

Overview and Outlook for Private Passenger Auto Insurance Markets

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Presentation Outline



- Economic Growth Drivers in Private Passenger Auto Insurance
- Determinants of Household Demand for Auto Insurance
- Premiums Growth Trends
- Personal Auto Ad Spending
- Rate and Exposure Trends
- Underwriting and Profitability Analysis
- Claim Trends by Coverage Type
- Autonomous Vehicles
- Consumer Report and Consumer Federation of America Attacks on Auto Insurers
 - Why now?
 - What are doing about it?
- Q&A

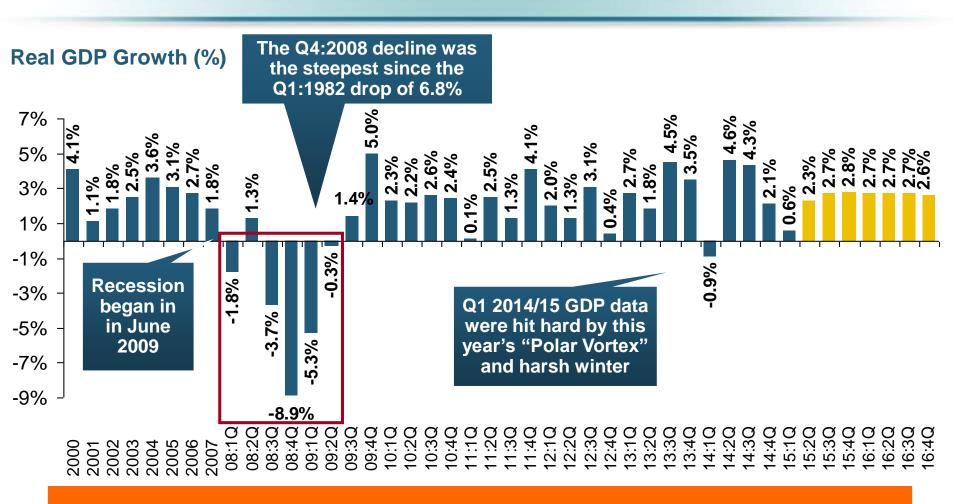


Personal Auto Growth Drivers: The Economy Is Supporting Growth of Personal Lines Exposure

The Economy and Consumer Sentiment Remain Sufficient to Propel Auto Sales into 2016

US Real GDP Growth*





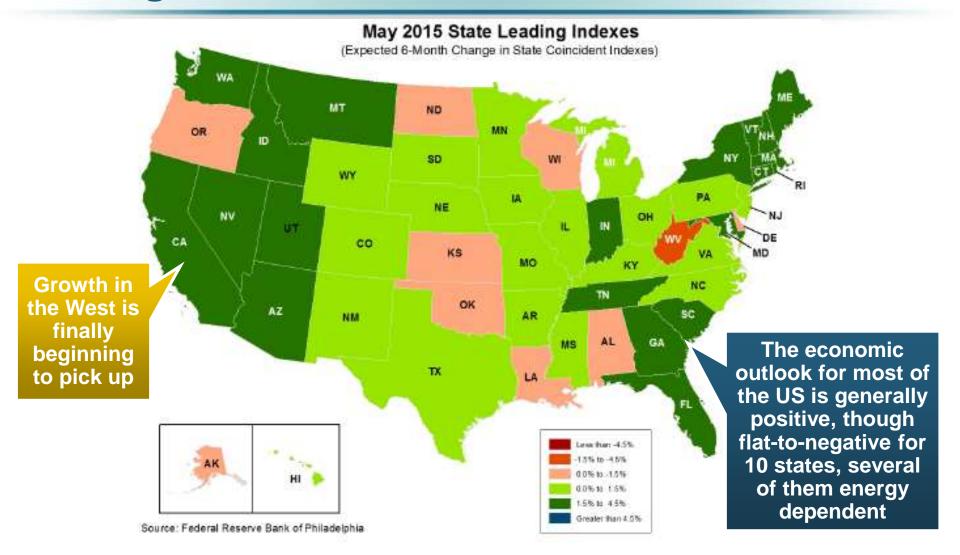
Demand for Insurance Should Increase in 2015 as GDP Growth Accelerates Modestly and Gradually Benefits the Economy Broadly

Source: US Department of Commerce, Blue Economic Indicators 8/15; Insurance Information Institute.

^{*} Estimates/Forecasts from Blue Chip Economic Indicators.

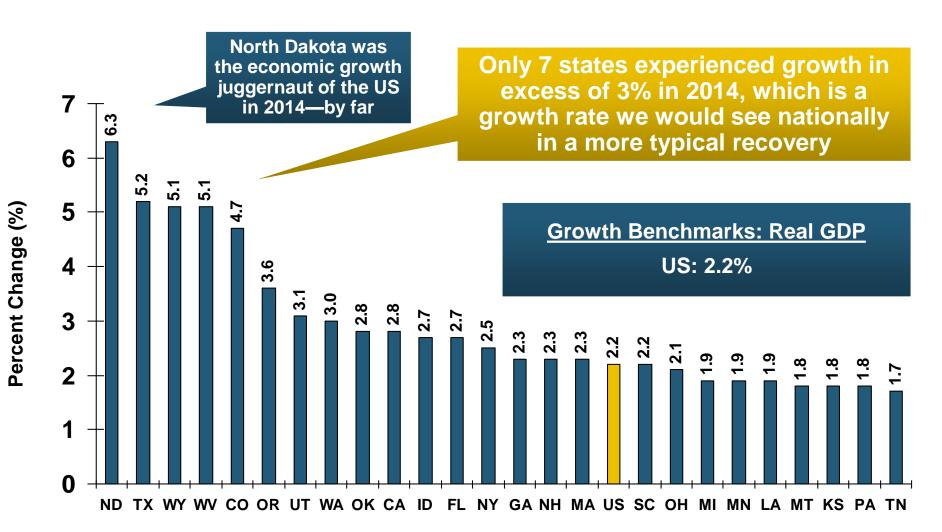
State Leading Economic Indicators through November 2015





Real GDP by State Percent Change, 2014*: Highest 25 States

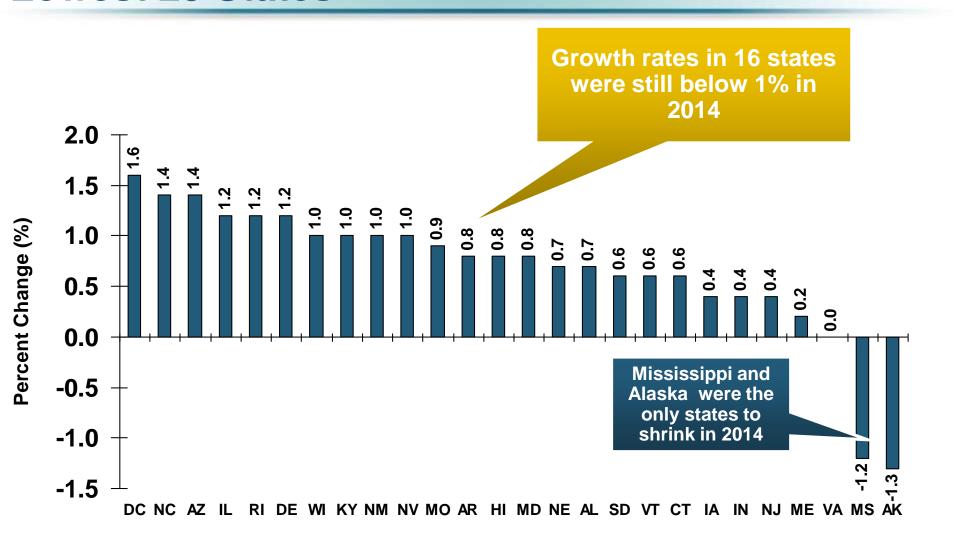




^{*}Advance statistics

Real GDP by State Percent Change, 2014*: Lowest 25 States



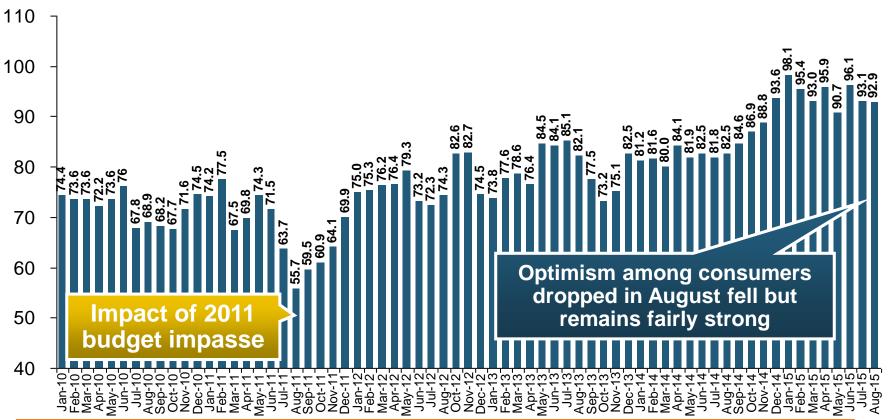


^{*}Advance statistics
Sources: <u>US Bureau of Economic Analysis</u>; Insurance Information Institute.

Consumer Sentiment Survey (1966 = 100)





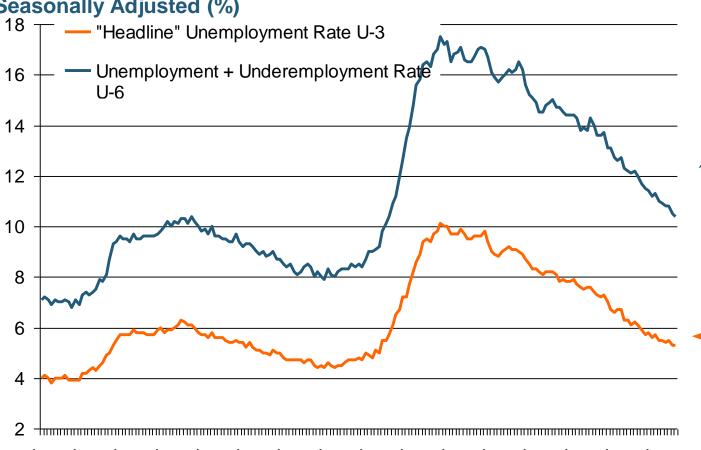


Consumer confidence has experienced a substantial recovery from its crisis and post-crisis lows, substantially contributing to increased demand for vehicles and homes.

Unemployment and Underemployment Rates: Still Too High, But Falling







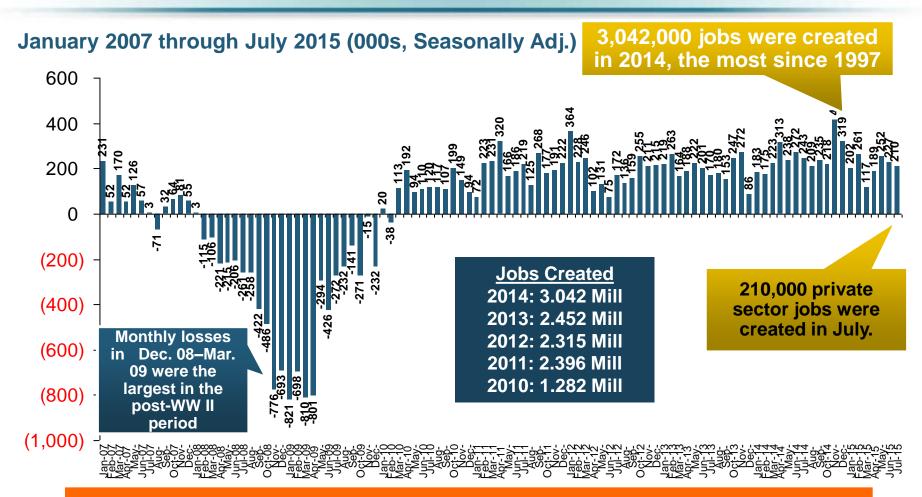
U-6 soared from 8.0% in March 2007 to 17.5% in October 2009; Stood at 10.4% in June 2015. 8% to 10% is "normal."

"Headline" unemployment was 5.3% in July 2015. 4.5% to 5.5% is "normal."

Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is continuing to improve.

Monthly Change in Private Employment

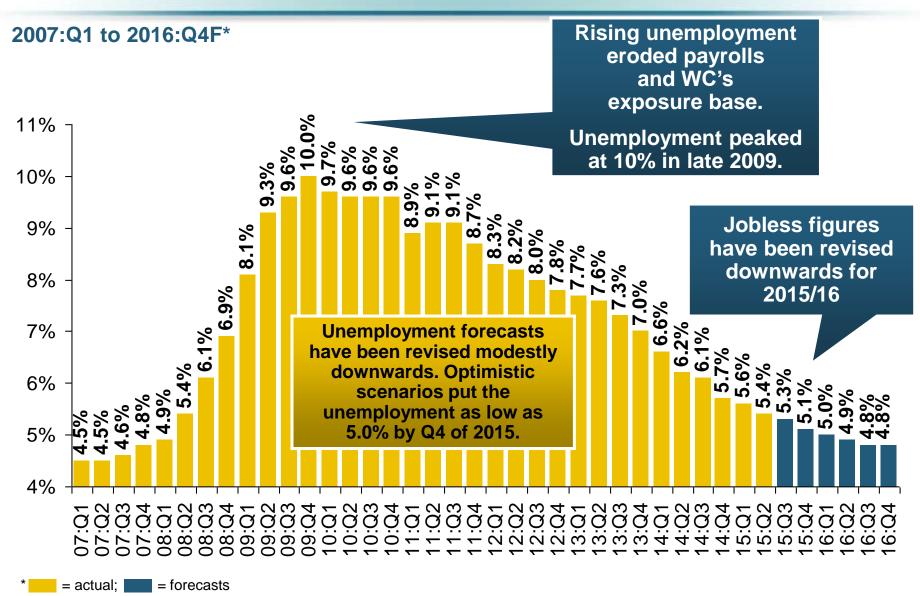




Private Employers Added 12.84 Million Jobs Since Jan. 2010 After Having Shed 5.01 Million Jobs in 2009 and 3.76 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

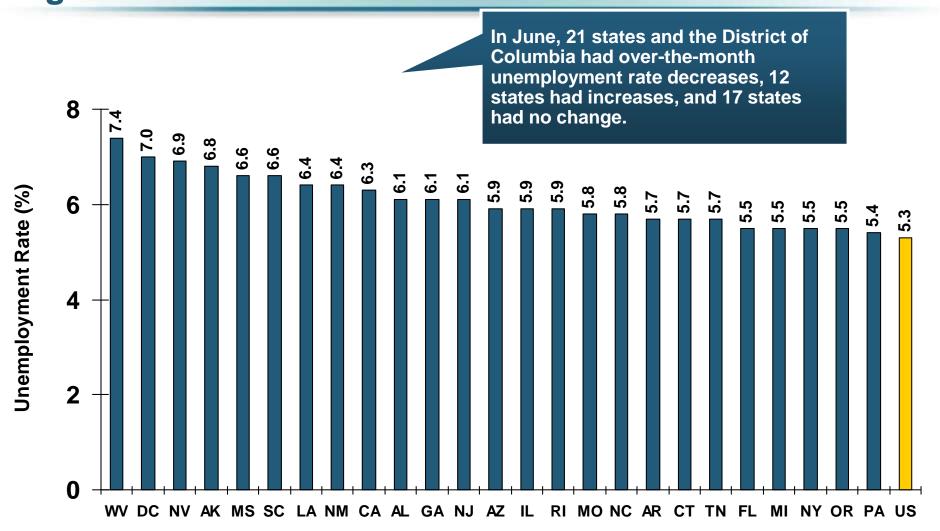
US Unemployment Rate Forecast





Unemployment Rates by State, June 2015: Highest 25 States*

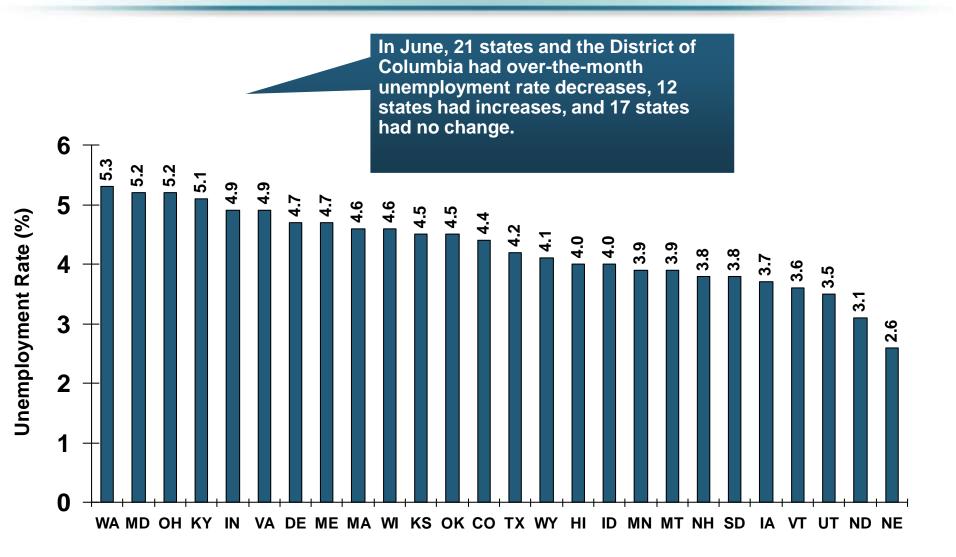




^{*}Provisional figures for June 2015, seasonally adjusted.
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

Unemployment Rates by State, June 2015: Lowest 25 States*





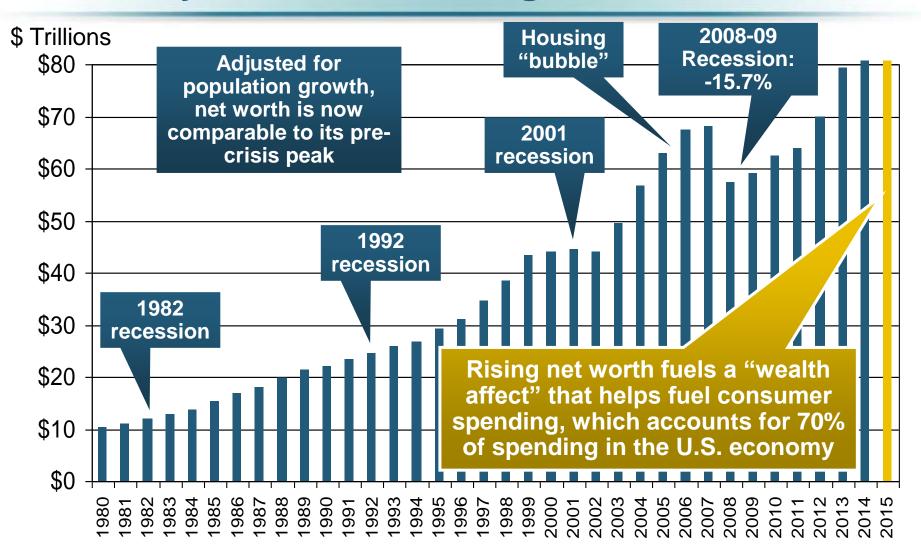


Household Balance Sheets Are Relatively Strong

Wealth Effects: Indebtedness Influence Auto Purchase Decisions

Net Worth of Households* Recently Hit A Historic High



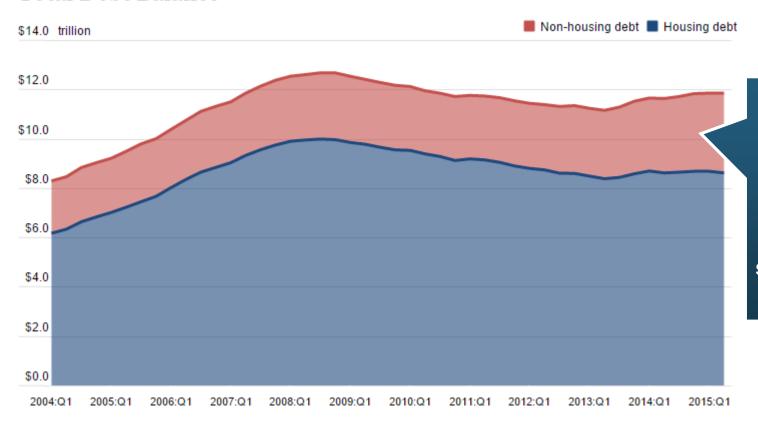


^{*}and nonprofit organizations. Data are as of year-end, except in 2015:Q1 (data posted on June 11, 2015. Data not seasonally adjusted or inflation-adjusted; http://www.federalreserve.gov/releases/z1/Current/z1r-5.pdf
Source: Federal Reserve Board at http://www.federalreserve.gov/releases/z1/Current/z1r-5.pdf

Household Debt Balance, 2004 – 2015:Q1



Total Debt Balance



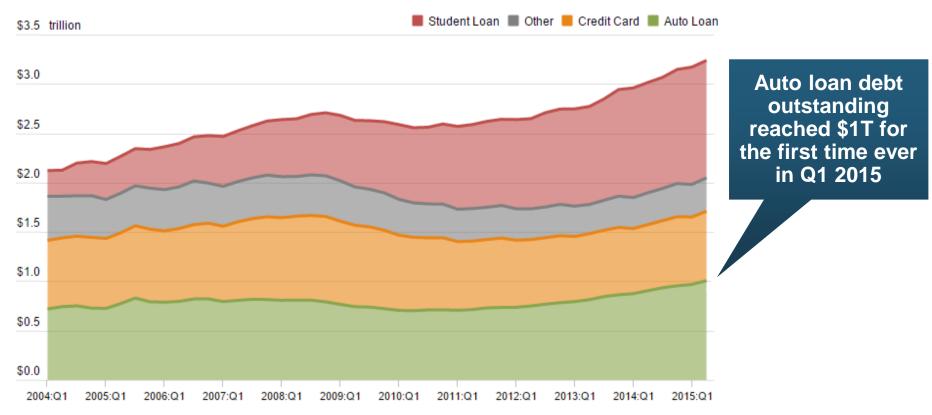
Overall
household debt
remains below
pre-crisis peak
but non-housing
debt is actually
larger due to
student loans and
auto loan debt

Household balance sheets remain much healthier than they were prior to the "Great Recession"

Auto Loans and Other Non-Housing Debt, 2004 – 2015:Q1



Non-Housing Debt Balance

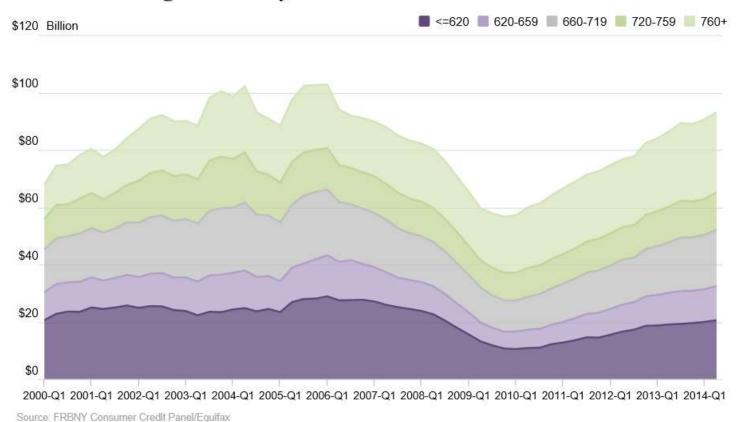


Banks are becoming increasingly aggressive in marketing auto loans

Lenders are Issuing a Rising Number of New Auto Loans, Even for People with Poor Credit Scores



Auto Loan Originations by Credit Score



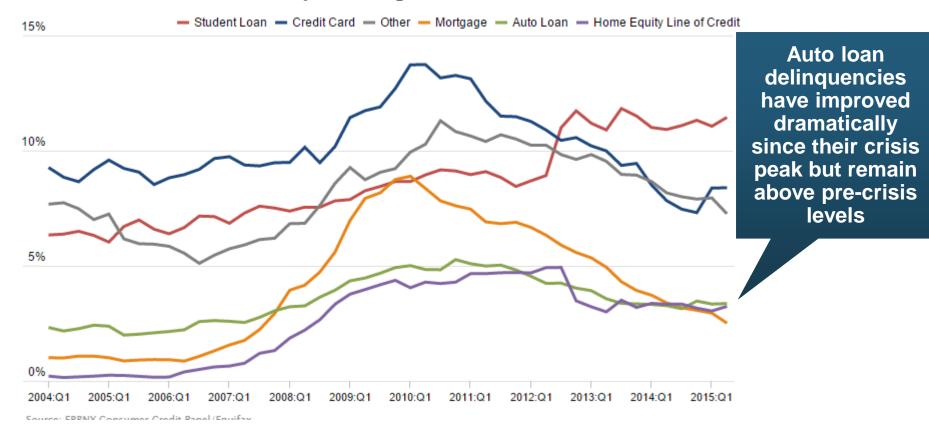
Auto loan originations reached a 10-year high in 2015:Q2

For the past several years, auto loans in nonaccrual status remained at roughly 0.25% of outstanding loans.

Auto Loan and Other Non-Housing Deliquencies, 2004 – 2015:Q1



Percent of Balance 90+ Days Delinquent



So far, increasingly aggressive marketing of auto loans has not resulting in a surge in loan delinquencies and defaults



Personal Auto Growth Analysis

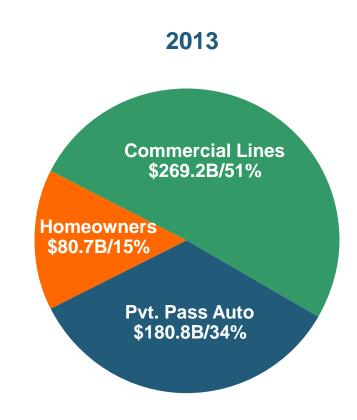
Growth Trajectories Differ Substantially by State and Over Time

Distribution of Direct Premiums Written by Segment/Line, 2013



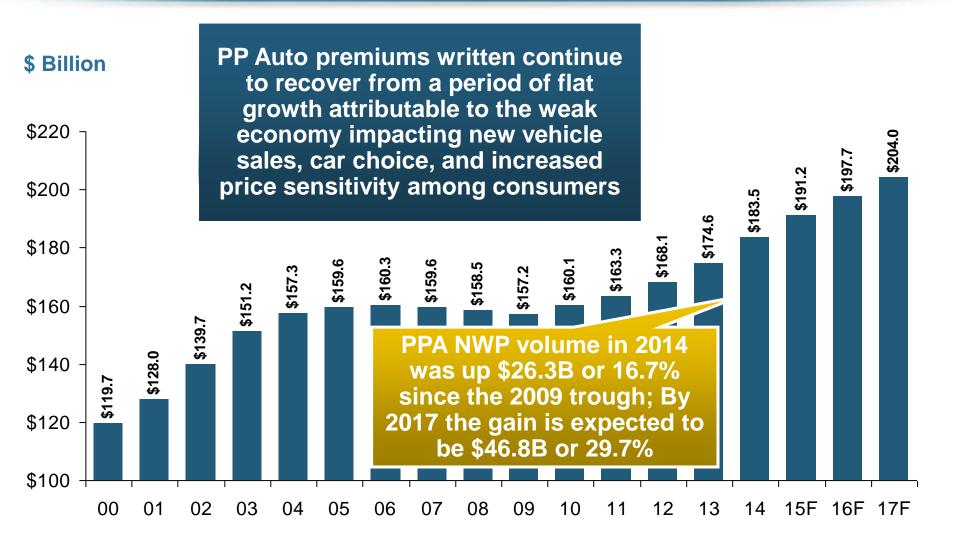
Distribution Facts

- Personal/Commercial lines split has been about 50/50 for many years
- Pvt. Passenger Auto is by far the largest line of insurance and is currently the most important source of industry profits
- Billions of additional dollars in homeowners insurance premiums are written by staterun residual market plans



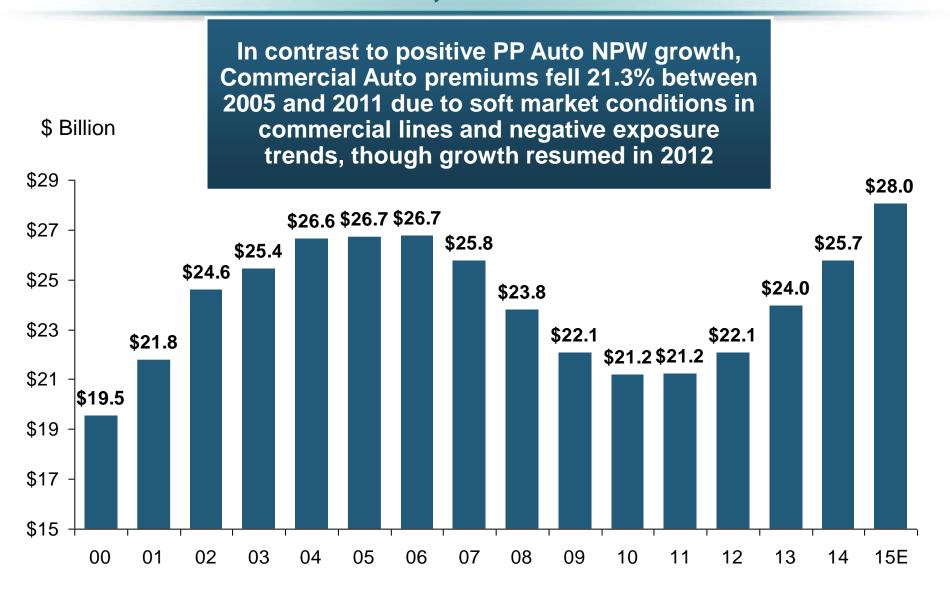
Private Passenger Auto Insurance Net Written Premium, 2000–2017F





Commercial Auto Insurance Net Written Premium, 2000–2015F





Direct Premiums Written: Total P/C Percent Change by State, 2007-2014

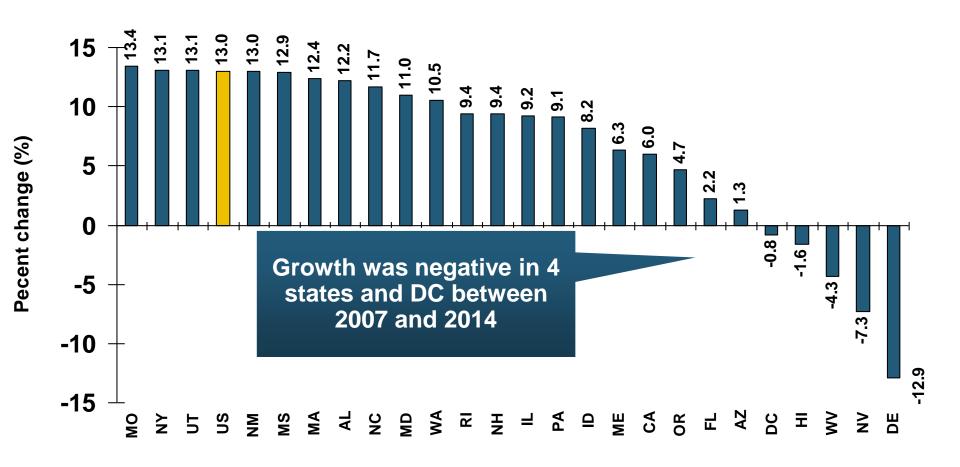




Direct Premiums Written: Total P/C Percent Change by State, 2007-2014



Bottom 25 States



Direct Premiums Written: PP Auto Percent Change by State, 2007-2014



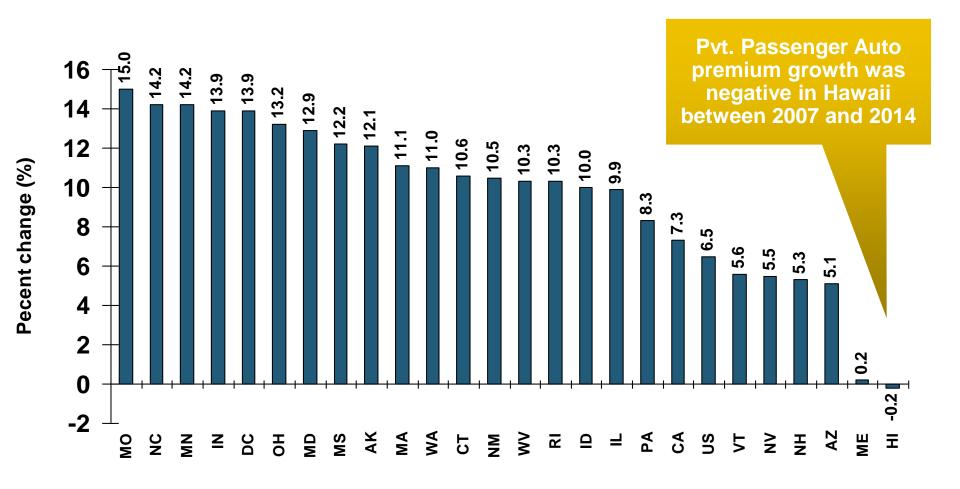




Direct Premiums Written: PP Auto Percent Change by State, 2007-2014



Bottom 25 States



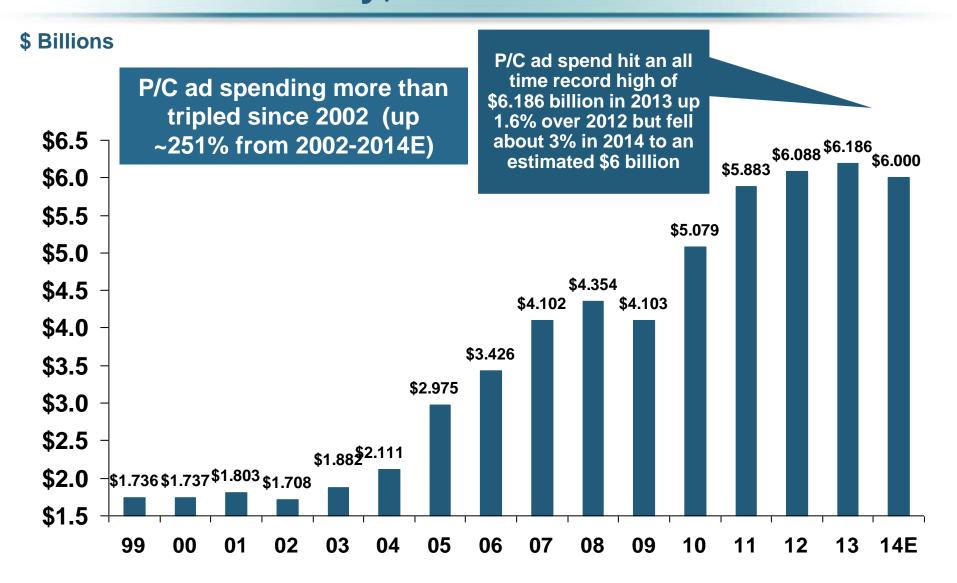


Personal Auto Ad Spend Trends

Growth in Ad Spend Remains Robust Among Many Top Auto Insurers

Advertising Expenditures by P/C Insurance Industry, 1999-2014E





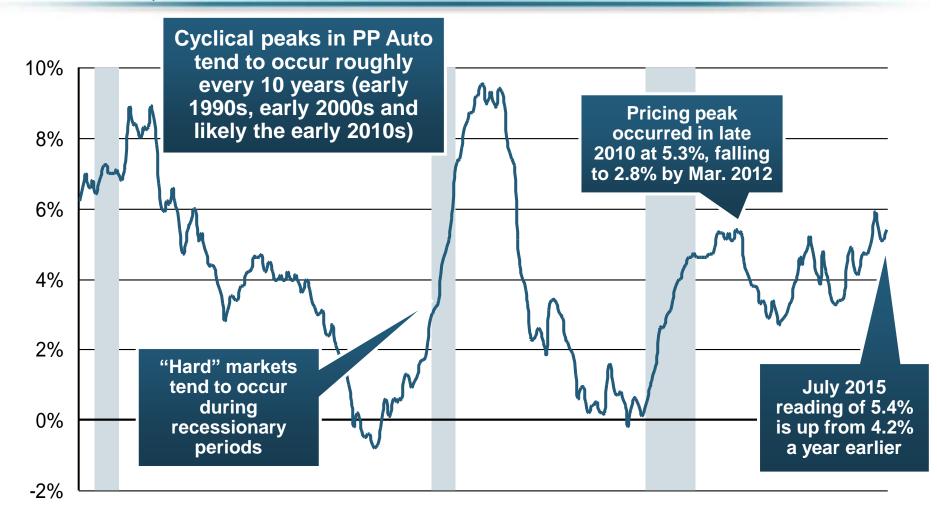


Rate and Exposure Trends for Private Passenger Auto

Rate and Exposure Are Both Important Drivers of Growth

Monthly Change in Auto Insurance Prices, 1991–2015*



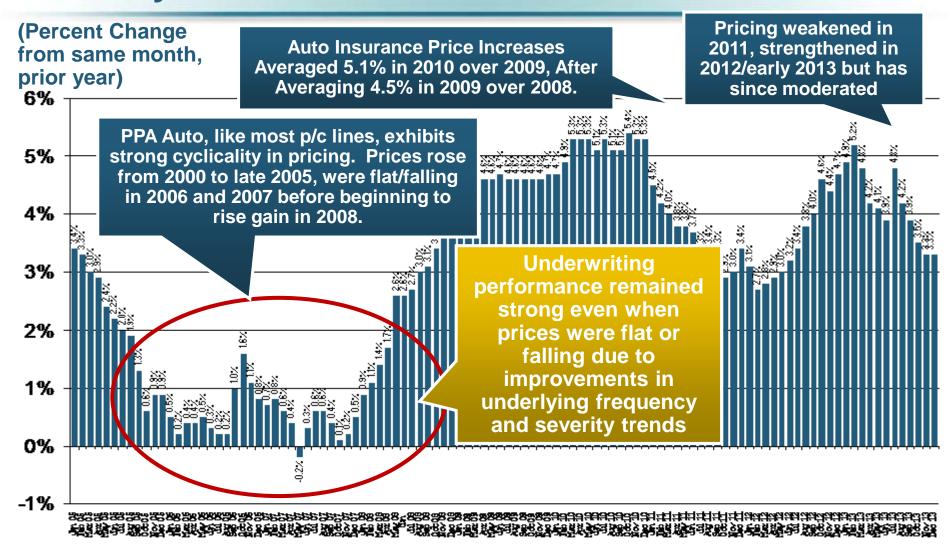


'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15

^{*}Percentage change from same month in prior year; through July 2015; seasonally adjusted Note: Recessions indicated by gray shaded columns.

Monthly Change* in Auto Insurance Prices, January 2005 - December 2013





^{*}Percentage change from same month in prior year, seasonally adjusted. Sources: US Bureau of Labor Statistics; Insurance Information Institute

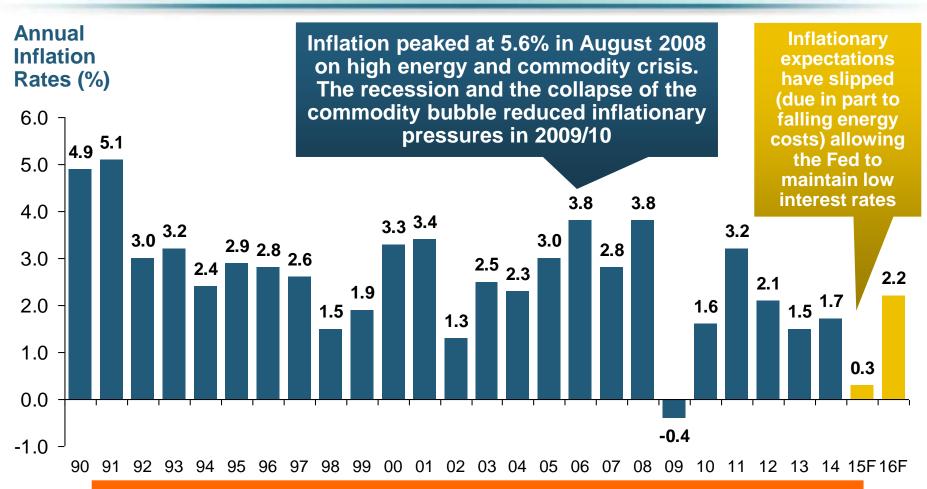


Inflation

Is it a Threat to Claim Cost Severities?

Annual Inflation Rates, (CPI-U, %), 1990–2016F



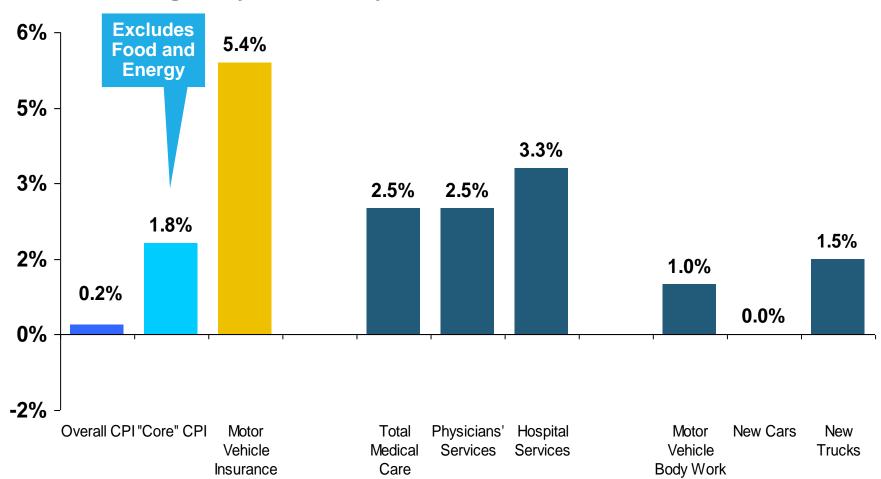


Slack in the U.S. economy and falling energy prices suggests that inflationary pressures should remain subdued for an extended period of times

Personal Auto Insurance Claim Cost Drivers Continue to Grow Faster than CPI



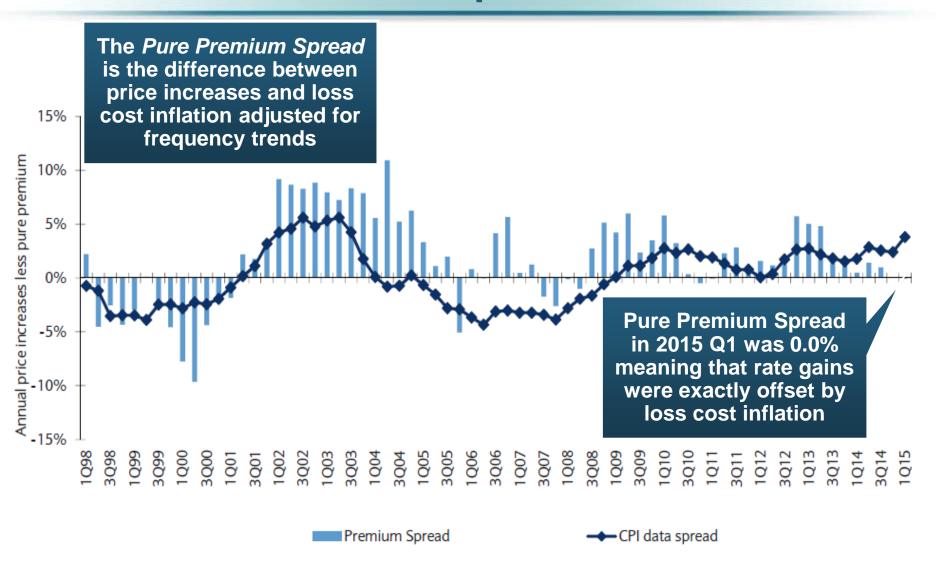
Price Level Change: July 2015 vs. July 2014



Healthcare costs are a major cost driver and are expected to accelerate in the years ahead

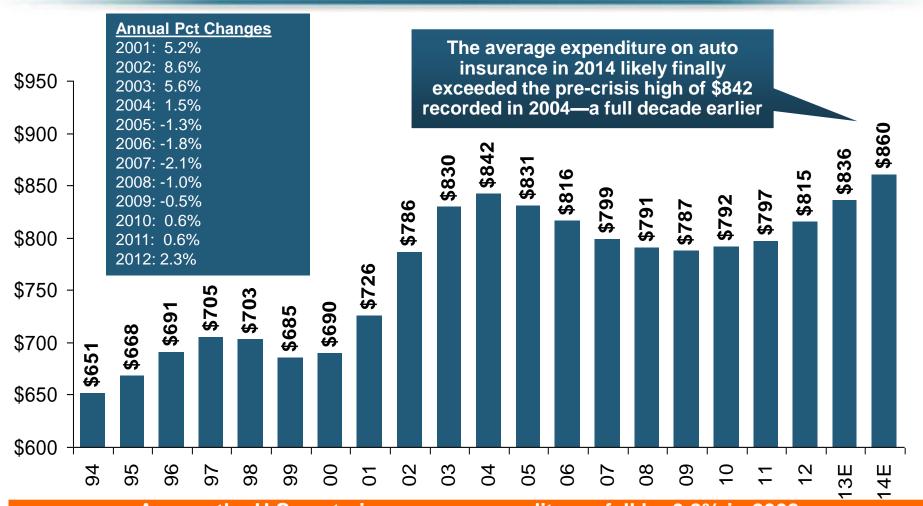
Private Passenger Auto: Premium Growth vs. Loss Cost Spread





Average Expenditures* on Auto Insurance, 1994-2014E



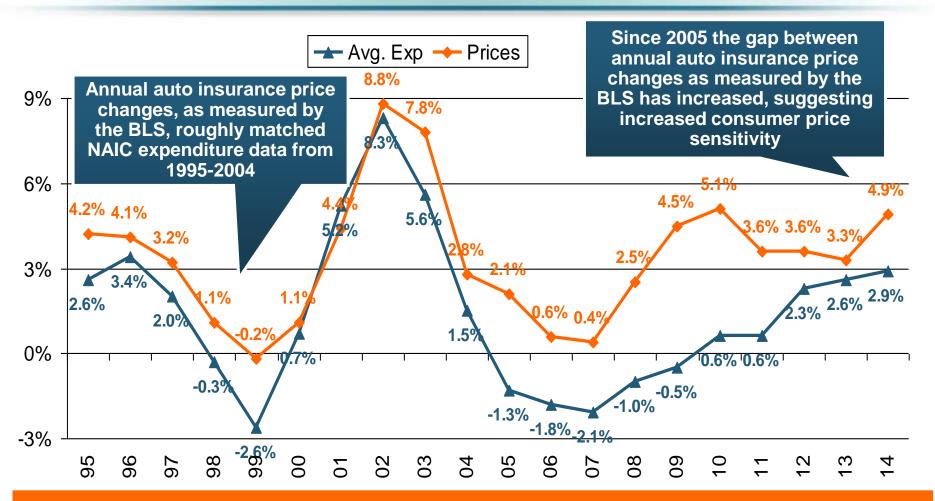


Across the U.S., auto insurance expenditures fell by 0.8% in 2008 and 0.5% in 2009 but rose 0.5% in 2010, 0.8% in 2011 and 2.3% in 2012 I.I.I. estimate for 2013 is +2.6% and +2.9 in 2014%.

^{*} The NAIC data are per-vehicle (actually, per car-year)
Sources: NAIC for 1994-2012; Insurance Information Institute estimates for 2013-2014 based on CPI and other data.

Annual Pct. Change in Avg. Expenditures on Auto Insurance, vs. Auto Insurance Prices, 1995-2015E

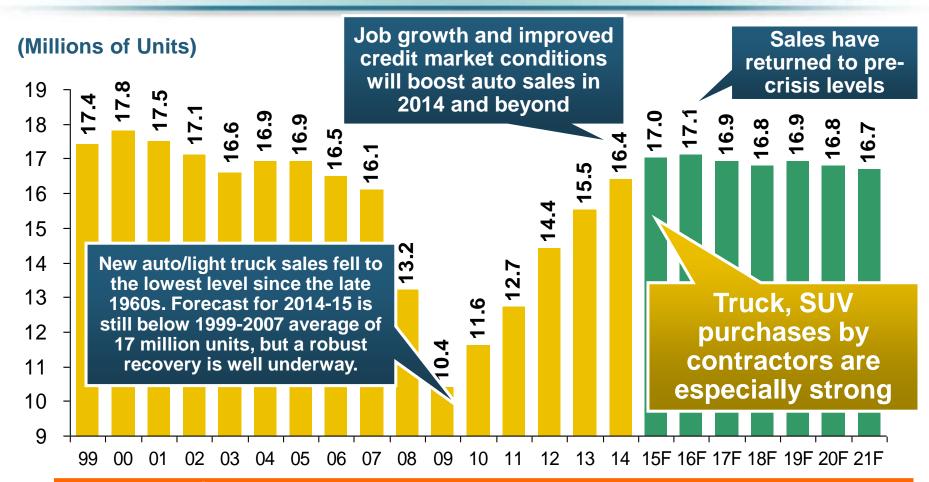




The gap since 2005 between price changes and expenditures on auto insurance might be due to buyers increasing deductibles, obtaining discounts, and other premium-reducing behavior.

Auto/Light Truck Sales, 1999-2021F

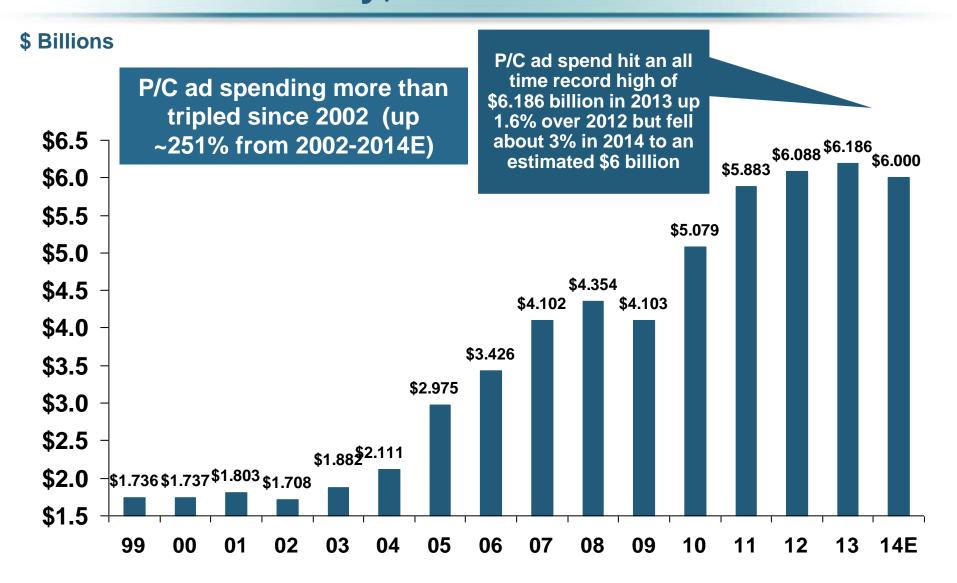




Yearly car/light truck sales will likely continue at current levels, in part replacing cars that were held onto in 2008-12. New vehicles will generate more physical damage insurance coverage but will be more expensive to repair. PP Auto premium might grow by 5% - 6%.

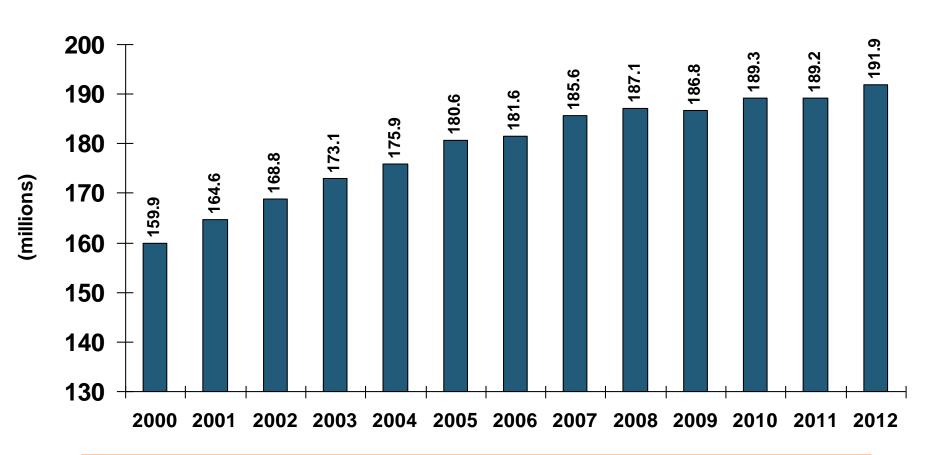
Advertising Expenditures by P/C Insurance Industry, 1999-2014E





Number of Insured Vehicles in the US, 2000-2012*





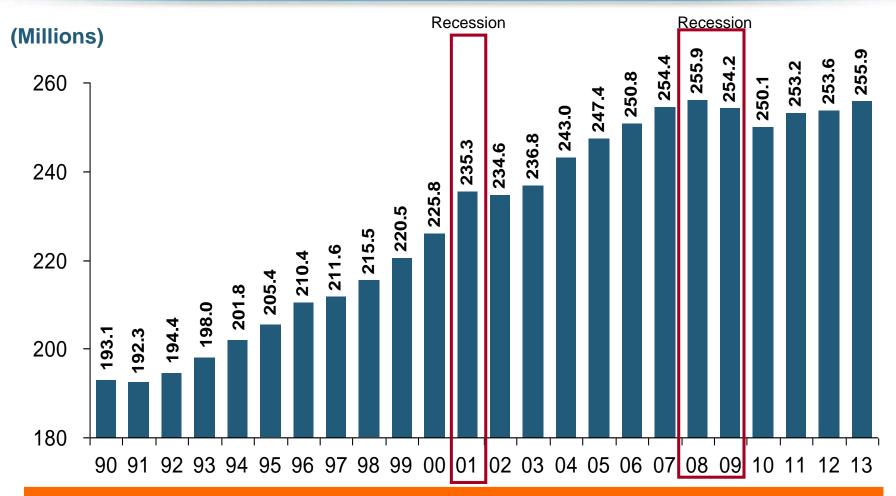
The Number of Insured Passenger Vehicles Stopped Growing During the Economic Downturn. Growth Has Now Returned.

*Note: Texas car years are not available

Source: Automobile Insurance Plans Service Office.

Registered Vehicles, 1990-2013

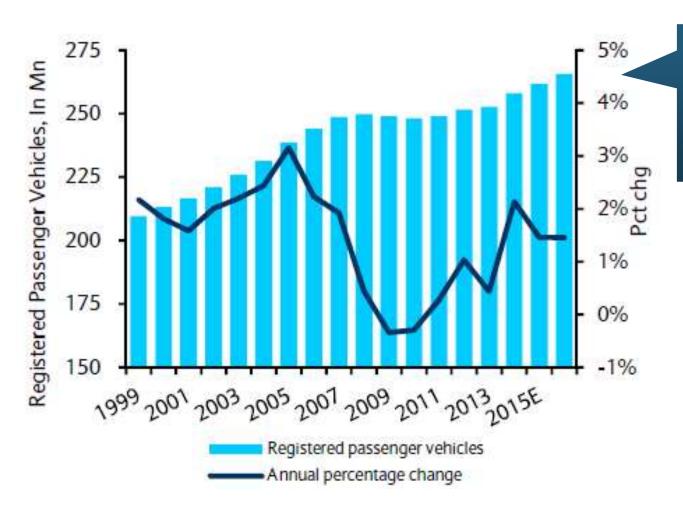




The number of registered vehicles grew consistently (except following recessions) from 1990-2007. It has been flat (through 2013) since then.

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

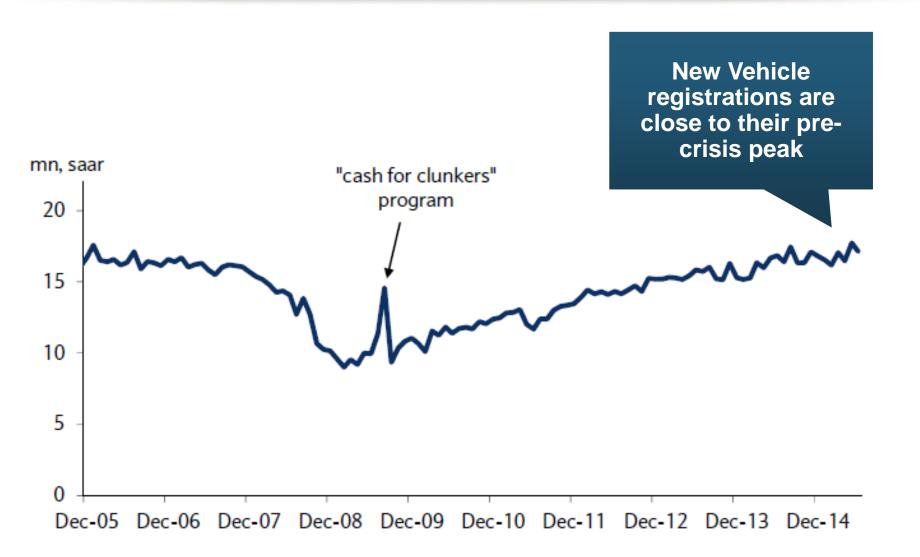




Vehicle registrations are growing once again but growth rate remains below precrisis peak

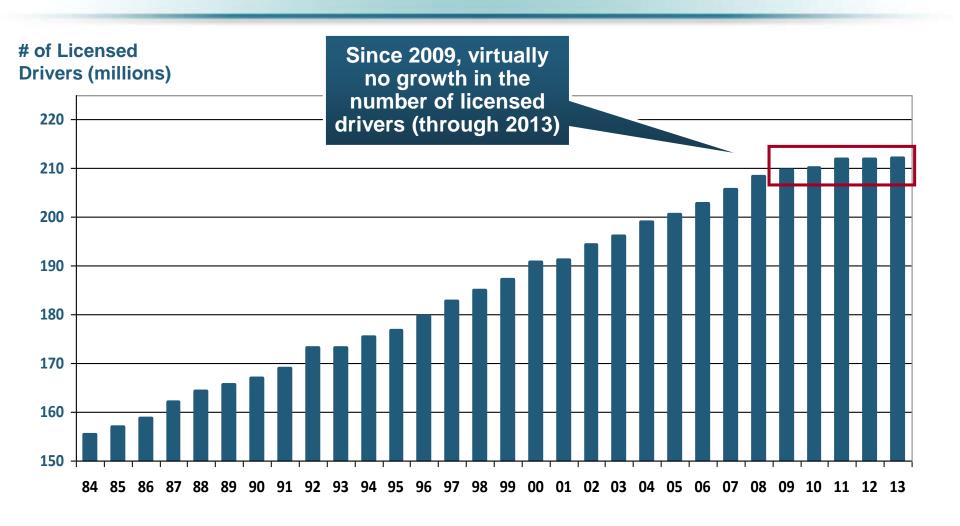
New Vehicle Registrations in the US, Dec. 2005 – Dec. 2014





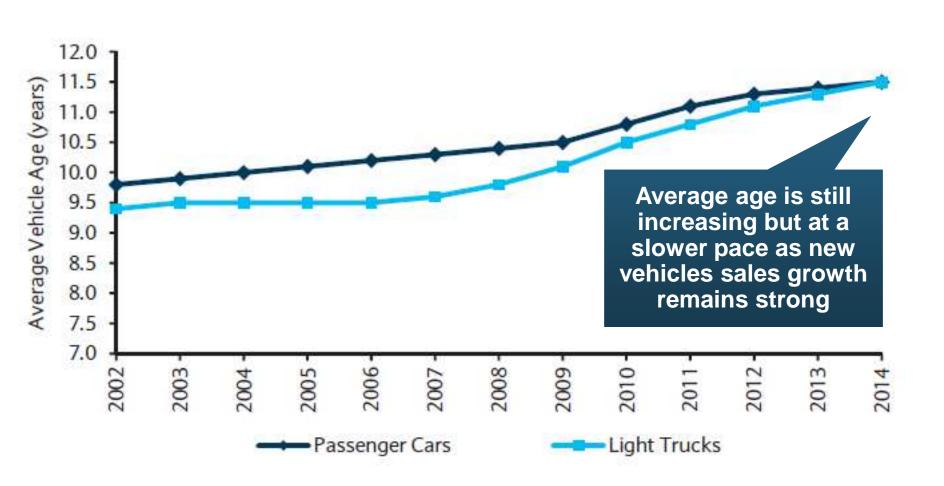
Number of Licensed Drivers, 1984-2013





Average Vehicle Age, 2002 - 2014

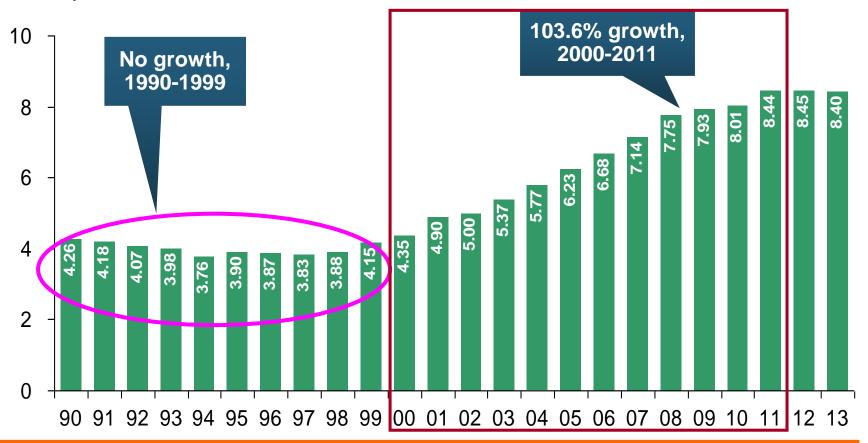




Registered Motorcycles, 1990-2013



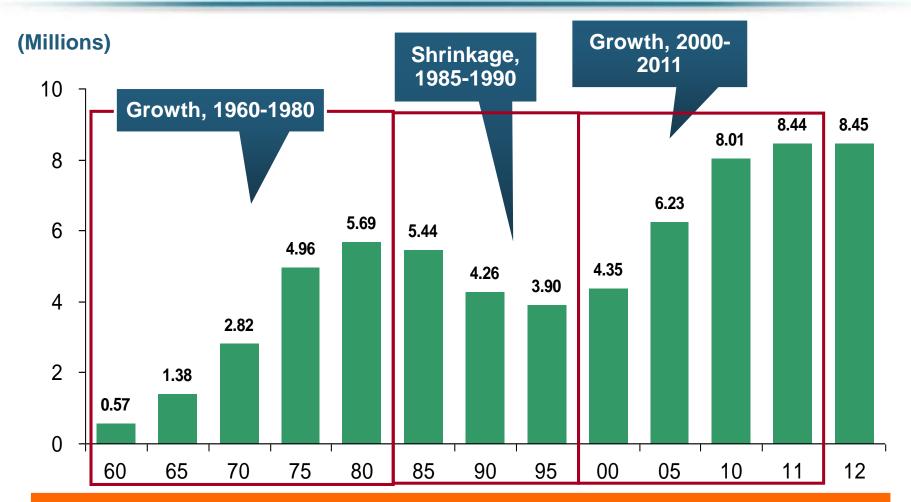




The number of registered motorcycles grew dramatically in the first decade of the 21st century. Baby boomers? Millennials?

Registered Motorcycles,1960-2012: A Changing Exposure Base





The number of registered motorcycles grew dramatically in the first decade of the 21st century. Baby boomers? Millennials?

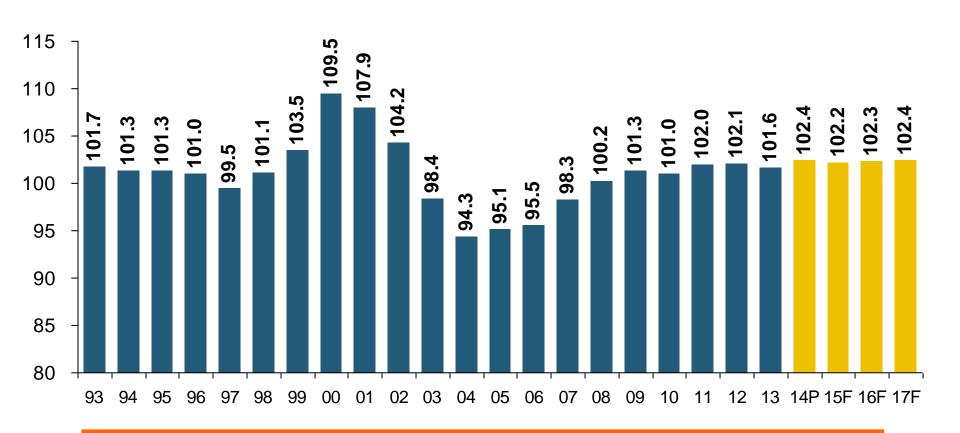


Underwriting and Profitability Performance in Private Passenger Auto Insurance

Significant Variability and Volatility Over Time and Across States

Private Passenger Auto Combined Ratio: 1993–2017F

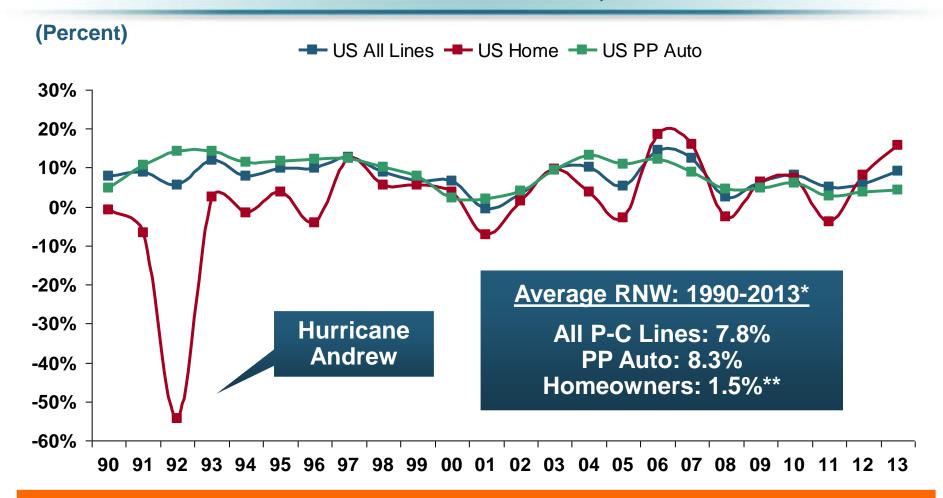




Private Passenger Auto Underwriitng Performance Is Exhibiting Remarkable Stability

Return on Net Worth: All P-C Lines vs. Homeowners & Pvt. Pass. Auto, 1990-2013*



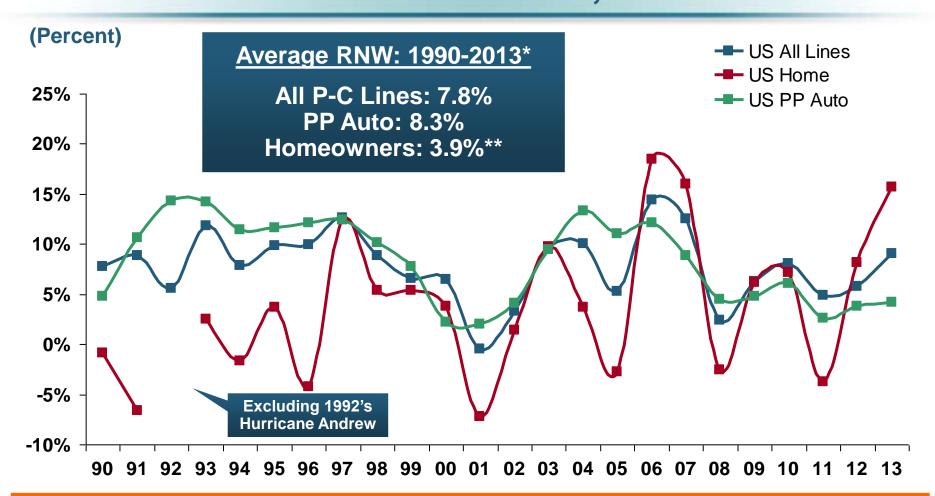


Pvt.Pass. Auto Has Consistently Outperformed the P-C Industry as a Whole. Homeowners Volatility is Associated Primarily With Coastal Exposure Issues

^{*}Latest available.

^{**}If 1992, the year of Hurricane Andrew is excluded, the resulting homeowners RNW is 3.9%. Sources: NAIC; Insurance Information Institute.





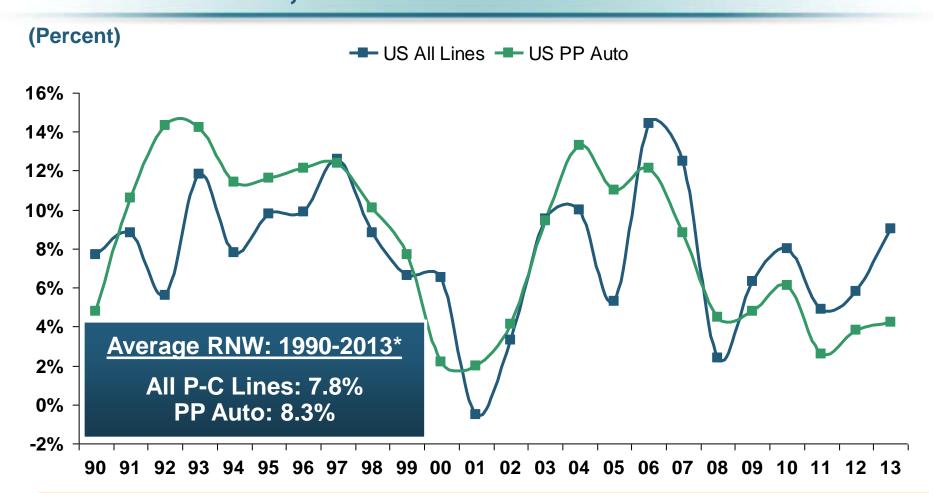
Pvt.Pass. Auto Has Consistently Outperformed the P-C Industry as a Whole. Homeowners Volatility is Associated Primarily With Coastal Exposure Issues

^{*}Latest available.

^{**}Excludes 1992, the year of Hurricane Andrew. If 1992 is included the resulting homeowners RNW is 1.5% Sources: NAIC; Insurance Information Institute.

Return on Net Worth: All P-C Lines vs. Pvt. Pass. Auto, 1990-2013*



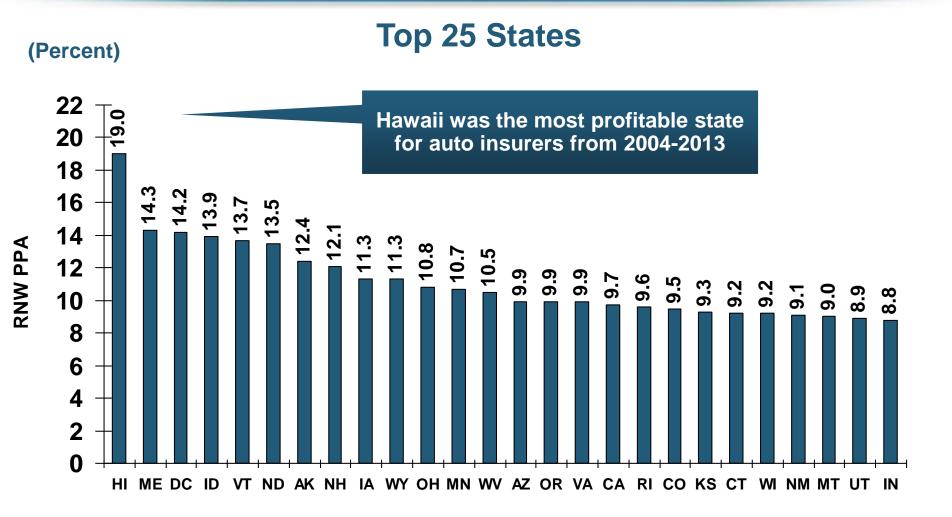


Pvt.Pass. Auto Profitability Has Exceeded the P-C Industry as a Whole in 13 of the 24 Years from 1990-2013 (Inclusive)

^{*}Latest available. Sources: NAIC.

Return on Net Worth: Pvt. Passenger Auto, 10-Year Average (2004-2013*)





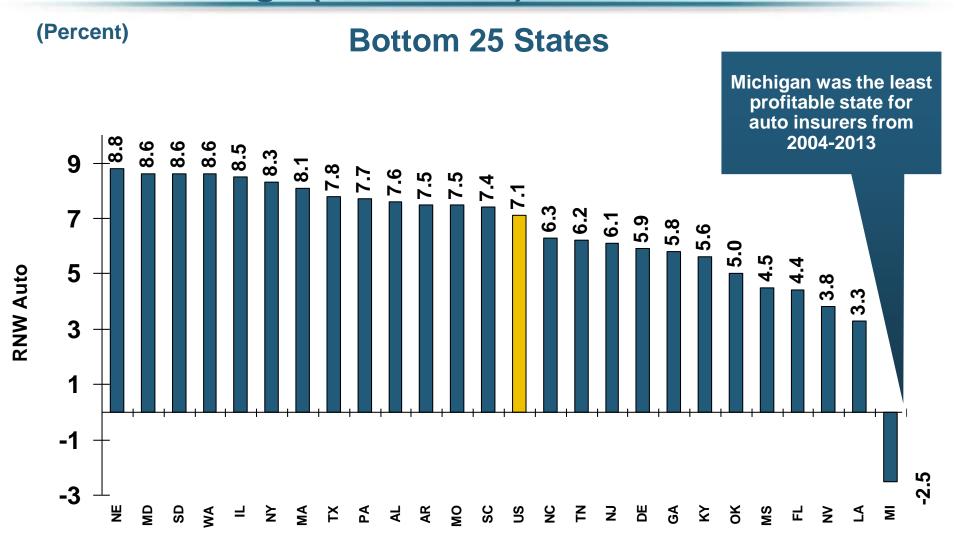
Sources: NAIC.

^{*}Latest available.

Return on Net Worth: Pvt. Passenger Auto, 10-Year Average (2004-2013*)



55



*Latest available.

Sources: NAIC

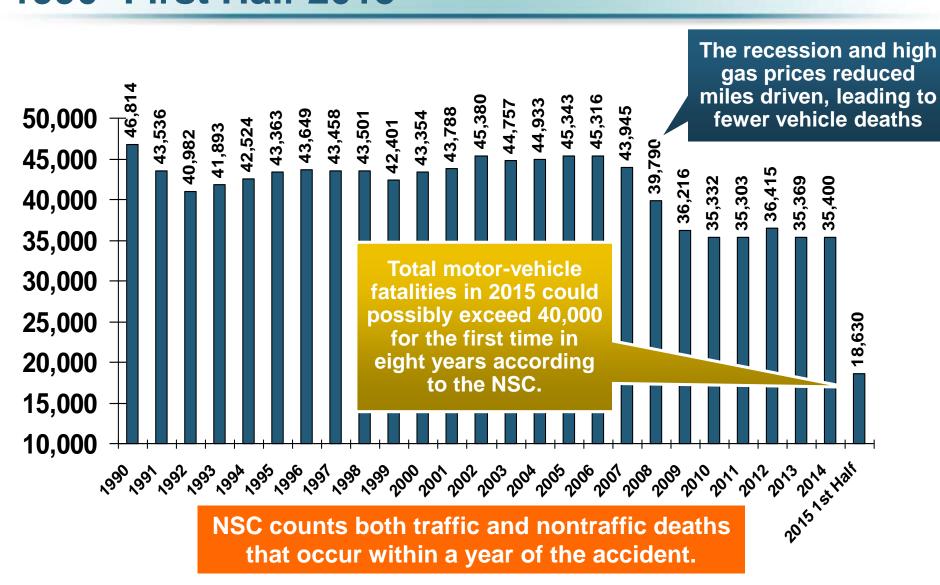


Claim Trends in Private Passenger Auto Insurance

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

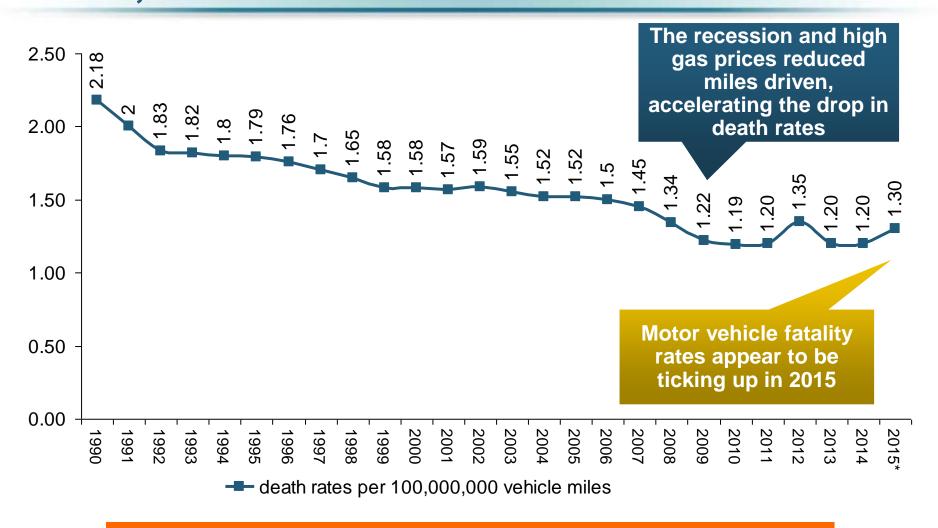
Number of Motor Vehicle Deaths, 1990- First Half 2015





Death Rates per 100,000,000 Vehicle miles, 1990-2015*





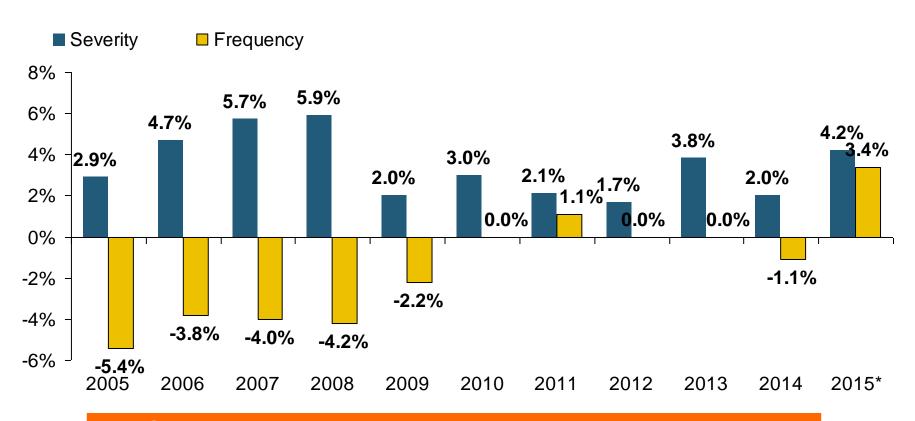
Vehicle death rates fell by nearly half between 1990 and 2010

^{*}Projected rate for 2015 based on date through June 2015. Source: National Safety Council; Insurance Information Institute.

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



Annual Change, 2005 through 2015:Q1*



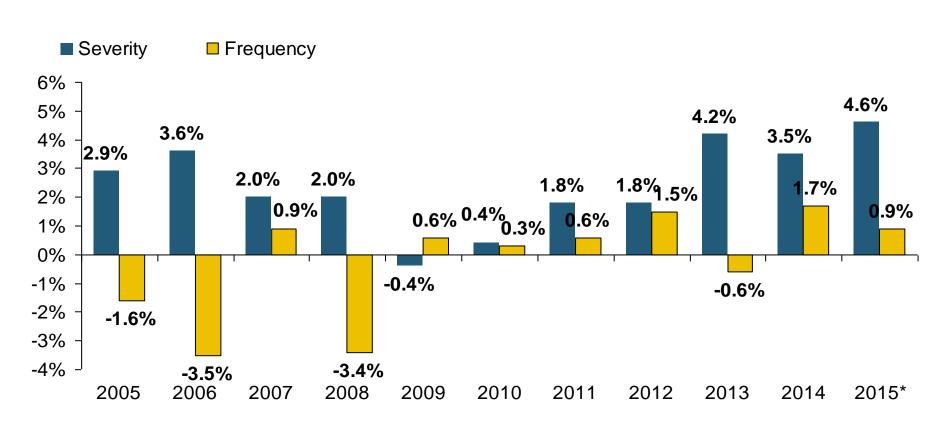
Cost Pressures Will Increase if BI Frequency and **Severity Trends Persist**

*2015 figure is for Q1 2015 over Q1 2014.

Property Damage Liability: Severity and Frequency Are Up



Annual Change, 2005 through 2015*



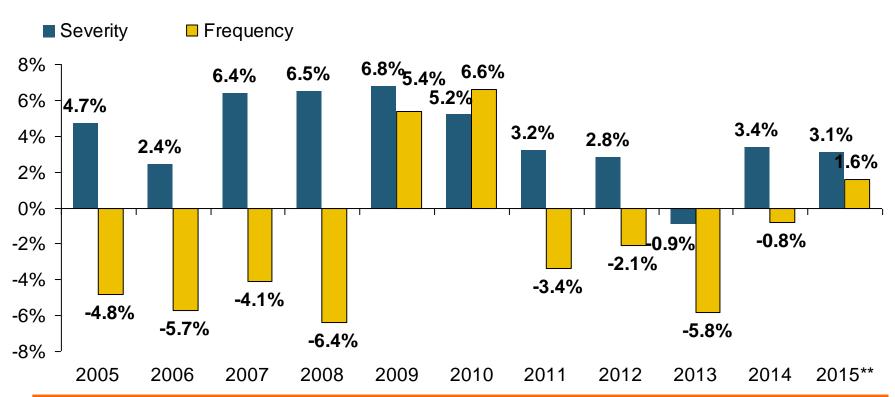
Severity/Frequency Trends Have Been Volatile, But Rising Severity since 2011 Is a Concern

*2015 figure is for the four quarters ending in 2015:Q1. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

No-Fault (PIP) Liability: Severity is Up, Frequency Relatively Flat*



Annual Change, 2005 through 2015**



No-Fault Systems Are Less Problematic in Some States but Still of Concern in Some, Such as MI

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

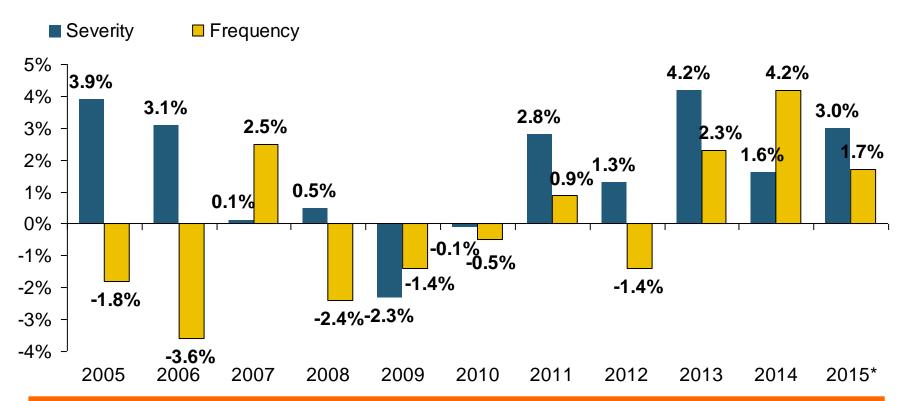
^{*}No-fault states included are: FL, HI, KS, KY, MA, MI, MN, NY, ND and UT.

^{**2015} figure is for the 4 quarters ending in 2015:Q1.

Collision Coverage: Severity & Frequency Trends Are Both Higher in 2015*



Annual Change, 2005 through 2015*

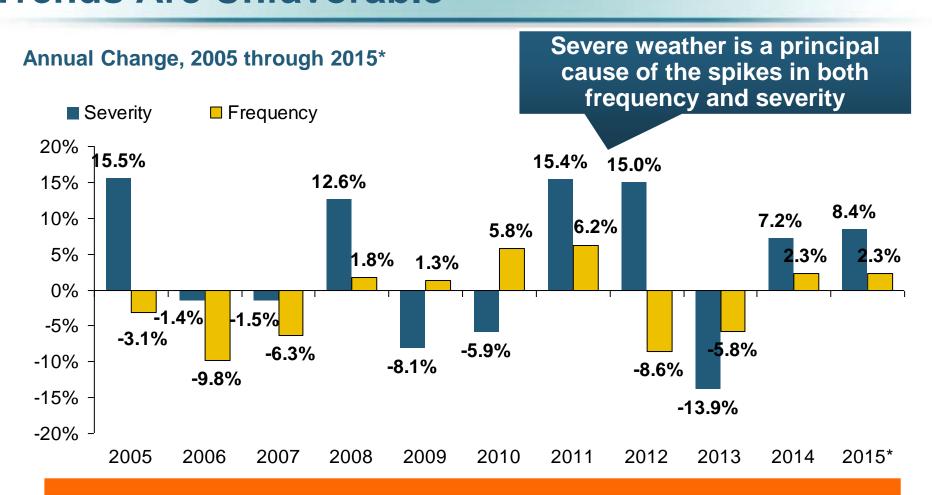


The Recession, High Fuel Prices Helped Temper Frequency and Severity, But this Trend Will Likely Be Reversed Based on Evidence from Past Recoveries

*2015 figure is for the 4 quarters ending with 2015:Q1. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

Comprehensive Coverage: Severity Trends Are Unfavorable





Weather Creates Volatility for Comprehensive Coverage

*2015 figure is for the 4 quarters ending with 2015:Q1. Source: ISO/PCI *Fast Track* data: Insurance Information Institute



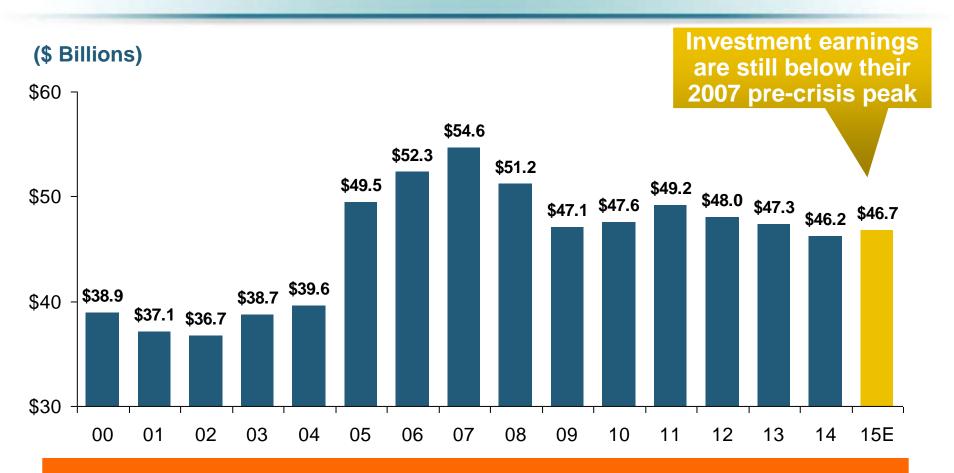
INVESTMENTS: LOW YIELDS EXERT RATE PRESSURE

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

Property/Casualty Insurance Industry Investment Income: 2000–2015E¹





Due to persistently low interest rates, investment income fell in 2012, 2013 and 2014.

¹ Investment gains consist primarily of interest and stock dividends. Sources: ISO; Insurance Information Institute.

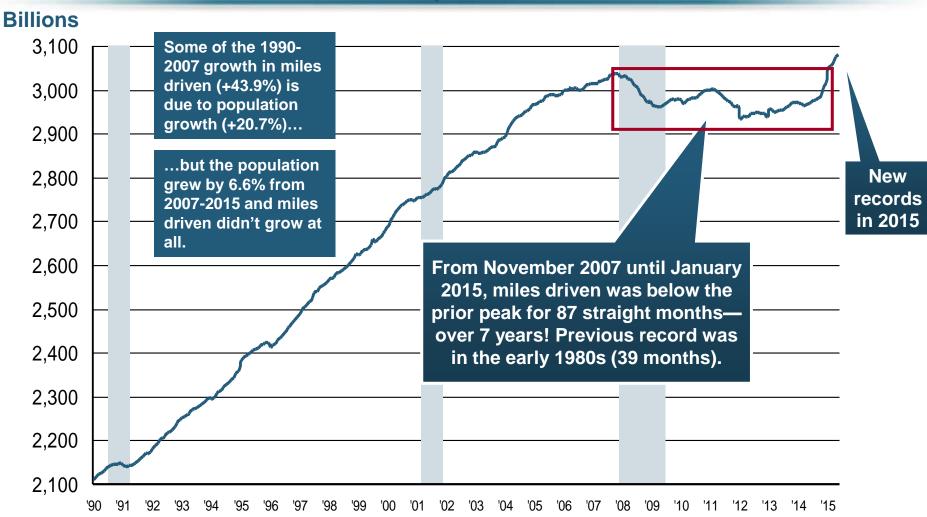


Driving Trends, Gas Prices

America's Love Affair with their Cars Is Far from Over

America is Driving More Again: Total Miles Driven*, 1990–2015





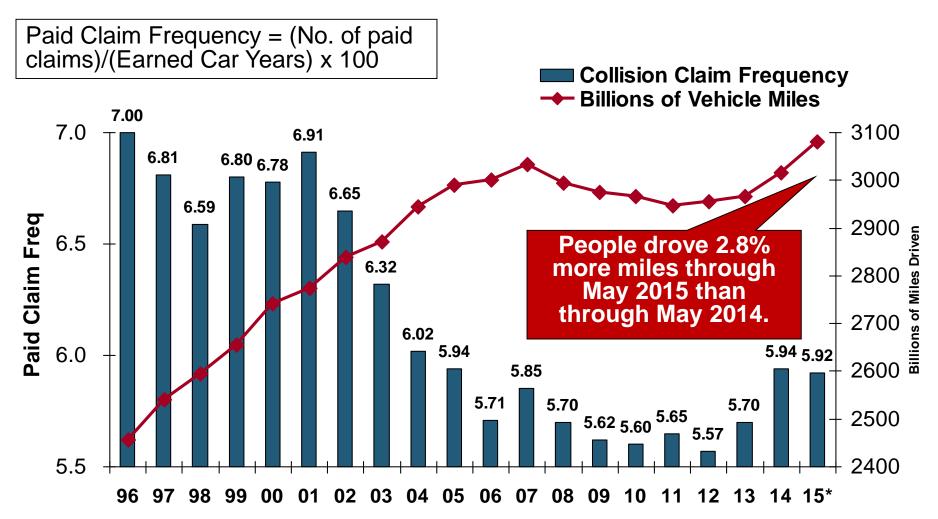
^{*}Moving 12-month total. The 2015 data are through May 2015, the latest available.

Note: Recessions indicated by gray shaded columns.

Sources: Federal Highway Administration (http://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm); National Bureau of Economic Research (recession dates); Insurance Information Institute.

Do Changes in Miles Driven Affect Auto Collision Claim Frequency?

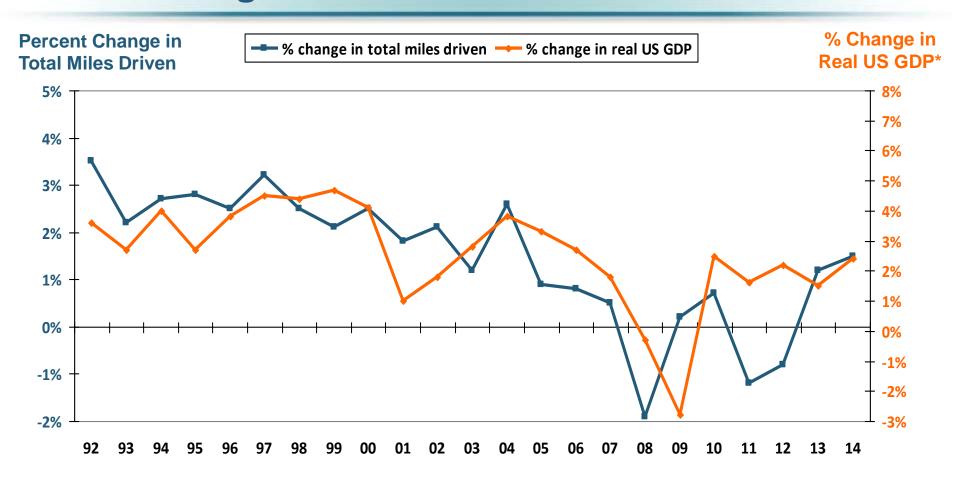




Sources: Federal Highway Administration (http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm; ISO Fast Track Monitoring System, *Private Passenger Automobile Fast Track Data*: 1st Qtr. 2015 and earlier reports. *2015 ISO figure is for 12 months ending 2015 Q1. FHA data for 2015 is 12-month moving average ending May 2015.

% Change in Real US GDP vs. % Change in Total Miles Driven





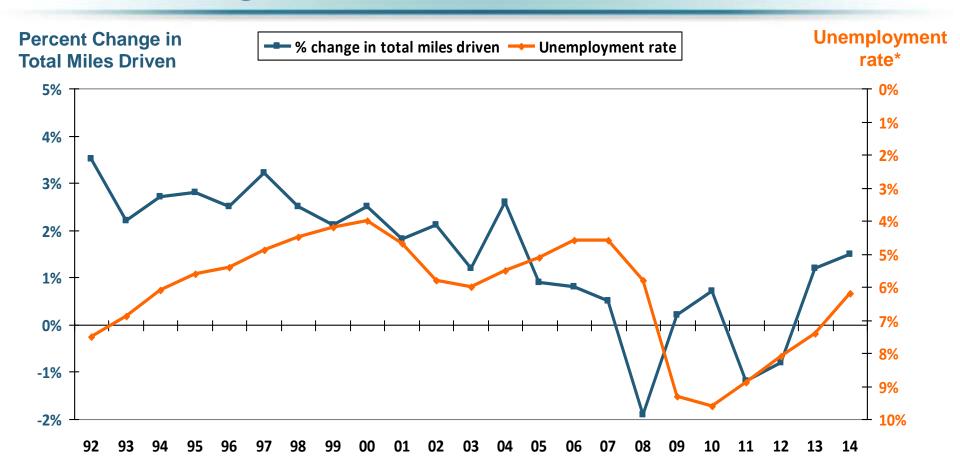
The percent change in miles driven tracked the growth of the national economy fairly well. If this holds, miles driven will continue to rise.

^{*}Data are annual rates

Sources: Federal Highway Administration (http://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm); www.bea.gov (real GDP); II.I.

The National Unemployment Rate vs. % Change in Total Miles Driven





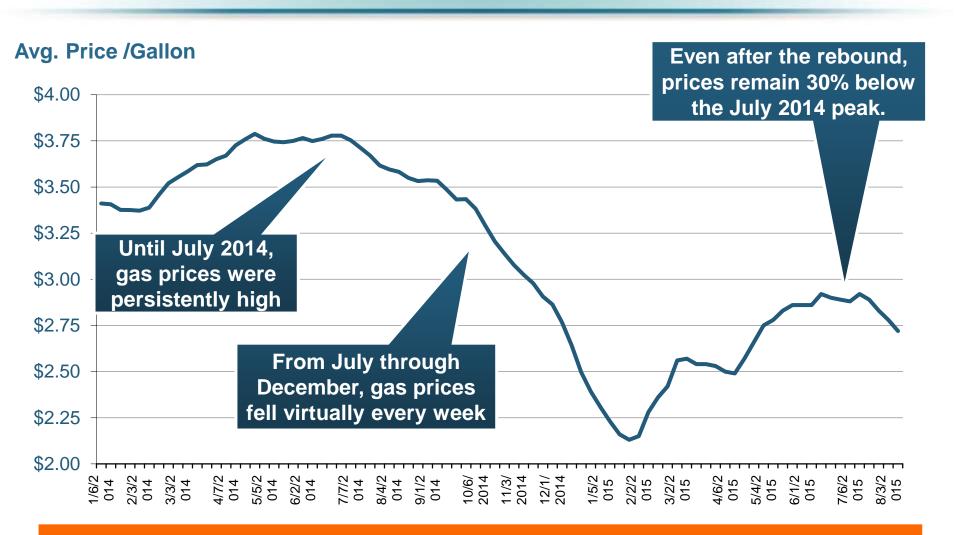
Starting in 1999, the percent change in miles driven tracked (led?) the national unemployment rate fairly well. If this holds, miles driven will continue to rise.

Sources: Federal Highway Administration (http://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm); www.bls.gov (unemployment rate); I I.I.

^{*}Data are annual rates

The Price of Gas, Weekly, 2014-2015



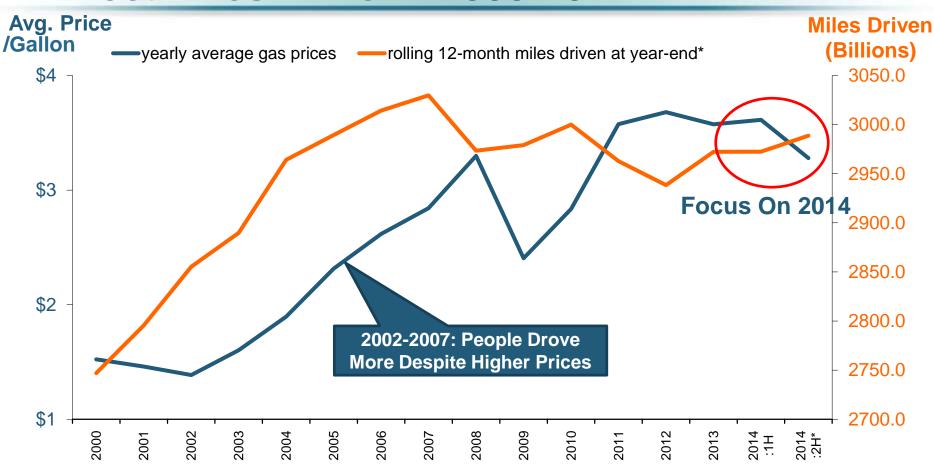


Gas Prices Fell 34% Over the Second Half of the 2014

Price is U.S. All Grades All Formulations Retail Gasoline Prices, through August 10, 2015 Sources: Federal Energy Administration (http://www.eia.gov/petroleum/gasdiesel/); I.I.I.

Did Changes in Gas Prices Affect Miles Driven? 2000-2014



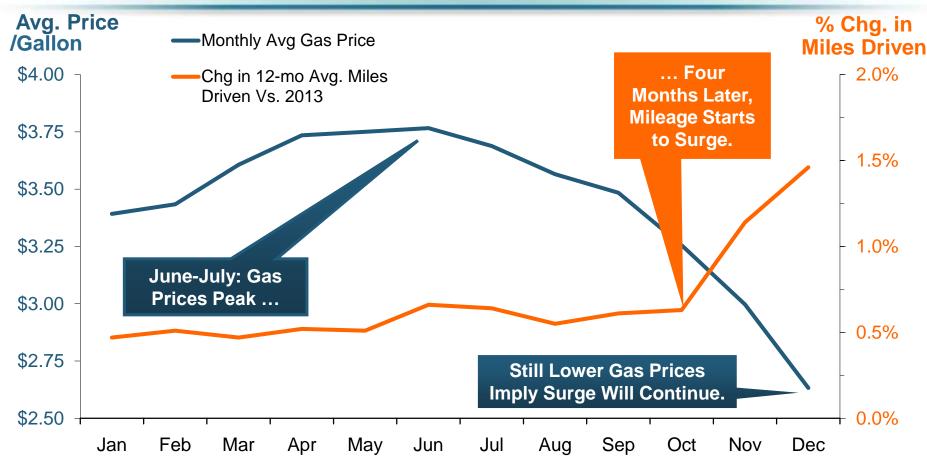


Many Factors Affect Miles Driven: The State of Economy, Weather, Gas Prices, Etc.

Sources: Federal Energy Administration (http://www.eia.gov/petroleum/gasdiesel/); *gas prices and miles driven through December Federal Highway Administration (http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm); I.I.I.

Did Changes in Gas Prices Affect Miles Driven? A Closer Look at 2014



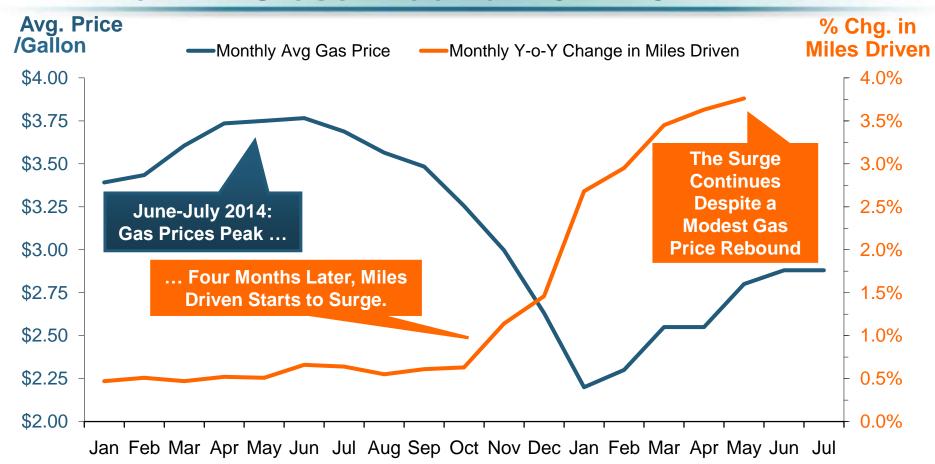


Prior research on the relationship between gas prices and miles driven says that, in the short run, an increase in gas prices produces little change in miles driven. No recent research on the effect of price drops.

Sources: Federal Energy Administration (http://www.eia.gov/petroleum/gasdiesel/); *gas prices and miles driven through December Federal Highway Administration (http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm); I.I.I.

Do Changes in Gas Prices Affect Miles Driven? A Closer Look at 2014-15



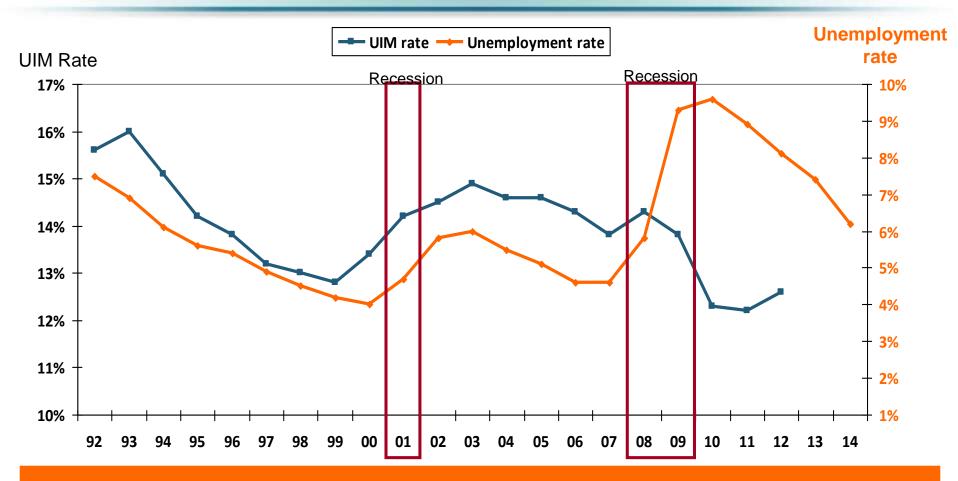


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Sources: Federal Energy Administration (http://www.eia.gov/petroleum/gasdiesel/); *gas prices through July 2015 Federal Highway Administration (http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm) miles driven through May 2015; I.I.I.

The National Unemployment Rate vs. the Estimated Uninsured Motorists Rate





Until 2008, the UIM rate appeared to track the national unemployment rate (as we would expect), but the two have diverged since then.

Data are annual rates

Sources: Insurance Research Council (UIM); www.bls.gov (unemployment rate); I I.I.

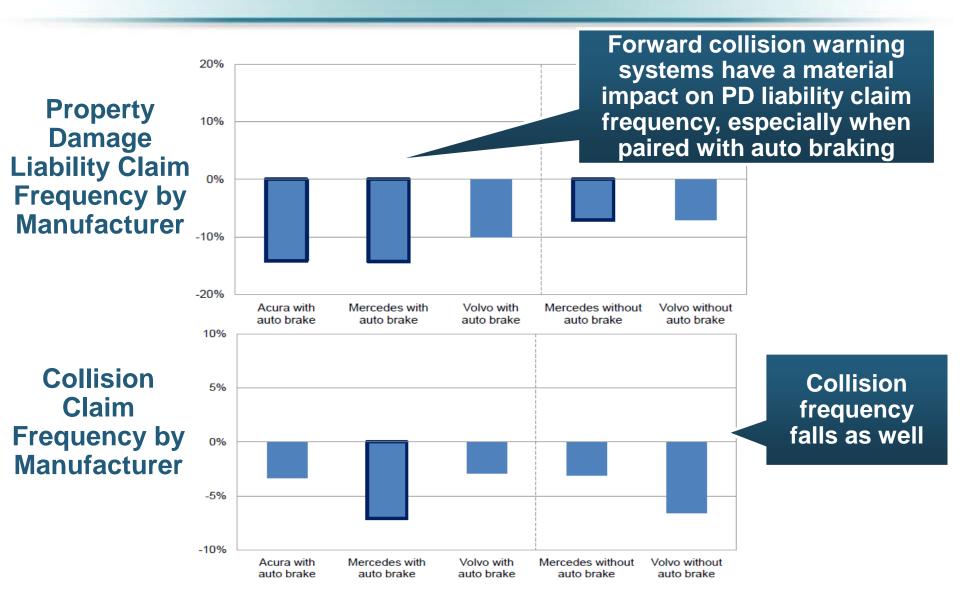


The Future of Auto Insurance?

Some Analysts and Many in Silicon Valley Are Predicting Doom for Auto Insurers

Impact of Forward Collision Warning With and Without Auto Brake





Source: Highway Loss Data Institute and Insurance Institute for Highway Safety presentation by Matthew Moore, *Measuring Crash Avoidance System Effectiveness with Insurance Data*," January 30 2013; Insurance Information Institute.

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? (cars/sales)
- Will the number of auto insurers shrink?
- How will liability shift?

Source: Boston Consulting Group; Insurance Information Institute.



Price Optimization in Auto Insurance Markets Actuarial, Economic and Regulatory Considerations

National Conference of Insurance Legislators Indianapolis, IN July 17, 2015

Robert P. Hartwig, Ph.D., CPCU, President & Economist Insurance Information Institute ◆ 110 William Street ◆ New York, NY 10038

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Price Optimization

Healthy Markets, Strong Competition, Satisfied Consumers Why the Controversy?

I.I.I. Actions: NCOIL Hearing Testimony



PRICE OPTIMIZATION IN AUTO INSURANCE MARKETS

Actuarial, Economic and Regulatory Considerations

Robert P. Hartwig, Ph.D., CPCU

Testified as industry's witness at July 17
National Conference of Insurance Legislators' hearing on Price Optimization;

Worked very closely with PCI, AIA, NAMIC and independent companies.

Price Optimization: What is It?



- Significant Discussion of Price Optimization Issue in Recent Months
- Several States Have Issued Bulletins Addressing Its Use
 - Requests for information in several other states
- Each State Defines Price Optimization Differently
 - At least 7 definitions from states; NAIC, vendors and others
- States' Concerns Come Despite Absence of Any Discernable or Detectable Market Disruptions
 - Competition in auto insurance markets is intense, healthy and vigorous
 - More than 99% of drivers are insured through the voluntary market
 - Absence of consumer complaints
 - High degree of consumer satisfaction with auto insurers
 - Empowered Consumers: Have more tools available today than ever before to help them shop, collect and compare prices
 - Rates are not inadequate, excessive or unfairly discriminatory



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www.iii.org

Thank you for your time and your attention!

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