

#### 2017 & Beyond: Trends, Challenges & Opportunities Focus on South Carolina Markets

PIA of South Carolina Board of Directors Meeting Columbia, SC

**December 12, 2016** 

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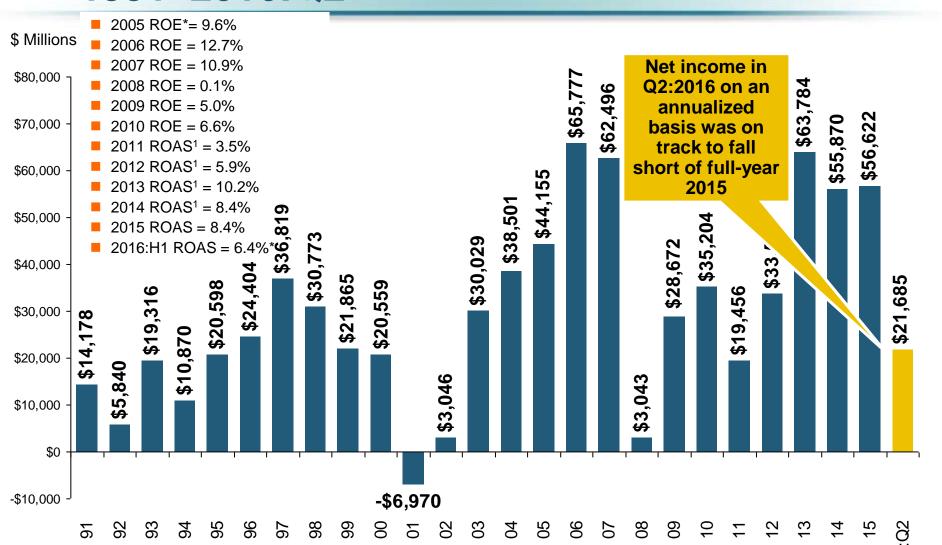
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## P/C Industry Net Income After Taxes 1991–2016:Q2

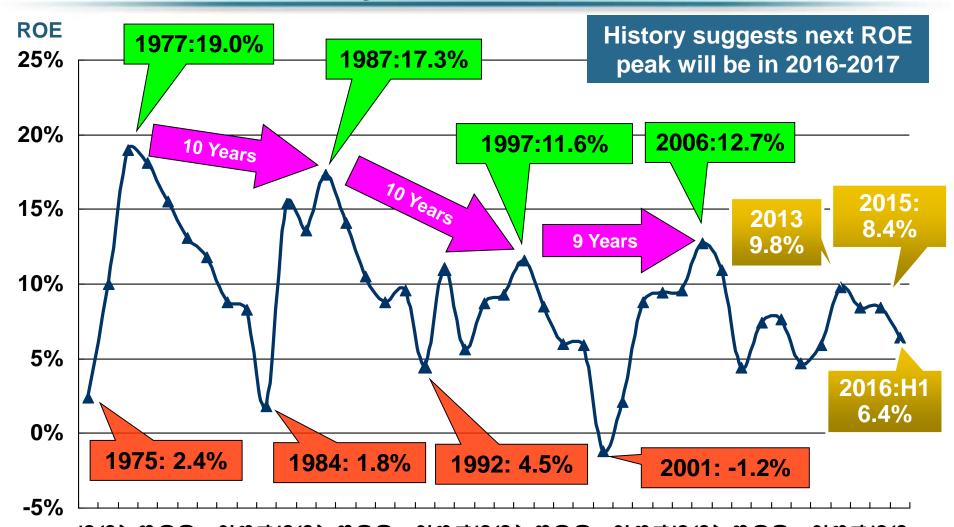




•ROE figures are GAAP; <sup>1</sup>Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009; 2015E is annualized figure based actual figure through Q3 of \$44.0 Sources: A.M. Best, ISO; Insurance Information Institute

## Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2016:H1



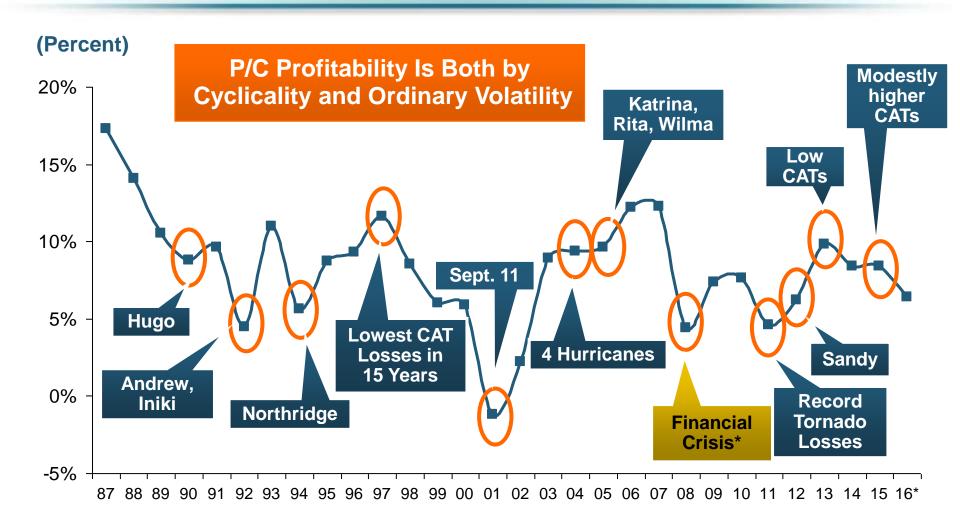


\*Profitability = P/C insurer ROEs. 2011-15 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.

Source: Insurance Information Institute; NAIC, ISO, A.M. Best, Conning

## ROE: Property/Casualty Insurance by Major Event, 1987–2016:H1

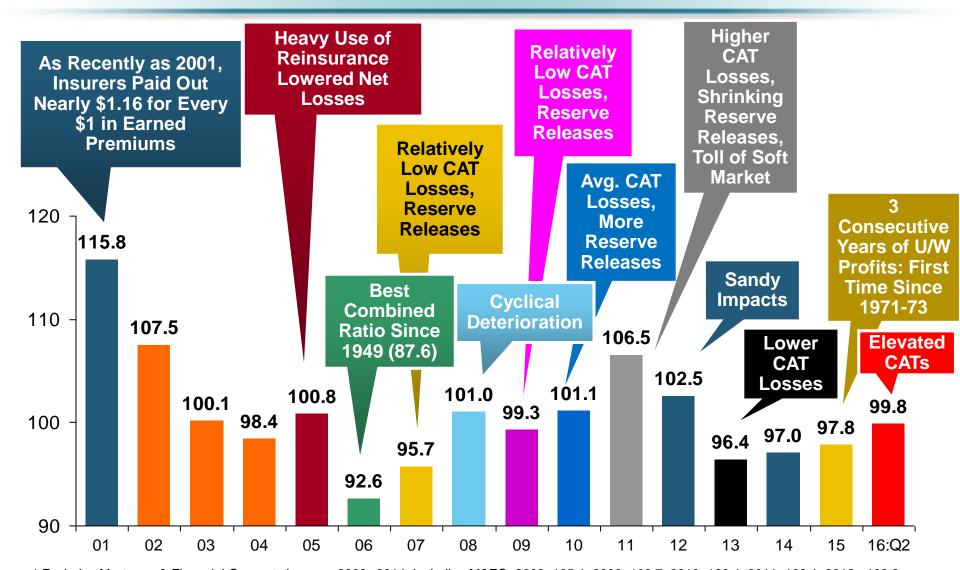




<sup>\*</sup> Through 2016:H1. Excludes Mortgage & Financial Guarantee in 2008 – 2014. Sources: ISO, *Fortune*; Insurance Information Institute.

## P/C Insurance Industry Combined Ratio, 2001–2016:Q2\*

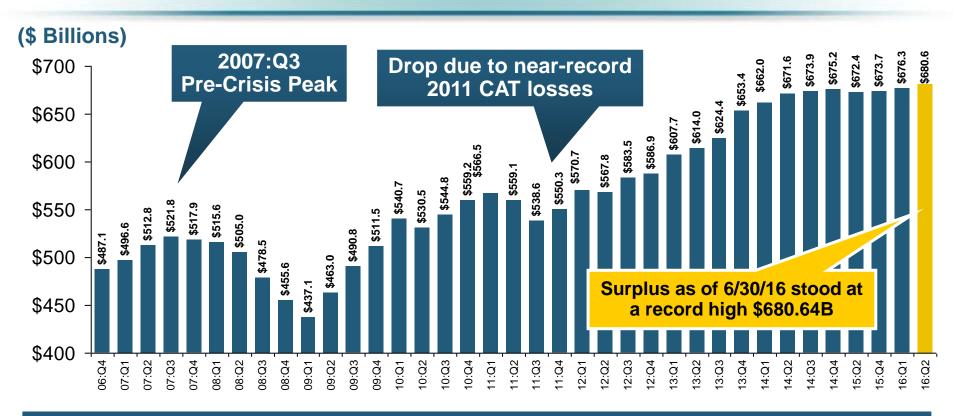




<sup>\*</sup> Excludes Mortgage & Financial Guaranty insurers 2008--2014. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013: = 96.1; 2014: = 97.0.

## Policyholder Surplus, 2006:Q4–2016:Q2





The industry now has \$1 of surplus for every \$0.76 of NPW, close to the strongest claims-paying status in its history.

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.

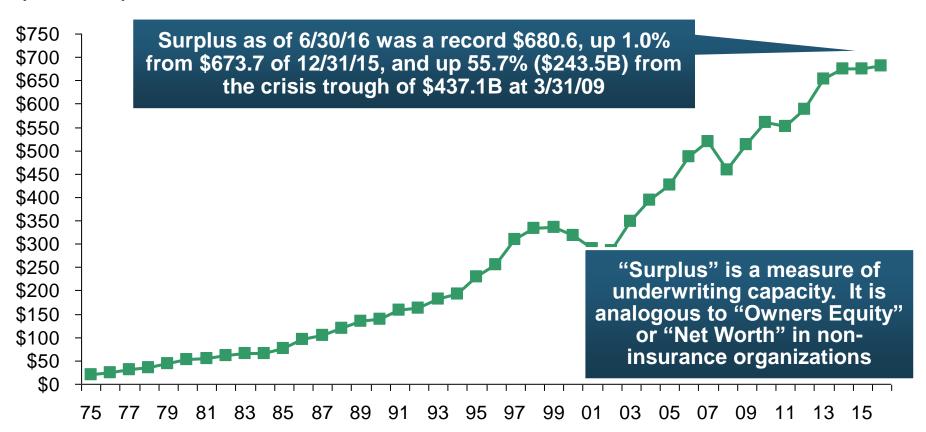
The P/C insurance industry entered 2016 in very strong financial condition.

Sources: ISO, A.M .Best.

## US Policyholder Surplus: 1975–2016\*







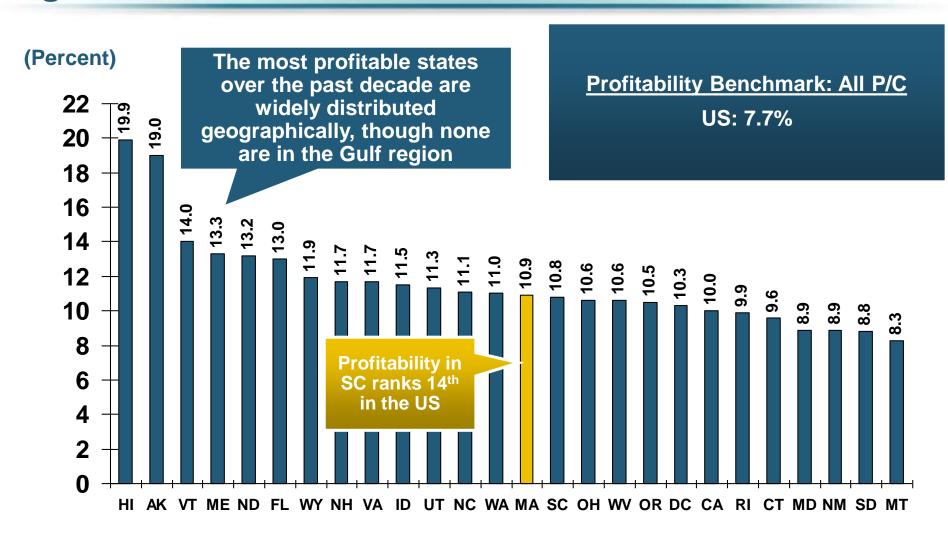
The Premium-to-Surplus Ratio Stood at \$0.76:\$1 as of 12/31/15, a Near Record Low (at Least in Recent History)

Source: A.M. Best, ISO, Insurance Information Institute.

<sup>\*</sup> As of 6/3016.

## RNW All Lines, 2005-2014 Average: Highest 25 States

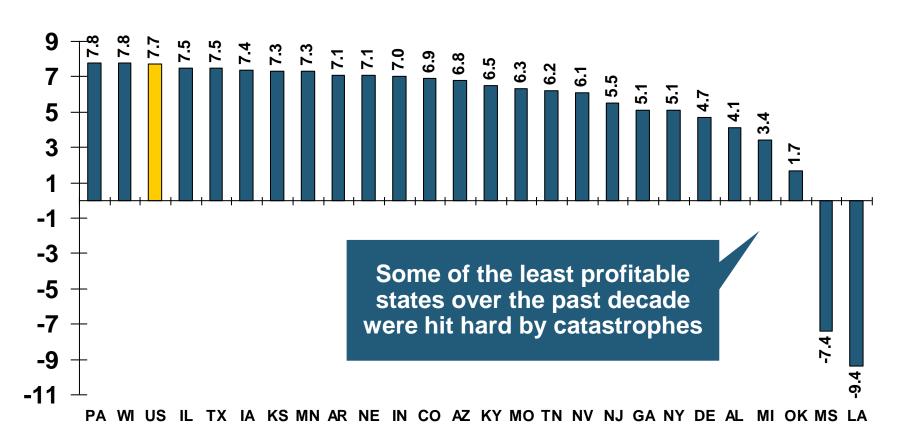




## RNW All Lines, 2005-2014 Average: Lowest 25 States

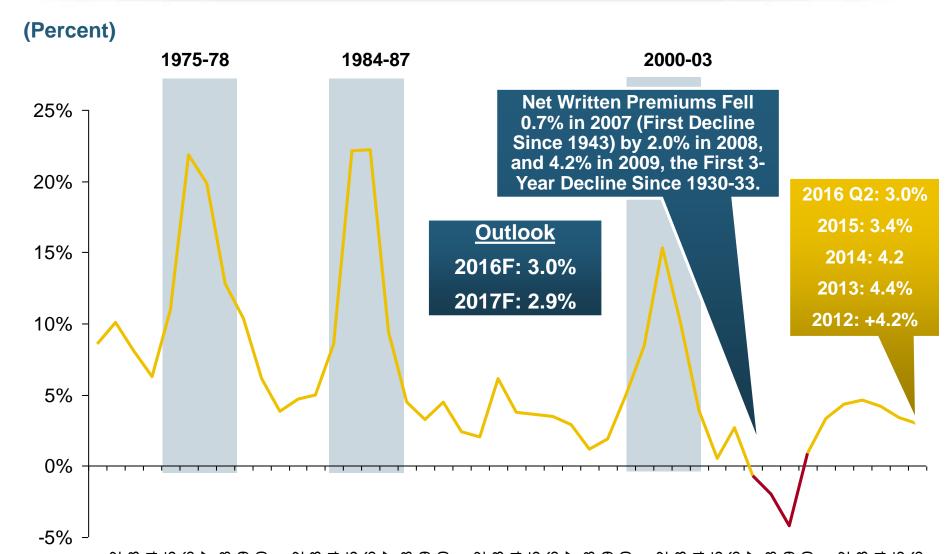


(Percent)



## Net Premium Growth (All P/C Lines): Annual Change, 1971—2016:Q2





Sources: A.M. Best (1971-2013), ISO (2014-16).

## Y-o-Y Growth Rates, Direct Premiums Written, Commercial vs. Personal Lines, 2013:Q4 - 2016:Q2





Since 2013, personal lines Direct Premiums Written have generally grown faster than commercial lines DPW, and that growth has been less volatile.

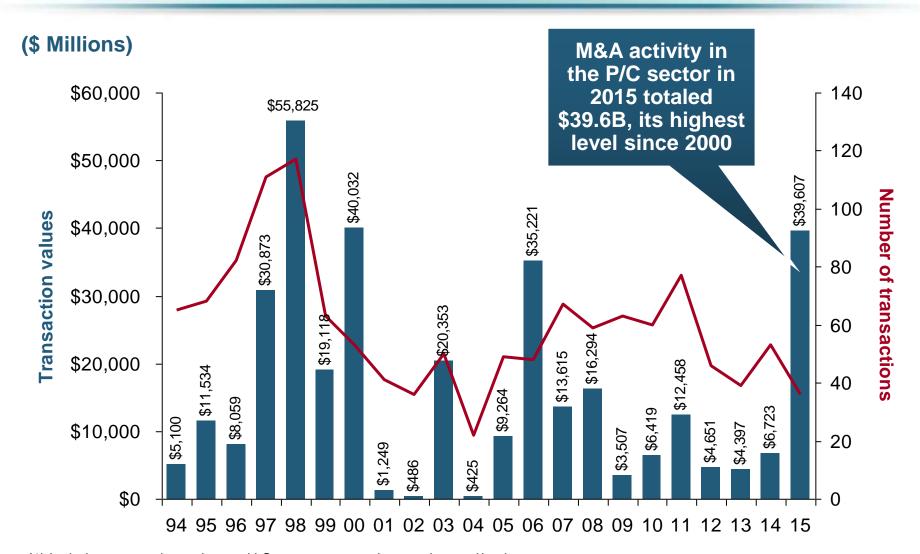


## GLOBAL M&A UPDATE: A PATH TO GROWTH?

# Are Capital Accumulation, Drive for Growth and Scale Stimulating M&A Activity?

### U.S. INSURANCE MERGERS AND ACQUISITIONS, P/C SECTOR, 1994-2015 (1)



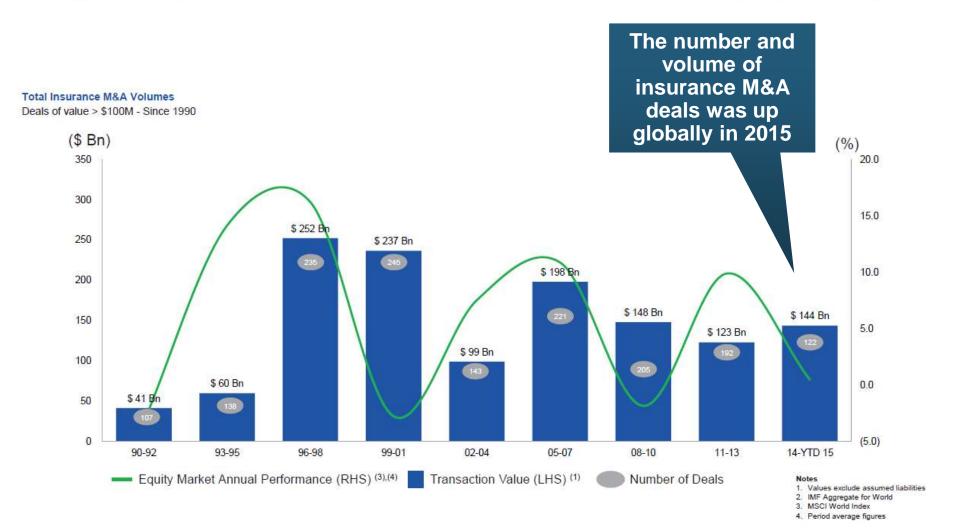


(1) Includes transactions where a U.S. company was the acquirer and/or the target.

Source: Conning proprietary database.

## Global M&A Activity Tends to Follow Equity Market Performance

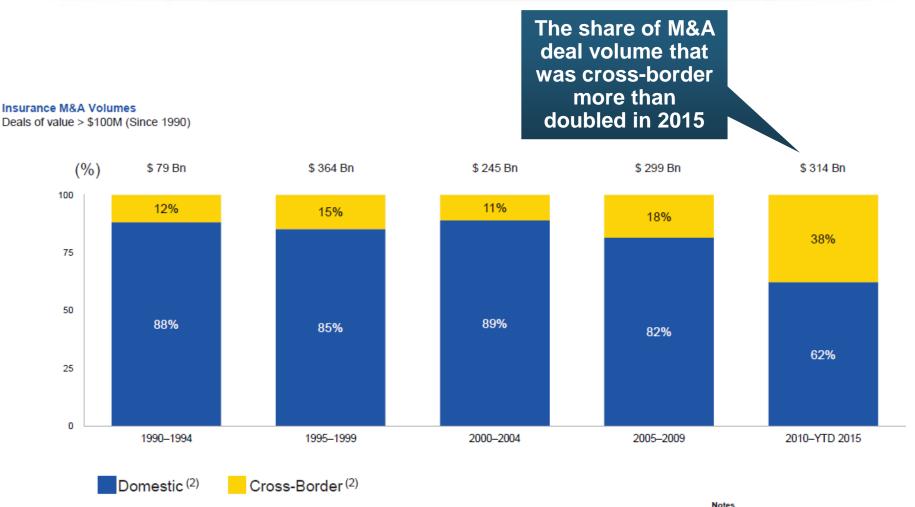




Source: Thomson Reuters, Capital IQ as of Oct. 2015 and IMF from Geneva Association Newsletter *Insurance and Finance*, Jan. 2016, presentation "Facts vs. Sentiment: Deals in the Insurance Sector," by Aviva CEO Mark Wilson.

## Huge Shift from Domestic M&A Activity to Cross-Border



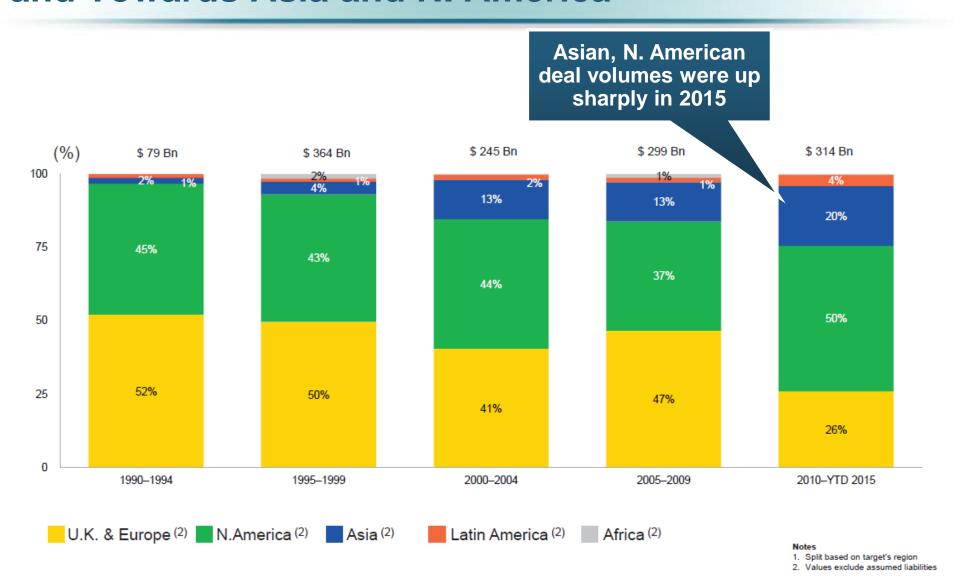


#### Notes

- Split based on target's region
- 2. Values exclude assumed liabilities

### M&A Activity Has Shifted Away from Europe and Towards Asia and N. America

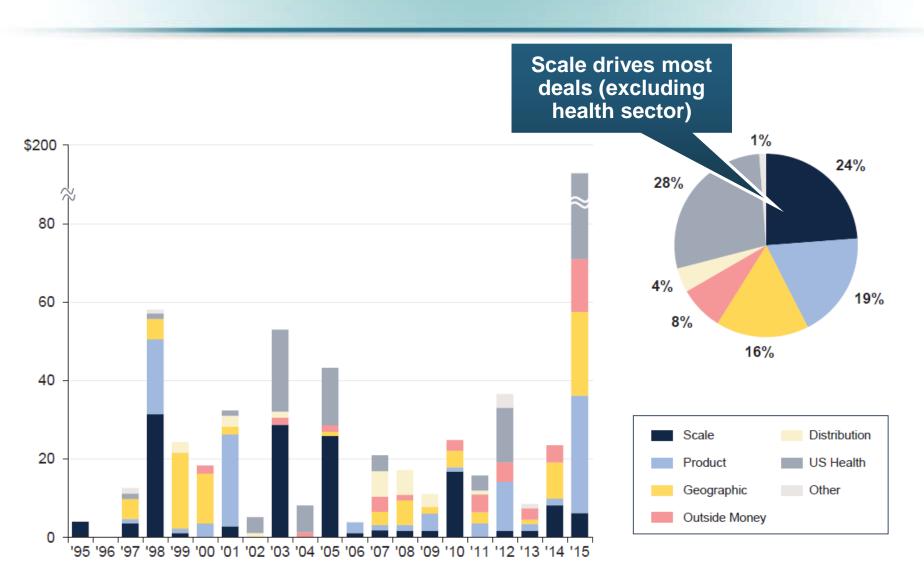




Source: Thomson Reuters as of Oct. 2015 from Geneva Association Newsletter *Insurance and Finance*, Jan. 2016, presentation "Facts vs. Sentiment: Deals in the Insurance Sector." by Aviva CEO Mark Wilson.

#### M&A: Deal Rationale by Dollar Amount





Source: SNL Financial and WCMA estimates from Geneva Association Newsletter *Insurance and Finance*, Jan. 2016, presentation "What is the Logic Behind Consolidation? And Does It Create Value? A View from Outside," by Brian Shea, Head of Willis Capital Markets & Advisory Europe (WCMA).

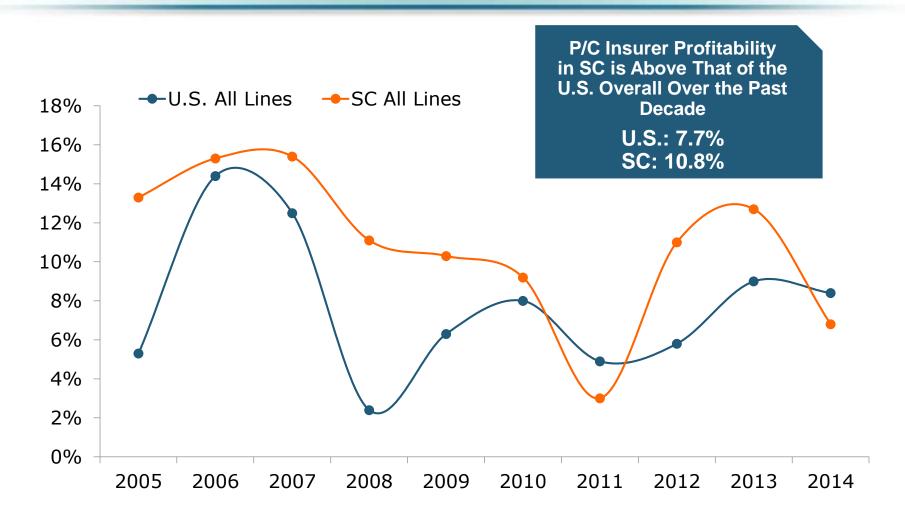


# Profitability and Growth in South Carolina P/C Insurance Markets

## **Analysis by Line and Nearby State Comparisons**

#### INSURANCE INFORMATION INSTITUTE

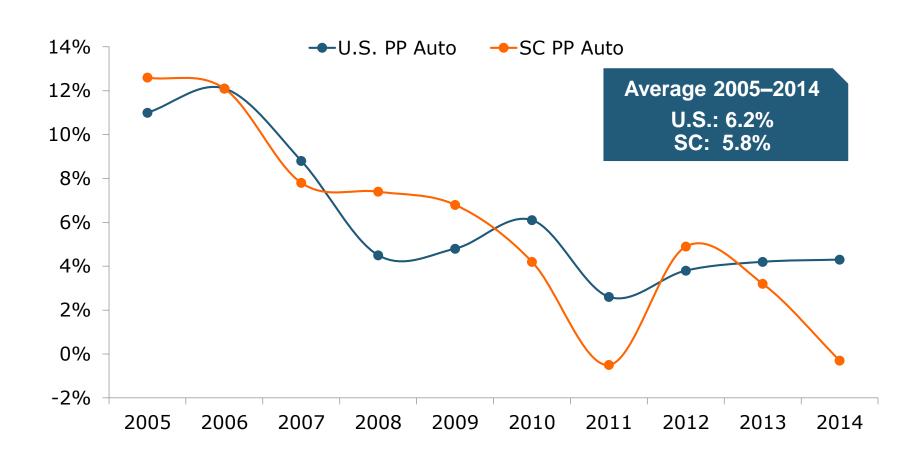
#### RNW All Lines: SC vs. U.S., 2005-2014



Source: NAIC.

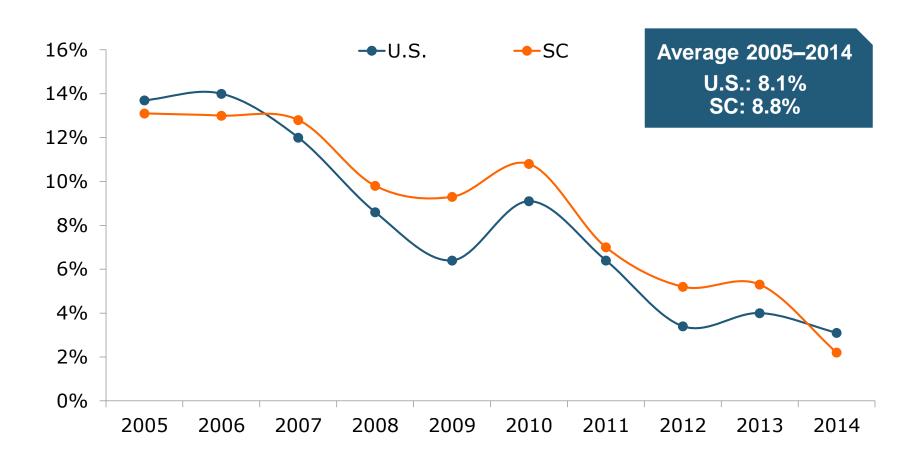
#### INSURANCE INFORMATION INSTITUTE

#### RNW PP Auto: SC vs. U.S., 2005-2014



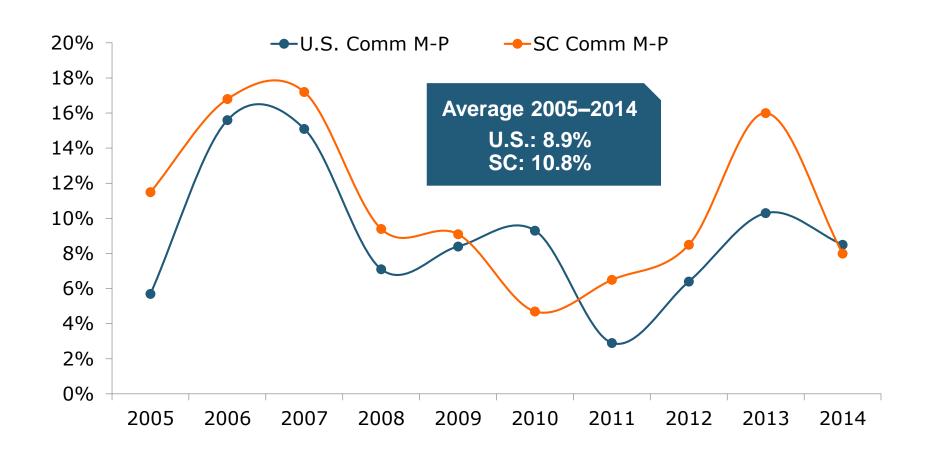
Source: NAIC.

#### RNW Comm. Auto: SC vs. U.S., 2005–2014 INFORMATION INSTITUTE



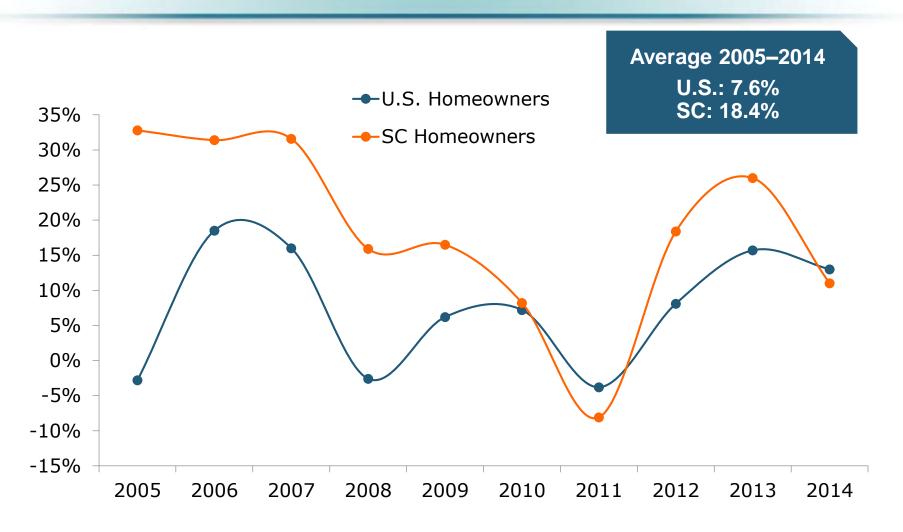
## RNW Comm. Multi-Peril: SC vs. U.S., 2005–2014





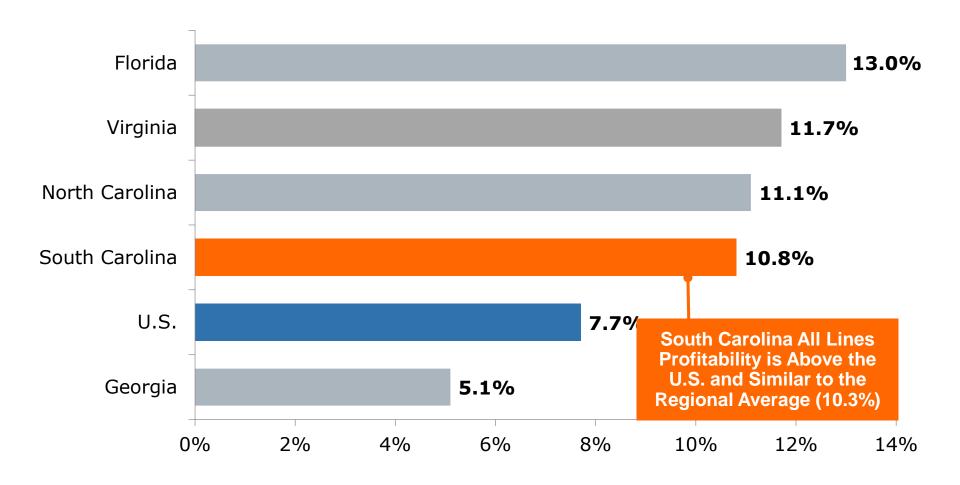
Source: NAIC.

#### RNW Homeowners: SC vs. U.S., 2005–2014 INFORMATION INSTITUTE



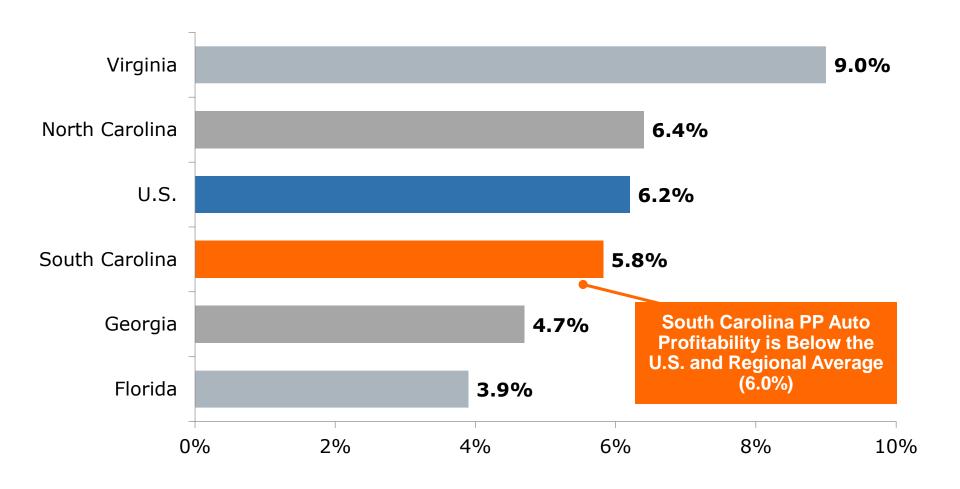
## All Lines: 10-Year Average RNW SC and Nearby States, 2005–2014





## PP Auto: 10-Year Average RNW SC and Nearby States, 2005–2014





## Top Ten Most Expensive & Least Expensive States for Automobile Insurance, 2013<sup>1</sup> Illinstitute

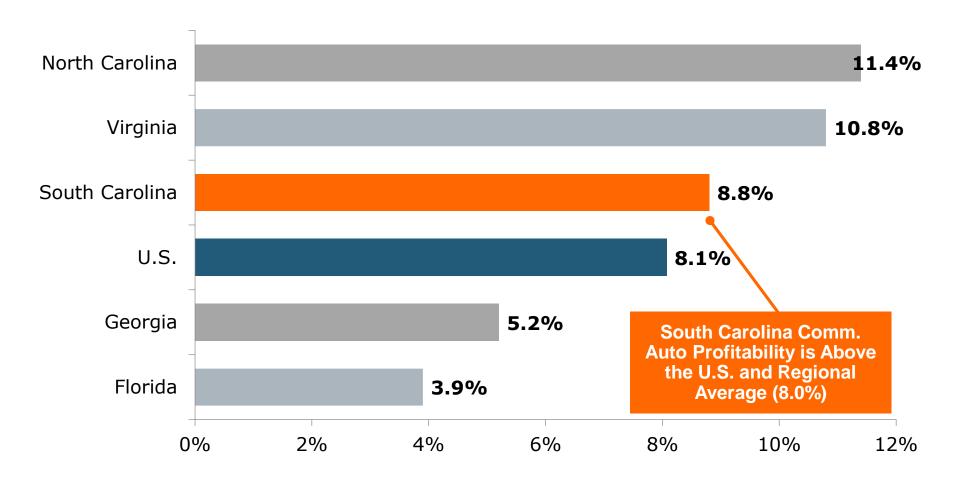
Rank	Most Expensive States	Average Expenditure	Rank	Least Expensive States	Average Expenditure
1	New Jersey	\$1,254.10	1	Idaho	\$553.38
2	D.C.	1,187.49	2	Iowa	572.14
3	New York	1,181.86	3	South Dakota	580.99
4	Louisiana	1,146.29	4	Maine	592.82
5	Florida	1,143.83	5	North Dakota	604.58
6	Michigan	1,131.40	6	Wisconsin	621.05
7	Delaware	1,101.12	7	Indiana	621.71
8	Rhode Island	1,066.25	8	North Carolina	624.76
9	Connecticut	1,011.27	9	Nebraska	638.74
10	Massachusetts	1,007.98	10	Wyoming	639.71

South Carolina Ranked 20<sup>th</sup> in Average Expenditure for Auto Insurance in 2013. The Average Expenditure was \$794.40.

<sup>1</sup>Based on average automobile insurance expenditures. Source: © 2016 National Association of Insurance Commissioners.

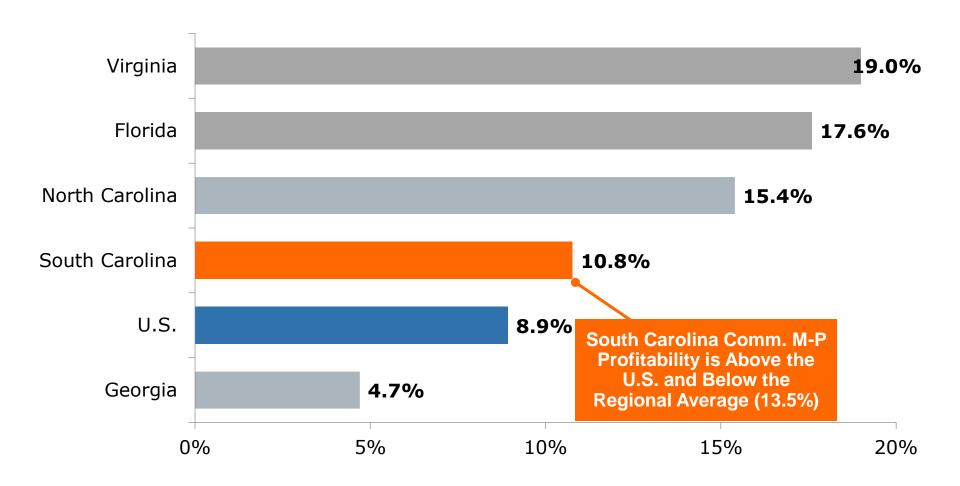
## Comm. Auto: 10-Year Average RNW SC and Nearby States, 2005–2014





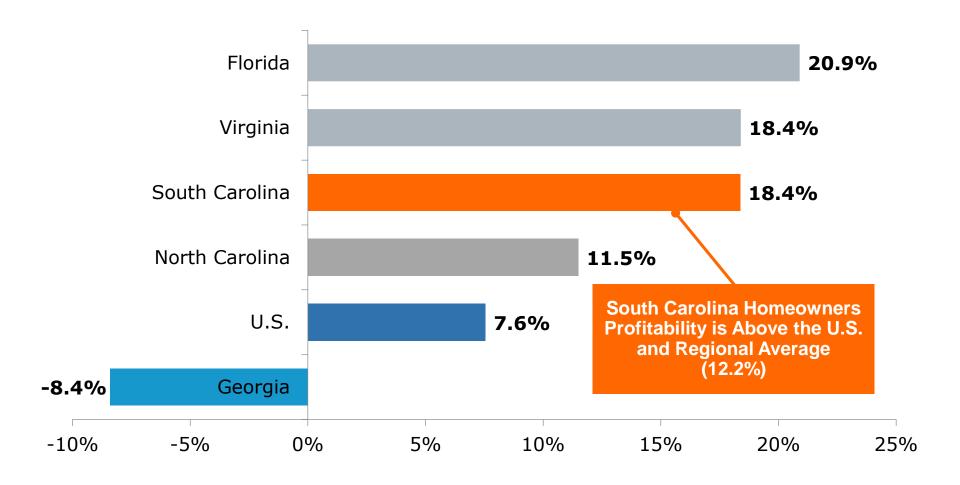
## Comm. M-P: 10-Year Average RNW SC and Nearby States, 2005–2014





## Homeowners: 10-Year Average RNW SC & Nearby States, 2005–2014





## Top Ten Most Expensive and Least Expensive States for Homeowners Insurance, 2013<sup>1</sup> Information States for Homeowners Insurance, 2013<sup>1</sup> Institute

Rank	Most Expensive States	HO Average Premium	Rank	Least Expensive States	HO Average Premium
1	Florida	\$2,115	1	Idaho	\$561
2	Texas <sup>2</sup>	1,837	2	Oregon	568
3	Louisiana	1,822	3	Utah	609
4	Oklahoma	1,654	4	Wisconsin	665
5	Mississippi	1,395	5	Washington	676
6	Kansas	1,343	6	Nevada	687
7	Rhode Island	1,334	7	Delaware	709
8	Alabama	1,323	8	Arizona	724
9	Connecticut	1,274	9	Ohio	763
10	Massachusetts	1,263	10	Maine	776

#### South Carolina Ranked as the 12<sup>th</sup> Most Expensive State for Homeowners Insurance in 2013, with an Average Expenditure of \$1,214

Note: Average premium=Premiums/exposure per house years. A house year is equal to 365 days of insured coverage for a single dwelling. The NAIC does not rank state average expenditures and does not endorse any conclusions drawn from this data.

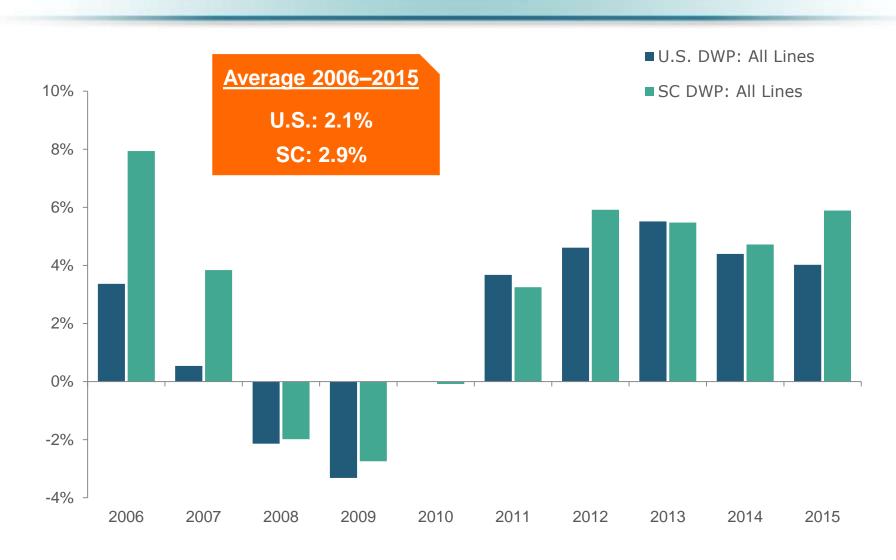
Source: ©2016 National Association of Insurance Commissioners (NAIC). Reprinted with permission. Further reprint or distribution strictly prohibited without written permission of NAIC.

Includes policies written by Citizens Property Insurance Corp. (Florida) and Citizens Property Insurance Corp. (Louisiana), Alabama Insurance Underwriting Association, Mississippi Windstorm Underwriting Association, North Carolina Joint Underwriting Association and South Carolina Wind and Hail Underwriting Association. Other southeastern states have wind pools in operation and their data may not be included in this chart. Based on the HO-3 homeowner package policy for owner-occupied dwellings, 1 to 4 family units. Provides "all risks" coverage (except those specifically excluded in the policy) on buildings and broad named-peril coverage on personal property, and is the most common package written.

The Texas Department of Insurance developed home insurance policy forms that are similar but not identical to the standard forms. In addition, due to the Texas Windstorm Association (which writes wind-only policies) classifying HO-1, 2 and 5 premiums as HO-3, the average premium for homeowners insurance is artificially high.

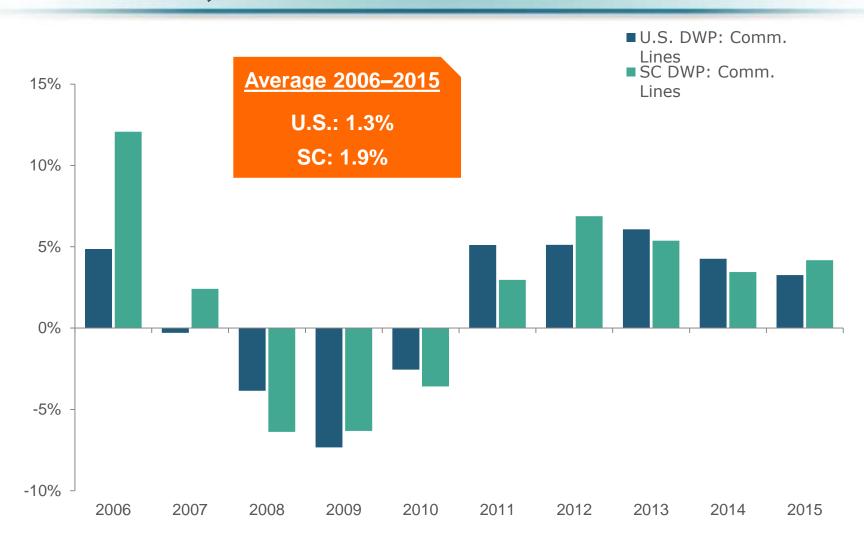
## All Lines DWP Growth: SC vs. U.S., 2006–2015





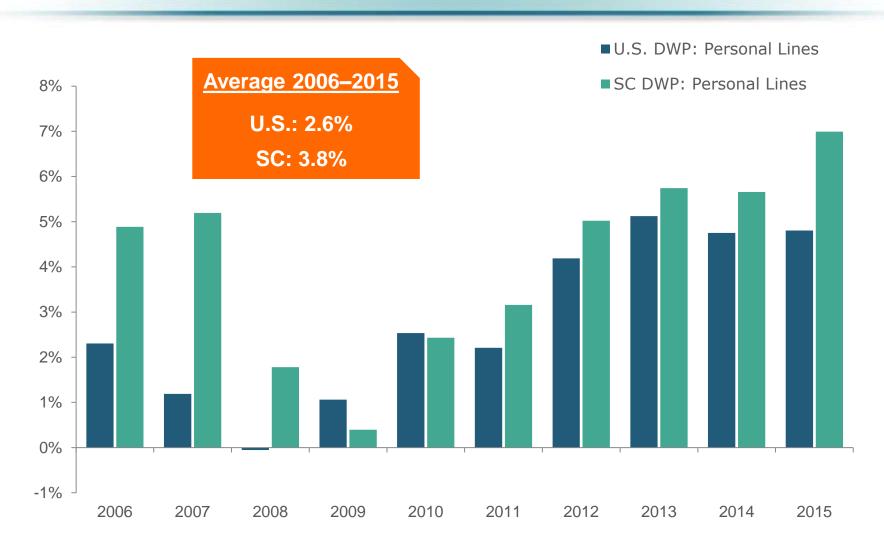
## Commercial Lines DWP Growth: SC vs. U.S., 2006–2015





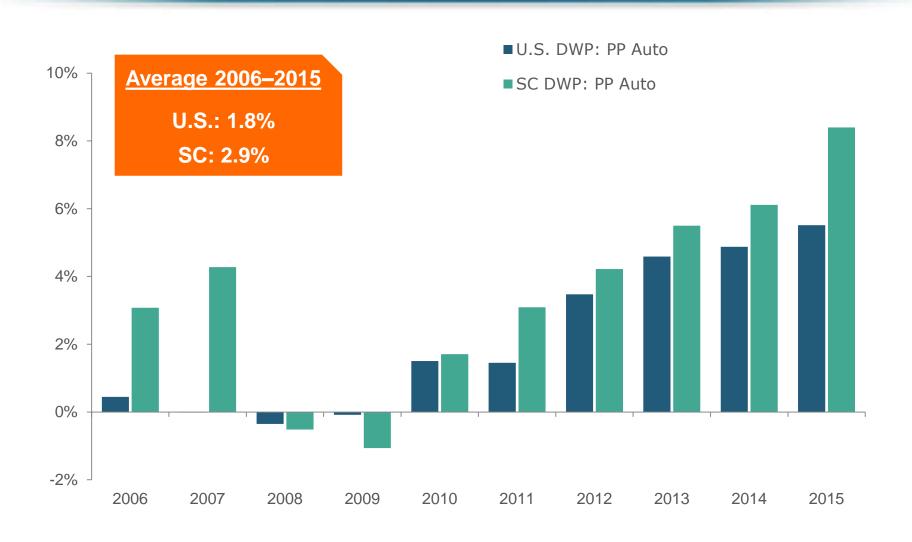
## Personal Lines DWP Growth: SC vs. U.S., 2006–2015





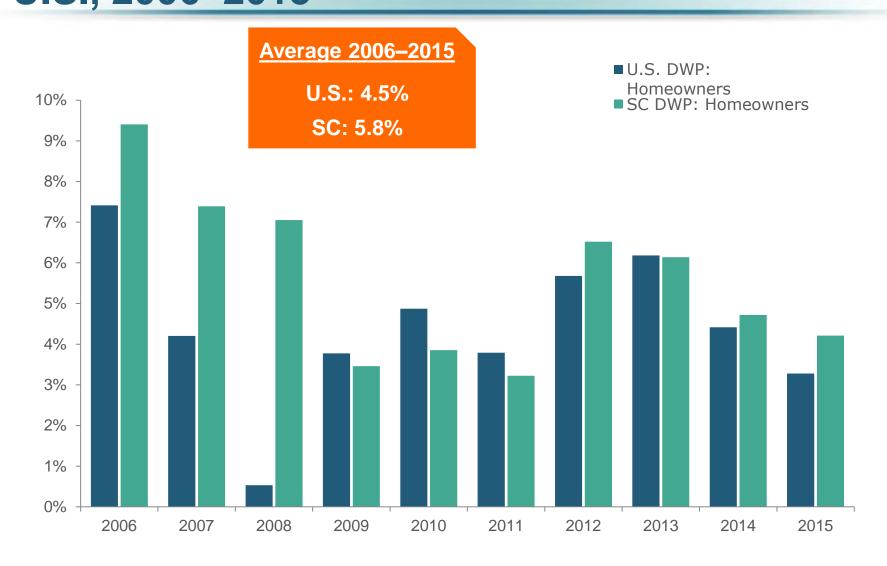
## Private Passenger Auto DWP Growth: SC vs. U.S., 2006–2015





## Homeowner's MP DWP Growth: SC vs. U.S., 2006–2015







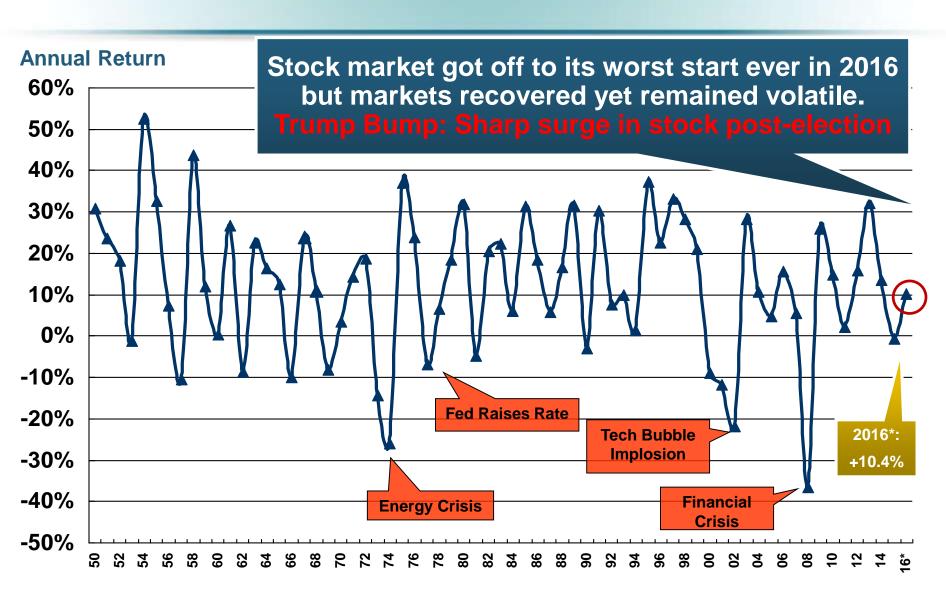
#### INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Will Depressed Yields Begin to Rise Under a Trump Administration?

#### **S&P 500 Index Returns, 1950 – 2016\***



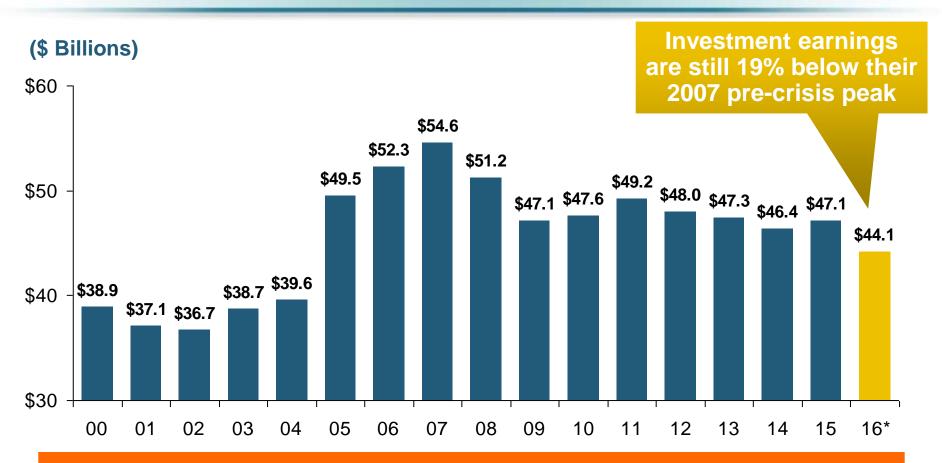


<sup>\*</sup>Through Dec. 12, 2016.

Source: NYU Stern School of Business: http://pages.stern.nyu.edu/~adamodar/New\_Home\_Page/datafile/histretSP.html Ins. Info. Inst.

#### Property/Casualty Insurance Industry Investment Income: 2000–2016:Q2<sup>1</sup>





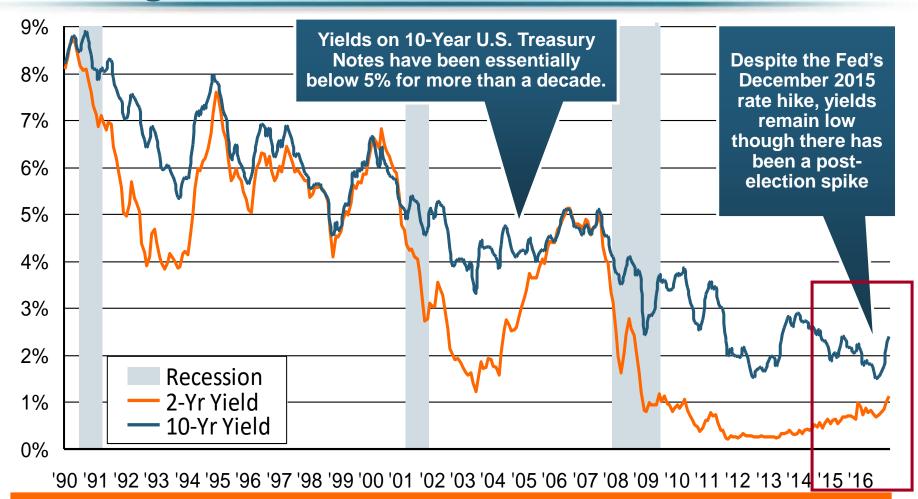
Due to persistently low interest rates, investment income fell in 2012, 2013 and 2014 but showed a small (1.9%) increase in 2015—another drop in 2016 seems likely.

<sup>\*</sup>Annualized figure based on actual Q2:2016 net investment income earned of \$22.067B.

<sup>&</sup>lt;sup>1</sup> Investment gains consist primarily of interest and stock dividends. Sources: ISO; Insurance Information Institute.

### U.S. Treasury Security Yields: A Long Downward Trend, 1990–2016\*



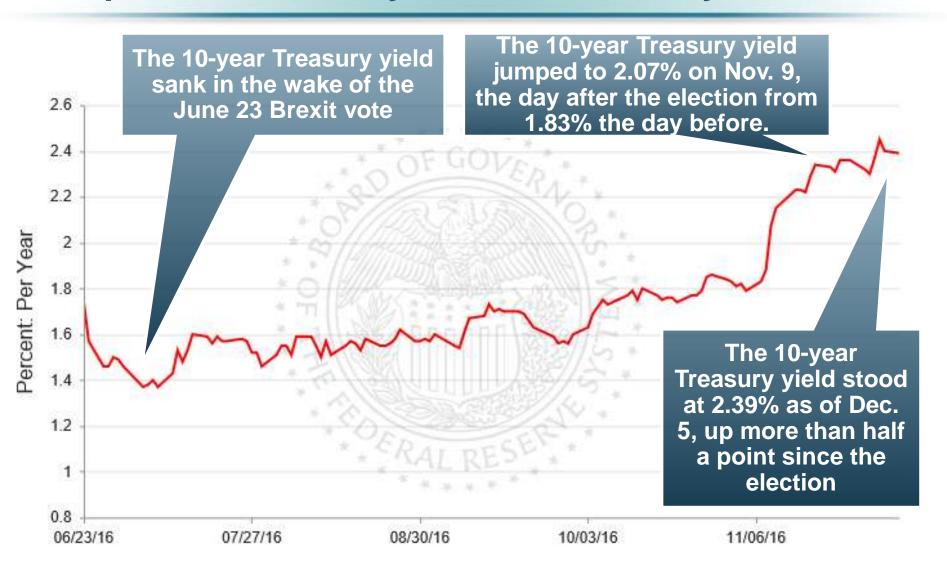


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

<sup>\*</sup>Monthly, constant maturity, nominal rates, through Nov. 2016; Dec. figure is as of Dec. 5. Sources: Federal Reserve Bank at <a href="http://www.federalreserve.gov/releases/h15/data.htm">http://www.federalreserve.gov/releases/h15/data.htm</a>. National Bureau of Economic Research (recession dates); Insurance Information Institute.

#### Interest Rates Surged on News of the Trump Election Victory: 10-Year Treasury

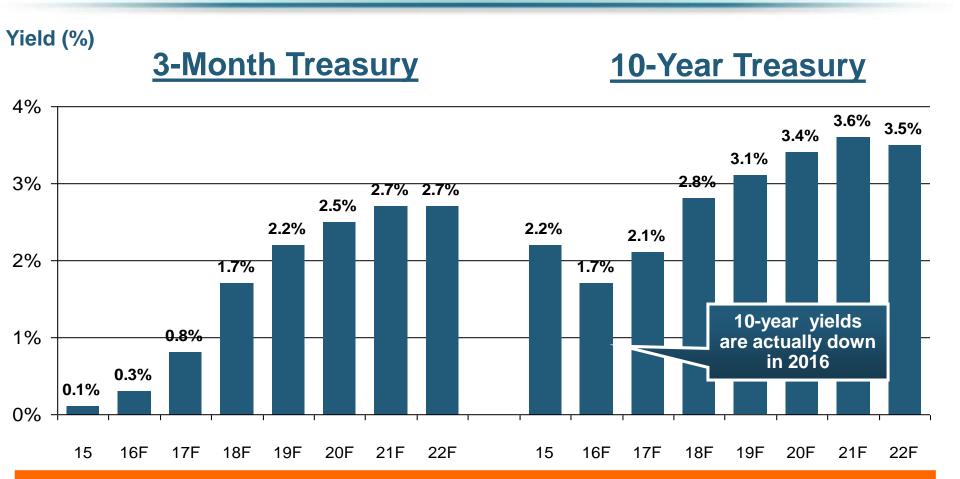




Sources: Federal Reserve Bank at <a href="http://www.federalreserve.gov/releases/h15/data.htm">http://www.federalreserve.gov/releases/h15/data.htm</a>; Insurance Information Institute.

#### Interest Rate Forecasts: 2016 – 2021F

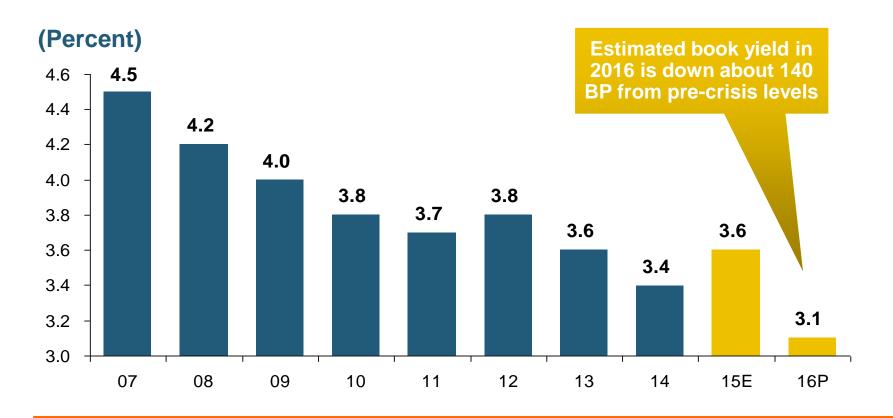




A full normalization of interest rates is unlikely until 2019, more than a decade after the onset of the financial crisis.

Sources: Blue Chip Economic Indicators (10/16 for 2016 and 2017; for 2018-2021 11/16 issue); Insurance Info. Institute.

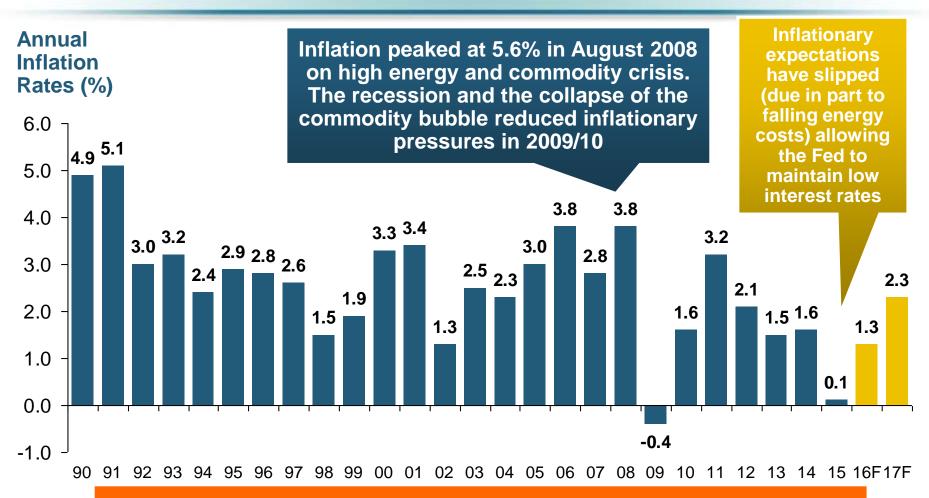
### Net Investment Yield on Property/ Casualty Insurance Invested Assets, 2007–2016P\*



The yield on invested assets remains low relative to pre-crisis yields. The Fed's plan to raise interest rates in late 2015 has pushed up some yields, albeit quite modestly.

#### Annual Inflation Rates, (CPI-U, %), 1990–2017F



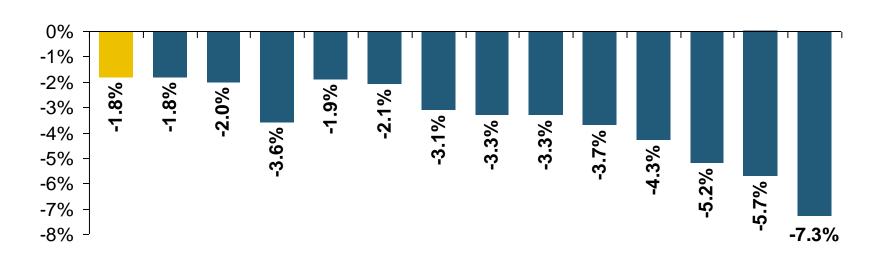


Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

## Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line\*







Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline

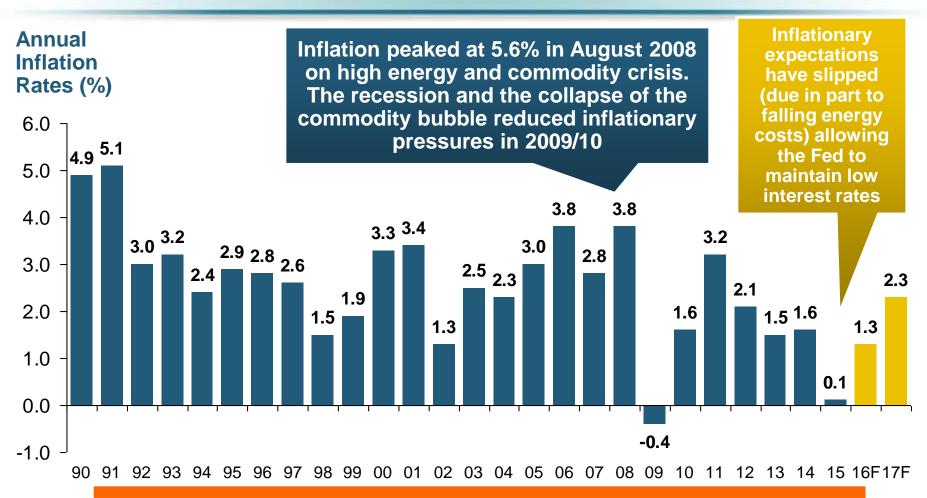
Source: A.M. Best; Insurance Information Institute.

<sup>\*</sup>Based on 2008 Invested Assets and Earned Premiums

<sup>\*\*</sup>US domestic reinsurance only

#### Annual Inflation Rates, (CPI-U, %), 1990–2017F

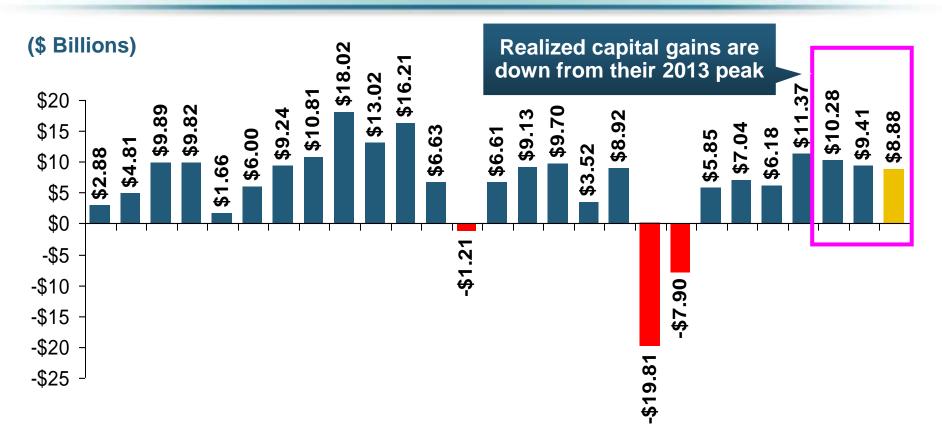




Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

### P/C Insurer Net Realized Capital Gains/Losses, 1990-2016:Q2





90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16\*

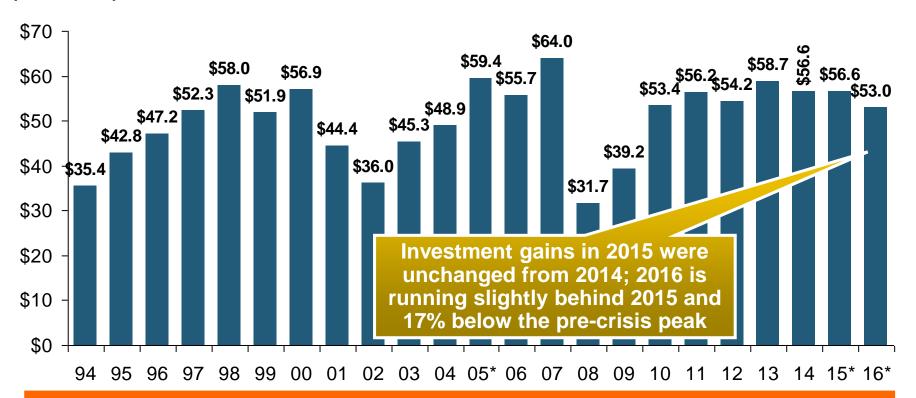
Insurers Posted Net Realized Capital Gains in 2010 - 2015 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were a Primary Cause of 2008/2009's Large Drop in Profits and ROE.

<sup>\*</sup>Annualized based on actual of \$4.438B through Q2 2016 Sources: A.M. Best, ISO; Insurance Information Institute.

### Property/Casualty Insurance Industry Investment Gain: 1994–2016:Q2<sup>1</sup>



#### (\$ Billions)



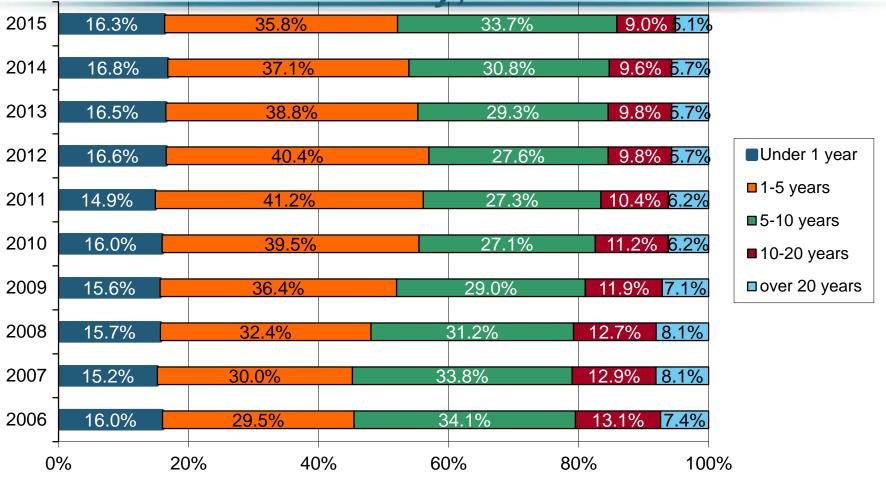
Total Investment Gains Were Flat in 2015 as Investment Income Rose Marginally and Realized Capital Gains Fell Slightly

<sup>&</sup>lt;sup>1</sup> Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

<sup>\* 2005</sup> figure includes special one-time dividend of \$3.2B; 2016 figure is annualized based on actual Q2 2016 figure of \$26.505B. Sources: ISO, SNL; Insurance Information Institute.

Distribution of Bond Maturities, P/C Insurance Industry, 2006-2015





Two main shifts over these years. From 2008 to 2011-12, from bonds with longer maturities to bonds with shorter maturities. But beginning in 2013, the reverse. Note, however, that the percentages in bonds with maturities over 10 years continues to drop.

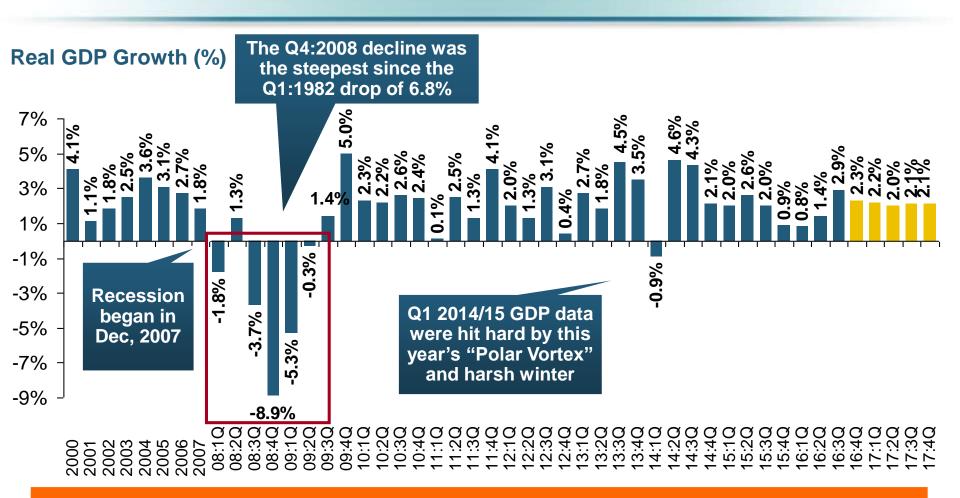


#### THE ECONOMY

The Strength of the Economy Will Greatly Influence Insurer Exposure Base Across Most Lines

#### **US Real GDP Growth\***



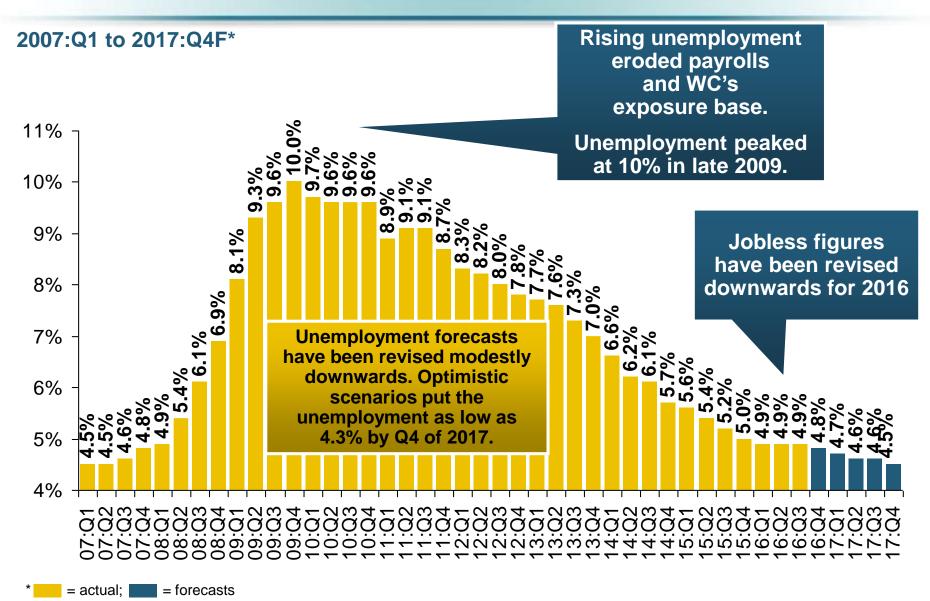


Demand for Insurance Should Increase in 2016 as GDP Growth Continues at a Steady, Albeit Moderate Pace and Gradually Benefits the Economy Broadly

<sup>\*</sup> Estimates/Forecasts from Blue Chip Economic Indicators.

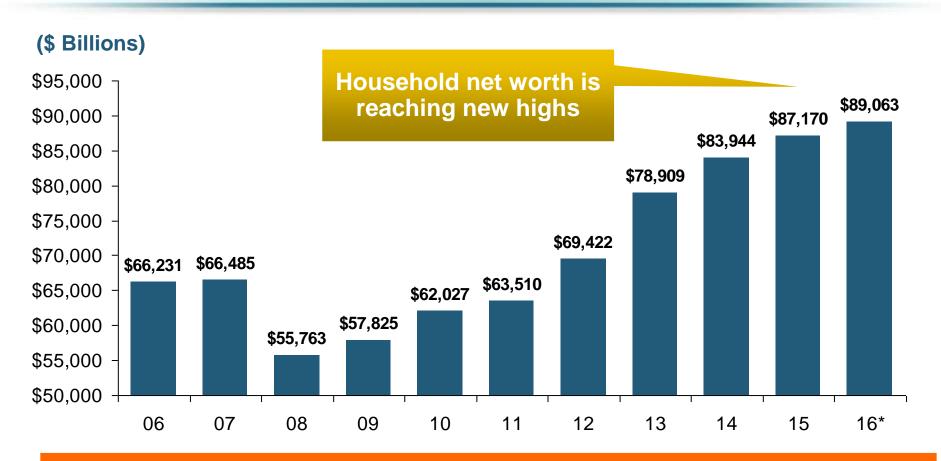
#### **US Unemployment Rate Forecast**





#### Household Net Worth: 2005-2016:Q21



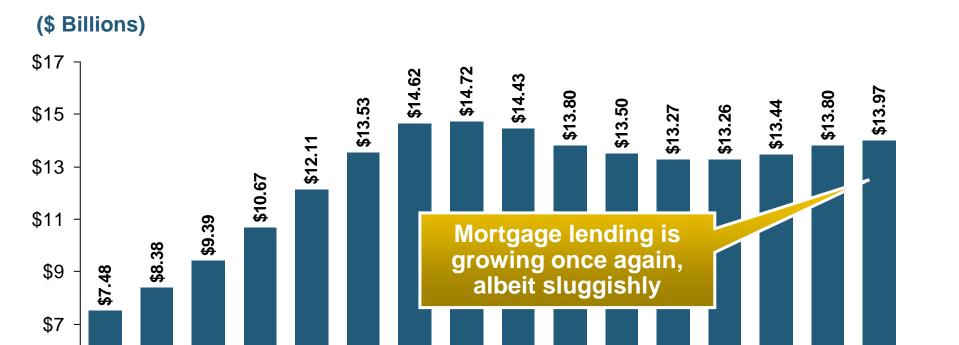


Household net worth continues to recover from the Great Recession and could accelerate. This would expand the "wealth effect" which is more pronounced among higher income households.

<sup>&</sup>lt;sup>1</sup> Annualized and seasonally adjusted figure. Sources: Federal Reserve; Insurance Information Institute.

#### Mortgage Debt Outstanding: 2001–2016:Q2<sup>1</sup>





Mortgage debt outstanding remains below pre-crisis levels.
Consumers have the capacity to resume more aggressive spending.

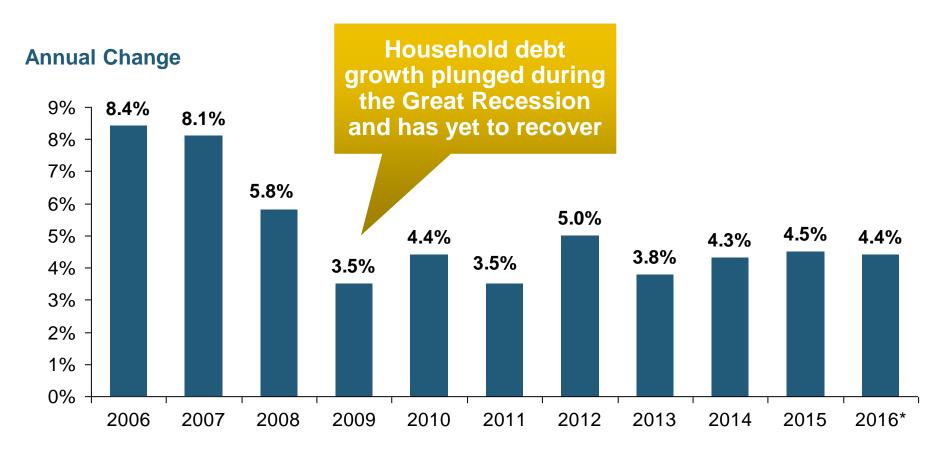
16\*

\$5

<sup>&</sup>lt;sup>1</sup> Annualized and seasonally adjusted figure as of Q2 2016. Sources: Federal Reserve; Insurance Information Institute.

### Annual Growth in Household Debt: 2006 – 2016:Q2\*

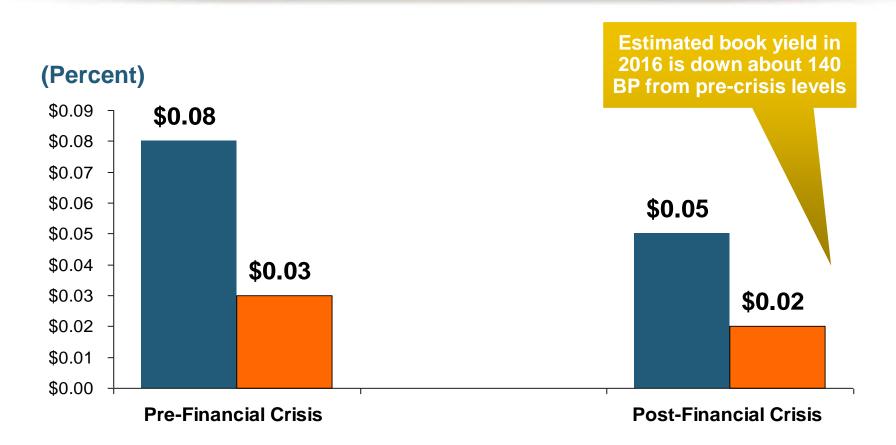




Household debt continues to expand but timidly, reflectly lingering economic uncertainties

<sup>&</sup>lt;sup>1</sup> Annualized and seasonally adjusted figure. Sources: Federal Reserve; Insurance Information Institute.

## The Wealth Effect: Will Rising Home Prices INSURANCE and a Bull Market Push Up Spending?



The wealth effect is diminished in the slow-growth, post-recession economy, but could it accelerate under a Trump Administration?

High net worth families could ramp up spending

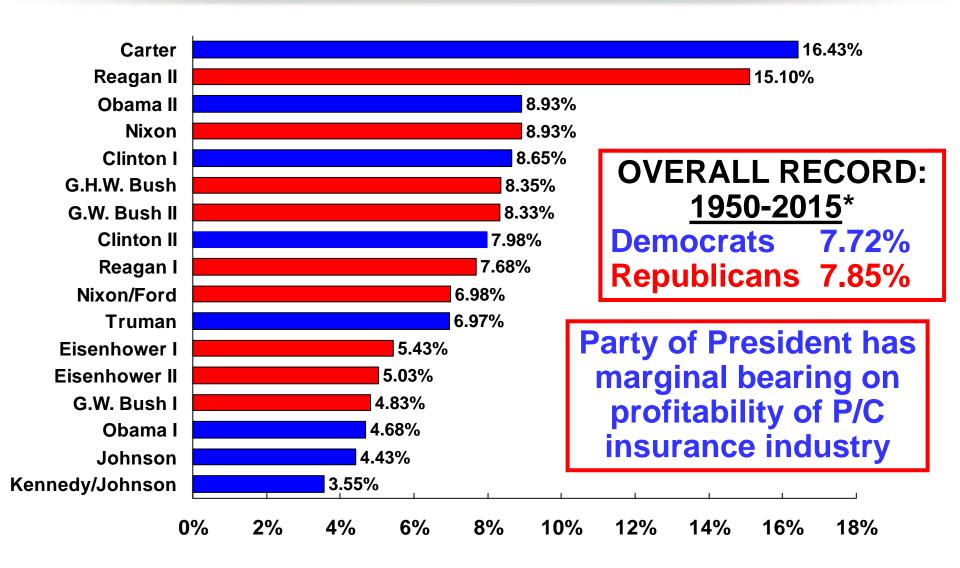


#### **Profitability & Politics**

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

### P/C Insurance Industry ROE by Presidential Administration, 1950-2015\*





<sup>\*</sup>Truman administration ROE of 6.97% based on 3 years only, 1950-52;. Source: Insurance Information Institute



# Trumponomics, Insurance and Politics

# How Might the Trump Presidency Impact the Insurance Industry?

### Trump vs. Clinton: Issues that Matter to P/C Insurers



Issue	Trump	Clinton
Economy	Supply Side-Like Philosophy: Lower taxes→Faster real GDP growth; Deficits likely grow as tax cuts are combined with targeted increased spending on Homeland Security, Defense, etc.	Keynesian Philosophy: More government spending on infrastructure, education, social services; Deficits likely increase as tax increases likely difficult to pass
Interest Rates	May trend higher with larger deficits; Shift from monetary policy to fiscal focus (tax cuts, government spending)	Status quo at the Fed; Net impact on interest rates unclear
Taxes	Favors lower tax rates for corporate and personal income tax rates; Tax code overhaul?	Unlikely to reduce taxes or embark on major overhaul of tax code
International Trade	Protectionist Tendencies (appeal primarily to manufacturing sector)	Has criticized Trans-Pacific Partnership but is a realist on international matters
Tort System	Doesn't like trial lawyers but seems to like filing lawsuits	Status Quo
Health Care	ACA should be repealed & replaced	Incremental Change

### Trump's Economic Plan & Other Key Factors Impacting Insurers



Towns Associated		
Issue	Analysis	
Economy	Supply Side-Like Philosophy: Lower taxes→Faster real GDP growth; Deficits likely grow as tax cuts are combined with targeted increased spending on Homeland Security, Defense, etc. Seems in favor of heavy infrastructure spending.	
Interest Rates	May trend higher with larger deficits; Shift from monetary policy to fiscal focus (tax cuts, government spending). <b>Interest rates have spiked.</b>	
Taxes	Favors lower tax rates for corporate and personal income tax rates; Tax code overhaul? <b>Seems likely.</b>	
International Trade	Protectionist Tendencies (appeal primarily to manufacturing sector). May be more pragmatic in his approach than anticipated.	
Tort System	Scalia Supreme Court seat will be filled by a conservative justice; Likely more business friendly judge appointed to the federal bench	
Health Care	ACA should be repealed & replaced. Willing to retain parts of Act: Pre-existing conditions; Children can remain on parent's plan until age 26.	



- Affordable Care Act ("Obamacare")
  - "Repeal" is imminent, early in 2017
    - Elimination of individual mandate seems certain
  - Certain provisions of the ACA will be retained
    - Children can remain on parental policies until age 26
    - Can't deny coverage based on pre-existing conditions
  - Possible changes
    - Allow insurers to sell (and consumers to purchase) across state lines
    - Expansion of Medicare (possibly to age 55 for some)???
    - Will need to devise high-risk pools
    - Expansion of tax-qualified Health Savings Accounts
    - Tax Credits



#### ■ Dodd-Frank

- Likely to be scaled back
- Insurers may find it easier to avoid bank-centric and Euro-centric regulation
- SIFI designations could be dropped
  - For Met, Pru and possibly AIG
- Dept. of Labor Fiduciary Standard Rule
  - Less onerous implementation of the rule possible

#### Climate and Energy

- Climate change no longer a priority
- Carbon-based and carbon emitting industries will benefit from reduced pressure on climate issue



#### Trade

- Has vowed to be tough in (re)negotiating trade deals
- Unlikely there is any stomach in Congress for all out trade wars with Mexico, China or other major trading partners
- A crescendo in protectionist sentiments would be a net negative for all industries, including (re)insurance and financial services in general
- Despite his election rhetoric, Trump is neither a protectionist nor an isolationist

#### ■ Trade

- Likely to be hostile to Corporate Inversions
- Treatment of offshore tax havens in future tax reforms will be of interest



#### ■ M&A Activity

- Few implications for P/C or Life insurers, but health insurers could see a bumpy path, especially since the "replacement" for the ACA remains to be devised
- While businesses many have a freer hand to consolidate under Trump, that activity will have its limits
- Populist movements are not historically friendly to the accumulation of market power (Teddy Roosevelt—a Manhattanite, US President and "Trust Buster" and founder of the Progressive Party—which split from the Republican Party in 1912)

#### Likely Issues Impacting High Net Worth Consumers



#### ■ Taxes

- May push through across-the-board tax personal income tax cuts as part of or as a early step toward tax reform and simplification
- Lower corporate income taxes to restore international competitiveness on rates
- Elimination/reduction of ACA tax on investment earnings(?)

#### ■Interest Rates and Inflation

- Trump's fiscal policy (tax cuts couple with increased infrastructure and military spending) is potentially inflationary and will push up interest rates, a benefit for fixed income investors
- Lower corporate income taxes to restore international competitiveness on rates

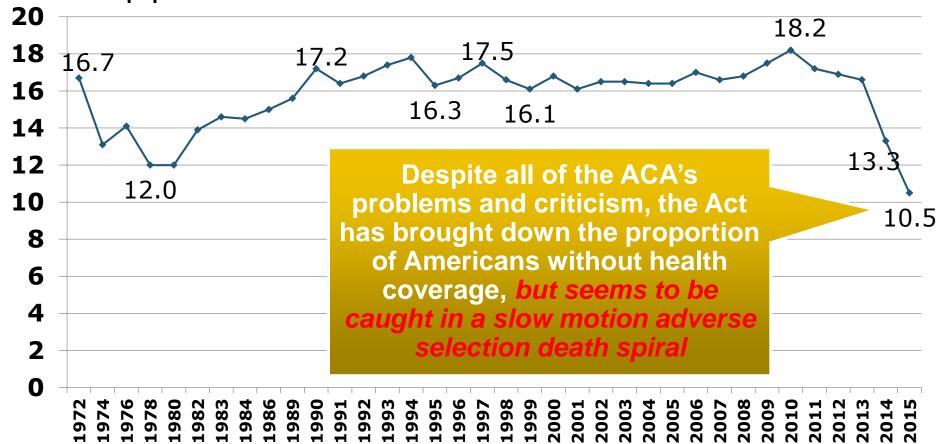


#### **HEALTH INSURANCE**

The First (Day 1) and Most Impacted Segment of the Insurance Industry, by Far

#### Uninsured Rate Among the Nonelderly Population, 1972 - 2015





Source: CDC/NCHS, National Health Interview Survey, reported in

http://www.cdc.gov/nchs/health\_policy/trends\_hc\_1968\_2011.htm#table01\_and http://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201605.pdf from the Kaiser FamillyFoundation at www.kff.org.



- Affordable Care Act ("Obamacare")
  - "Repeal" is imminent, early in 2017: Day 1 Issue
    - Elimination of individual mandate seems certain (and associated penalties)
  - "Replacement" to be over seen by new HHS Secretary, Sen. Tom Price (R-GA)—an orthopedic surgeon
  - Certain provisions of the ACA will be retained
    - "Repeal & Replace" → Reform & Restructuring
    - ACA will not suffer a complete repudiation
    - Children can remain on parental policies until age 26
    - Protections for those with pre-existing conditions



- Affordable Care Act ("Obamacare")
  - Possible changes: Phase-in over 2-3 years
    - Allow insurers to sell (and consumers to purchase) across state lines
    - Quasi-privatization of Medicare?
    - Expansion of Medicaid?
    - Expansion of tax-qualified Health Savings Accounts
    - Tax Credits
  - No question that <u>fewer</u> people will be insured under an ACA replacement
    - Will need mechanism for creating, operating and funding highrisk pools
    - Many successful operating models for such pools/plans



#### ■ Paul Ryan "A Better Way" Plan

- House Speaker Paul Ryan released his "A Better Way" plan in June 2016, proposes:
  - Block granting Medicaid (hence more state control)
  - Creation of vouchers for Medicare (hopefully stimulating competition and increasing choice, as has been the experience of Medicare Advantage, which already enrolls 32% of seniors)
  - Elimination of advanced paid premium subsidies for individual insurance

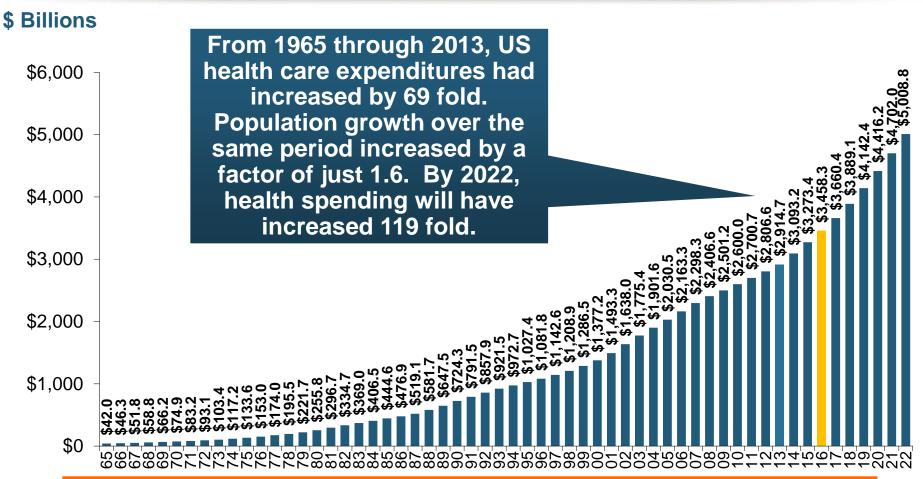


Health Care June 22, 2016 better.gop

Source: <a href="https://abetterway.speaker.gov/\_assets/pdf/ABetterWay-HealthCare-PolicyPaper.pdf">https://abetterway.speaker.gov/\_assets/pdf/ABetterWay-HealthCare-PolicyPaper.pdf</a>

### U.S. Health Care Expenditures, 1965–2022F



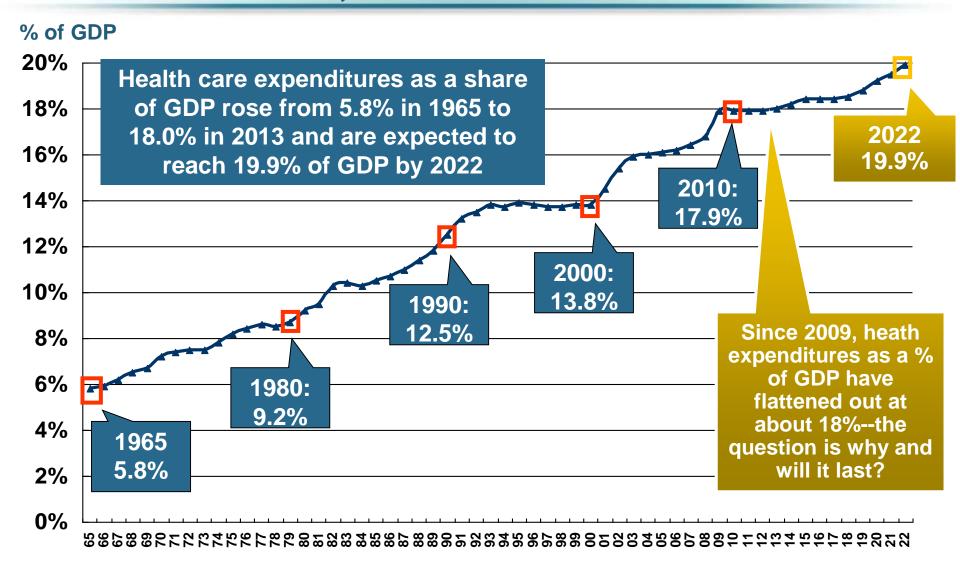


U.S. health care expenditures have been on a relentless climb for most of the past half century, far outstripping population growth, inflation of GDP growth

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at <a href="http://www.cms.gov/Research-Statistics-Data-and-Systems/S

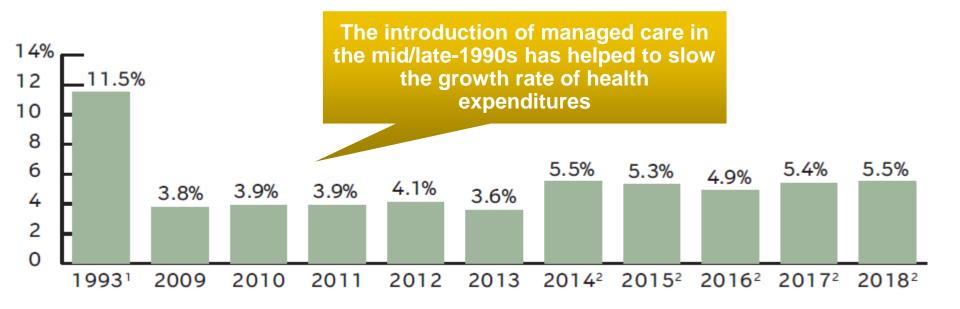
## National Health Care Expenditures as a Share of GDP, 1965 – 2022F\*





Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at <a href="http://www.cms.gov/Research-Statistics-Data-and-Systems/S

### National Health Expenditures, Avg. Annual Percent Growth from Prior Year: 1993 – 2018F



<sup>1</sup>Average annual growth from 1970 through 1993; marks the beginning of the shift to managed care.

<sup>2</sup>Projected.

Source: Centers for Medicare and Medicaid Services, Office of the Actuary.

from 2016 Insurance Information Institute Fact Book.

### Basic Provisions of the ACA: Prohibitions on Certain Insurer Practices | Insurance | Insurance | Insurer | Insurer

- Lifetime and Annual Limits on Coverage Prohibited **ELIMINATE** 
  - Dollar limits on coverage prohibited
- Pre-Existing Condition Exclusions Prohibited MODIFY
  - Insurers are prohibited from denying claims or excluding coverage based on pre-existing conditions
- Retention of Coverage Until Age 26 RETAIN
  - ACA allows young adults to remain on parents policy until age 26 (can enroll immediately after turning 26)

### Basic Provisions of the ACA: Prohibitions on Certain Insurer Practices | Insurance | Insured Practices | Ins

Guaranteed Access to Health Insurance ELIMINATE GUARANTEED PRIVATE INSURER ISSUANCE AND RENEWAL (Guarantee may continue to exist through residual market mechanisms)

Policies sold in the individual and small group market via the Health Insurance Market are sold on a guaranteed issue and guaranteed renewable basis. Applicants cannot be denied coverage or be required to pay highest rates because of health status. Variations in rating variables are allowed only for age (limited to 3:1 ratio), number of family members, geographical area and tobacco usage (limited to 1.5:1 ratio). Cannot charge females more.

### Basic Provisions of the ACA: Prohibitions on Certain Insurer Practices



- Medical Loss Ratios (80/20 Rule or Medical Loss Ratio Rule)
  ELIMINATE
  - Insurers required to meet a minimum loss ration (MLR) of 80% for individual and small group market and 85% for large group market. The MLR refers to the percentage (share) of premiums paid for health insurance coverage that is *used to pay claims* and *activities that improve the quality of care*. In other words, insurers must pay a minimum of 80% or premium collected on benefits and keep only 20% for expenses and profits.

### Basic Provisions of the ACA: Individual Mandate, Essential Health Benefits

#### Individual Mandate ELIMINATE

• ACA requires US citizens and legal residents to have qualifying health insurance of pay a penalty--\$695 in 2016 or 2.5% of family income. After 2016, the penalty will be increased by annual cost of living adjustment.

#### ■ Essential Health Benefits **ELIMINATE**

 ACA requires that most medical expense policies provide a comprehensive package of benefits and services called essential health benefits.

#### **Essential Health Benefits**



- **Essential Health Benefits** must (at a minimum include):
  - Ambulatory patient services
  - ER services
  - Hospitalization (such as surgery)
  - Pregnancy, maternity, newborn care
  - Mental health and substance abuse
  - Prescription drugs
  - Rehabilitation services
  - Preventive and wellness services, chronic disease management
  - Pediatric services (including oral and vision care)
- Almost all federal coverage mandates will be eliminated
- Should result in more competition, especially for less expensive/less comprehensive plans
- Health insurers will regain most underwriting freedoms they lost under ACA
  - Occasionally controversial: E.g., Women's health benefits

### Basic Provisions of the ACA: Health Insurance Marketplace



#### ■ Health Insurance Marketplace RESTRUCTURE

• ACA creates a Health Insurance Marketplace in each state where individuals and small businesses can purchase affordable and qualified health insurance plans. These state "exchanges" enable people to comparison shop for standard health insurance plans, facilitate enrollment in the various plans and administer health insurance premium credits so that people of all incomes can purchase coverage.

## Basic Provisions of the ACA: Advance Premium Tax Credits



#### Advanced Premium Tax Credits ELIMINATE

• ACA provides advanced premium tax credits to eligible individuals and families to make coverage more affordable. Available to people with incomes between 100% and 400% (up to \$46,680 for an individual and up to \$95,400 for a family of 4 in 2015). The idea is to limit the share of income that must be spent on health insurance (from 2% for the poorest people to 95% for those earning 300% - 400% of the FPL. of the federal poverty level (FPL).



## PROPERTY/CASULATY INSURANCE

## More Positives for P/C Sector than Any Other

### Trump Administration: Likely Issues Impacting P/C Insurers



- Lower Corporate Tax Rates (+)
  - Reduced value of Tax Loss Carry Forwards
- Lower Personal Income Tax Rates (+)
  - Increases disposable income, stimulating demand for vehicles, homes, etc. (insurable exposures increase→increasing demand)
- Heavy Infrastructure Spending (+)
  - Commercial property, liability, commercial auto, surety, WC
- Dodd-Frank Rollback (+)
  - Partial rollback likely
  - Systemically Important Financial Institution (SIFI) Designation (Met, Pru, AIG) may be easier to shed
  - Less emphasis on bank- and European centric regulations
    - Solvency II

### Trump Administration: Likely Issues Impacting P/C Insurers



- NFIP: Flood Insurance Program 2017 Reauthorization (+)
  - More encouragement of private (re)insurer participation in flood insurance market
  - Use of private insurance and capital markets
- Trade (-)
  - Danger of being caught in trade dispute crossfire
- Terrorism: Terrorism Risk Insurance Act (TRIA) (?)
  - ◆ Expires 12/31/2020 → Administration views uncertain
  - Favors free markets but Trump's NYC real estate experience gave him a front row seat to 9/11's impact's on commercial property insurance



#### LIFE INSURANCE

# Mostly Favorable Impacts for Life Insurers, though Net Impact of Tax Policy Is Unclear

### Trump Administration: Likely Issues Impacting Life Insurers



- Lower Corporate Tax Rates (+)
  - Muni/corporate bond balance affects impact
  - Impact on Dividend Received Deduction unclear
- Lower Personal Income Tax Rates (-)
  - Lower personal income tax rates would (at least in theory) reduce the attractiveness of insurance products which have a cash value component on which interest earnings accrue on a tax deferred basis
- Scaling Back of Dodd-Frank (+)
  - Partial rollback likely
  - Systemically Important Financial Institution (SIFI) Designation (Met, Pru, AIG) may be easier to shed
  - Less emphasis on bank- and European centric regulations
- Easing of Fiduciary Rule (+)
  - Less onerous implementation



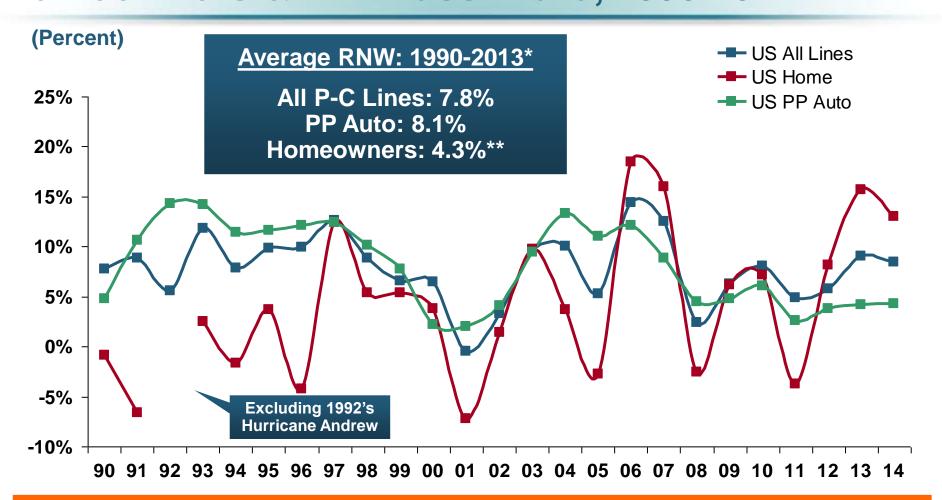
# Auto & Home Insurance: State of the Personal Lines Market

Auto Frequency and Severity Are an Immediate Challenge

Dearth of Major CATs (Until Recently), Pricing Discipline Has Helped Home

#### Return on Net Worth: All P-C Lines vs. Homeowners & Pvt. Pass. Auto, 1990-2014\*





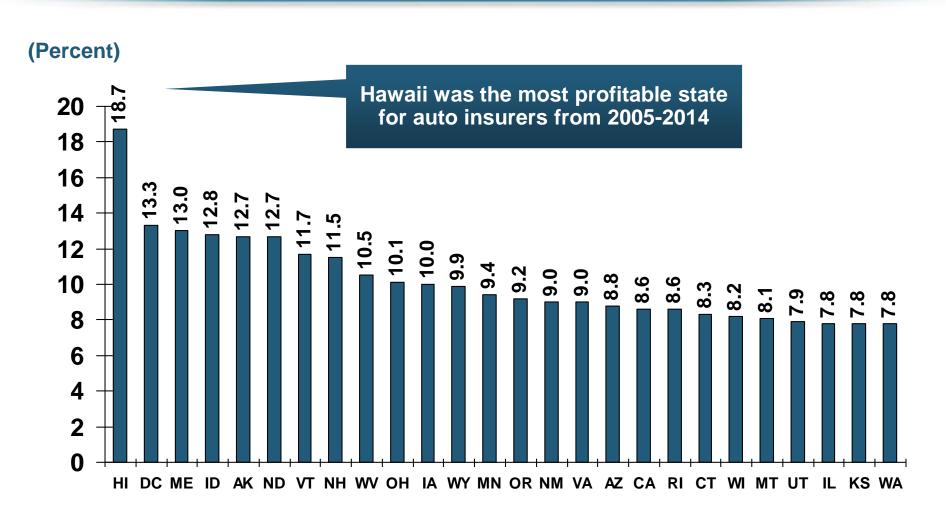
Pvt.Pass. Auto Has Consistently Outperformed the P-C Industry as a Whole. Homeowners Volatility is Associated Primarily With Coastal Exposure Issues

<sup>\*</sup>Latest available.

<sup>\*\*</sup>Excludes 1992, the year of Hurricane Andrew. If 1992 is included the resulting homeowners RNW is 1.9% Sources: NAIC: Insurance Information Institute.

#### RNW Pvt. Passenger Auto, 2005-2014 Average: Highest 25 States

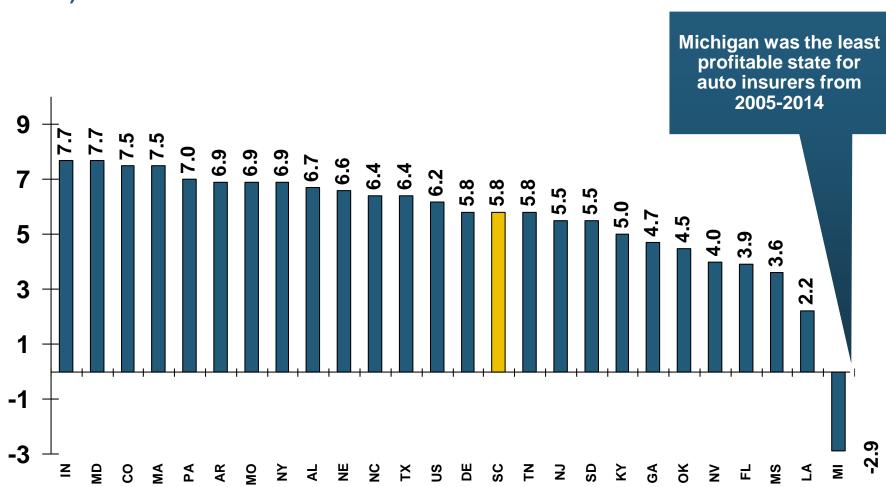




#### RNW Pvt. Passenger Auto, 2005-2014 Average: Lowest 25 States



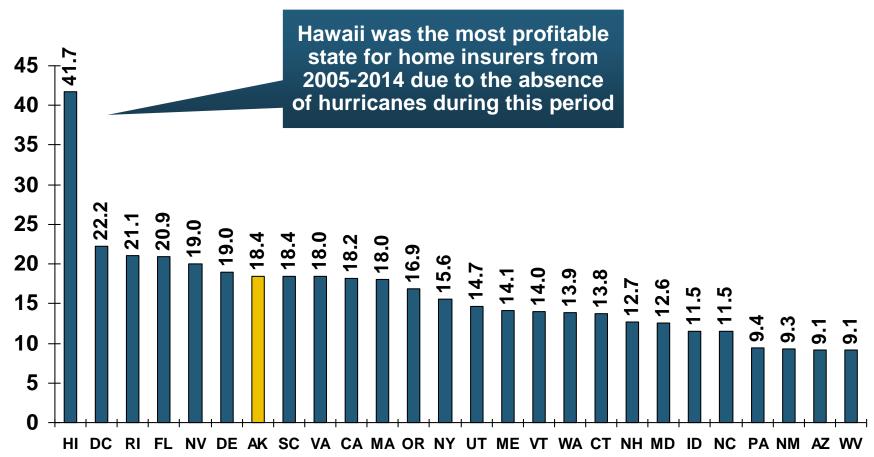
(Percent)



#### RNW Homeowners Insurance, 2005-2014 Average: Highest 25 States

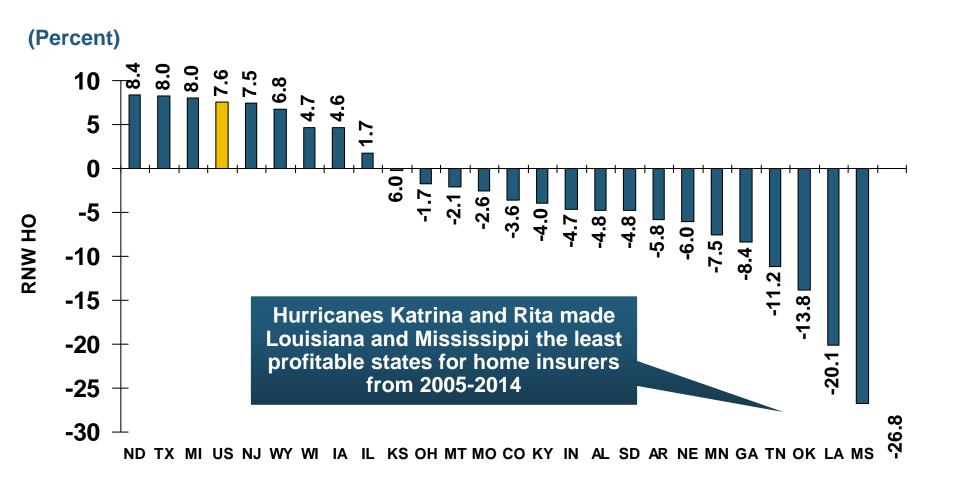






#### RNW Homeowners Insurance, 2005-2014 Average: Lowest 25 States





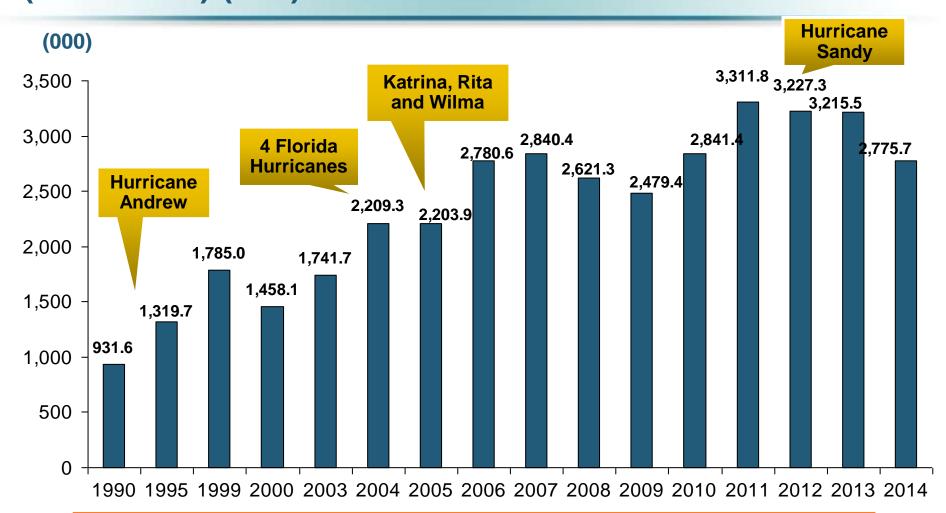


# Shifting Winds (and Waters): Appetite for Coastal and Flood Risks is Increasing

Can Money Be Made in the Long-Run in Hurricane Country?

### U.S. Residual Market: Total Policies In-Force (1990-2014) (000)



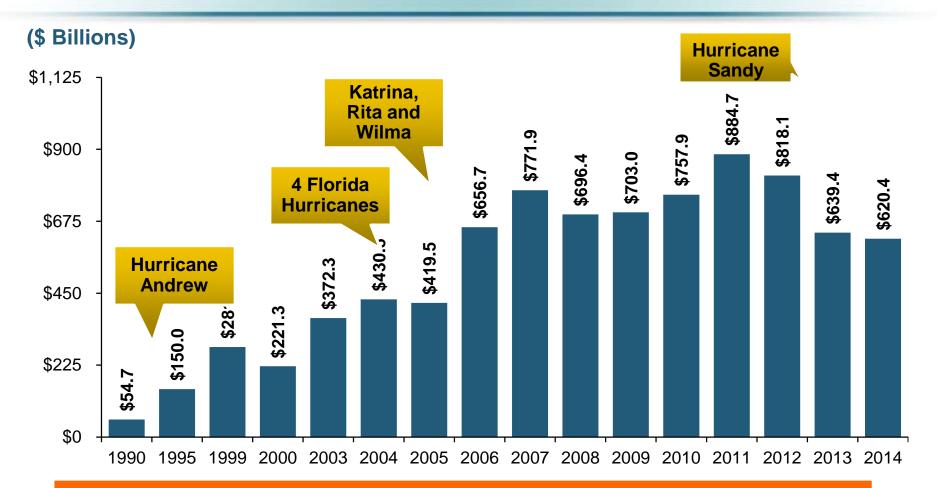


From 1990-2011 the total number of policies in-force in the residual market (FAIR & Beach/Windstorm) Plans more than tripled. In 2014, total policy counts fell dramatically to 2.78 million.

Source: PIPSO; Insurance Information Institute

### U.S. Residual Market Exposure to Loss (1990-2014) (\$ Billions)

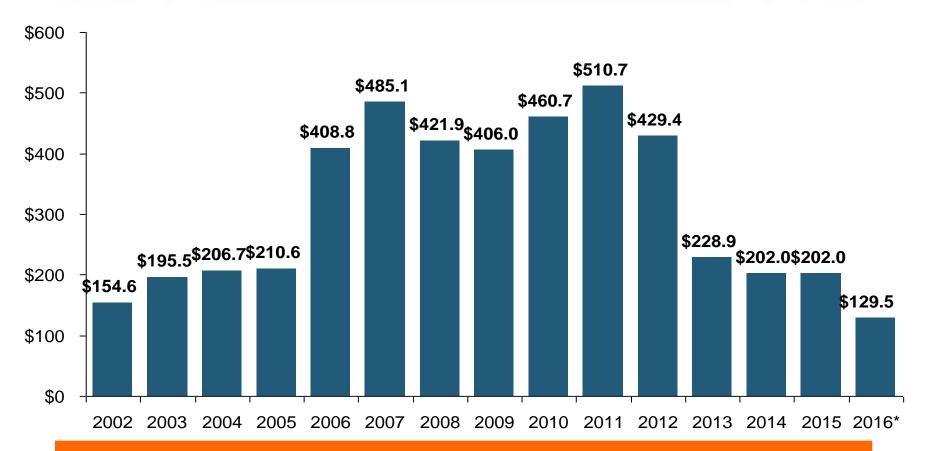




Between 1990 and 2011, total exposure to loss in the residual market (FAIR & Beach/Windstorm) Plans surged to record levels. Between 2011 and 2014, exposure to loss has dropped by 30 percent.

#### Florida Citizens Exposure to Loss (\$ Billions)



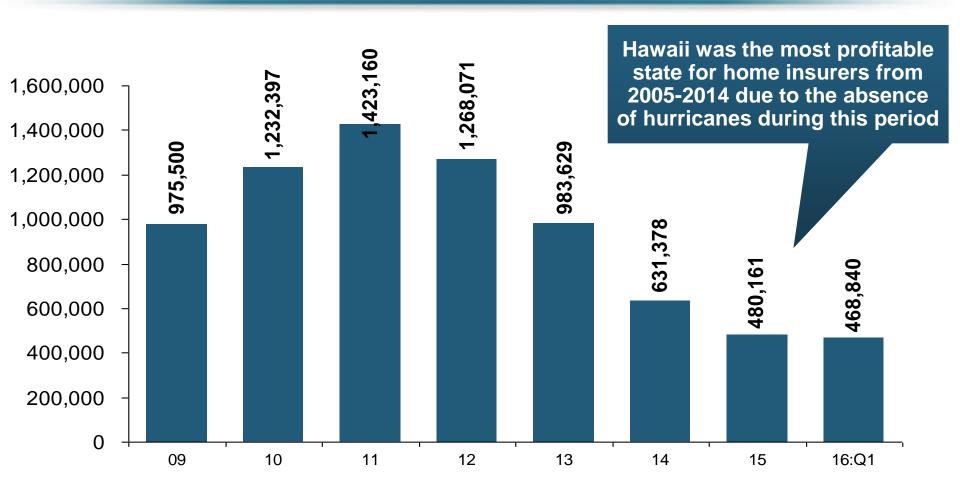


Total exposure to loss in Florida Citizens increased by 178 percent, from \$154.6 billion in 2002 to \$429.4 billion in 2012. Between 2012 and 2013 its exposure to loss dropped by nearly 50 percent.

Source: PIPSO; Insurance Information Institute (I.I.I.).

#### Florida Citizens Policy Count, 2005 – 2016:Q1

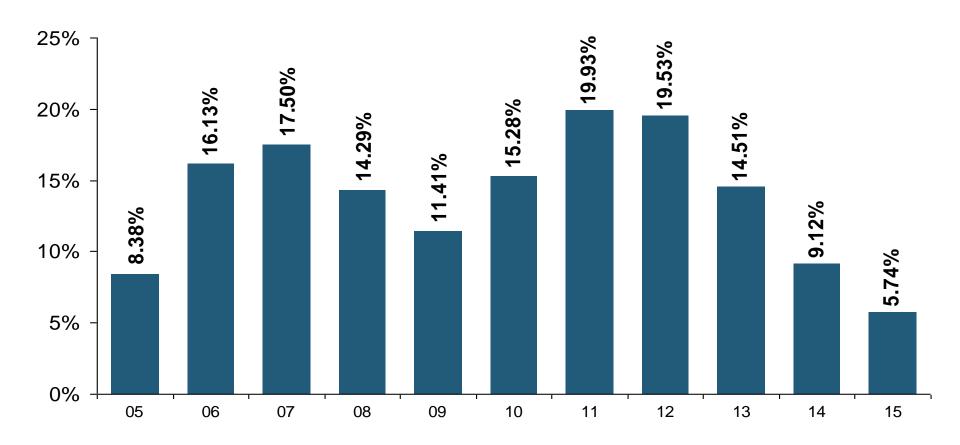




FL Citizens policy count has shrunk significantly in recent years as more exposure as been assumed by private insurers

### Florida Citizens Market Share, 2005 - 2015





FL Citizens market share has shrunk significantly in recent years as more exposure as been assumed by private insurers

#### **Top 10 Residential Insurers in Florida in 2016\***



	All Policies					
Insurers	Policies	Mkt	Total	Mkt	Premiums	Mkt
	Inforce	Share	Insured Value	Share	Written	Share
Citizens Property Insurance Corporation	476,278	8%	\$132,466,938,724	6%	\$927,620,676	9%
Universal Property & Casualty Insurance Company	555,866	9%	127,681,935,941	6%	837,983,218	8%
Federated National Insurance Company	252,975	4%	101,677,408,312	5%	446,082,426	4%
Heritage Property & Casualty Insurance Company	266,846	4%	100,864,794,452	5%	594,443,549	6%
Security First Insurance Company	297,412	5%	82,684,726,156	4%	314,763,838	3%
United Property & Casualty Insurance Company	185,440	3%	77,806,957,793	4%	346,493,001	3%
Federal Insurance Company	32,875	1%	74,897,300,996	4%	188,196,599	2%
American Integrity Insurance Company of Florida	216,310	4%	69,537,760,471	3%	244,801,625	2%
St. Johns Insurance Company, Inc.	167,844	3%	68,771,548,463	3%	259,841,094	3%
Tower Hill Prime Insurance Company	143,769	2%	62,796,134,876	3%	232,491,177	2%
All Other Insurers	3,419,422	57%	1,236,260,574,155	58%	5,744,481,775	57%
Total	6,015,037	100%	\$2,135,446,080,339	100%	\$10,137,198,978	100%

#### Notes:

- 1) Includes admitted insurers (and Citizens) writing residential property statewide
- 2) State Farm Florida filed QUASR data as "trade secret" with the OIR beginning first quarter 2014. They represented \$172B in TIV on 12/31/13.

Note: Excludes State Farm Florida. SNL show SF Florida \$613.8 million and a market share of 7.0%

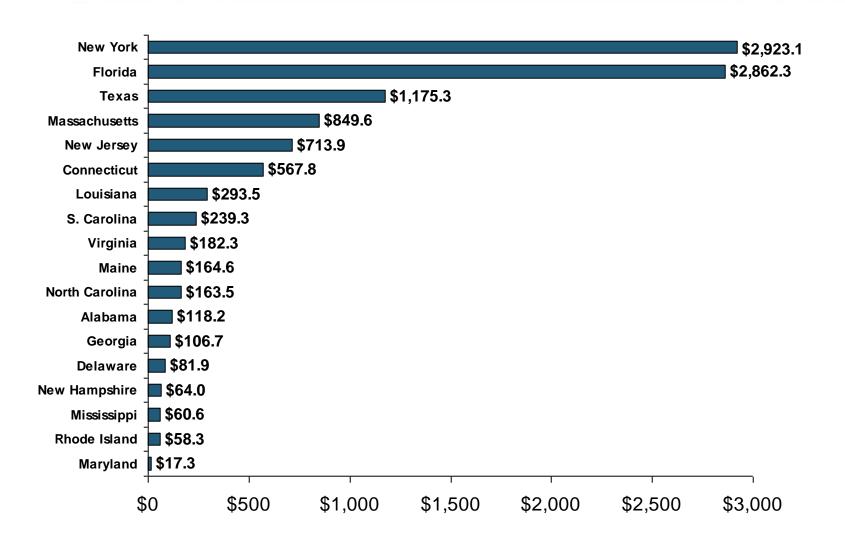
\*As of 3/31/16.

Source: Florida Citizens:

https://www.citizensfla.com/documents/20702/93160/20160331+Market+Share+Report/ab841adc-d5fb-45ca-bff6-

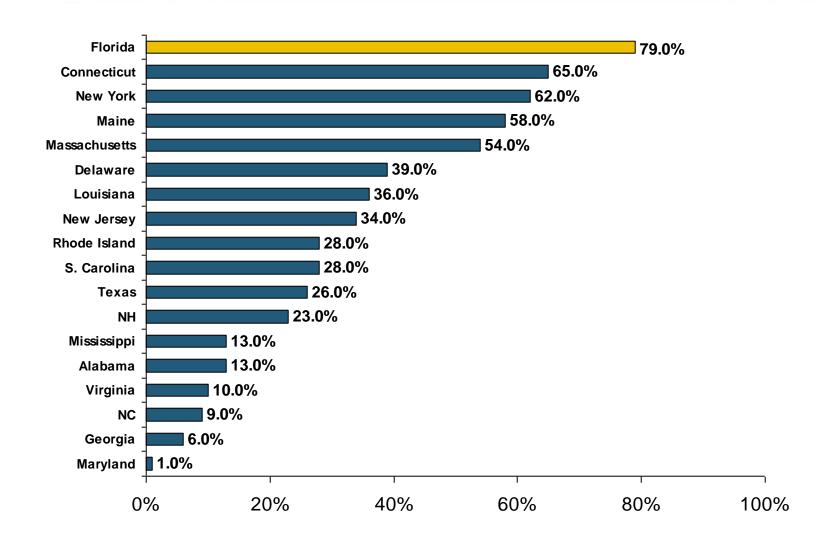
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### Total Value of Insured Coastal Exposure In 2012 (\$ Billions)



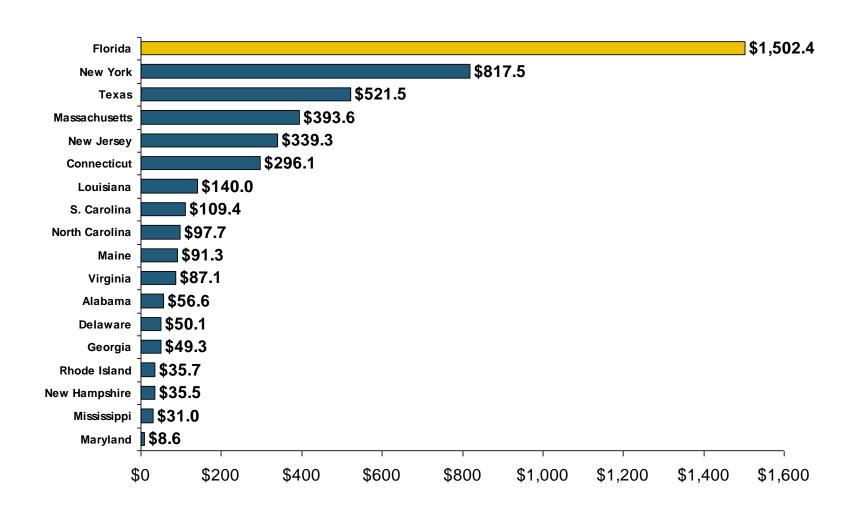
### Insured Coastal Exposure As a % Of Statewide Insured Exposure In 2012



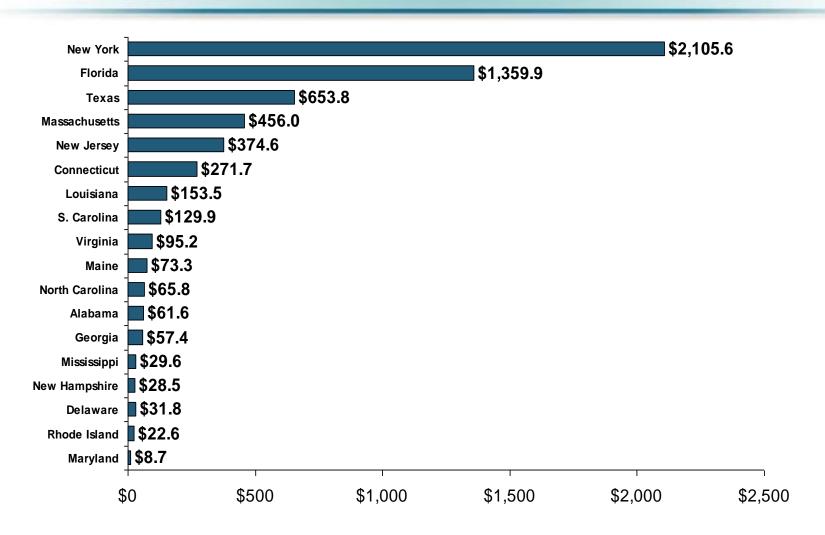


### Value of Insured Residential Coastal Exposure In 2012 (\$ Billions)



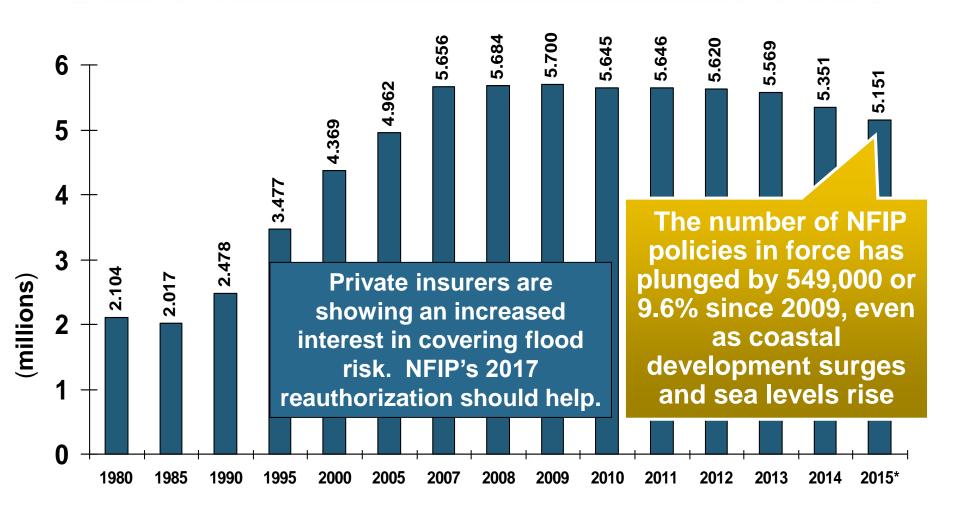


### Value Of Insured Commercial Coastal Exposure Insurance Information 2012 (\$ Billions)



### Number of National Flood Insurance Program Policies in Force at Year-End, 1980-2015\*





Source: National Flood Insurance Program.

<sup>\*</sup> As of July, 2015

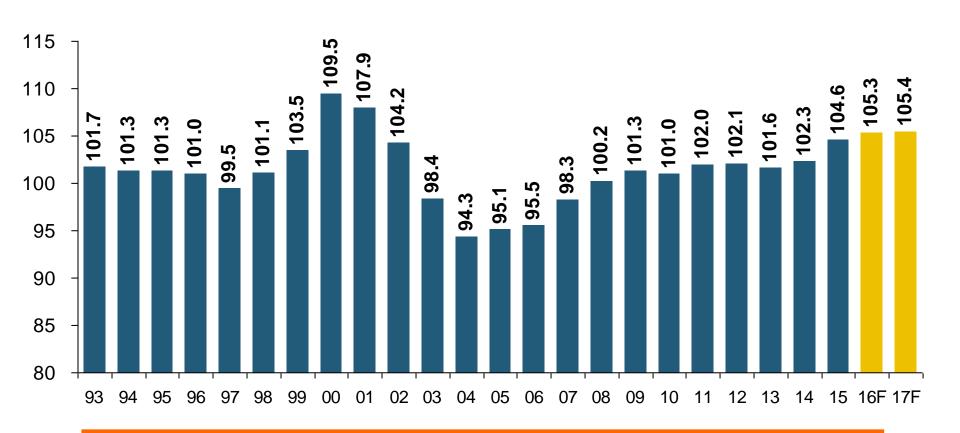


# Personal Lines Underwriting Performance

Auto, Home Underwriting Performance Exhibit Periods of Both Stability and Volatility

### Private Passenger Auto Combined Ratio: 1993–2017F

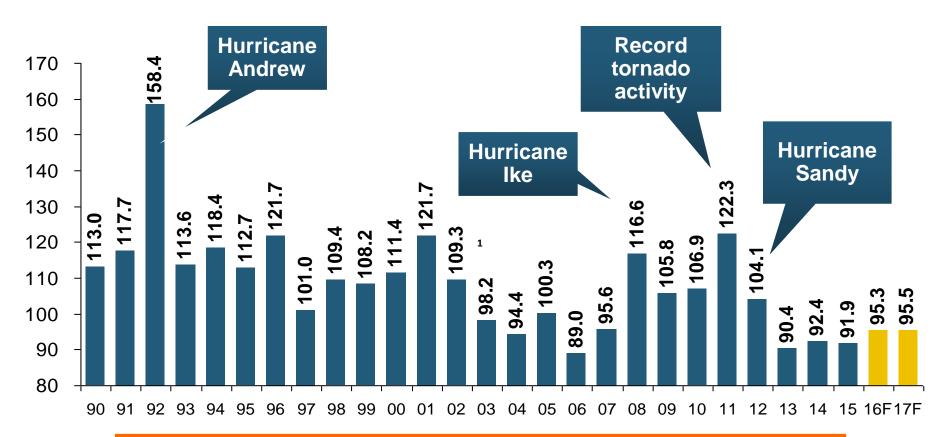




Private Passenger Auto Underwriting Performance Is Showing the Strains of Rising Frequency (and Severity) Trends in Many States

### Homeowners Insurance Combined Ratio: 1990–2017F

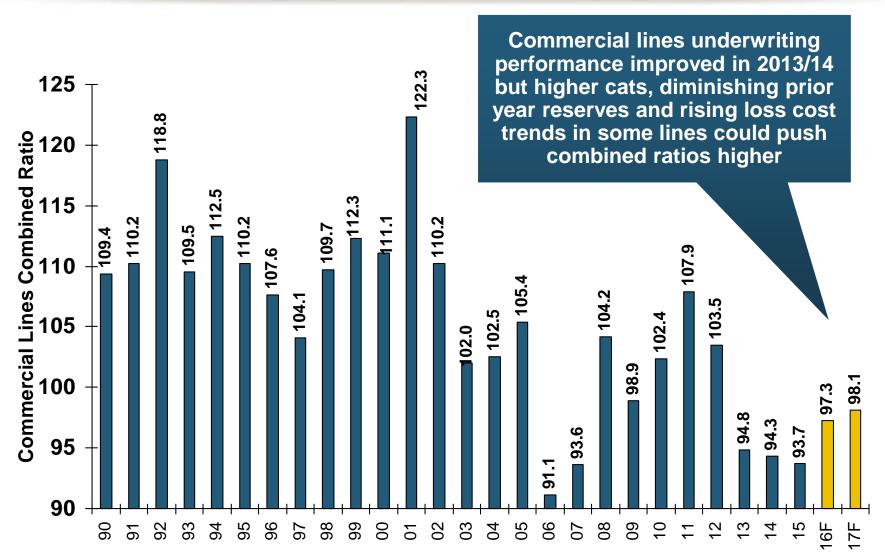




Homeowners Performance Has Improved Markedly Since the 2011/12's Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity. Results in 2016 Will Be Impacted by Severe Spring Weather

### Commercial Lines Combined Ratio, 1990-2017F\*





\*2007-2012 figures exclude mortgage and financial guaranty segments. Source: A.M. Best (1990-2015); Conning (2016E-17F) Insurance Information Institute.

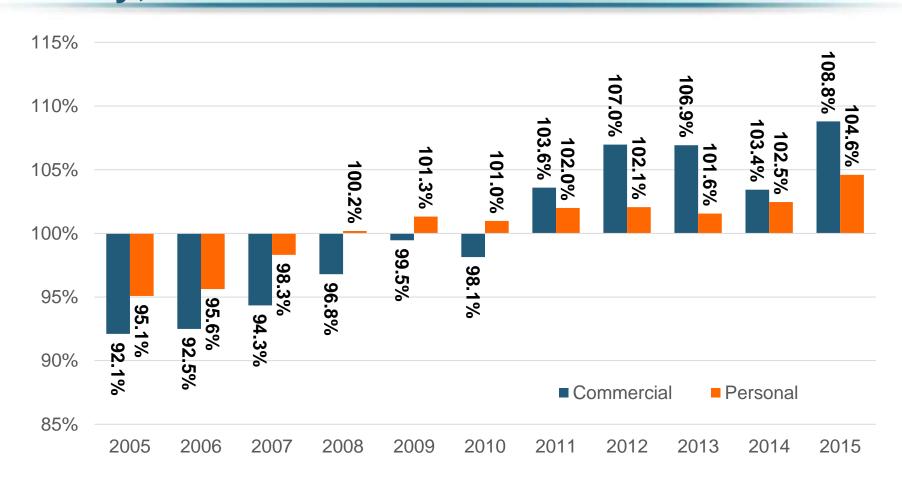


# Claim Trends in Private Passenger Auto Insurance

# Rising Frequencies and Severities in Many Coverages Will that Pattern Be Sustained?

# **Auto Insurance Net Combined Ratios, Yearly, 2005-2015**



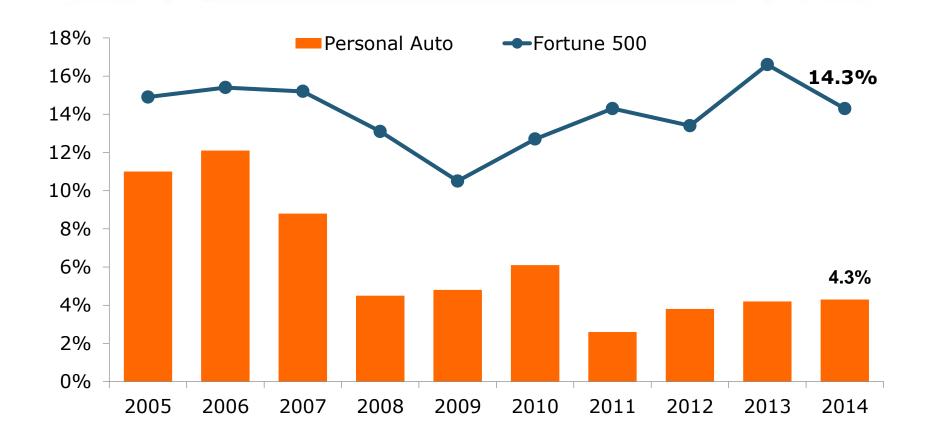


Loss Ratios Have Been Rising for A Decade. 2015 Return on Net Worth Is Likely Close to Zero

Sources: National Association of Insurance Commissioners data, sourced from S&P Global Market Intelligence; Insurance Information Institute.

### Return on Net Worth: Personal Auto, 2005–2014





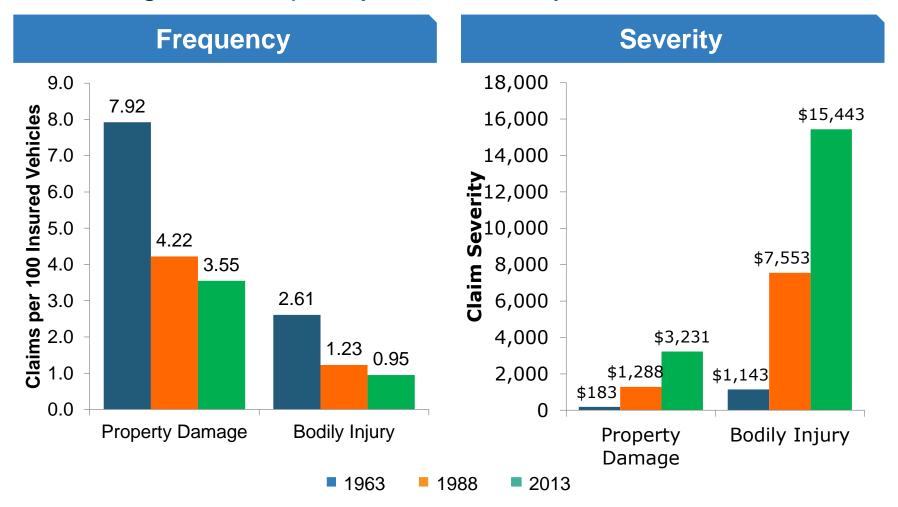
Auto Insurance Profitability Has Been Stuck at Low Levels.

Source: National Association of Insurance Commissioners.

# A Half Century of Auto Insurance: Frequency vs. Severity



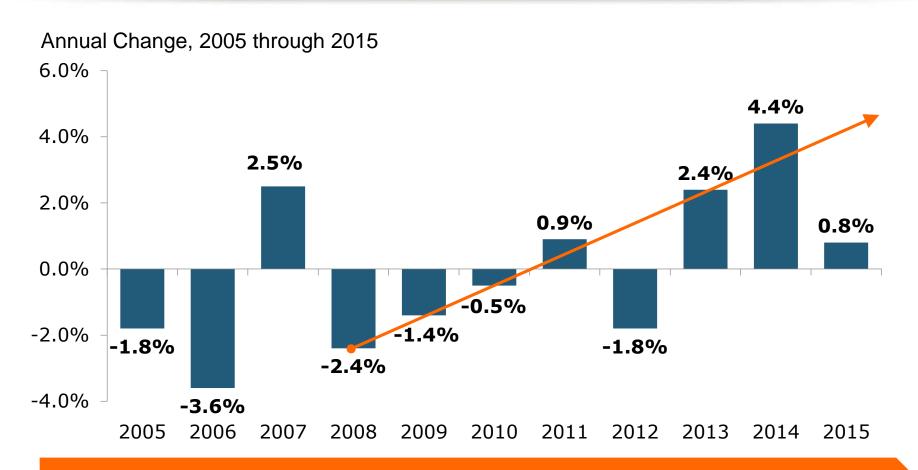
In the Long Run, Frequency Falls. Severity Increases.



Sources: Insurance Institute for Highway Safety, Insurance Services Office, Insurance Information Institute.

# Collision Claims: Frequency Trending Higher in 2015

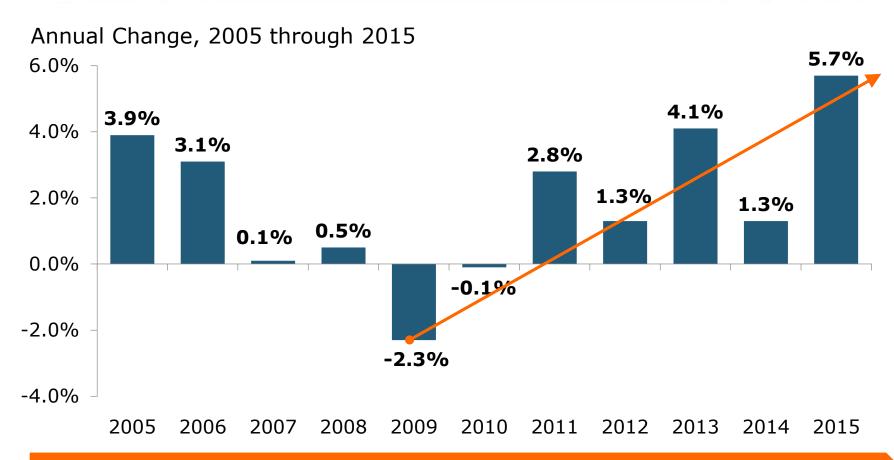




For a Long Time, Claim Frequency Was Falling, But Since 2010 This Trend Seems to Have Reversed.

# Collision Claims: Severity Trending Higher in 2009-2015





The Great Recession and High Fuel Prices Helped to Temper Claim Severity, But These forces Have Clearly Reversed, Consistent with Experience from Past Recoveries.

# Some Comments on Frequency and Severity Trends and Insurance Markets



- Over the long run, falling frequency and rising severity are the norm in auto insurance (personal and commercial)
- The phenomenon of falling frequency and rising severity is not confined to auto lines
- It is almost a "Law of Insurance Physics"
- The same trends have been observed in many lines for decades:

Workers Comp

**Aviation** 

**Marine** 

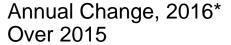
Fire

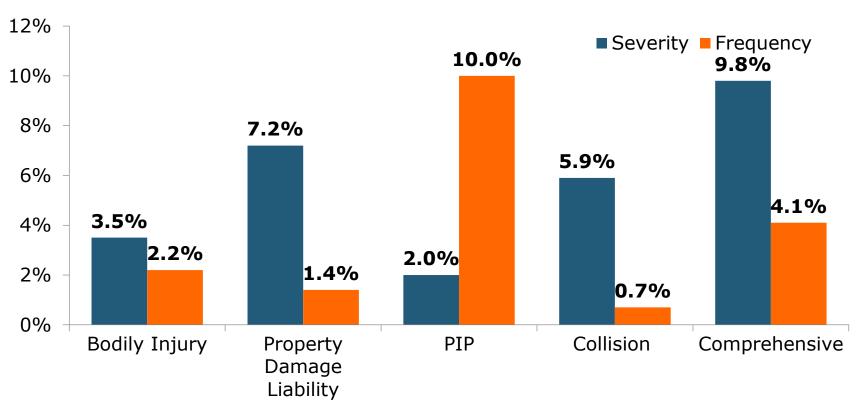
Life

- Lines of insurance that do not follow this pattern tend to manifest/suffer from certain economic defects:
  - Adverse Selection and Moral Hazard (e.g., Health, Flood, some Coastal Property markets, Social Security Disability)
  - Some of these defects are attributable to subsidies, others to informational asymmetries (less of an issue in auto)

### Why Personal Auto Loss Ratios are Rising: Severity & Frequency by Coverage, 2016\* vs. 2015







Frequency and Severity Rose Are Rising Across All Personal Coverage Types in 2016

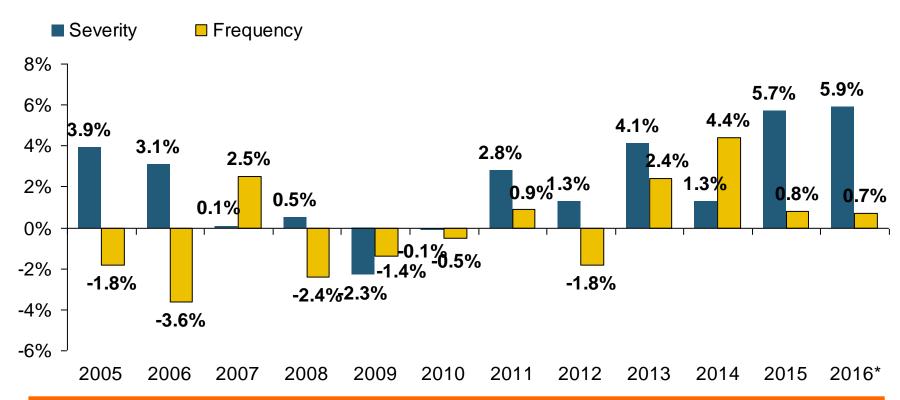
\*Data are for the 4 quarters ending in 2016:Q2.

Source: ISO/PCI Fast Track data; Insurance Information Institute.

### Collision Coverage: Severity & Frequency Trends Are Both Higher in 2016



Annual Change, 2005 through 2016\*



The Recession, High Fuel Prices Helped Temper Frequency and Severity, But this Trend Has Clearly Reversed, Consistent with Experience from Past Recoveries

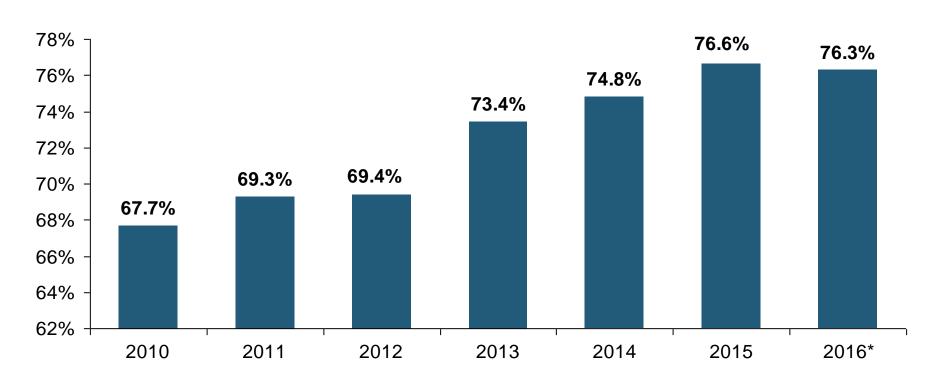
Source: ISO/PCI Fast Track data; Insurance Information Institute

<sup>\*</sup>Four quarters ending with 2016 Q2.

# Collision Loss Ratio Trending Upward: Private Passenger Auto, 2010 – 2016\*



#### **Loss Ratio**

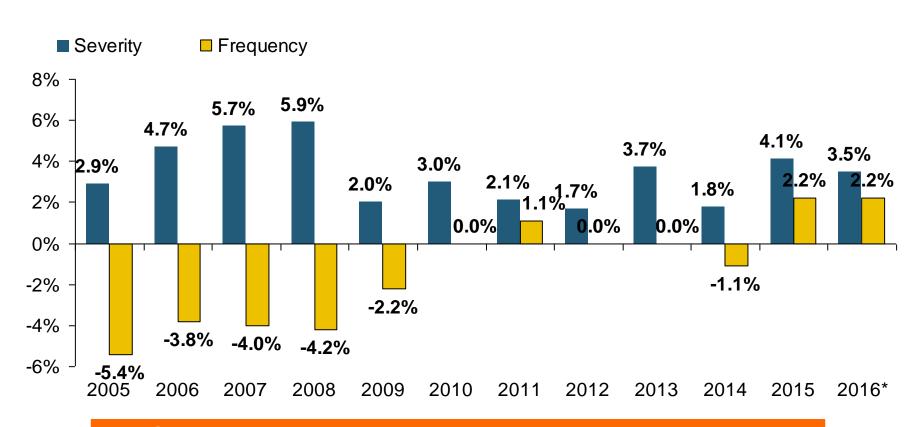


**Collision Loss Ratios are Trending Steadily Upward** 

# Bodily Injury: Severity Trend Is Up, Frequency Decline Has Ended—Rising?



Annual Change, 2005 through 2016\*

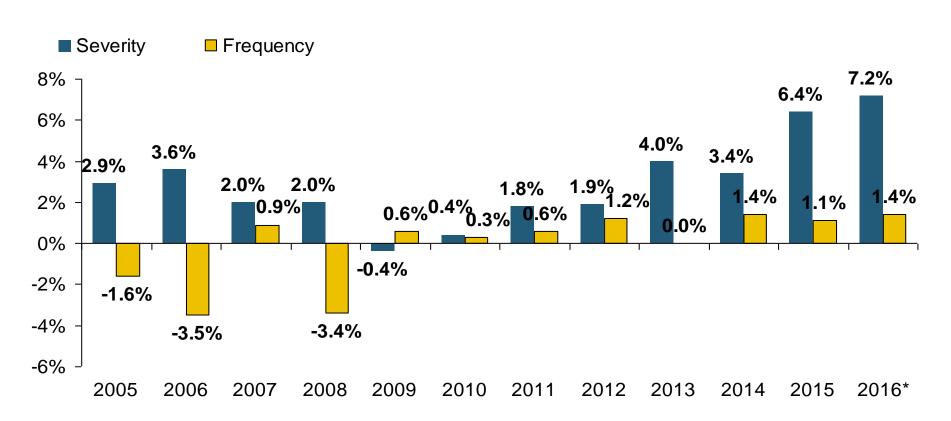


Cost Pressures Will Increase if BI Frequency and Severity Trends Persist

# Property Damage Liability: Severity and Frequency Are Up



Annual Change, 2005 through 2016\*

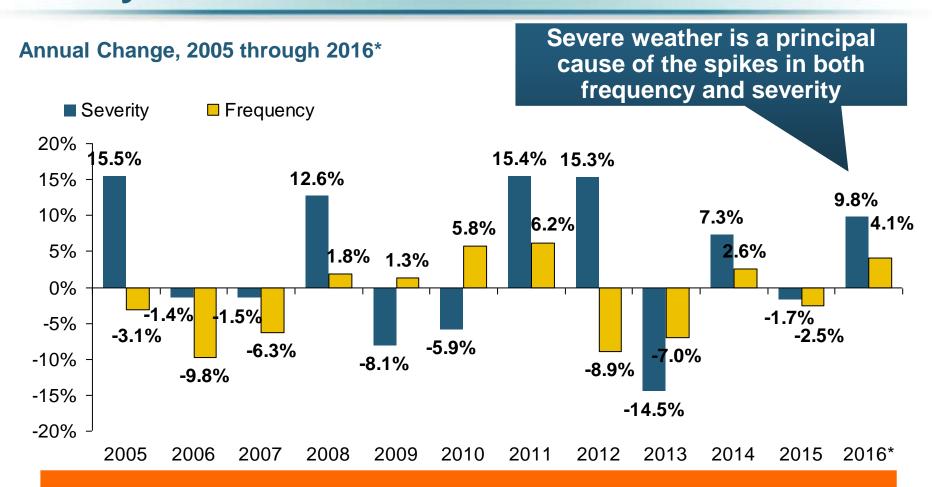


Severity/Frequency Trends Have Been Volatile, But Rising Severity since 2011 Is a Concern

\*2016 figure is for the 4 quarters ending 2016:Q2. Source: ISO/PCI *Fast Track* data: Insurance Information Institute

# Comprehensive Coverage: Frequency and Severity Trends Are Volatile





**Weather Creates Volatility for Comprehensive Coverage** 

<sup>\*2016</sup> figure is for the 4 quarters ending 2016:Q2. Source: ISO/PCI *Fast Track* data; Insurance Information Institute



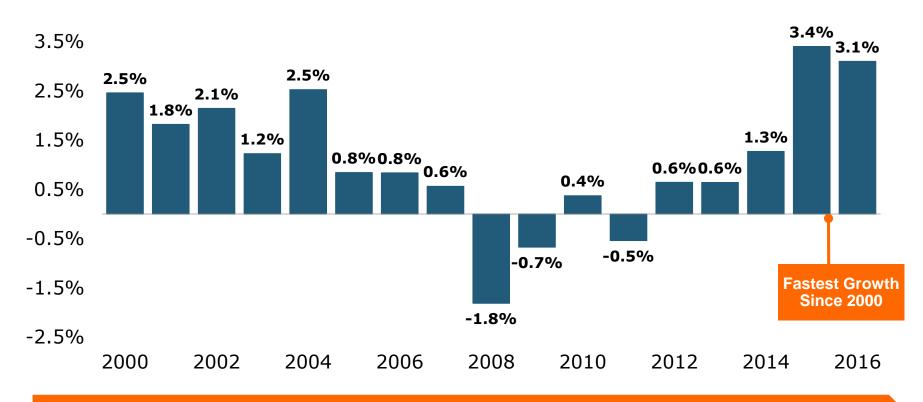
# A Few Factors Driving Adverse Private Passenger Auto Loss Trends

# More People Driving, More Miles Driven, Lower Gas Prices, Higher Speed Limits...

### America is Driving More Again: 2000-2016



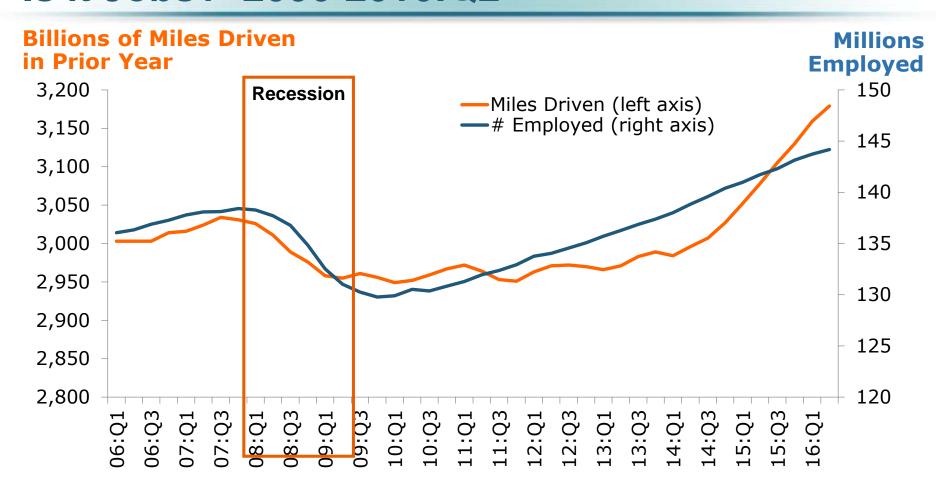
Percent Change, Miles Driven\*



Tremendous Growth In Miles Driven. The More People Drive, The More Frequently They Get Into Accidents.

### Why Are People Driving More Miles? Is it Jobs? 2006-2016:Q2

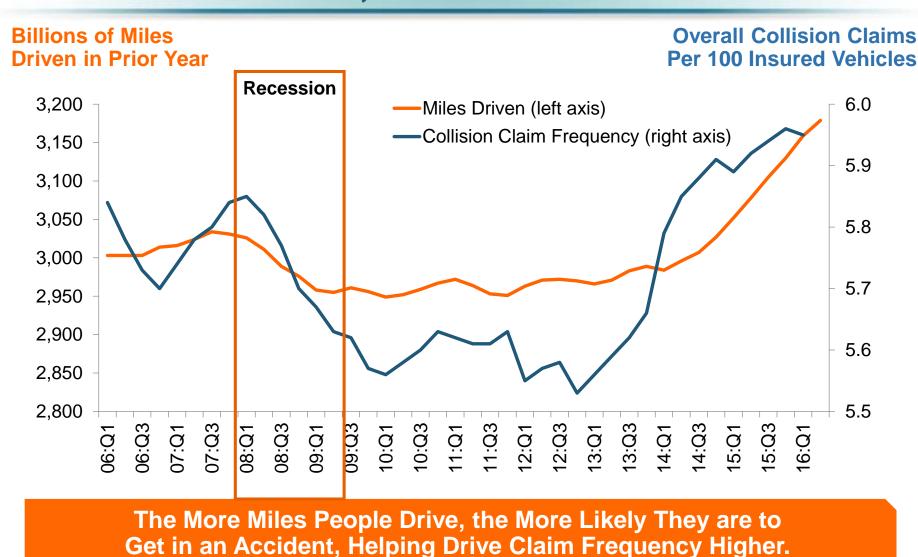




People Drive to and from Work and Drive to Entertainment.
Out of Work, They Curtail Their Movement.

### More Miles Driven → More Collisions, 2006-2016:Q2

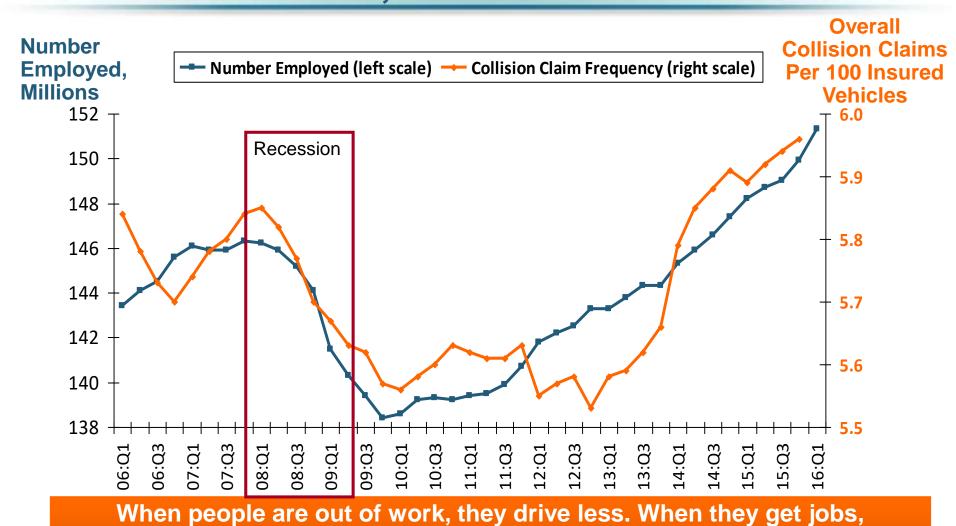




Sources: Federal Highway Administration; Rolling four-quarter average frequency from ISO, a Verisk Analytics company; Insurance Institute for Highway Safety; Insurance Information Institute.

### More People Working and Driving => More Collisions, 2006-2016





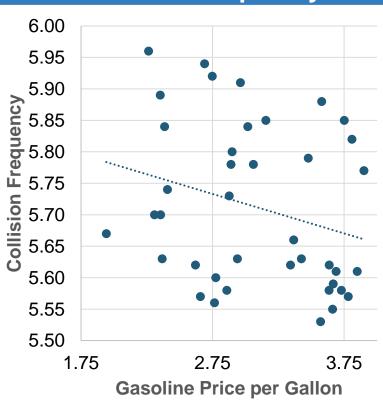
Sources: Seasonally Adjusted Employed from Bureau of Labor Statistics; Rolling Four-Qtr Avg. Frequency from Insurance Services Office; Insurance Information Institute.

they drive to work, helping drive claim frequency higher.

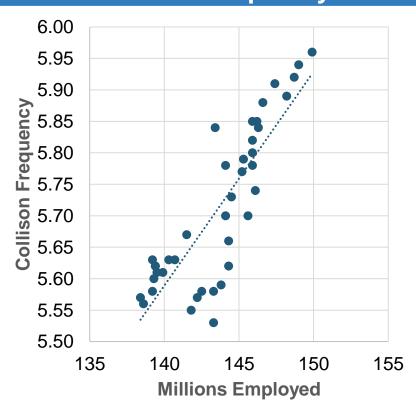
# Comparing Gas Prices, Employment on Collision Frequency Through 2015



### **Gas Price vs. Collision Frequency**



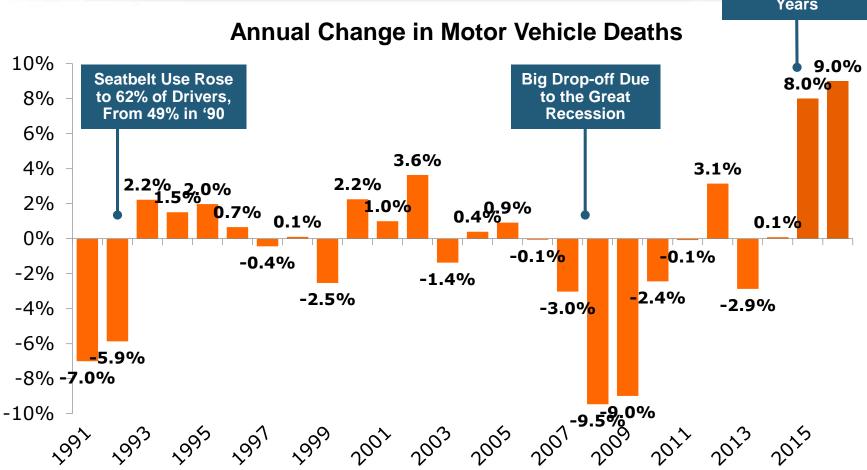
### Number Employed vs. Collision Frequency



Sources: Seasonally Adjusted Employed from Bureau of Labor Statistics; Energy Information Administration; Rolling Four-Qtr Avg. Frequency from Insurance Services Office; Insurance Information Institute.

### Severity: Driving Fatalities are Rising





Driving Has Been Getting Safer for Decades, But Recent Trend is Discouraging—38,300 Deaths in 2015.

Sources: National Safety Council, Insurance Information Institute.

#### What About Distractions?

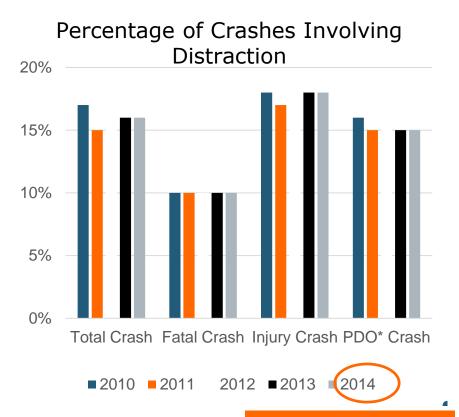


#### It's A Problem. But Is It Growing?

#### What We Do Behind The Wheel

#### Percentage of Drivers Who . . **Talking** .Typing More 70% 65% Less. 60% 51% 50% 40% 36% 31% 29% 30% 20% 13% 10% 0% Talk on Surf the Net Text

#### **But Impact Is Not Clear**



Phone

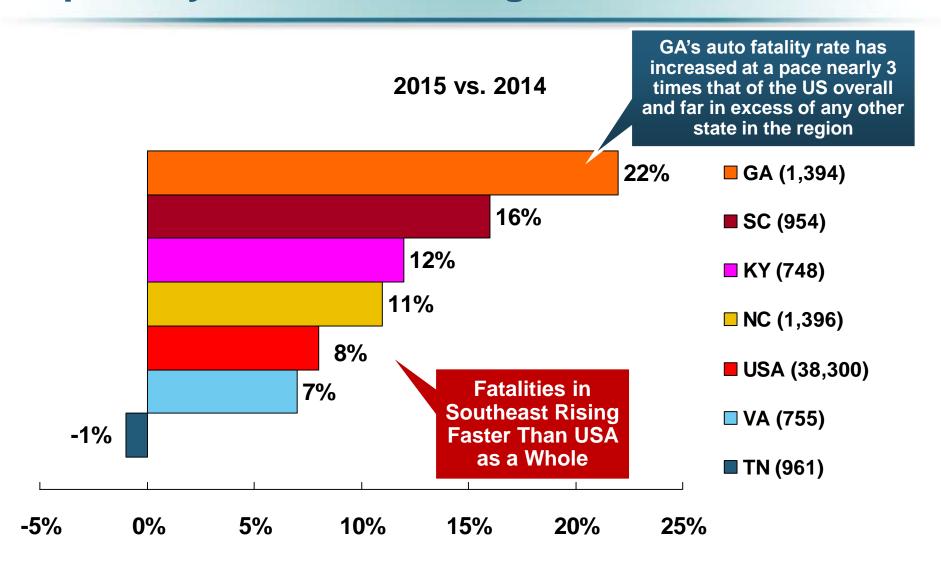
**Most Recent Year** 

**2009 2015** 

<sup>\*</sup> Property Damage Only.

### Change in Auto Fatalities by State: Especially Severe in Georgia





SOURCE: Estimates from National Safety Council.

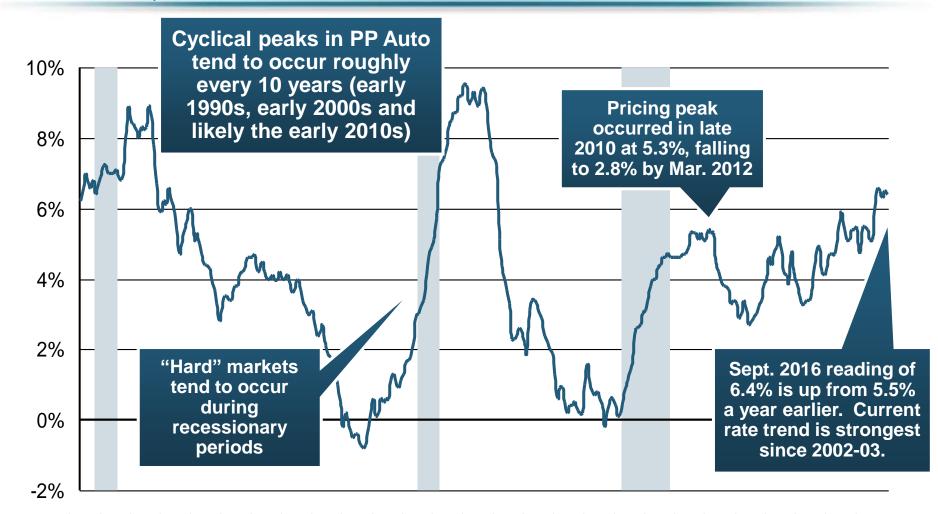


### Personal Lines Growth Drivers

# Rate and Exposure are Both Presently Important Growth Drivers

### Monthly Change in Auto Insurance Prices, 1991–2016\*





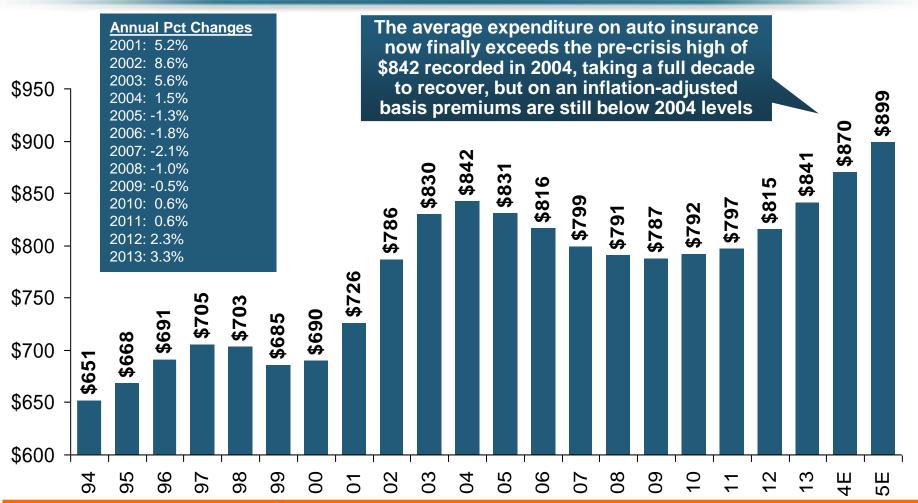
'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16

Sources: US Bureau of Labor Statistics; National Bureau of Economic Research (recession dates); Insurance Information Institutes.

<sup>\*</sup>Percentage change from same month in prior year; through Sept. 2016; seasonally adjusted Note: Recessions indicated by gray shaded columns.

### **Average Expenditures\* on Auto Insurance**, 1994-2015E



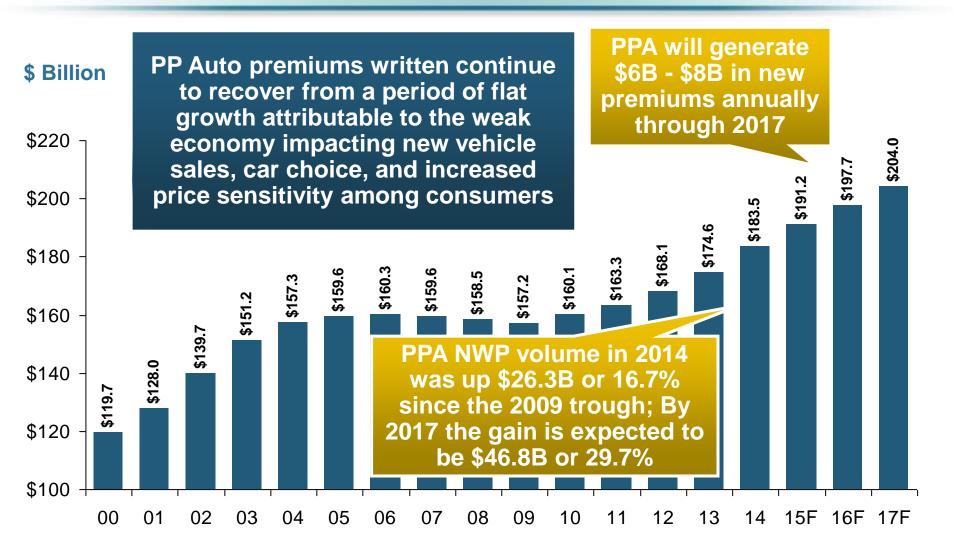


Across the U.S., auto insurance expenditures fell by 0.8% in 2008 and 0.5% in 2009 but rose 0.5% in 2010, 0.8% in 2011, 2.3% in 2012 and 3.3% in 2013; I.I.I. estimate is for +3.4% in 2014 and 2015.

<sup>\*</sup> The NAIC data are per-vehicle (actually, per insured car-year)
Sources: NAIC for 1994-2013; Insurance Information Institute estimates for 2014-2015 based on CPI and other data.

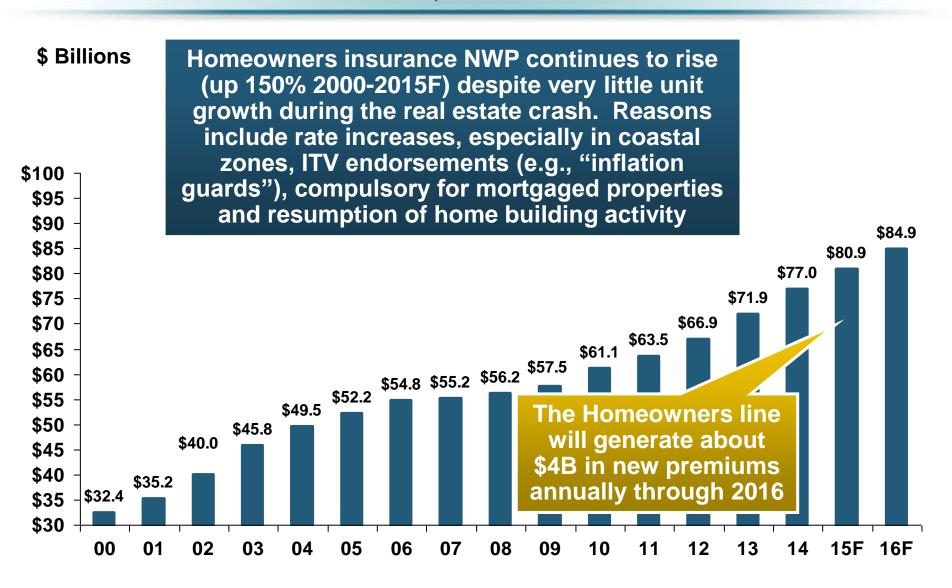
### Private Passenger Auto Insurance Net Written Premium, 2000–2017F





### Homeowners Insurance Net Written Premium, 2000–2016F





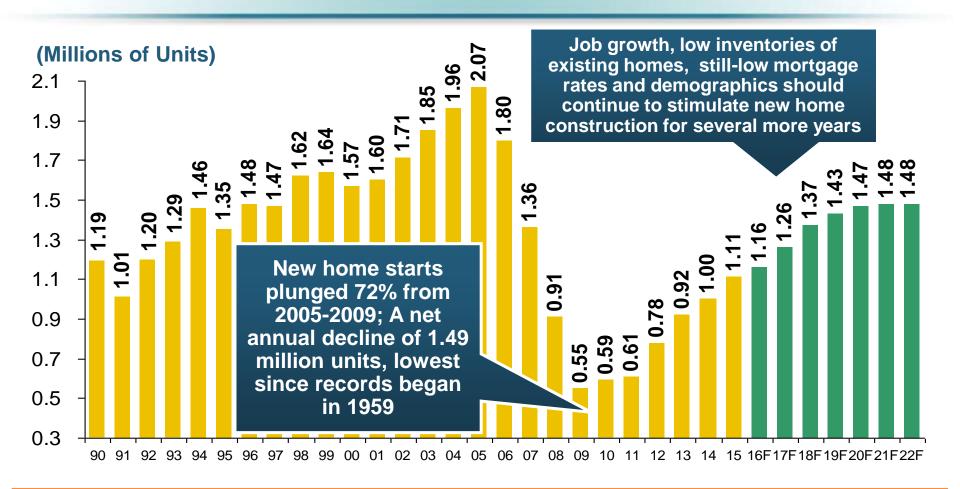


# Personal Lines: Economic and Demographic Considerations

### Auto, Home Are Sensitive to Underlying Economic Conditions

### New Private Housing Starts, 1990-2022F



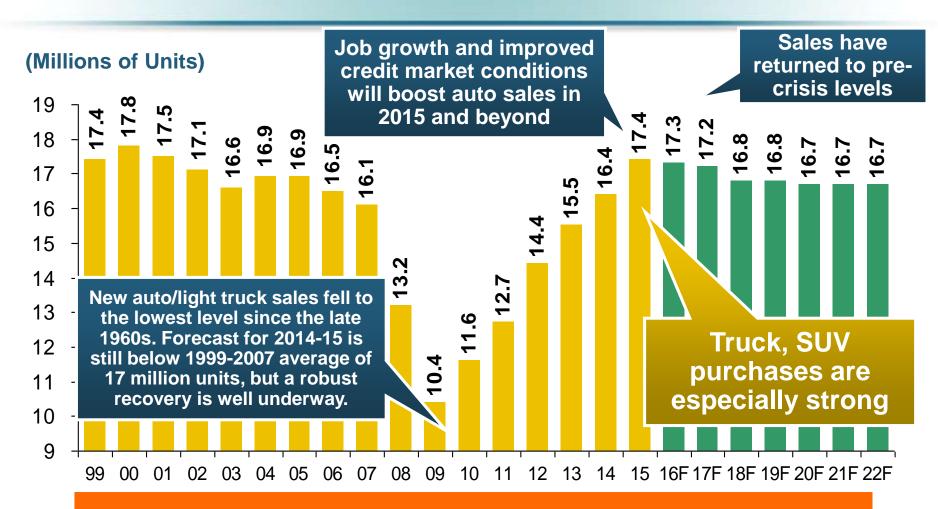


Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the "Great Recession" Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (11/16 for 2016-17; 10/16 for 2018-22F; Insurance Information Institute.

### Auto/Light Truck Sales, 1999-2022F

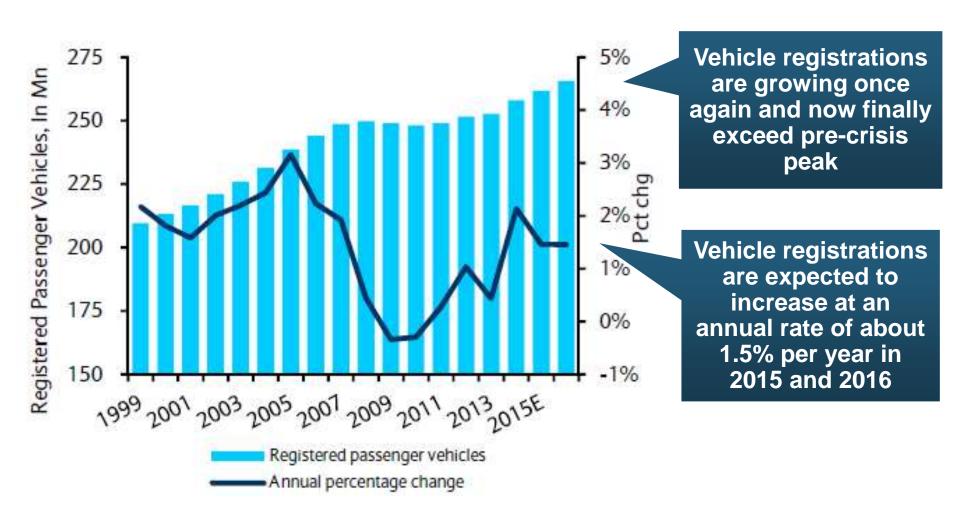




Yearly car/light truck sales will likely continue at current levels, in part replacing cars that were held onto in 2008-12. PP Auto premium might grow by 3.5% - 5%.

# Number of Registered Passenger Vehicles in US, 1999 – 2015E





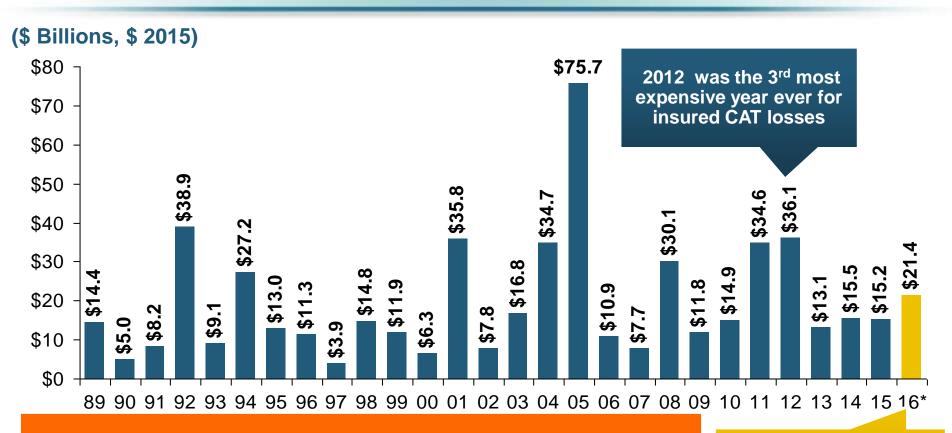


### **Insured Catastrophe Losses**

2013/14 and YTD 2015 Experienced Below Average CAT Activity After Very High CAT Losses in 2011/12 Winter Storm Losses Far Above Average in 2014 and 2015

### **U.S. Insured Catastrophe Losses**





2013/14/15 Were Welcome Respites from 2011/12, among the Costliest Years for Insured Disaster Losses in US History. 2016 Is Off to a Costlier Start.

2016 will be the heaviest cat year since 2012. Figure includes a \$4.4B est. for Hurricane Matthew

Sources: Property Claims Service/ISO; Insurance Information Institute.

<sup>\*</sup>Through 10/20/16. 2016 figure stated in 2016 dollars. Figure includes \$17 in known loss plus an estimate of \$4.4B for Hurricane Matthew. Note: 2001 figure includes \$20.3B for 9/11 losses reported through 12/31/01 (\$25.9B 2011 dollars). Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = \$12.2B (\$15.6B in 2011 dollars.)

### **Top 5 Insured Catastrophe Losses of 2016\***

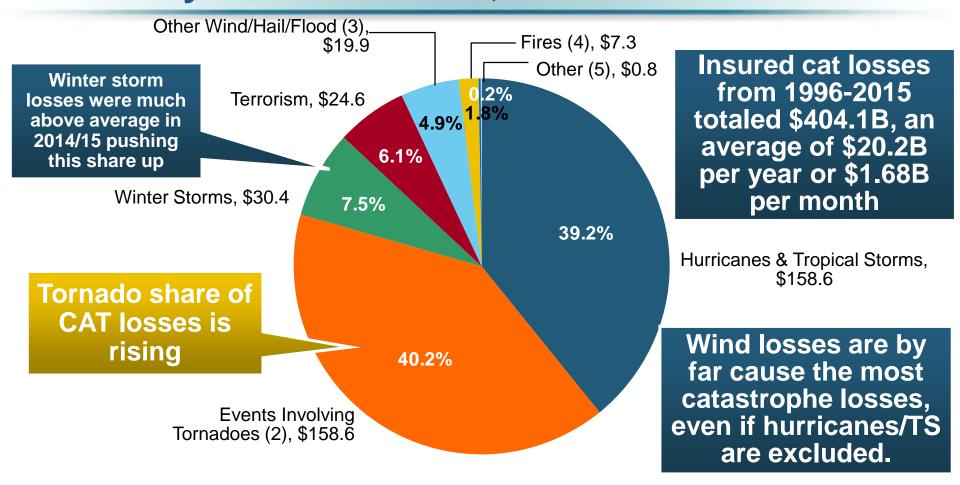


Cat No.	Period	States	Storm Family	Estimated Loss \$
1625	Apr 10 - 15	FL, TX	Wind and Thunderstorm Event	2,995,100,000
1621	23-Mar	TX	Wind and Thunderstorm Event	1,688,500,000
1628	Apr 29 / May 3	AR, GA, IL, IN, MD, MO, NC, OK, TX, VA, WV	Wind and Thunderstorm Event	1,187,040,000
1644	Aug 11 - 15	LA, MS	Wind and Thunderstorm Event	1,058,870,000
1620	Mar 17 - 18	AL, AR, FL, LA, MS, TX	Wind and Thunderstorm Event	920,105,000

<sup>\*</sup>As of Oct. 20. No official estimate for Hurricane Matthew was yet available from PCS. Source: Property Claim Services division of Verisk Analytics as of Oct. 20, 2015.

# Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1996–2015<sup>1</sup>



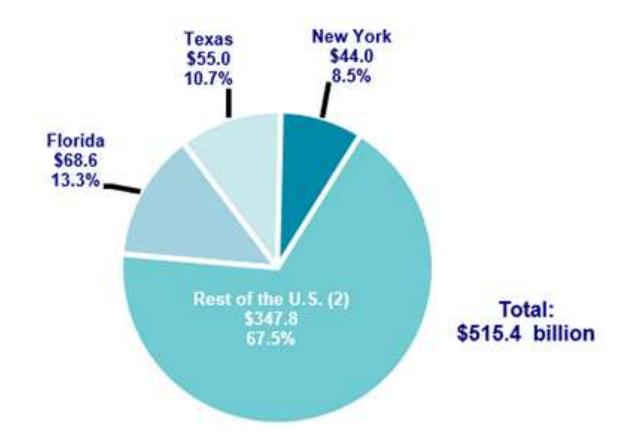


- 1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2015 dollars.
- Excludes snow.
- 3. Does not include NFIP flood losses
- Includes wildland fires
- 5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.

# Top 3 States for Insured Catastrophe Losses, 1996-2015 (in 2015 Dollars)





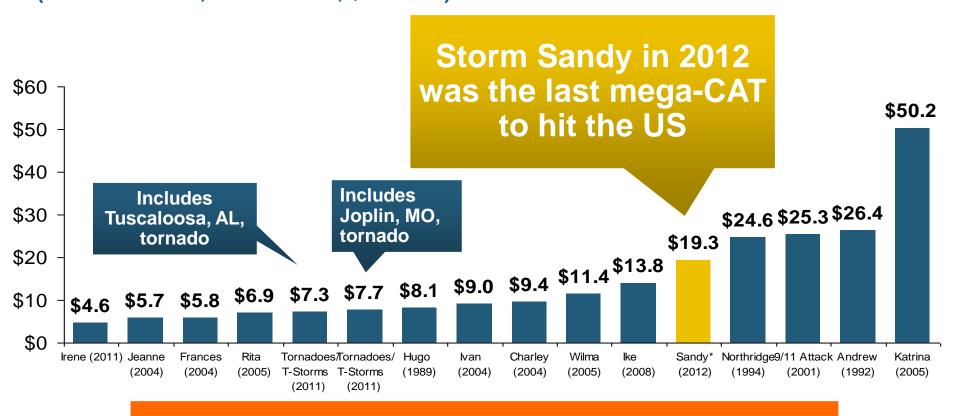
Texas, Florida and New York lead the country in insured catastrophe losses over the past 20 years. These 3 states accounted for nearly 1/3 of all insured catastrophe losses over the past two decades

Source: PCS/Verisk for 2016 Insurance Fact Book, Insurance Information Institute.

### Top 16 Most Costly Disasters in U.S. History—Katrina Still Ranks #1



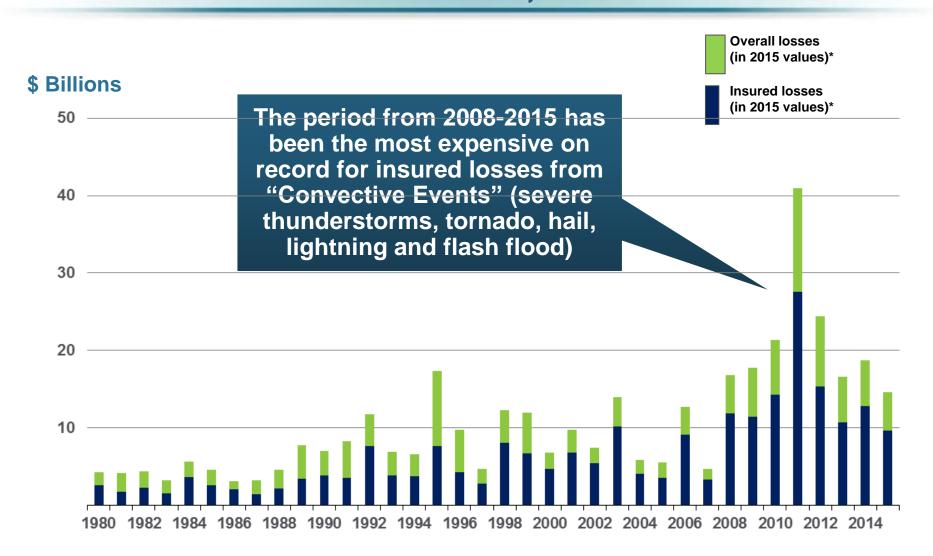
(Insured Losses, 2014 Dollars, \$ Billions)



12 of the 16 Most Expensive Events in US History
Have Occurred Since 2004

### Convective Loss Events in the US Overall and insured losses, 1980 – 2015





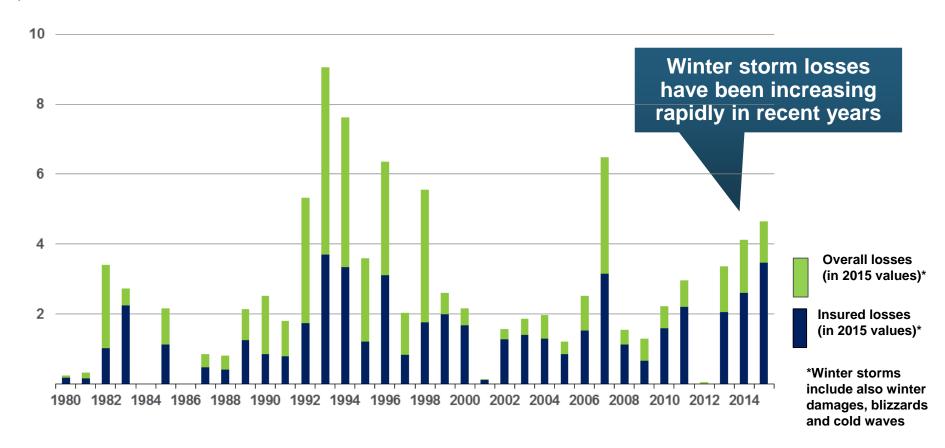
<sup>\*</sup>Losses adjusted to inflation based on CPI

**Analysis contains:** 

## Winter Storm Losses in the US 1980 – 2015 (Overall and Insured Losses)\*

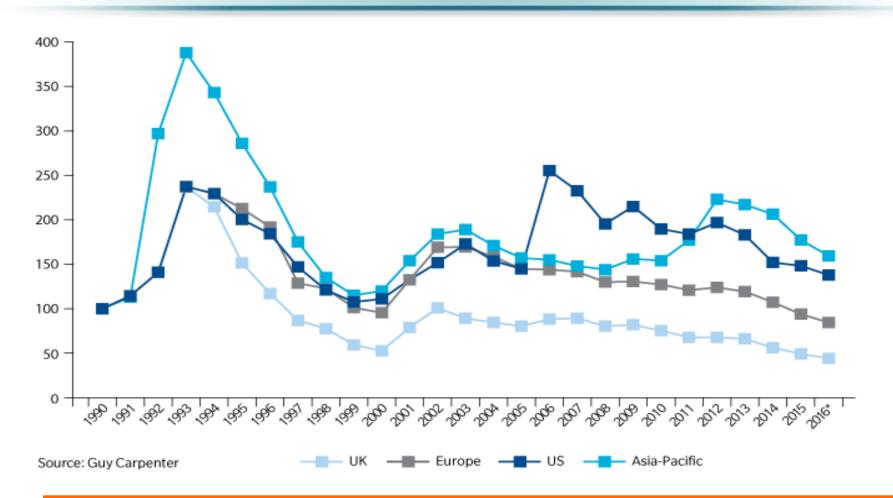


#### \$ Billions



### Regional Property Catastrophe ROL Index: 1990 – 2016





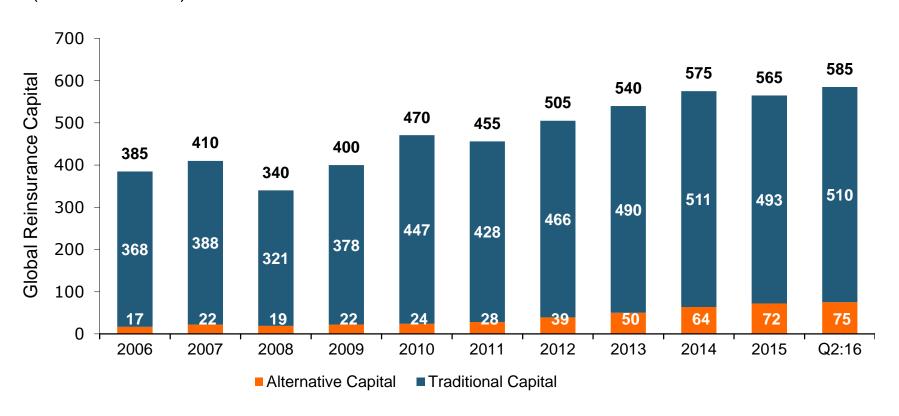
Record traditional capacity, alternative capital and low CAT activity have pressured reinsurance prices; ROEs are down only very modestly

Source: Guy Carpenter; Insurance Information Institute.

## Alternative Capital Potentially Disrupting the Bank Account



(Billions of USD)



Alternative capacity has grown 263% since 2008. It has more than tripled in the past six years.



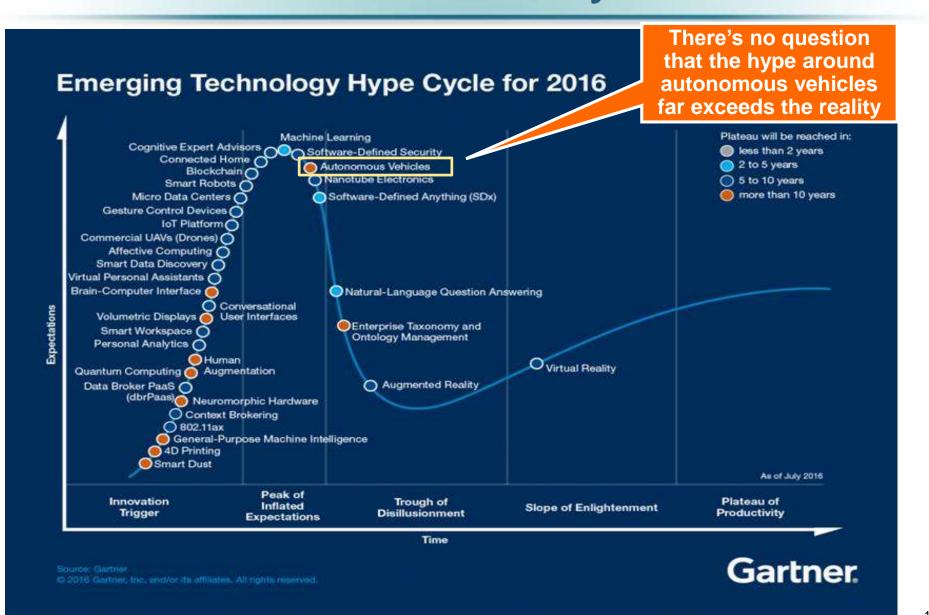
### INDUSTRY DISRUPTORS

Technology, Society and the Economy Are All Changing at a Rapid Pace

Reality vs. Drinking the Silicon Valley Kool Aid

## The Sharing Economy Has Grown—And Attracted Political Scrutiny





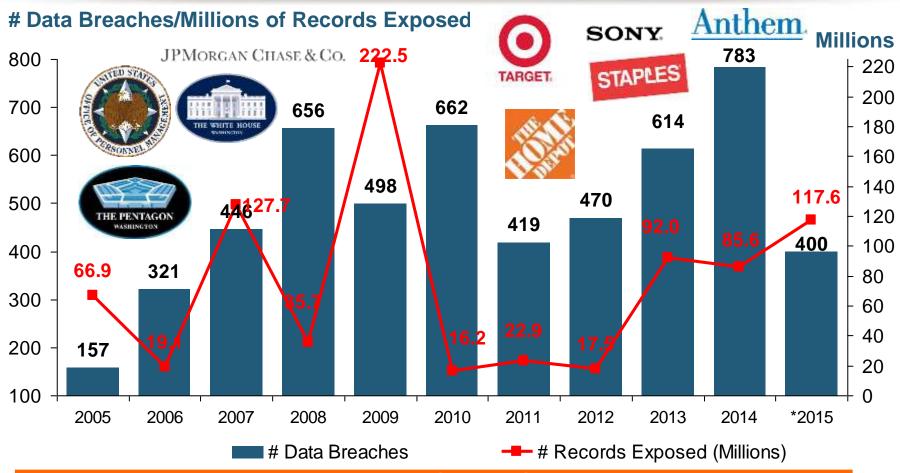
## On-Demand/Sharing/Peer-to-Peer Economy Impacts Many Lines of Insurance Insurance

- The "On-Demand" Economy is or will impact many segments of the economy important to P/C insurers
  - Auto (personal and commercial)
  - Homeowners/Renters
  - Many Liability Coverages
  - Professional Liability
  - Workers Comp
- Many unanswered insurance questions
- Insurance solutions are increasingly available to fill the many insurance gaps that arise



## Data Breaches 2005-2015, by Number of Breaches and Records Exposed





The total number of data breaches (+27.5%) hit a record high of 783 in 2014, exposing 85.6 million records. Through June 30, this year has seen 117.6 million records exposed in 400 breaches.\*

<sup>\*</sup>Figures as of June 30, 2015, from the Identity Theft Resource Center, http://www.idtheftcenter.org/images/breach/ITRCBreachReport2015.pdf



# AUTO TECHNOLOGY & THE FUTURE OF AUTO INSURANCE

The Road to Fully Autonomous Vehicles: Long, Dark and Full of Potholes

Tales of the Death of Auto Insurance Are Greatly Exaggerated

## Media is Obsessed with Driverless Vehicles: Often Predicting the Demise of Auto Insurance



### Hands-Free

Projected global unit sales of autonomous vehicles over the next 20 years

32m

Partially autonomous 24m Fully autonomous will challenge auto insurers, but they won't 16m obliterate them 8m 2035 DATA: BOSTON CONSULTING GROUP; GRAPHIC BY BLOOMBERG BUSINESSWEEK

By 2035, it is estimated that 25% of new vehicle sales could be fully autonomous models

#### **Questions**

- Are auto insurers monitoring these trends?
- How are they reacting?
- Will Google take over the industry?
- Will the number of auto insurers shrink?
- How will liability shift?

Source: Boston Consulting Group.

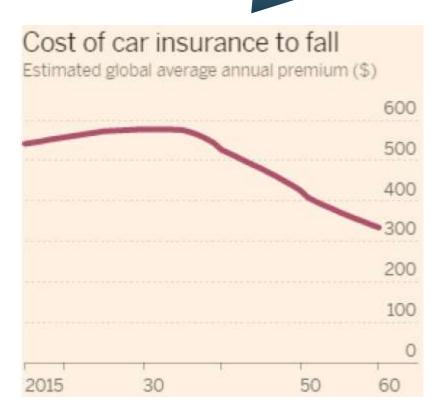
## Media is Obsessed with Driverless Vehicles: Often Predicting the Demise of Auto Insurance



Some are predicting that the rise of autonomous vehicles will reduce claim frequency by 75% or more...

Fewer claims on car insurance Insured drivers making claims each year (%) 10 2015 30 50 60

"and that this technology will cause average auto insurance premiums to plunge

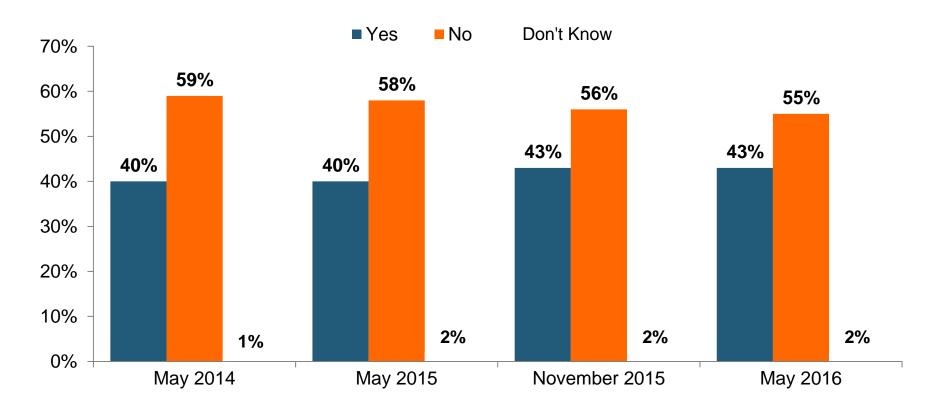


Source: Autonomous Consulting as cited in the Financial Times: "Cost of Car Insurance to Plunge With Rise of Driverless Vehicles, June 28, 2016.

### I.I.I. Poll: Driverless Cars



### Q. Would you be willing to ride in a driverless car?



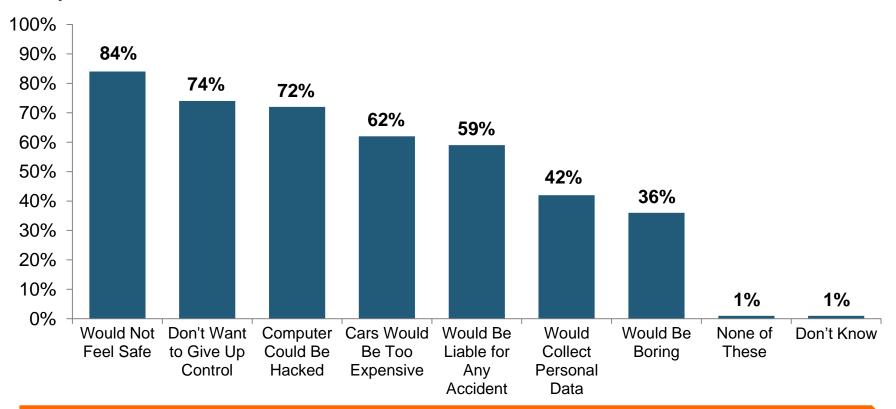
The Percentage Willing to Ride in a Driverless Car Remains at 43%; 71% of People Over 64 Were Unwilling to Ride.

Source: Insurance Information Institute Annual *Pulse* Survey.

### I.I.I. Poll: Driverless Cars



## Why Americans Would Not Want to Ride in a Driverless Car, May 2016<sup>1</sup>



Safety Concerns Are Paramount Among Those Who Would Avoid Driverless Cars.

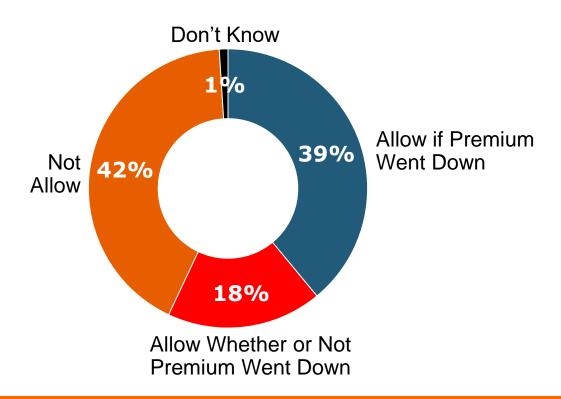
<sup>&</sup>lt;sup>1</sup> Based on those who would not ride in a driverless car. Respondents could give more than one answer. Source: Insurance Information Institute Annual *Pulse* Survey.

### I.I.I. Poll: Telematics— Consumers Still Hesitant





Would you allow your auto insurer to collect information about how and when you drive in order to set your auto insurance premium?



More Than Half of Auto Policyholders Would Allow Their Insurer to Collect Their Driving Information in Order to Set Premiums.

<sup>1</sup>Asked of those who have auto insurance. Source: Insurance Information Institute Annual *Pulse* Survey.

### Telematics for Your Home: The Internet of Things



- The home is the next frontier for telematics
- Rapidly becoming a crowded space
- How and with whom will insurers partner?
- Can control increasing array of household systems remotely

Uses sensors and algorithms to learn about you

- Heat, A/C
- Fire, CO detection
- Security Systems
- Cameras/Monitors
- Appliances
- Lighting
- Technology is adaptive
  - comiciogy is dauptive







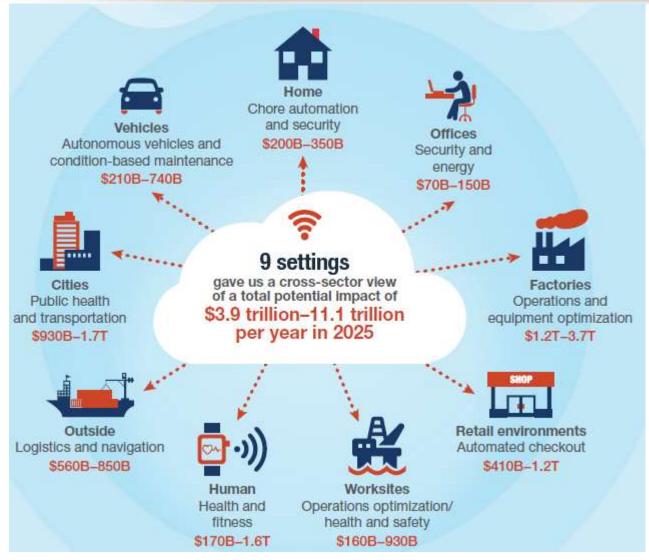


### THE 'INTERNET OF THINGS'

# Capturing Economic Value Amid a Shifting Insurer Value Chain

# The Internet of Things and the Insurance Industry



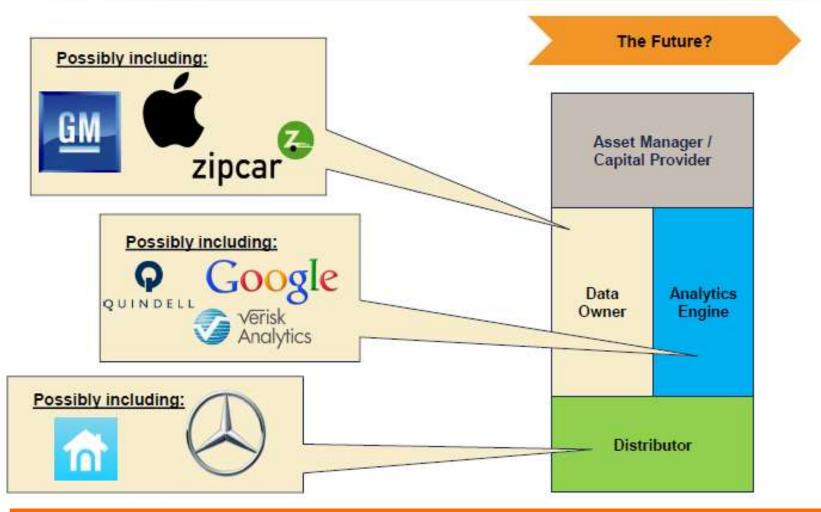


Sources: McKinsey Global Institute, *The Internet of Things: Mapping the Value Beyond the Hype*, June 2015; Insurance Information Institute.

- The "Internet of Things" will create trillions in economic value throughout the global economy by 2025
- What opportunities, challenges will this create for insurers?
- What are the impact on the insurance industry "value chain"?

# The Internet of Things and the Insurance Industry Value Chain





Who owns the data? Where does It flow? Who does the analytics? Who is the capital provider?

### The (Re)Insurance Value Chain



### Where Could Disruption Lie?

### **Protecting People & Organizations**

Brains + Bank Account

Create Policy/ Treaty Market Policy/ Treaty Underwrite, Price Risk

Perform Loss Control

Settle Claims Improve World

Most Links in the Value Chain Have the Potential to Be Disrupted in Next 10 Years.



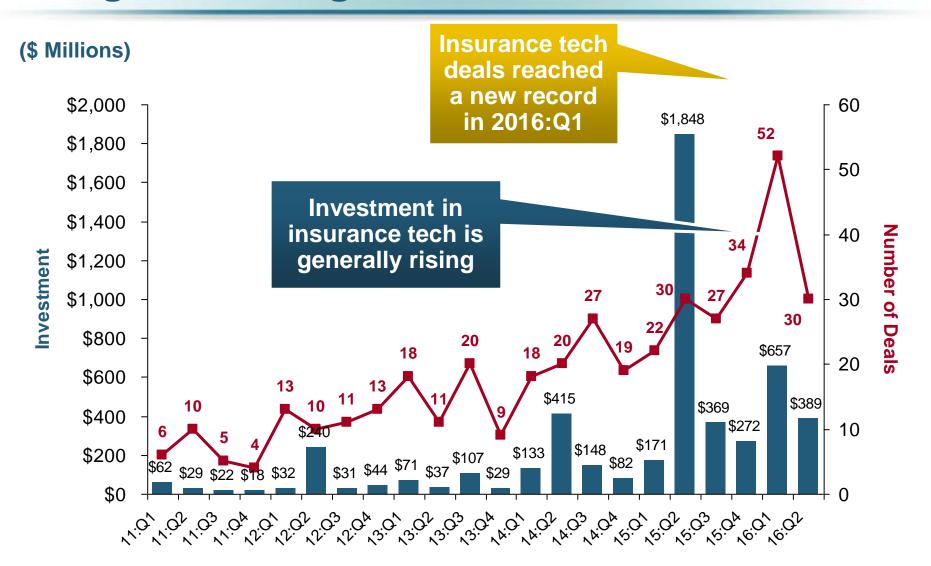
# INSURANCE TECHNOLOGY: FIN TECH ZEROES IN

Number and Value of Deals Is Increasing

In Search of the Elusive Insurance 'Unicorn'

# **Insurance Technology Financing Trend: Change Is Coming**





### The Internet

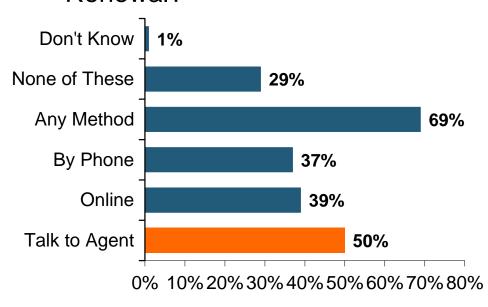


### Will It Disrupt Marketing?

- Lead Generators
  - InsWeb, NetQuote, Insurance.com
  - Site allows comparison shopping, sells lead to insurer
- Call Center Agencies
  - SelectQuote, Goji
  - Call center employs agents
- Digital agencies
  - Esurance, Policy Genius
  - Quote and buy online

### **But Customers Still Like Agents**

Did You Compare Prices When Your Auto Policy Was Up for Renewal?



### **Pricing Disruptor: The Fragmented Risk**



- The Insurance Contract Is Being Split into Tiny Pieces.
  - By-peril HO insurance Rate Water, Theft Liability Risk Separately
  - The Sharing/"On-Demand" Economy Personal Exposures Become Commercial Exposures, Then Switch Back
  - Pay By Mile Insurance Exposure Basis for Auto – Vehicle-Mile Replaces Vehicle-Year
- Expect More As
  - Computers Get Stronger
  - Data Storage Gets Cheaper
  - Information Collection Grows









### The Internet of Things



- Gathering Big Data Affects
  - Underwriting
  - Pricing
  - Claims
- Monitoring Could Affect
  - Loss Control
  - Pricing?







#### The Insurers Investing in Internet of Things Startups



SOURCE: F6S.com, CB Insights.

### As For The Future...





### Peer-to-Peer (P2P) Insurance



### Taking on the *Entire* Value Chain

#### The Business Model

- Resembles Mutuals/ Reciprocals
- 20% of Premium to Expenses, 80% to Cover Risk.
- Risk Pool for Each Charity
- Leftover Pool Money Goes to Charity.
- May Deter Fraud You Wouldn't Cheat Your Favorite Charity!



#### **Lemonade Chief Behavioral Officer**

Dan Ariely: "If you tried to create a system to bring out the worst in humans, it would look a lot like the insurance of today."

### Lemonade's P2P Model



### Example: Renters' Insurance (HO-4)

Attractive Graphics, Simple Explanations of a Basic ISO Form



PROPERTY AND VALUABLES LEGAL EXPENSES AND LIABILITY If your stuff is stolen or damaged, this is If someone gets hurt on your property and the maximum amount you can claim. This decides to take legal action, this is the max amount we'll pay to cover legal expenses. includes basic coverage for jewelry. and medical costs. watches, and artwork. If you own luxury Items, you must want to increase their coverage below. If you have family members fiving with you, we recommend setting \$10,000 per person. \$100,000 \$10,000

Coverage Amounts

#### HOMEOWNERS 4 - CONTENTS BROAD FORM

#### **AGREEMENT**

We will provide the insurance described in this policy in return for the premium and compliance with all applicable provisions of this policy.

#### DEFINITIONS

- A. In this policy, "you" and "your" refer to the "named insured" shown in the Declarations and the spouse if a resident of the same household. "We", "us" and "our" refer to the Company providing this insurance.
- "Bodily injury" means bodily harm, sickness or disease, including required care, loss of services and death that results.
- 3. "Business" means:
  - A trade, profession or occupation engaged in on a full-time, part-time or occasional basis; or
  - b. Any other activity engaged in for money or other compensation, except the following:

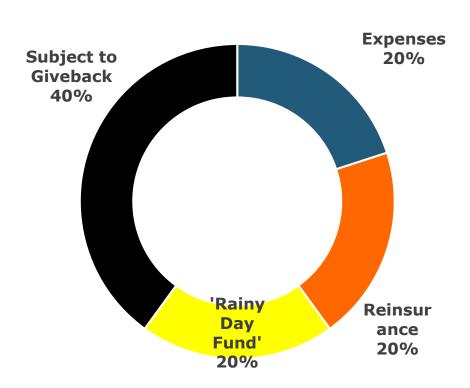
(1) One or more activities, not described in

### Lemonade's P2P Model



#### Questions...

#### Who Holds the Risk?



#### **Other Questions**

- How Are Charitable Pools Separated?
- Who Gets the Float?
  - Insurer, Reinsurer or Charity?
- Who Gets the Tax Deduction (Worth More Than the Float)?
- The Giveback Occurs on June 20
   4 Equal Payments Over 4
   Years (Active Policies Only)



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