BofA Global Research, UBS Securities, Willis Towers Watson from Artemis.bm accessed at https://www.artemis.bm/news/consensus-emerging-on-30bn-to-100bn-covid-19-industry-loss-willis-re/; Risk and Uncertainty Management Center, University of South Carolina.

Potential Impact of COVID-19 on Insured Losses by Line



Business Interruption losses are potentially material even under the moderate severity scenario

Loss impacts of COVID-19 on the WC line are potentially severe but depend not only on the course of the disease but state decisions on presumption

Source: Willis Towers Watson, *Scenario Analysis of COVID-19 Pandemic* (Fig.10), May 2020; Risk and Uncertainty Management Center, University of South Carolina.

Viral Outbreaks Are Not An Insurable Risk

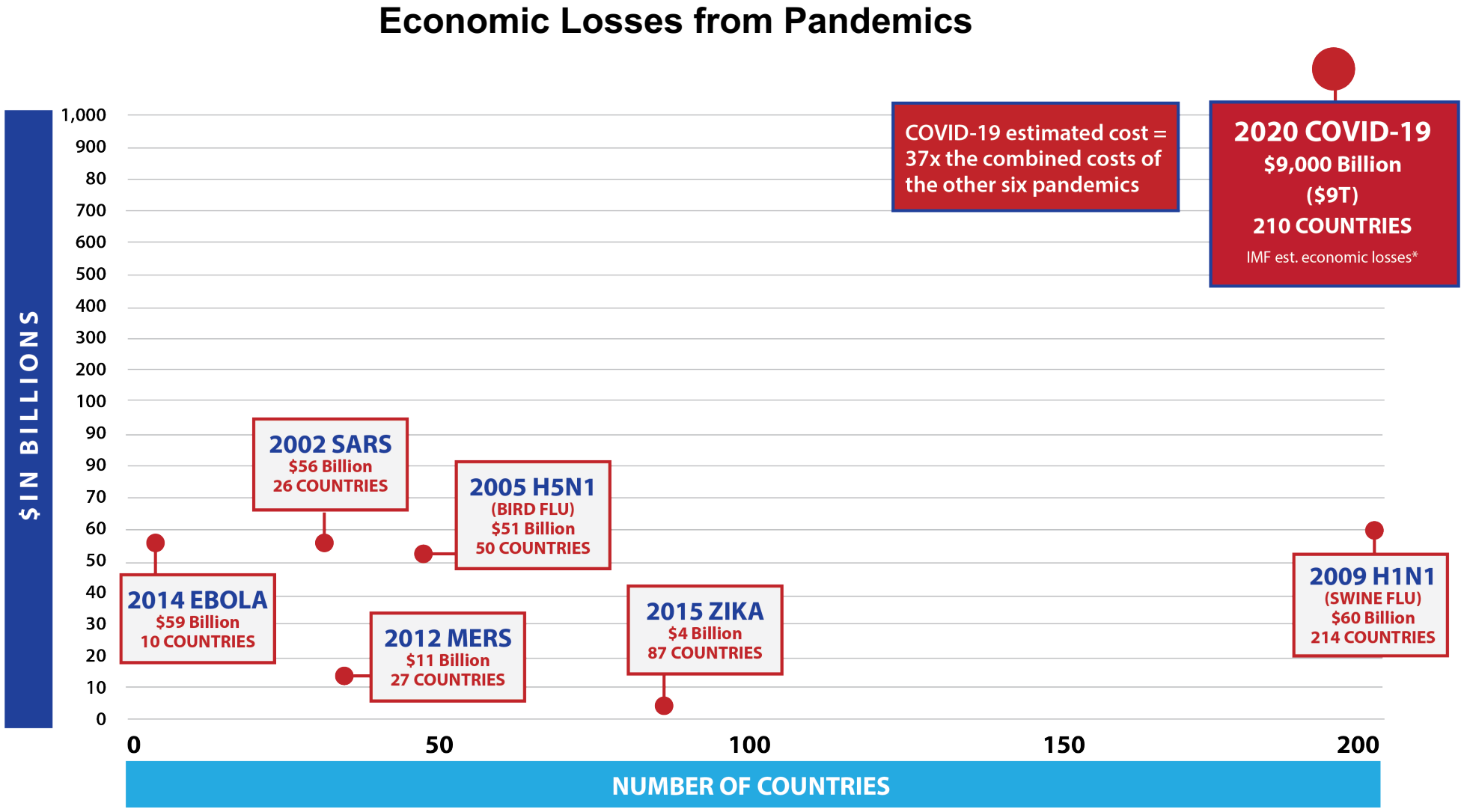
Pandemics are frequent, severe, and widespread (7 pandemics with multi-billion$ economic losses in just the last 18 years)

For Reference

2005 Katrina $58 Billion

2001 9/11 $48 Billion

(insured losses)

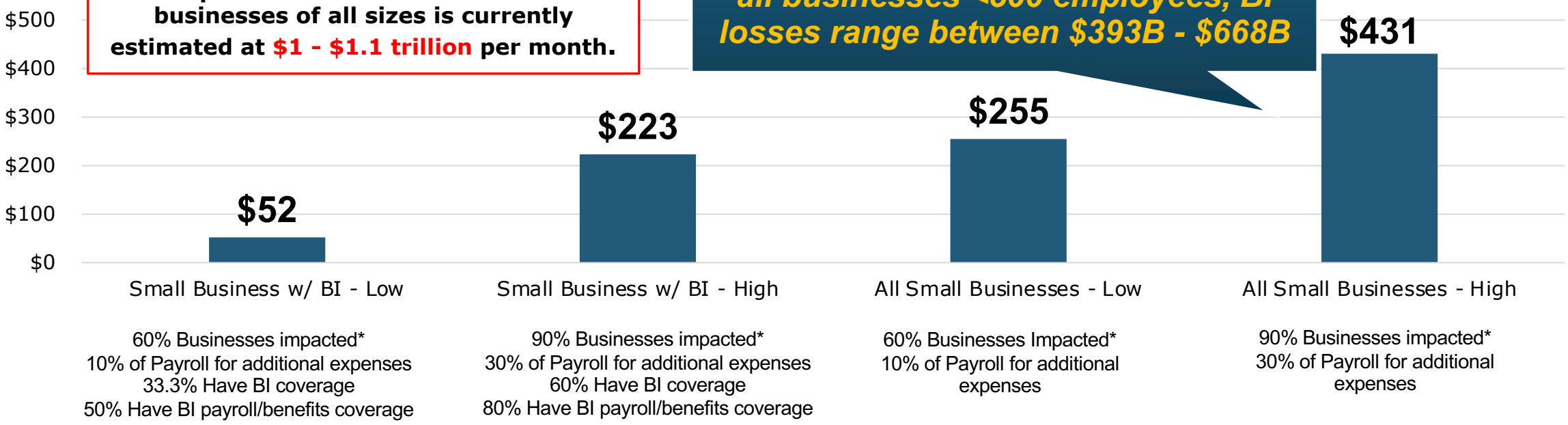


*Sources: APCIA using published reports, including IMF, World Bank, Learnbonds.com; APCIA adjustment to 2020 USD

Estimated Monthly U.S. Business Interruption Coronavirus Losses for Small Business—Potential Range (<100 Employees; $Bill)

The potential for such losses for all businesses of all sizes is currently estimated at $1 - $1.1 trillion per month.

Monthly BI losses for small business vary widely depending on underlying assumptions but expansive legislation would result in higher estimates; *For all businesses <500 employees, BI losses range between $393B - $668B*

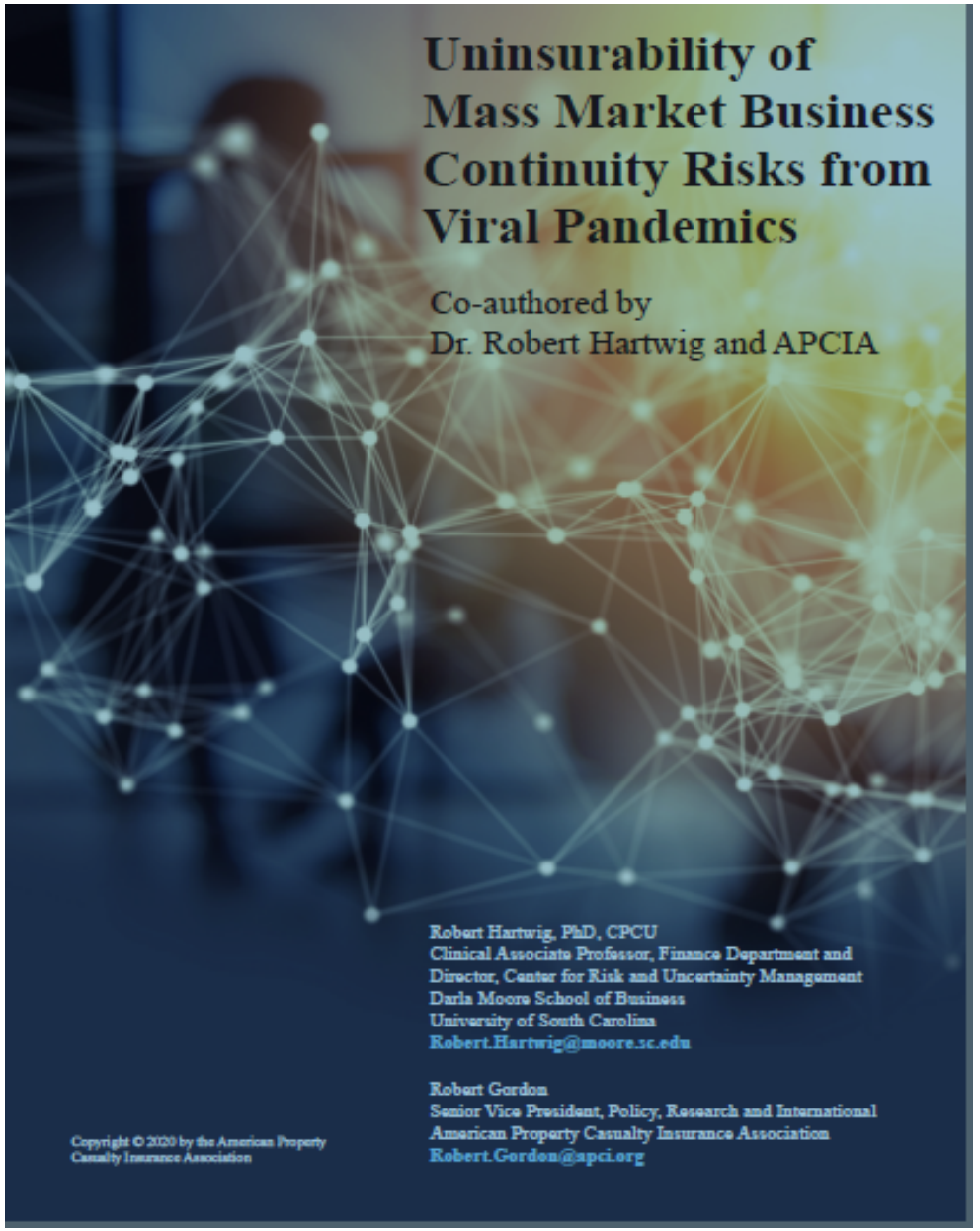


* Businesses impacted: Proportion of businesses completely or substantially closed related to coronavirus
Assumptions: Losses if standard insurance policy exclusions for viruses/pandemics are voided and physical loss/damage requirement is stricken; three main coverages - profit lost, payroll/benefits, additional expenses; average annual $2m revenue and 7% profit margin; non-wage benefits of small businesses are 25% less than that for average US businesses

Source: APCIA, April 2020.

June Paper on Insurability of Pandemic Risk

- Large scale business continuity risks from pandemics are generally note insurable in the private sector
- Business continuity risks are largely undiversifiable within private insurance markets and are highly correlated with other risks (e.g., investment risks)
- Large scale business continuity losses pose a potentially systemic risk to the industry and overall economy
- Import role for government



Download at: https://www.uscriskcenter.com/wp-content/uploads/2020/05/Uninsurability-of-Pandemic-Risk-White-Paper-Hartwig-APCIA-FINAL-WORD.pdf

INVESTMENTS:
THE NEW REALITY

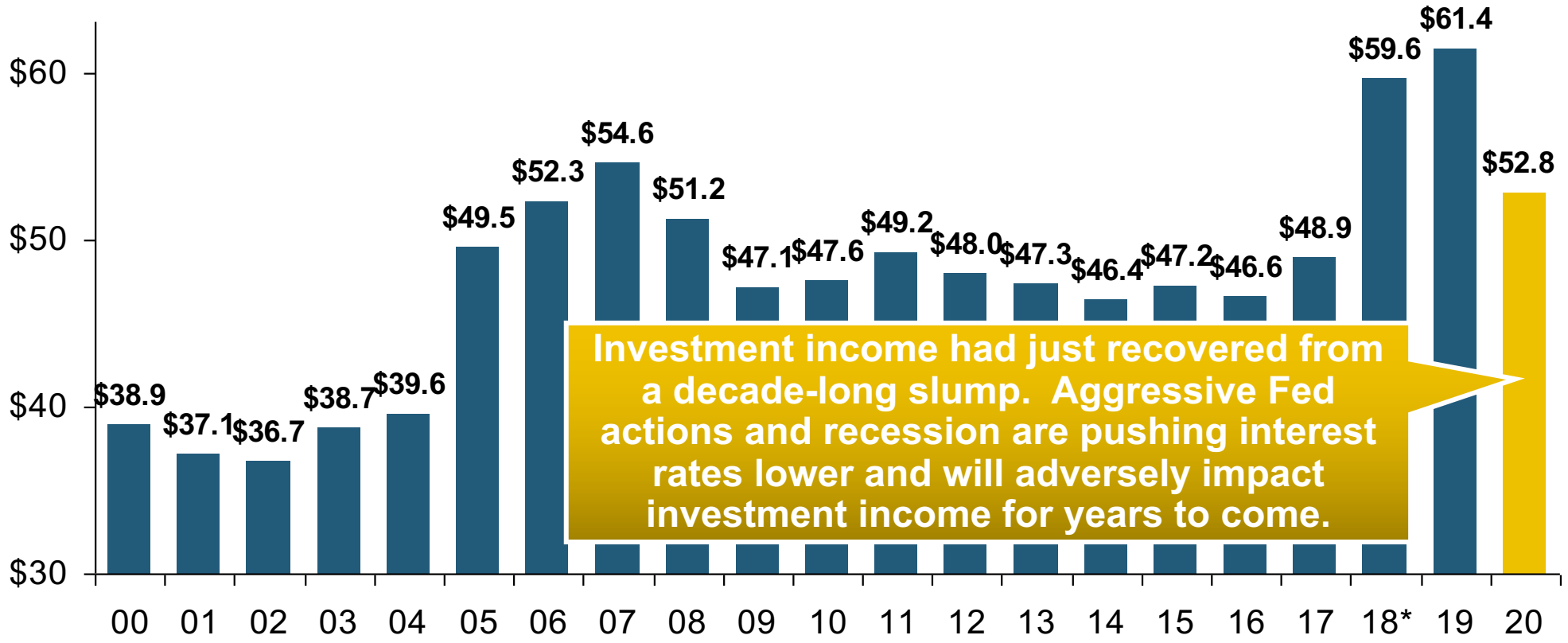
Investment Performance Is a Key Driver of Insurer Profitability

Aggressive Rate Cuts Will Adversely Impact Invest Earnings

Financial Crisis *Déjà Vu*?

Property/Casualty Insurance Industry Investment Income: 2000–2020E

($ Billions)

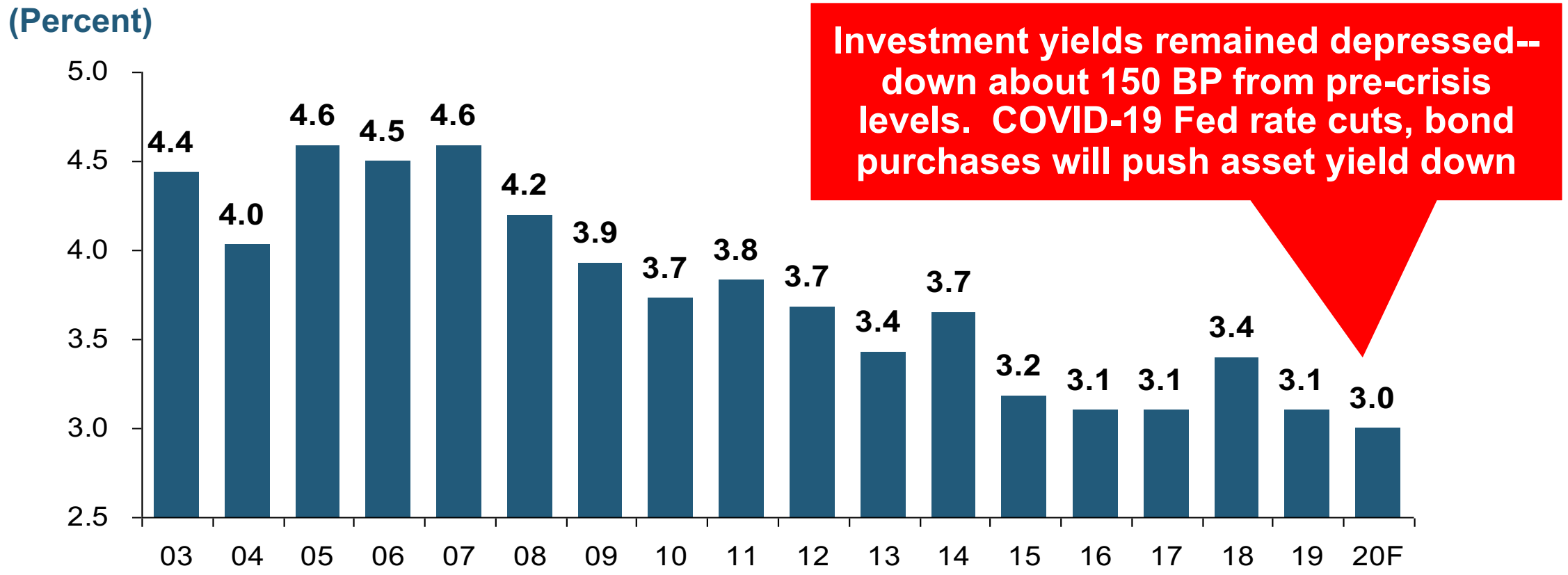


Due to persistently low interest rates, investment income remained below pre-crisis levels for a decade. Lower interest rates post-COVID will drive investment income down once again.

*2020 figure is annualized based on H1 actual of $26.4B. 2018-19 figures are distorted by provisions of the TCJA of 2017. Increase reflects such items as dividends from foreign subsidiaries.

[1] Investment gains consist primarily of interest and stock dividends. Sources: ISO; University of South Carolina, Center for Risk and Uncertainty Management.

Net Investment Yield on Property/Casualty Insurance Invested Assets, 2007–2020F*



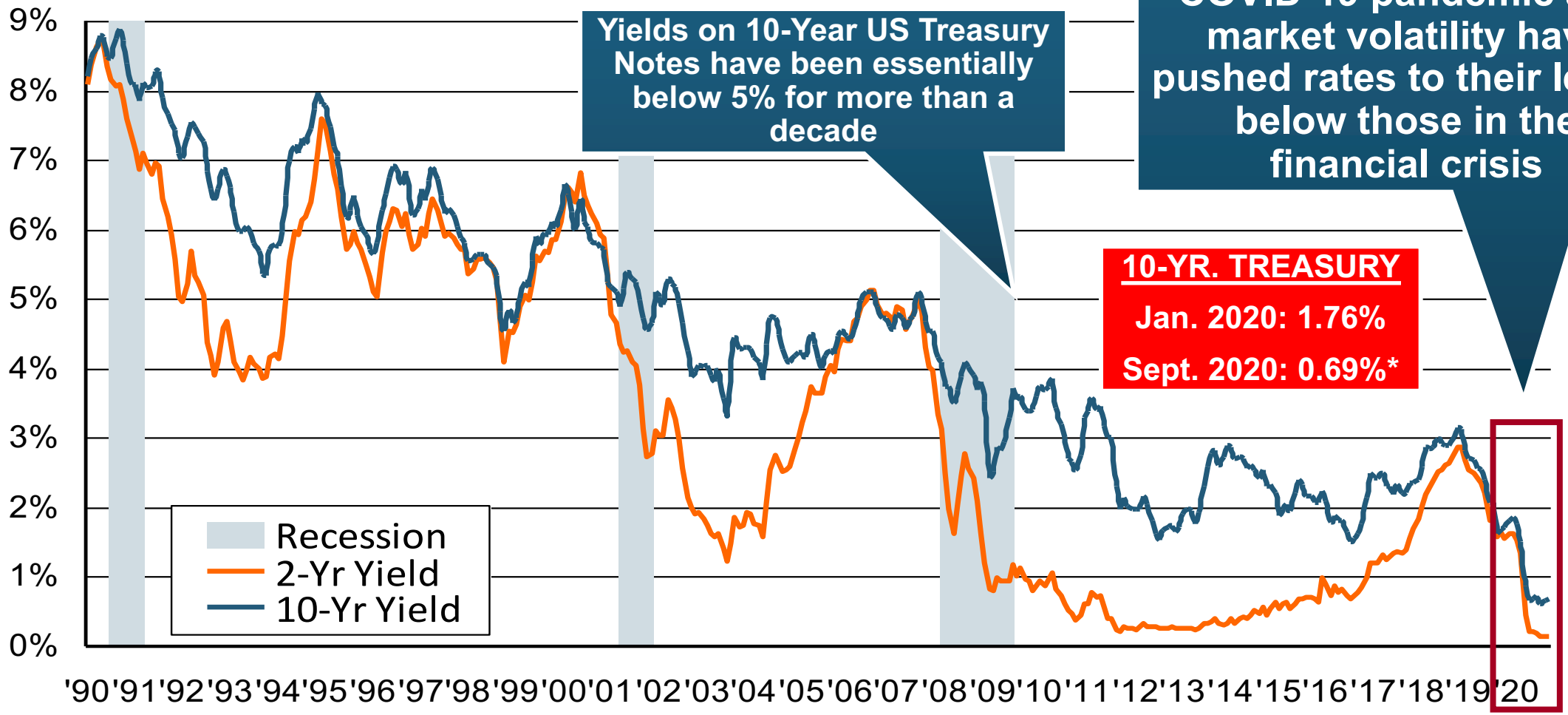
Investment yields remained depressed--down about 150 BP from pre-crisis levels. COVID-19 Fed rate cuts, bond purchases will push asset yield down

The yield on invested assets remains low relative to pre-crisis yields. Fed rate increases beginning in late 2015 through 2018 halted the slide in yields, but rate cuts in 2019/2020 will preclude future gains

Average: 1960-2019 = 4.9%
Low: 2.8% (1961)
High: 8.2% (1984/85)

Sources: NAIC data, sourced from S&P Global Market Intelligence; 2017-19 figures are from ISO. 2020F is from the Risk and Uncertainty Management Center, Univ. of South Carolina.

US Treasury Security Yields: A Long Downward Trend, 1990–2020*



Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for many years to come.

*Monthly, constant maturity, nominal rates, through Sept. 2020. Sept. 2020 figure is as of 9/13/20.

Sources: Federal Reserve Bank at http://www.federalreserve.gov/releases/h15/data.htm. National Bureau of Economic Research (recession dates); Risk and Uncertainty Management Center, University of South Carolina.

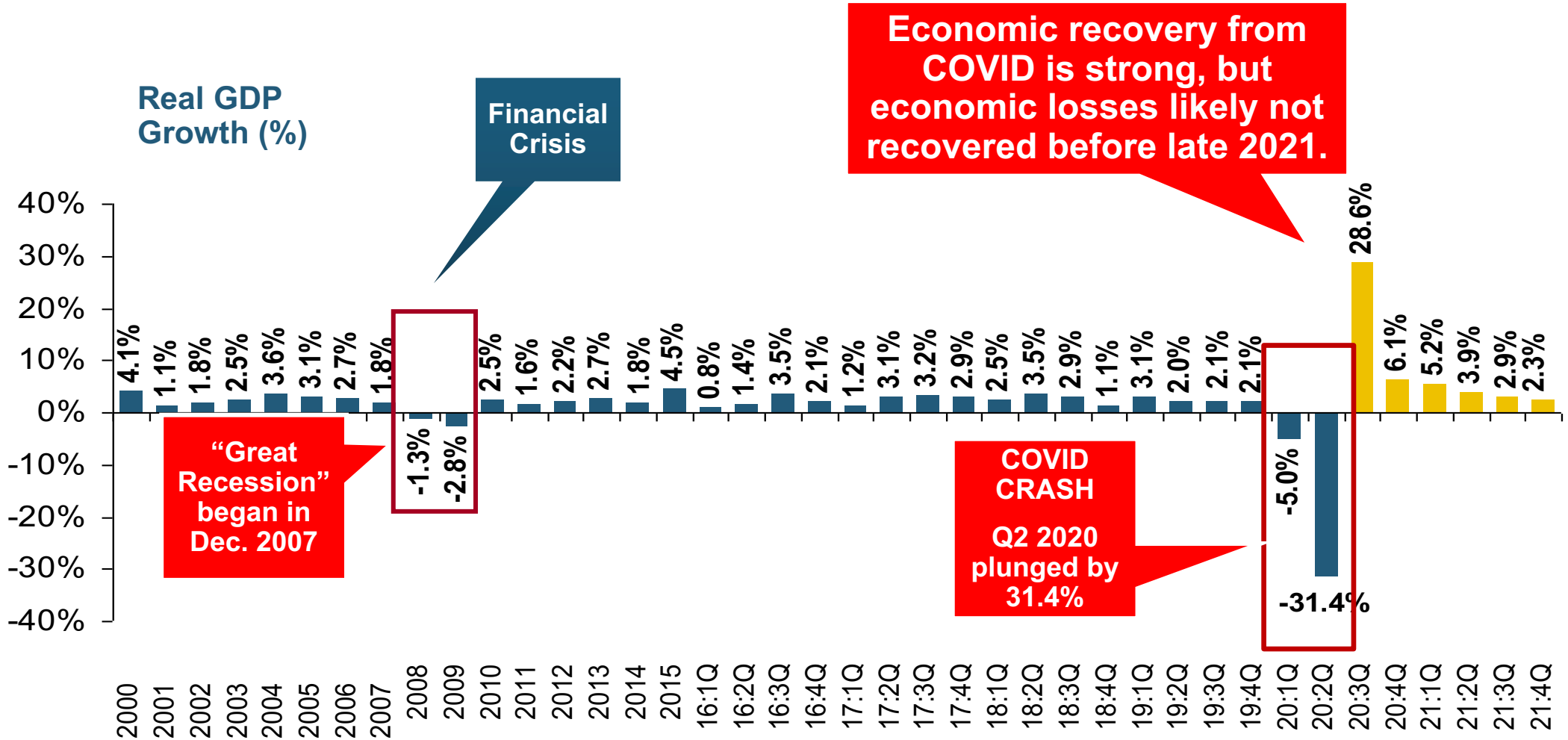
THE ECONOMY

COVID-19 Pandemic Will Directly and Severely Impact Growth As Exposure Growth Rapidly Shrinks

The Strength of the Economy Has Always Influenced Growth in Insurers' Exposure Base Across Most Lines

The Links Between the Economy and the P/C Insurance Industry Are Strengthening

US Real GDP Growth*



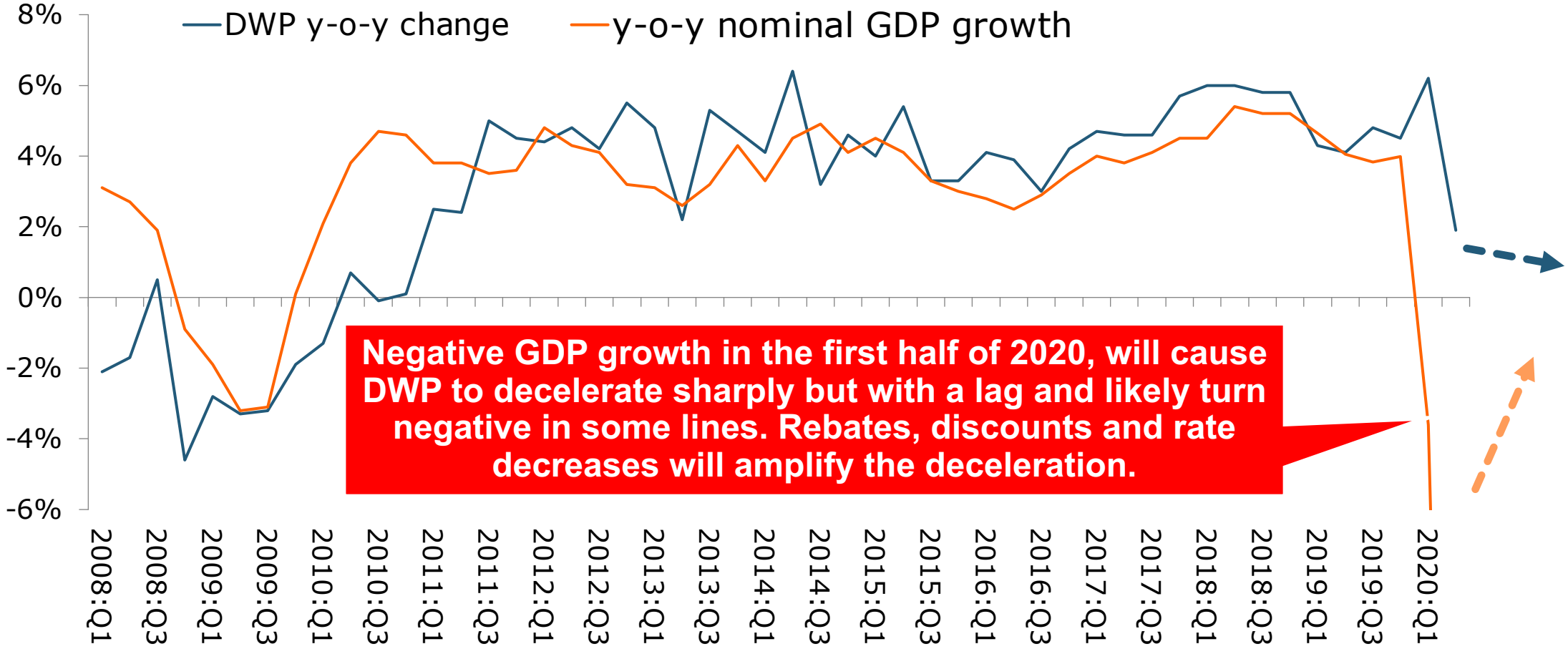
Demand for Insurance Will Be Severely Impacted As the Economy Slows but Is Expected to Improve by Late Q3 and into Q4

* Estimates/Forecasts from Wells Fargo Securities.

Source: US Department of Commerce, Wells Fargo Securities 10/20; Center for Risk and Uncertainty Management, University of South Carolina.

The Economy Drives P/C Insurance Industry Premiums: 2006:Q1–2020:Q2*

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



Negative GDP growth in the first half of 2020, will cause DWP to decelerate sharply but with a lag and likely turn negative in some lines. Rebates, discounts and rate decreases will amplify the deceleration.

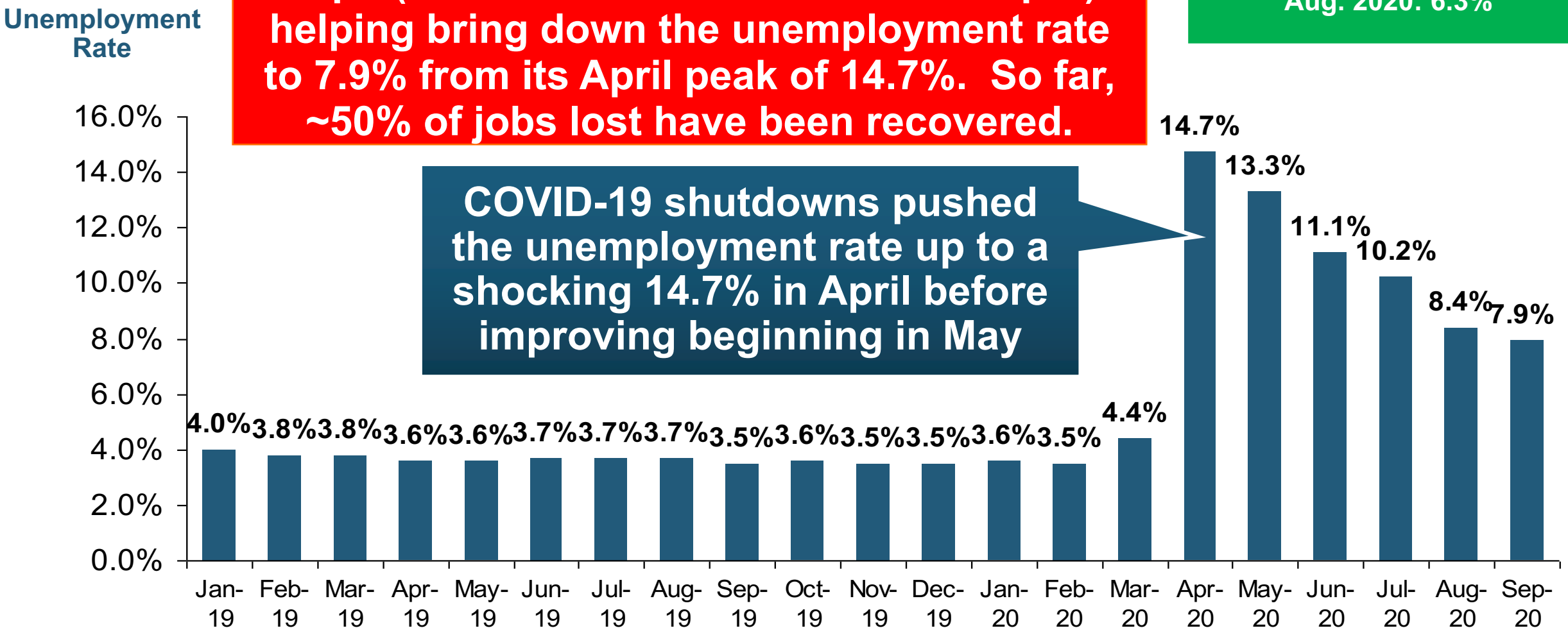
Direct written premiums track nominal GDP fairly tightly over time, suggesting the P/C insurance industry's growth prospects inextricably linked to economic performance.

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

Unemployment Rate: Jan. 2019 – Sept. 2020

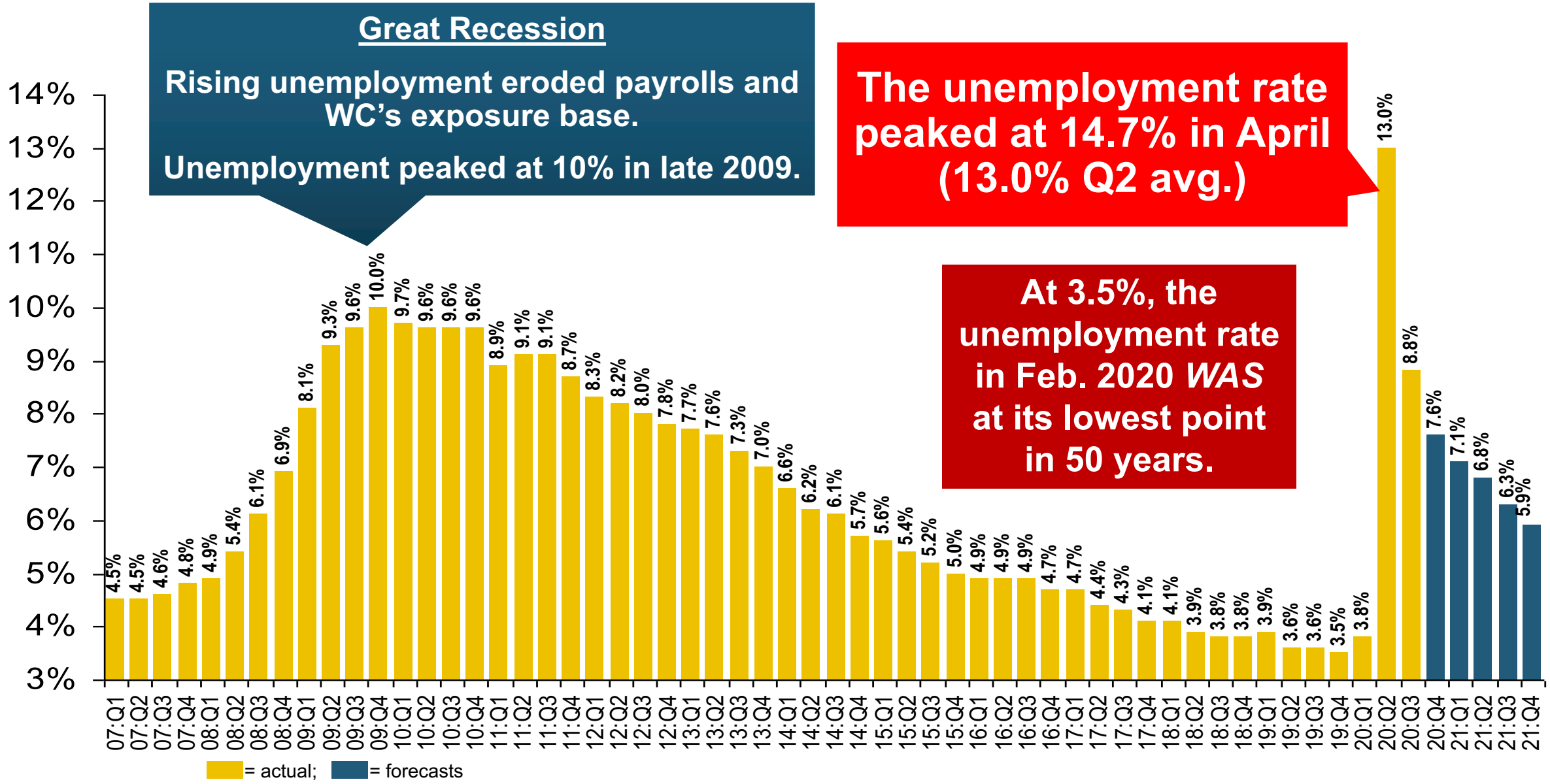
11.4M jobs were created from May through Sept. (after a loss of 22.2M in March/April) helping bring down the unemployment rate to 7.9% from its April peak of 14.7%. So far, ~50% of jobs lost have been recovered.

South Carolina:
Feb. 2020: 2.5%
Peak: 12.8% (Apr.)
Aug. 2020: 6.3%



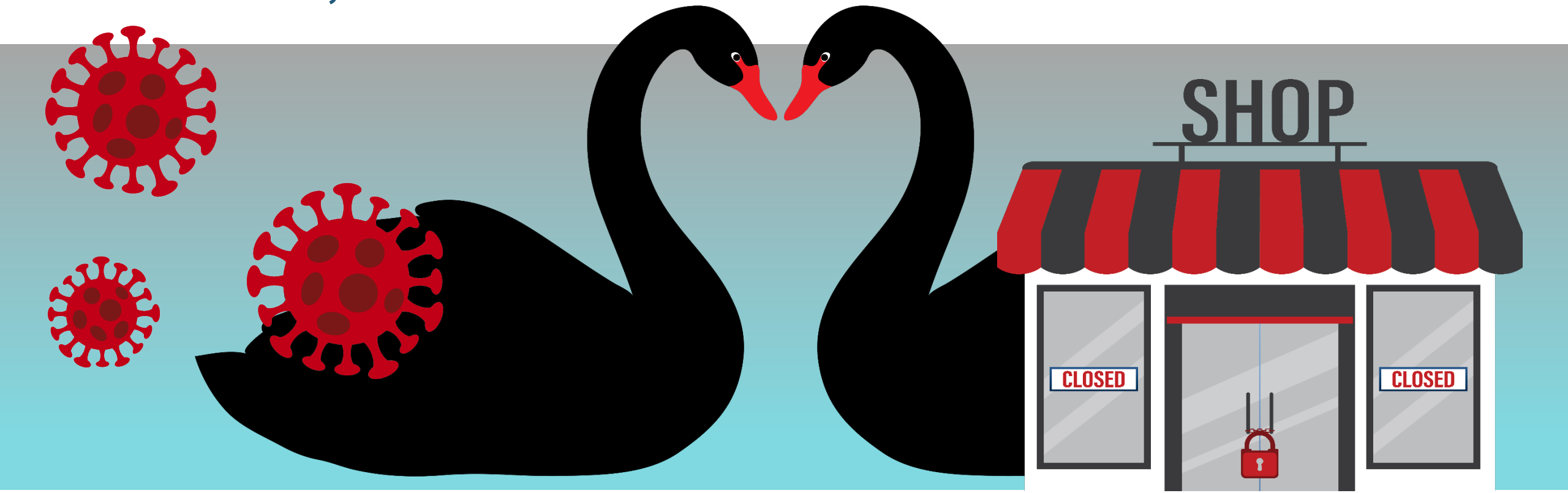
Source: US Bureau of Labor Statistics; Risk and Uncertainty Management Center, University of South Carolina.

US Unemployment Rate Forecast: 2007:Q1–2021:Q4



Sources: US Bureau of Labor Statistics; Wells Fargo Securities (10/20 edition); Risk and Uncertainty Management Center, University of South Carolina.

Government Mandated Business Closures Were the Real Black Swan, Not the Coronavirus



- The US (and world) has endured several other major infectious disease outbreaks killing 100,000+ Americans without shutting down the economy
  - Hong Kong Flu (1968-70)
  - Asian Flu (1957-58)

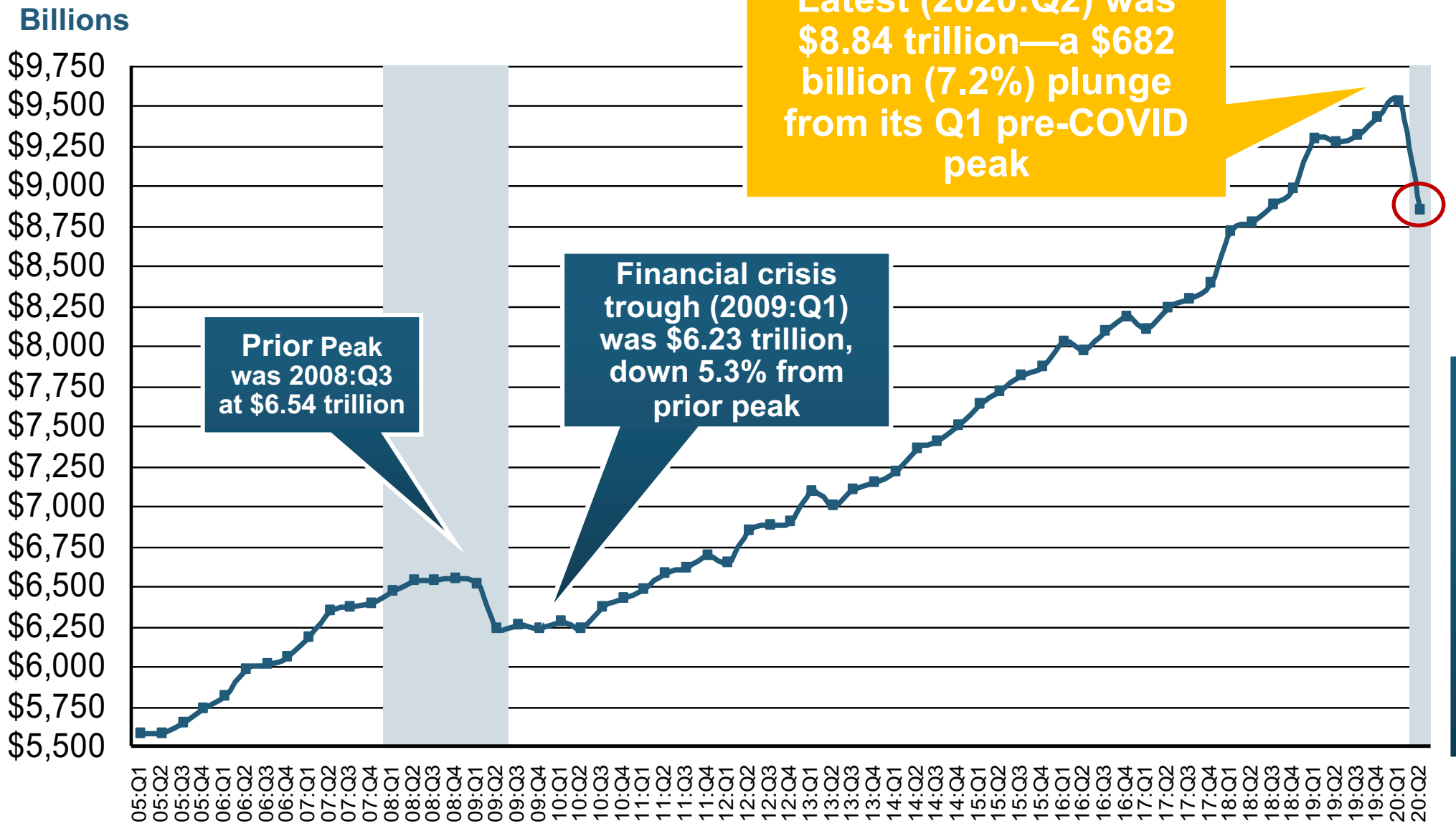
- It is the reaction to the virus that is unprecedented and represents the *true* Black Swan event
- The ramifications of this decision will be consequential for a generation (e.g., $3 trill. in debt)

Sources: CDC; Risk and Uncertainty Management Center, University of South Carolina

ADDITIONAL LABOR MARKET IMPACTS

Key Factors Driving Workers Compensation Exposure

Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2020:Q2



Growth rates
2019: 4.9%
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).

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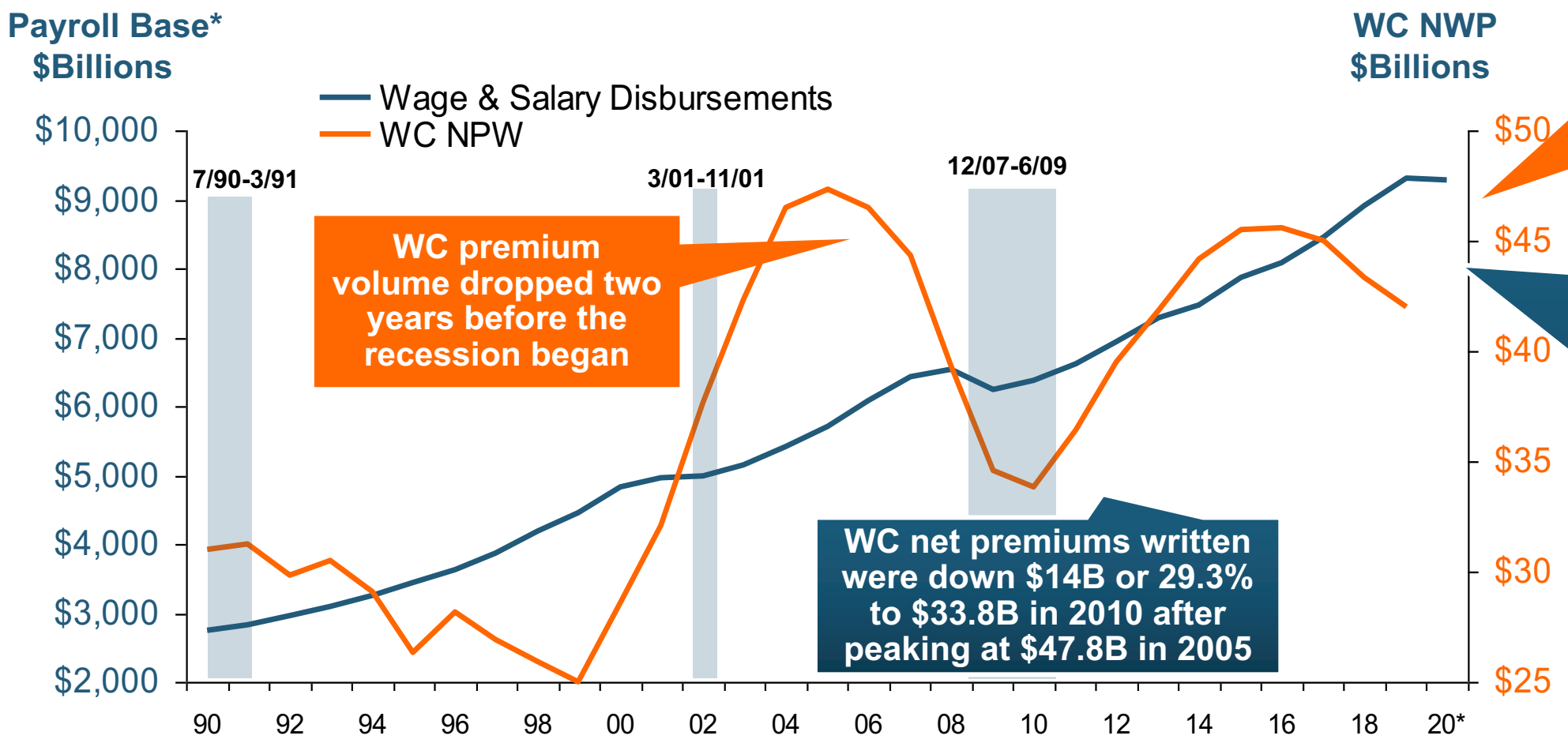
Payroll vs. Workers Comp Net Written Premiums, 1990-2020*



Payrolls in 2020 YTD show zero growth vs. +4.7% ($415.1B) in 2019 vs. 2018

Recent divergence in NWP and payroll exposure is the result of WC rate decreases. Payrolls and WC NWP will both post sharp declines in 2020

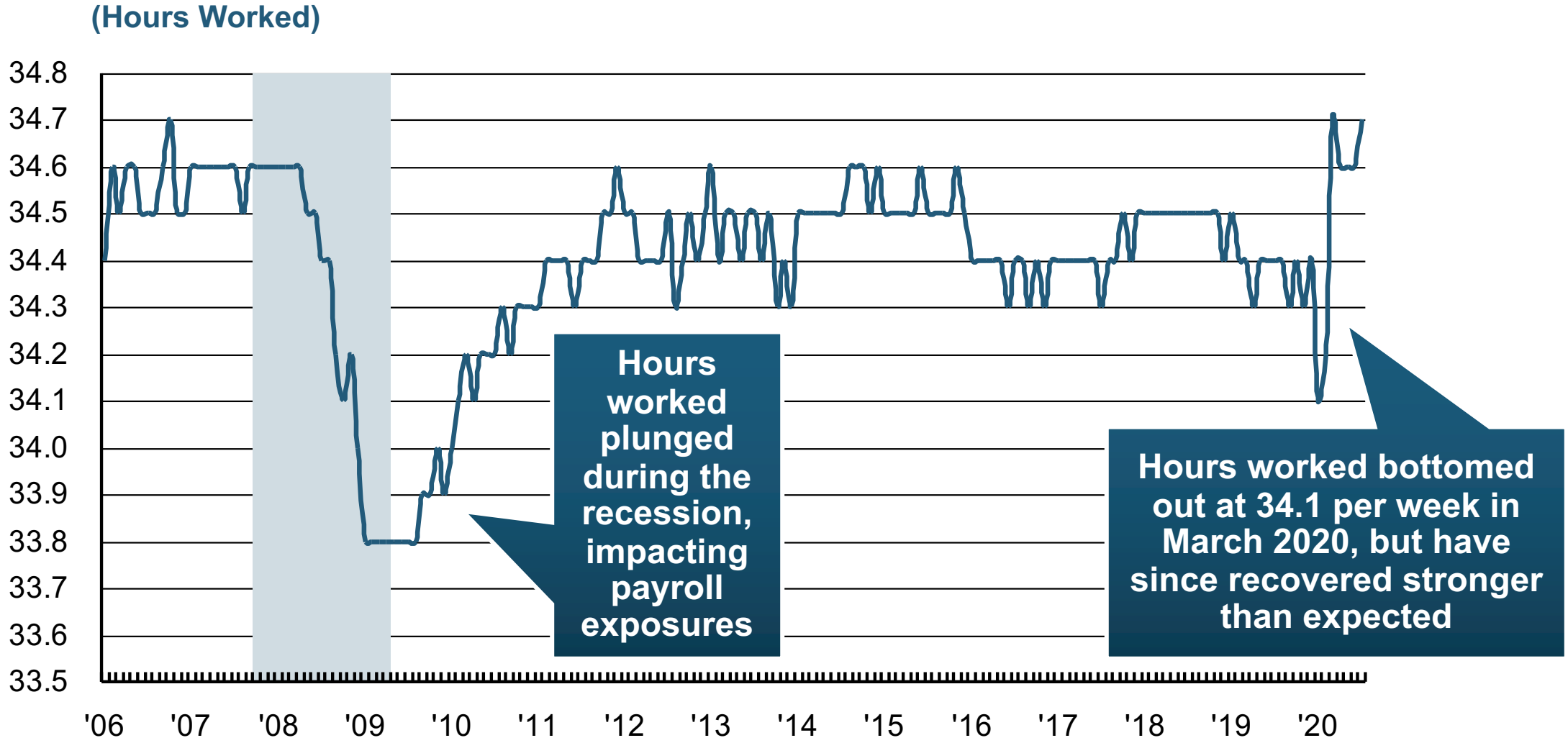
WC premium volume dropped two years before the recession began

WC net premiums written were down $14B or 29.3% to $33.8B in 2010 after peaking at $47.8B in 2005

Continued payroll growth will benefit WC exposure growth, but falling rates will adversely impact growth in Net Written Premiums

*Private employment as of Aug. 2020; Shaded areas indicate recessions. WC premiums are from NCCI through 2018.
Sources: NBER (recessions); Federal Reserve Bank of St. Louis at http://research.stlouisfed.org/fred2/series/WASCUR.

Average Weekly Hours of All Private Workers, March 2006—Sept. 2020*

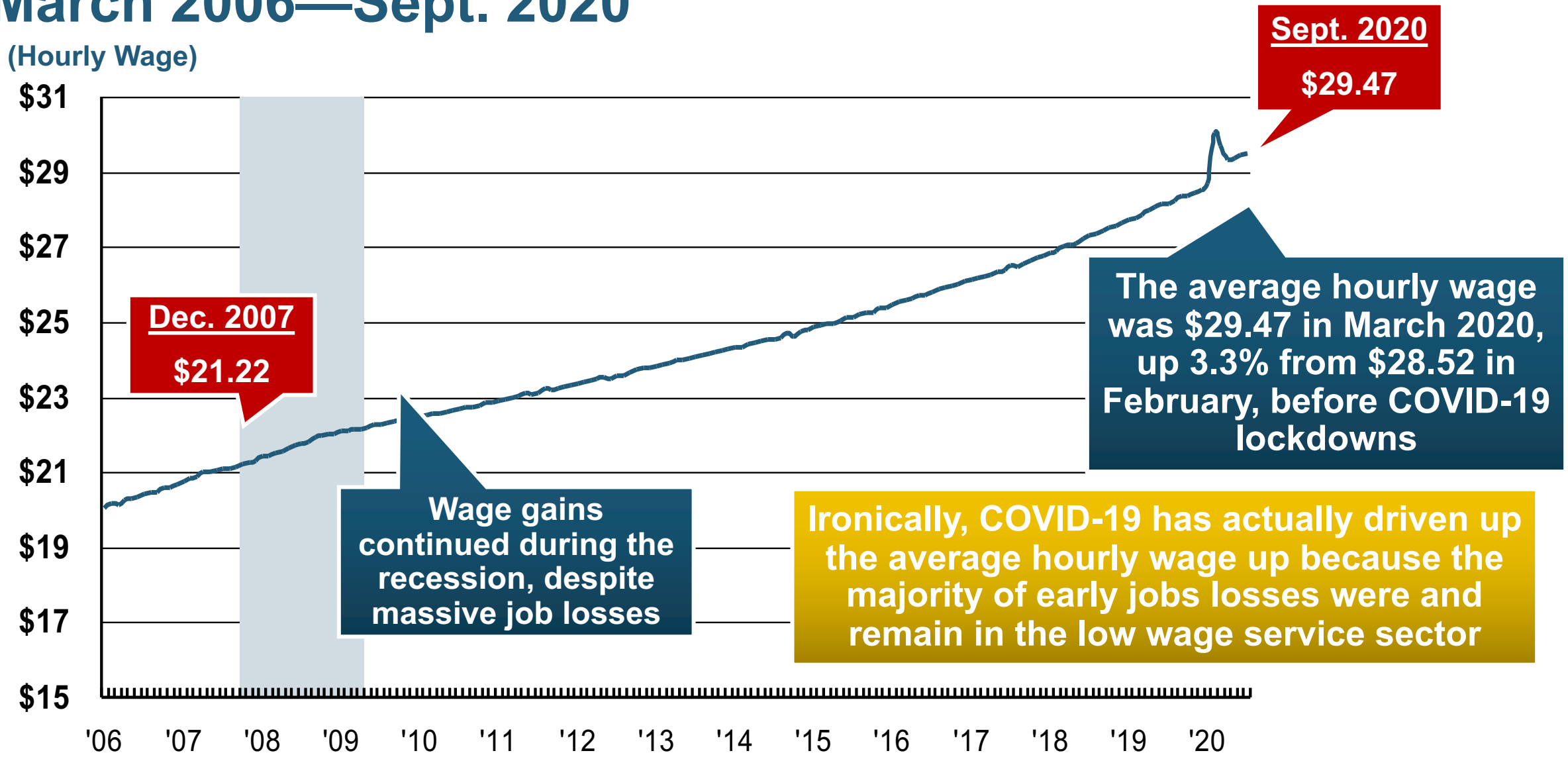


*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/#employment; National Bureau of Economic Research (recession dates); Center for Risk and Uncertainty Management, University of South Carolina.

Average Hourly Wage of All Private Workers, March 2006—Sept. 2020*

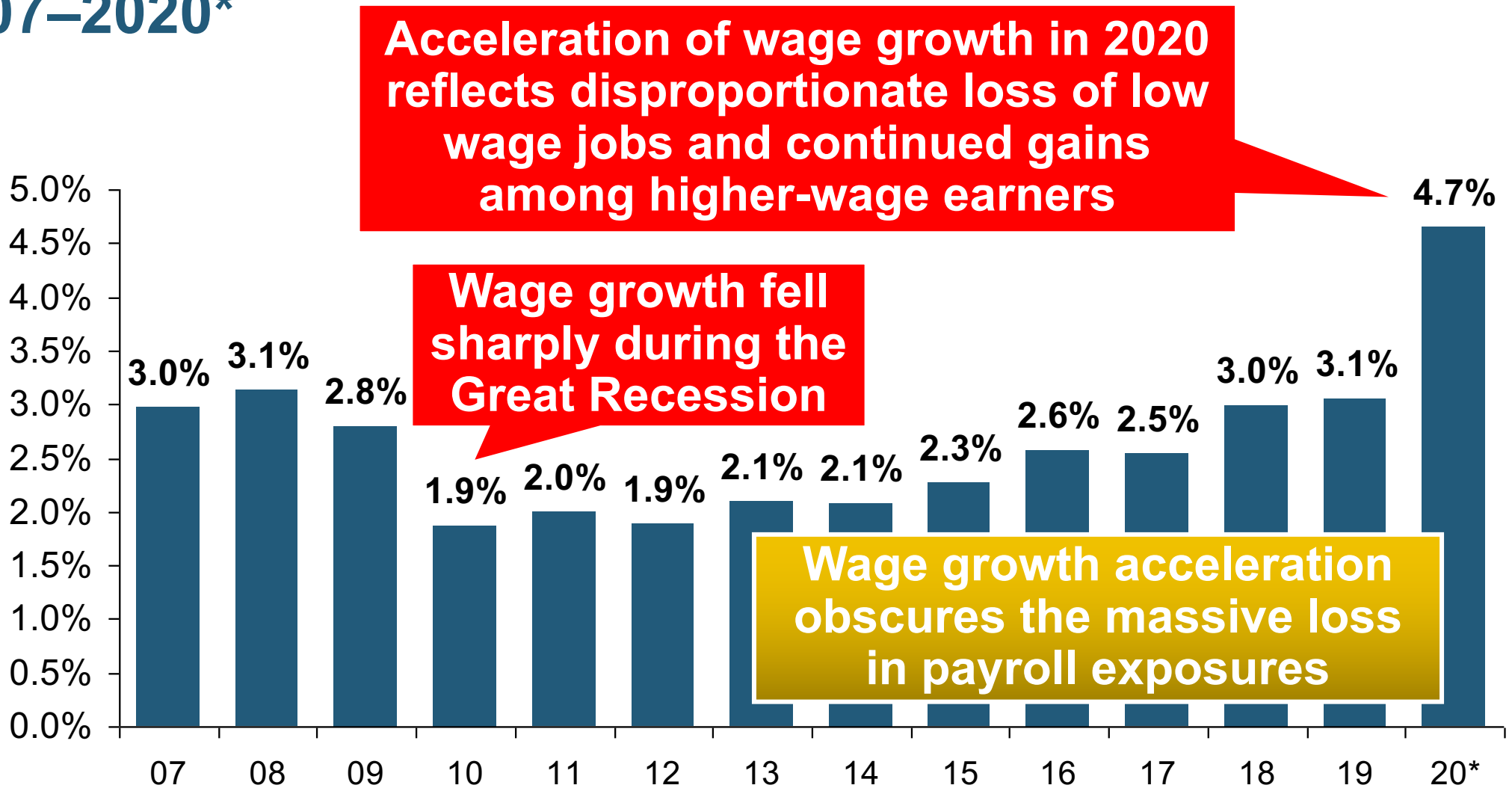


*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/#employment; National Bureau of Economic Research (recession dates);

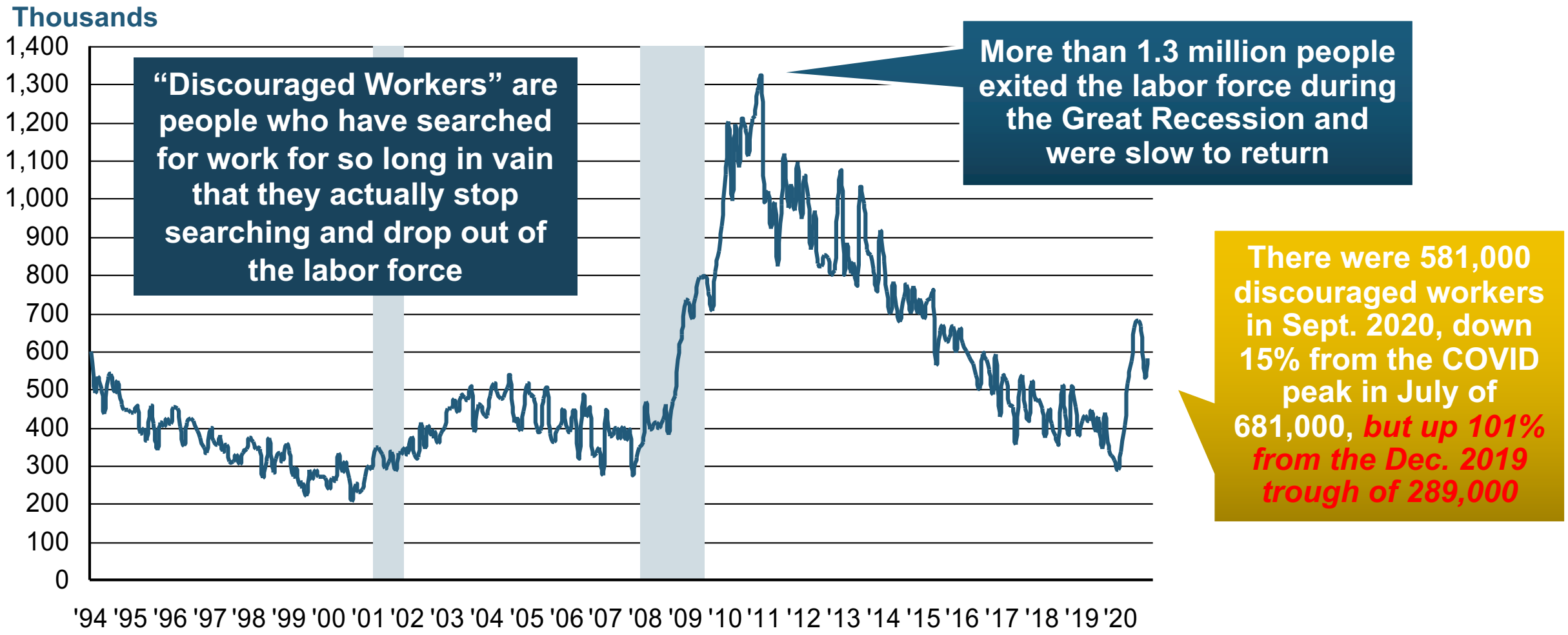
Annual Change in Average Hourly Wage, 2007–2020*



*2020 figure year-over-year increase for Sept. 2020 vs Sept. 2019.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/#employment; National Bureau of Economic Research (recession dates); Risk and Uncertainty Management Center, Univ. of South Carolina.

Number of “Discouraged Workers,”: Jan. 1994—Sept. 2020

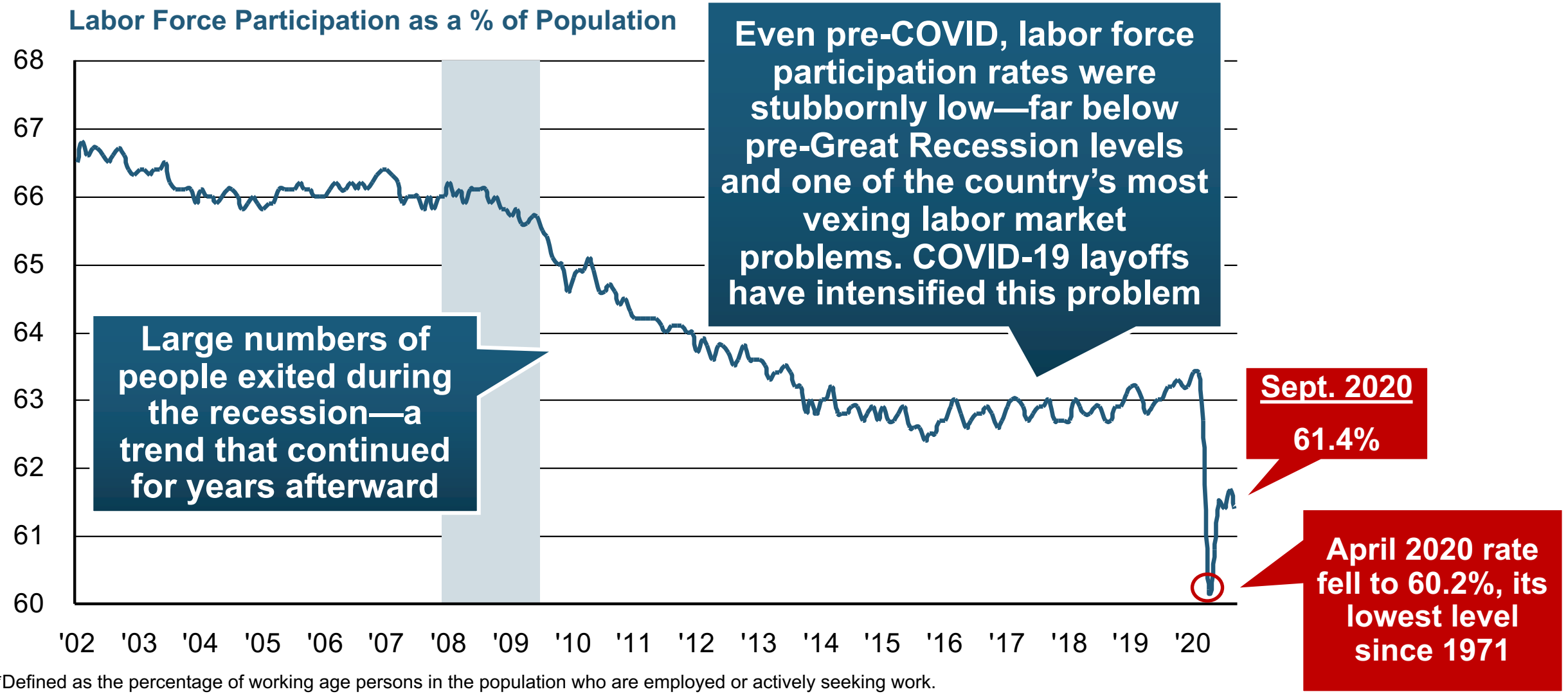


Diminishing federal aid for worker could increase the number of discouraged workers as they conclude no positions are available

Notes: Recessions indicated by gray shaded columns. Data are not seasonally adjusted.

Sources: Bureau of Labor Statistics http://www.bls.gov/news.release/empsit.a.htm ; NBER (recession dates); Center for Risk and Uncertainty Management, University of South Carolina.

Labor Force Participation Rate, Jan. 2002—Sept. 2020*

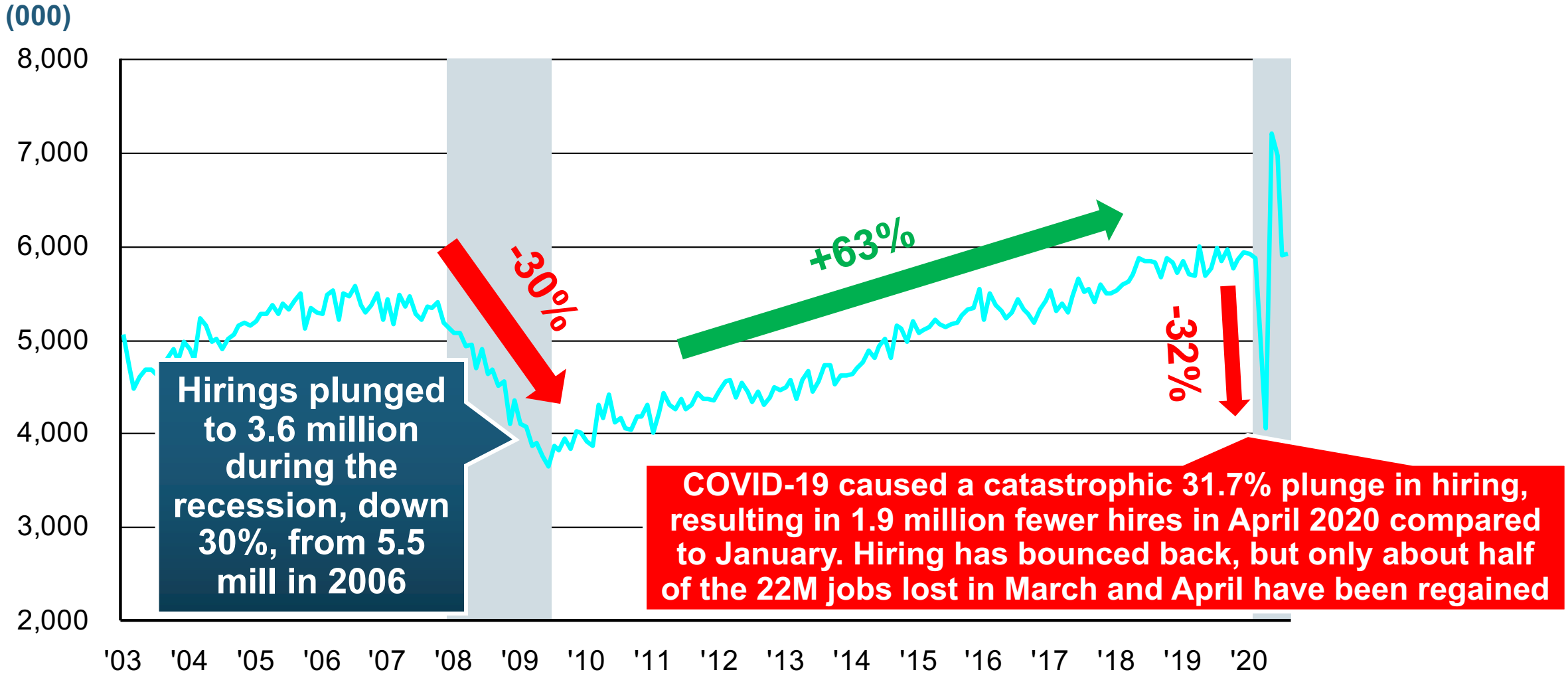


*Defined as the percentage of working age persons in the population who are employed or actively seeking work.

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at http://www.bls.gov/data/; National Bureau of Economic Research (recession dates); Center for Risk and Uncertainty Management, University of South Carolina.

You're (NOT) Hired!
Number of Hires, Jan. 2003—Aug. 2020*

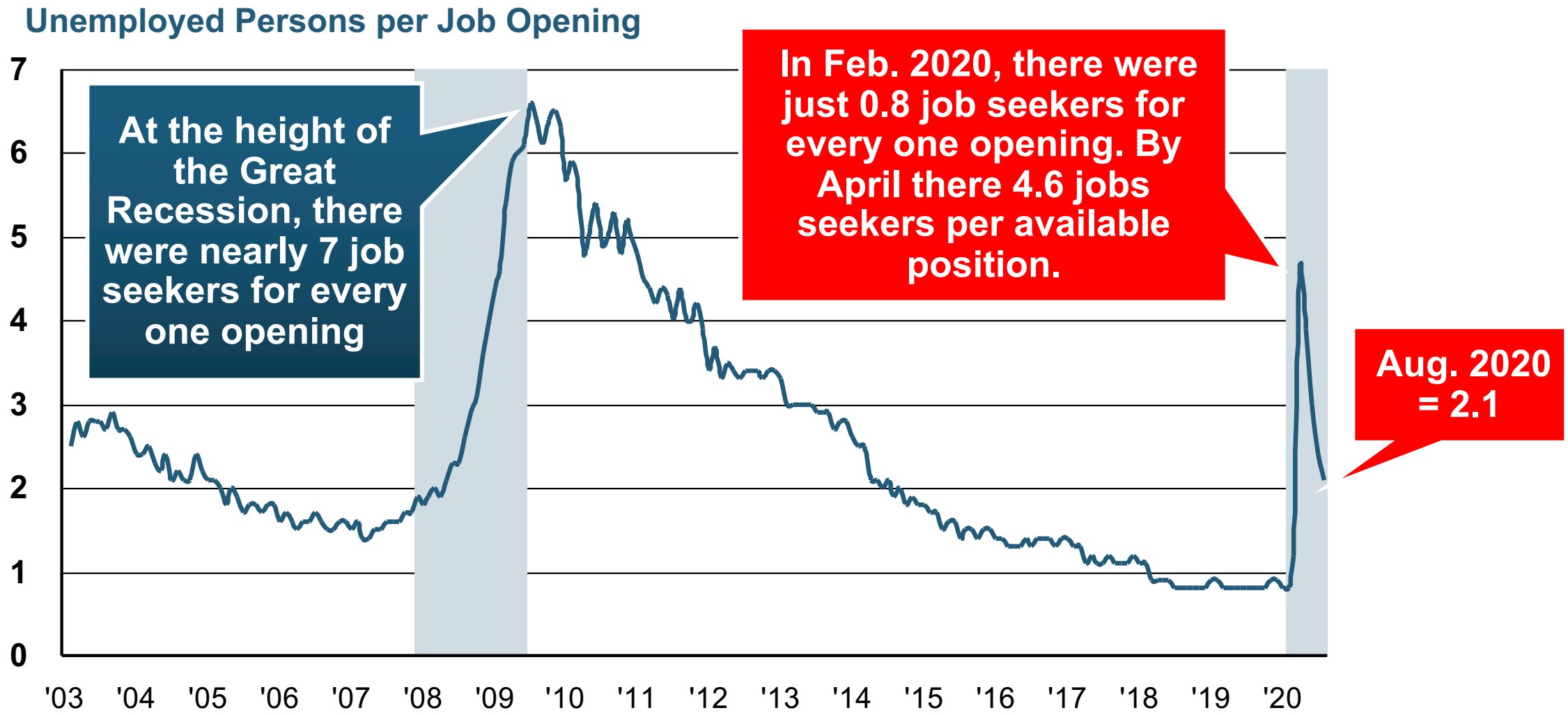


*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics JOLTS survey: at http://www.bls.gov/jlt/; National Bureau of Economic Research (recession dates); Center for Risk and Uncertainty Management, University of South Carolina.

Number of Unemployed Persons per Job Opening, Feb. 2003—Aug. 2020* (Most Recent Available)



*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

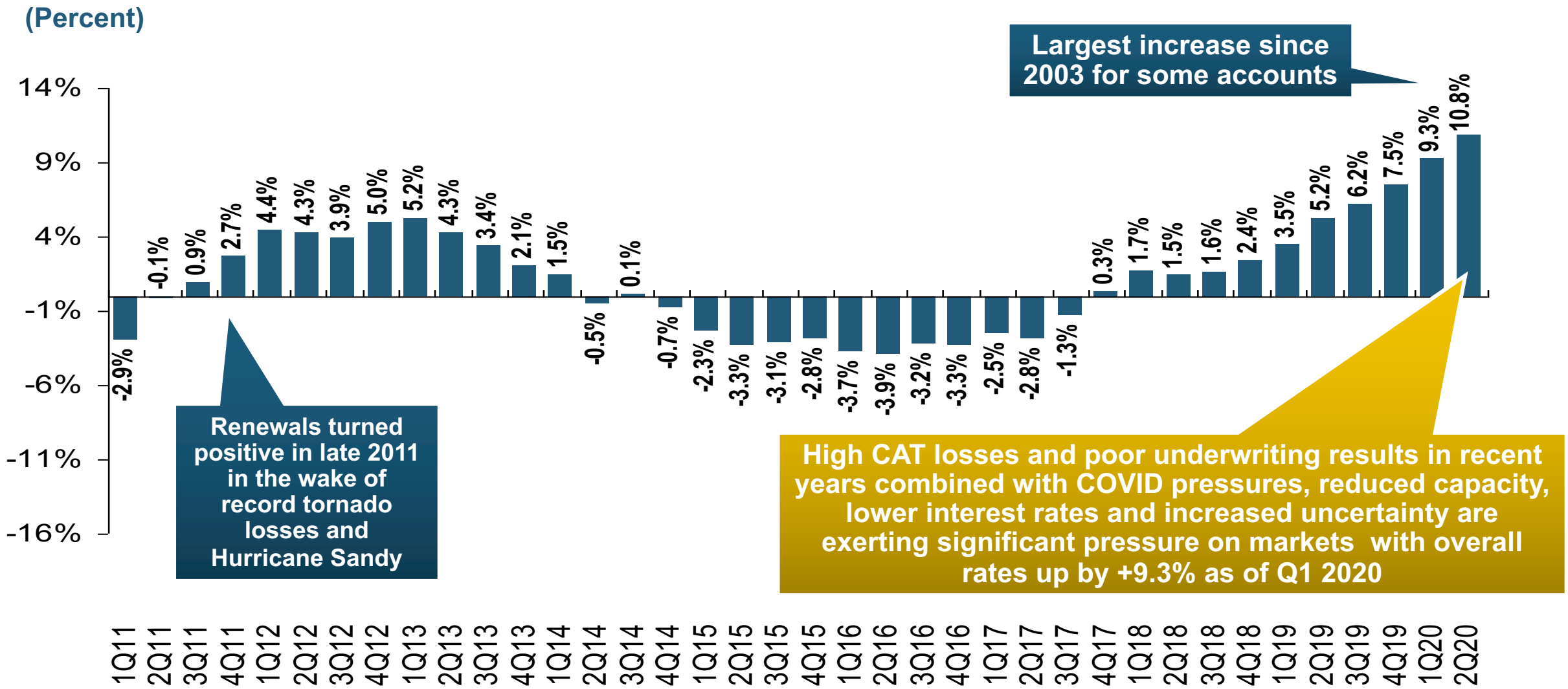
Sources: US Bureau of Labor Statistics JOLTS survey: at http://www.bls.gov/jlt/; National Bureau of Economic Research (recession dates); Center for Risk and Uncertainty Management, University of South Carolina.

Commercial Lines Growth, Underwriting Performance & Pricing Cyclicality

Pricing Pressures Are Intensifying

39

CIAB: Average Commercial Rate Change, All Lines, 2011:Q1–2020:Q2*

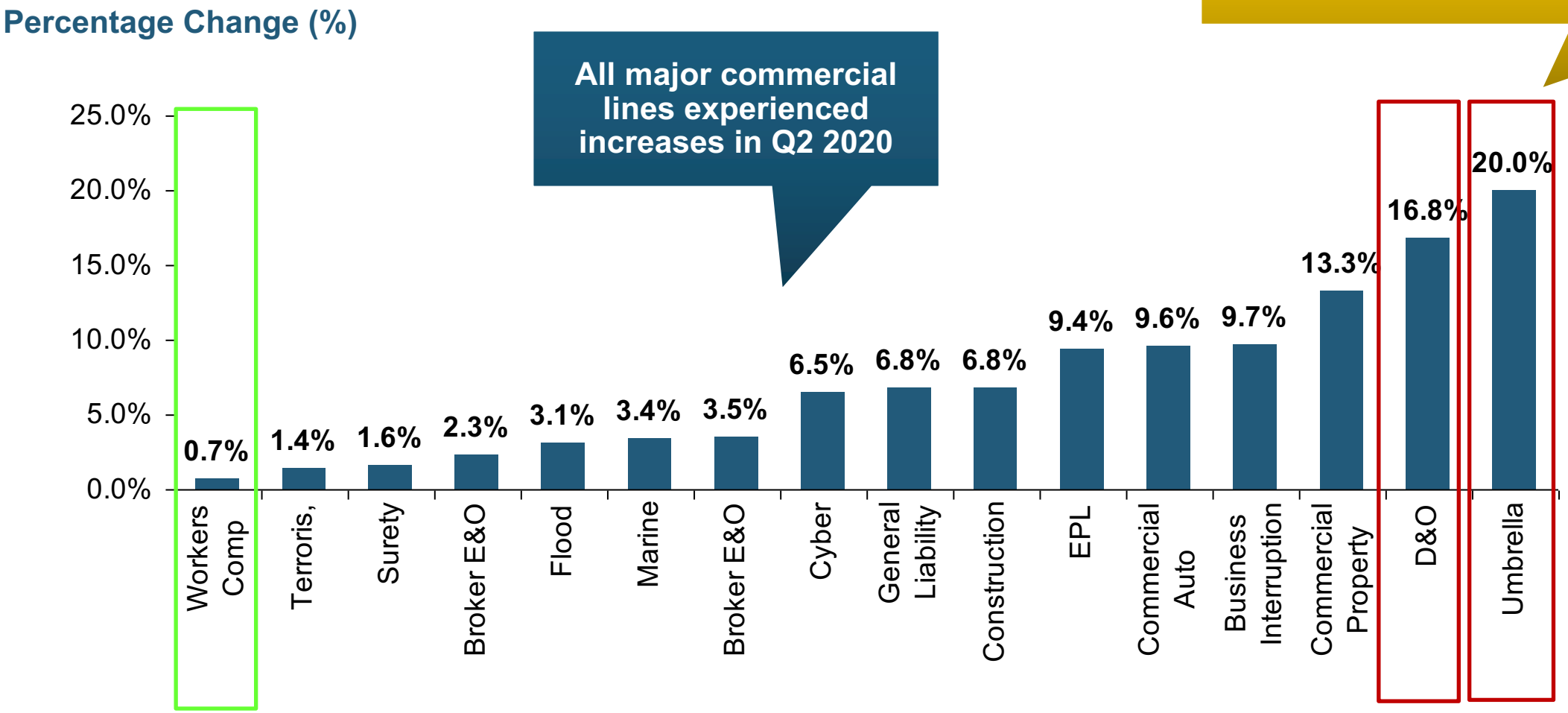


*Latest available.
Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.
Source: Council of Insurance Agents & Brokers; Center for Risk and Uncertainty Management, Univ. of South Carolina.

Change in Commercial Rate Renewals, by Line: 2020:Q2

Umbrella now leads all major commercial lines in terms of rate gains, exceeding D&O and CP

All major commercial lines experienced increases in Q2 2020



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

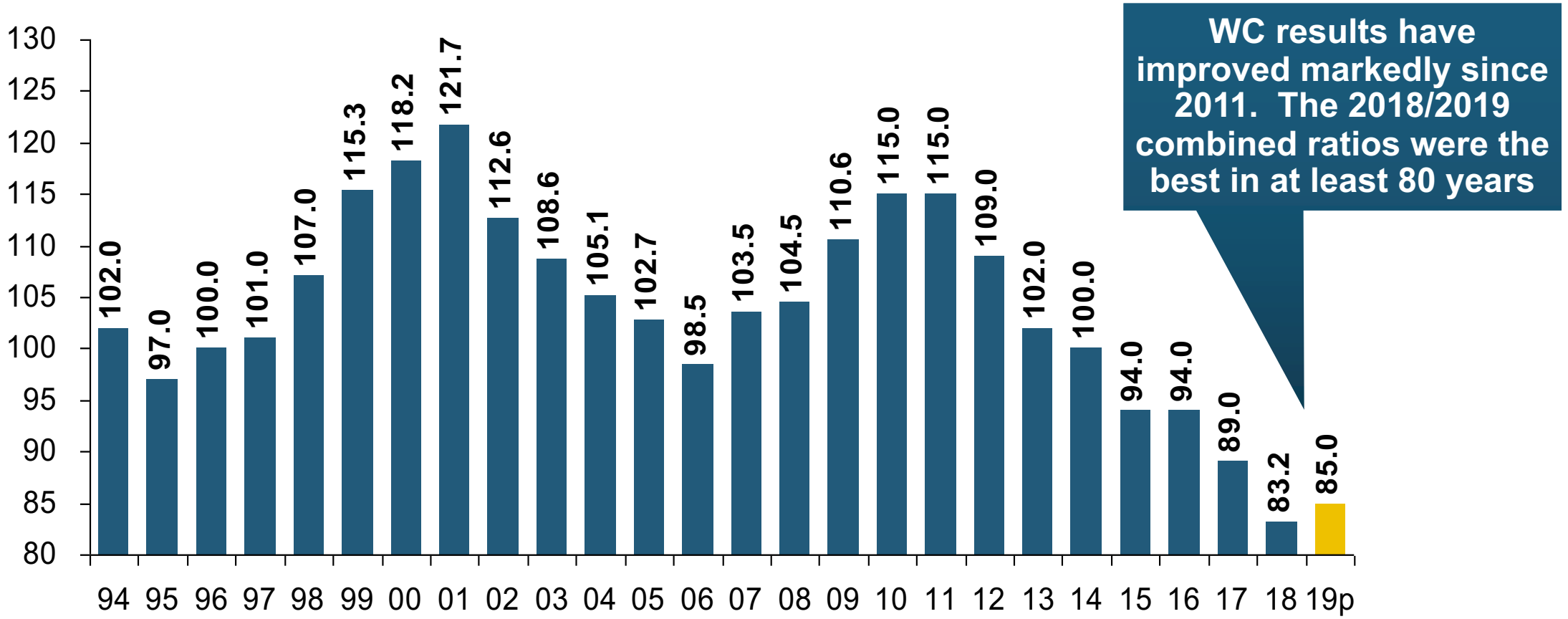
Source: Council of Insurance Agents and Brokers; USC Center for Risk and Uncertainty Management.

Workers Compensation Performance Overview

COVID-19 Will Radically Change the WC Line's Financials in 2020

42

Workers Compensation Combined Ratio: 1994–2019P

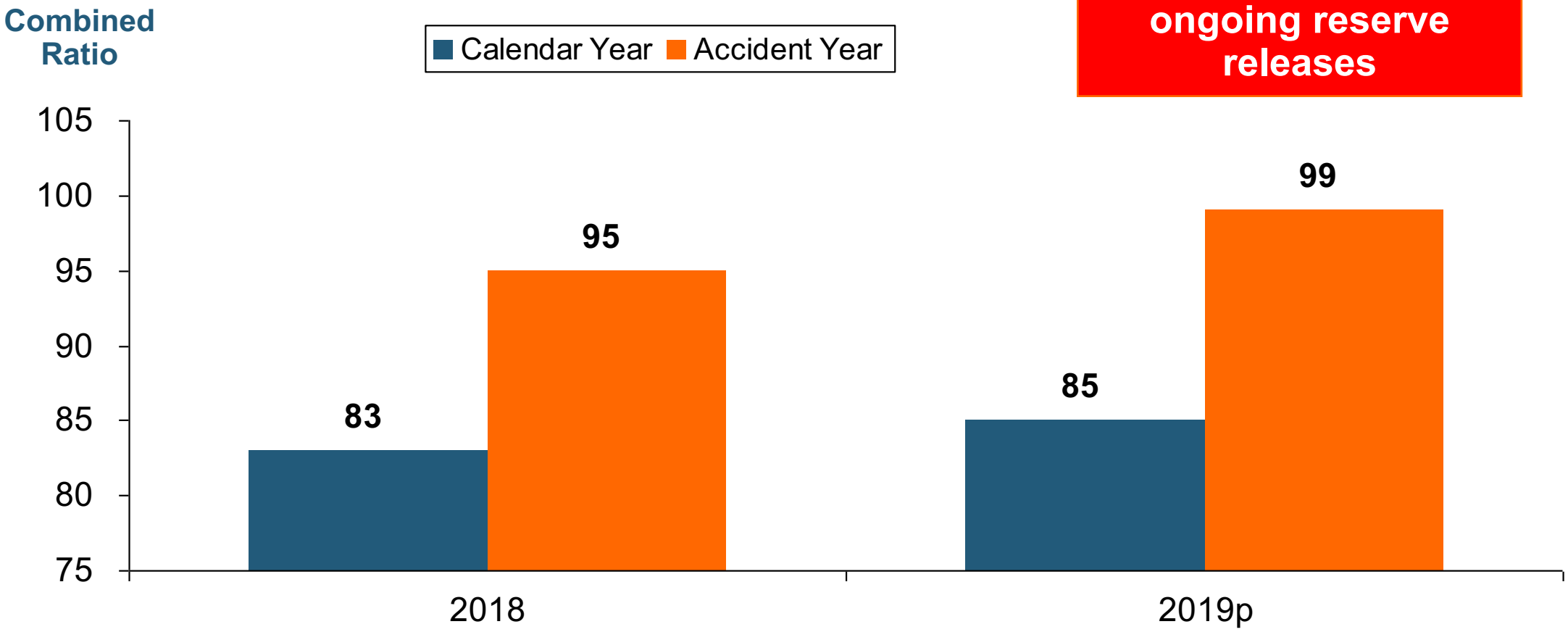


Workers Comp Is an Example of a Line that Was Recently Restored to Health Through the Return of Rate Adequacy as Well as Declining Claim Frequency

Sources: A.M. Best (1994-2009); NCCI (2010-2019P) and are for private carriers only..

WC Net Combined Ratio: Calendar vs. Accident Year

WC AY results suggest CY figures benefit from material ongoing reserve releases

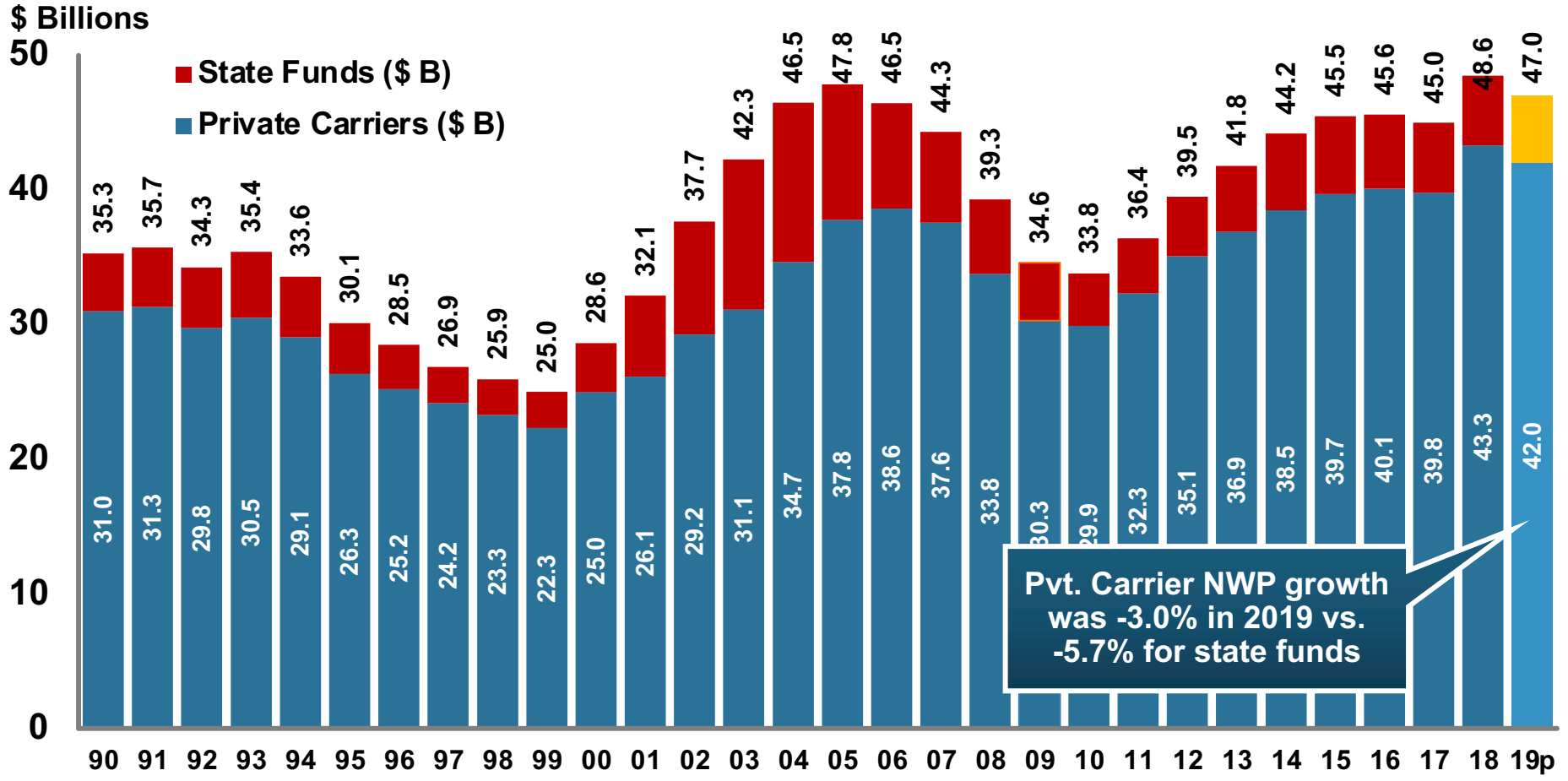


* AY data reported as of 12/31/19.2020. Includes policyholder dividends.

Source: NCCI from NAIC Annual Statement data; USC Center for Risk and Uncertainty Management.

Workers Compensation Premium: Down in 2017 After 6 Years of Increase

Net Written Premium

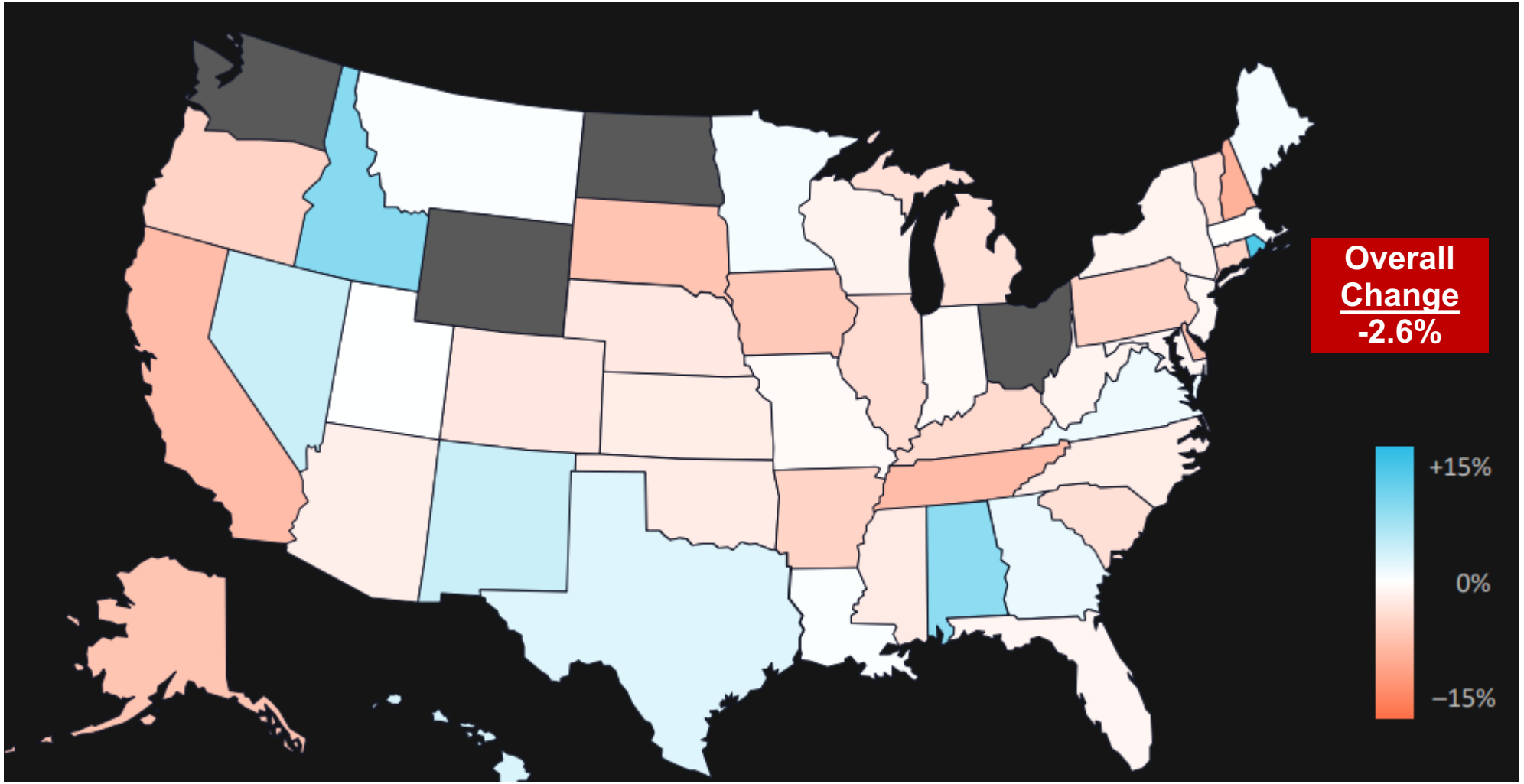


p Preliminary

Source: NCCI from Annual Statement Data.
Includes state insurance fund data for the following states: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, UT.
Each calendar year total for State Funds includes all funds operating as a state fund that year.

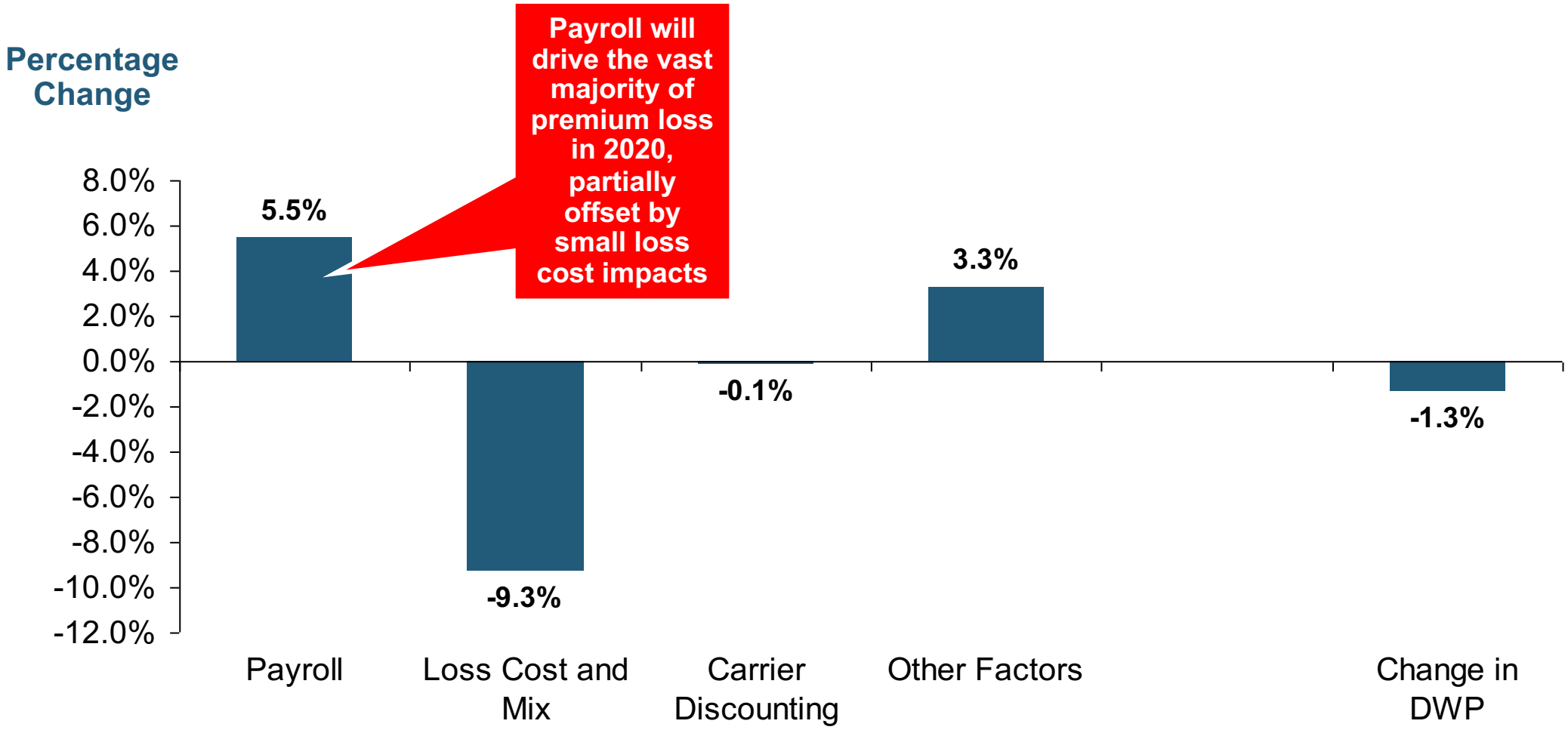
WC Direct Written Premium, 2019

Private Carriers



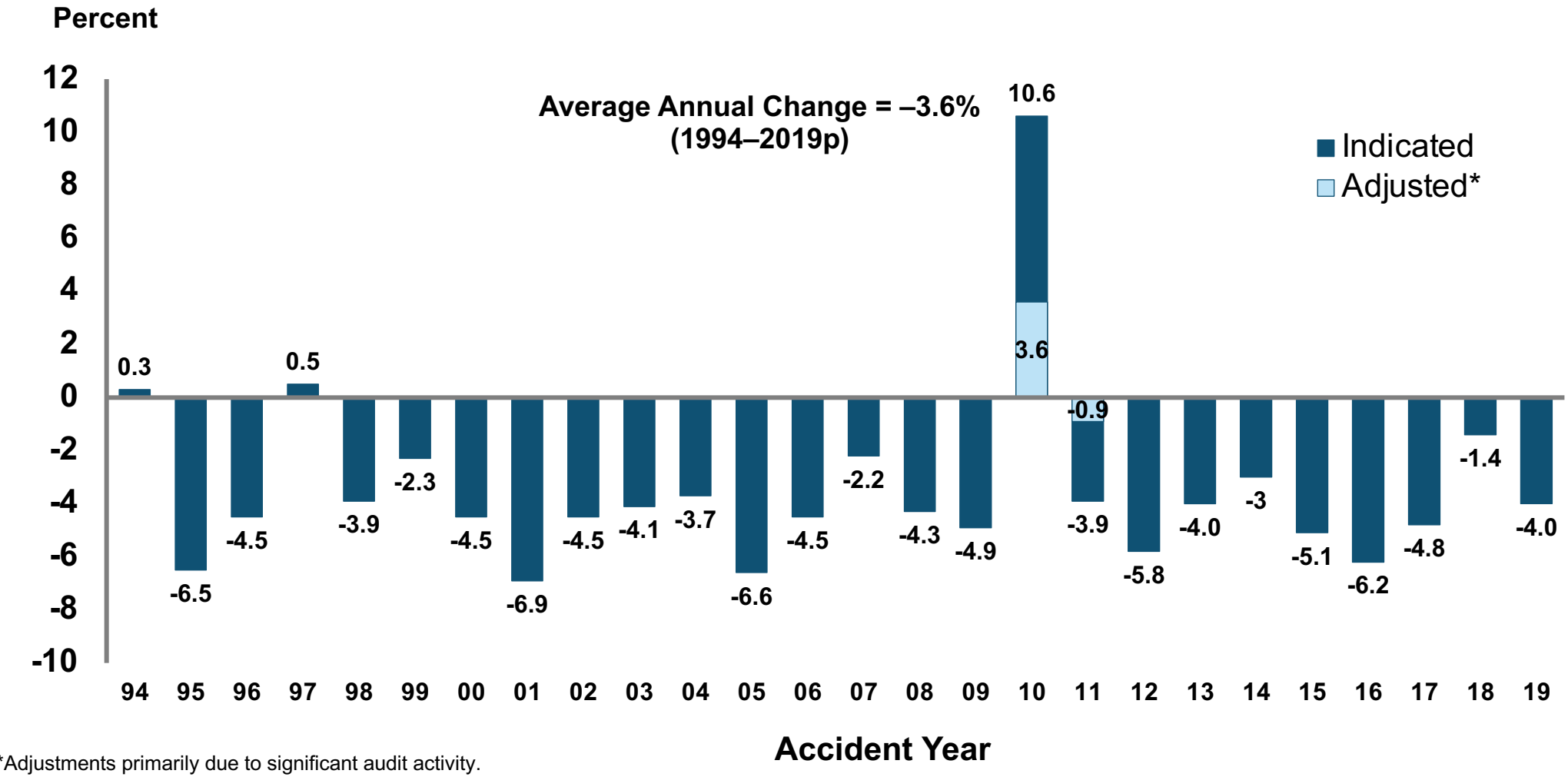
Source: NCCI from 2018 and 2019 NAIC Annual Statement Statutory Page 14.; Risk and Uncertainty Management Center, University of South Carolina.

WC Direct Written Premium Change by Component: 2018 vs. 2019



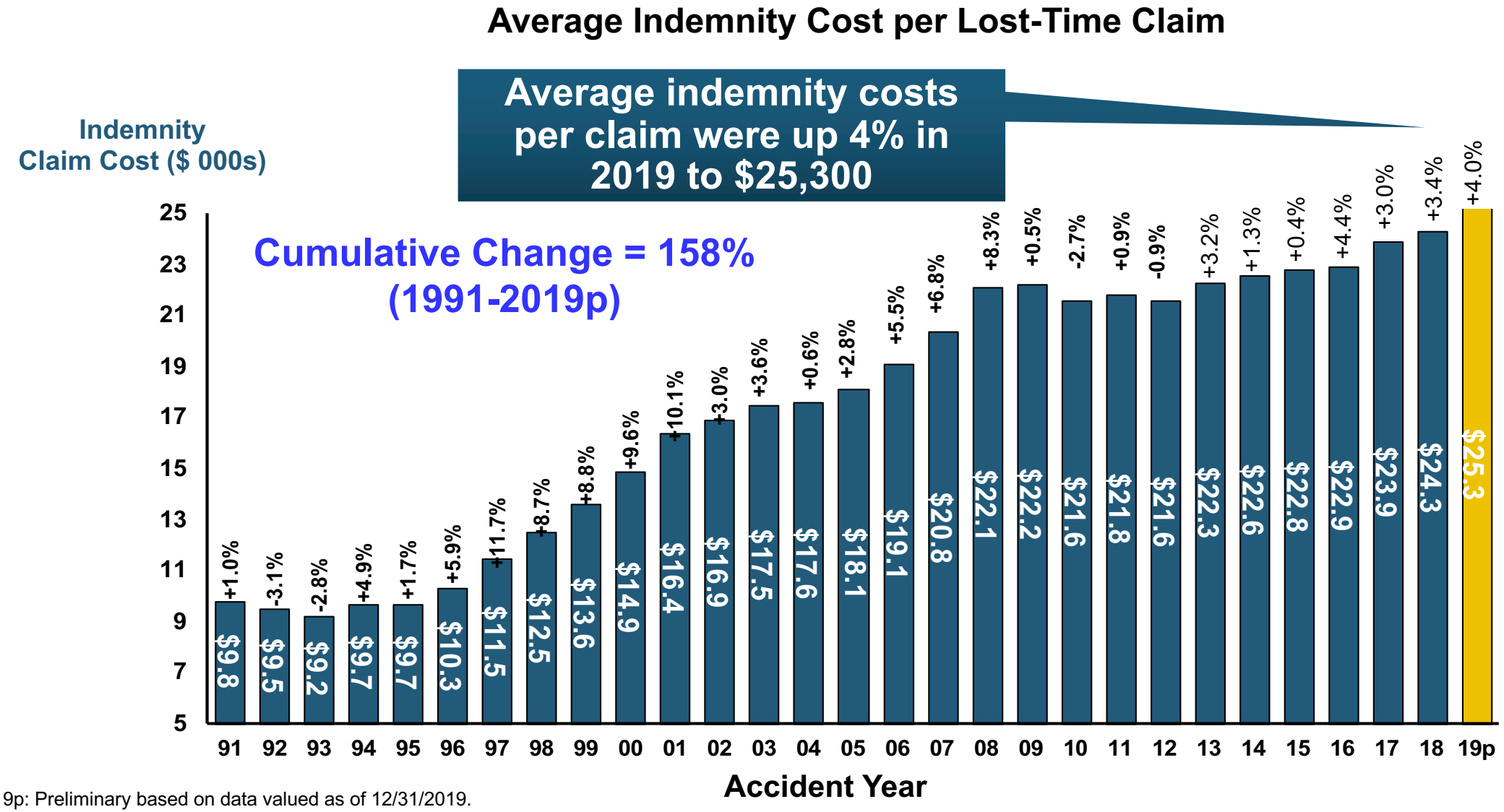
Source: DWP Change: NAIC Annual Statement Statutory Page 14 for all NCCI states. Components: NCCI Policy data.; USC Center for Risk and Uncertainty Management.

Workers Compensation Lost-Time Claim Frequency Declined Again in 2019



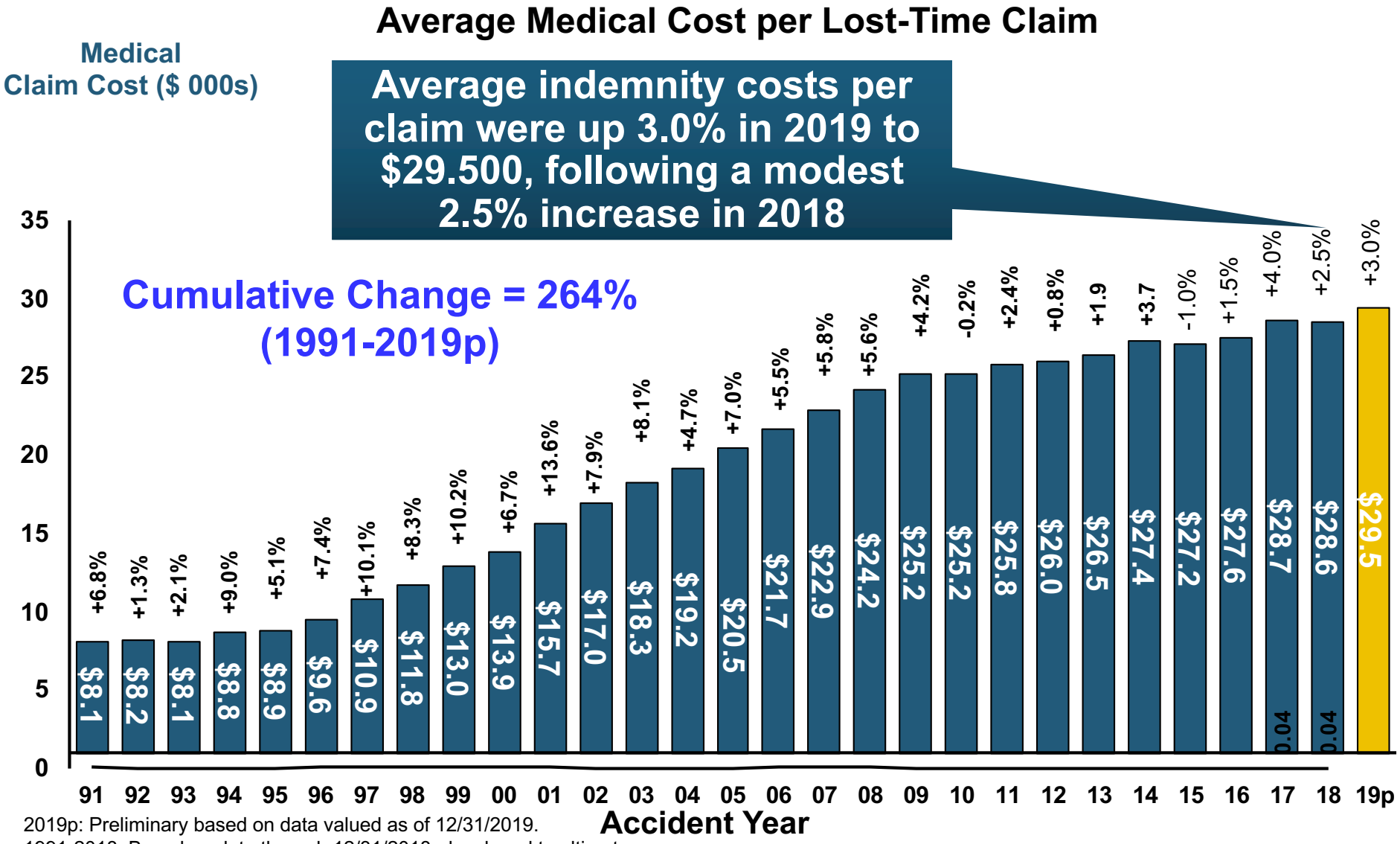
*Adjustments primarily due to significant audit activity.
2019p: Preliminary based on data valued as of 12/31/2019.
Source: NCCI Financial Call data, developed to ultimate and adjusted to current wage an voluntary loss cost level; Excludes high deductible policies; 1994-2018: Based on data through 12/31/18. Data for all states where NCCI provides ratemaking services; Excludes WV prior to 2012, TX prior to 2007 and NV prior to 2002.
Frequency is the number of lost-time claims per $1M pure premium at current wage and voluntary loss cost level

Workers Comp Indemnity Claim Costs: Sharper Increase in 2019



2019p: Preliminary based on data valued as of 12/31/2019.
1991-2018: Based on data through 12/31/2018, developed to ultimate
Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

Workers Comp Medical Claim Costs: Pace of Increase Decelerated in 2019



2019p: Preliminary based on data valued as of 12/31/2019.
1991-2018: Based on data through 12/31/2018, developed to ultimate
Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

Federal and State COVID-19 Initiatives Impacting Commercial Insurers

P/C Insurance Coverage & COVID-19

- **Insurers have received tens of thousands of claims related to COVID-19 losses**
  - **Workers comp**
  - **Business Interruption**
  - **GL**
  - **Event Cancellation**
  - **Travel Insurance**
  - **D&O**
  - **Trade Credit**
  - **Mortgage**
  - **EPL**
- **Crises tend to precipitate efforts to stretch contract language in an effort to:**
  - **Find coverage where none exists**
  - **Find coverage where none was intended**
  - **Find coverage for which no premium was paid**
- **Politicians frequently pile on: Zero political risk**

Update on Business Continuity Disputes

- **Large number of BI suits have been filed against insurers**
  - Most are still making their way through the court system…BUT
- **Since mid-2020 numerous courts have made decisions favoring insurers across a growing number of industries (not just restaurants)**
- **Courts have generally found that:**
  - Virus exclusions found in many policies are unambiguous and are binding
  - That BI coverage is necessarily triggered only when there is actual physical loss or damage to property
  - Government mandated closures alone are insufficient to trigger BI coverage

Workers Compensation

Some Pressure Points

Payroll Exposure Is Contracting Rapidly

COVID-19: Efforts to Expand Presumption Continue

54

Workers Compensation & COVID-19

- **Workers compensation written for COVID-19 exposed risks (e.g., hospitals, first responders, etc.) will likely see a spike in both severity and frequency**
- **Some states will require costs associated with precautionary quarantines of COVID-19 exposed workers**
- **Impact arising from "Essential Industries" unclear (e.g., grocery stores)**
- **Outside COVID-19 exposed segments—Large, Swift Drop in Payroll Exposure**
  - ***Drop in WC payroll exposure base could be the fastest and largest in history***
  - Wage growth, which had been making gains, will also slow
  - Overall likely net reduction in claim frequency

Workers Compensation & COVID-19

- **At least 35 states have expanded or proposed expanding WC presumptions for COVID-19—including SC. Most restrict the assumption to "front-line" workers (e.g., health, 1st responders)**

- **Examples of presumption expansion beyond "front-line" workers: *KY and IL***
  - **On April 10, KY extended WC presumption to day care, grocery store and postal worker**
  - **June 5, IL Gov. Pritzker signed HB 2455 for extended to a very large number of occupations, including:**
  - Individuals employed by grocery stores, pharmacies, convenience stores, food banks, media outlets, gas stations, banks, hardware stores, educational institutions, transportation providers, manufacturing facilities and restaurants, as long as individuals employed by essential businesses and operations are required by their employment to encounter members of the general public or to work in employment locations of more than 15 employees.

SUMMARY

- The P/C Insurance Industry Remains Strong, Stable, Sound and Secure
- WC Has Avoided the Worst-Case COVID Scenario
- The Rapid Economic Slowdown Will Temper P/C Growth, Especially in Economically Sensitive Lines (esp. WC)
- Asset Price Volatility Will Persist and Low Interest Rates Will Pressure Investment Earnings for Years
- COVID-19 Exposures Are Substantial but Manageable with Headline Risk on BI and WC Issues

UNIVERSITY OF
SOUTH CAROLINA
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Thank you for your time and your attention!

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Download at www.uscriskcenter.com