

# Mega-Trends Influencing the Future of Auto Insurance

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## **Competition in the Auto Insurance Market**

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## In Many States, the PP Auto Market in 2009 was Highly Competitive



An HHI Under 1000 is Generally Considered a Highly Competitive Market; HHIs Between 1000 and 1800 Indicate a Moderately Competitive Market; Over 1800 Suggests a Concentrated Market

\*Herfindahl-Hirschman Index, a standard measure of market concentration Sources: Insurance Information Institute research from SNL Financial. ISURANC



## What HHIs of 775 and 1200 Look Like



Sources: SNL Financial; Insurance Information Institute

## PP Auto Competitive Environment Varies by State and Region\*



\*Data for 2009 Sources: SNL Financial; Insurance Information Institute. INSURANCE

## PP Auto Competitive Environment Varies by State and Region\* (cont'd)



<sup>\*</sup>Data for 2009 Sources: SNL Financial; Insurance Information Institute.

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## **Profitability in the Auto Insurance Market**

## Auto Insurance Return on Net Worth, 2008, Varies by Line, State and Region



Sources: NAIC Report on Profitability by Line by State in 2008, pp. 103-104, 109-110; Insurance Information Institute.

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# Premium Growth Trends in Auto Insurance

## They're Not In Sync With the Economy

# Monthly Change\* in Auto Insurance Prices, 2005-2010



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

### **Average Expenditures on Auto Insurance**



## Countrywide Auto Insurance Expenditures Increased 2.6% in 2008 and 4.5% Pace in 2009 (est.) and 5% in 2010 (est.)

\* Insurance Information Institute Estimates/Forecasts

Sources: NAIC, Insurance Information Institute estimates 2008-2010 based on CPI data for Auto Insurance.

## Private Passenger Auto Insurance Net Written Premium, 2000–2009



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## Commercial Auto Insurance Net Written Premium, 2000–2009



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





## **Exposure Drivers in Auto Insurance**

## **Registered Passenger Cars** and Other 2-axle, 4-tire Vehicles



## It is likely that the number of vehicles dropped during and following the "Great Recession." Recovery depends on employment and lending trends.

Sources: <u>http://www.bts.gov/publications/national transportation statistics/html/table 01 11.html</u> Insurance Information Institute

## Auto/Light Truck Sales, 1999-2011F



#### Car/Light Truck Sales Will Recover from the 2009 Low Point, but High Unemployment, Tight Credit Are Still Restraining Sales; Gas Prices Could Once Again Become a Factor Too

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (9/10); Insurance Information Institute.

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## Miles Driven\*, 1990-2010\*\*





#### Two of the past three recessions temporarily slowed the rise in miles driven.

\*Moving 12-month total \*\*Most recent month is July 2010. Note: Recessions indicated by gray shaded columns. Sources: Federal Highway Administration (<u>http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm</u>); National Bureau of Economic Research (recession dates); Insurance Information Institute.

## Do Changes in Miles Driven Affect Auto Collision Claim Frequency? No.





Sources: Federal Highway Administration (<u>http://www.fhwa.dot.gov/ohim/tvtw/09dectvt/page2.cfm</u>; ISO Fast Track Monitoring System, *Private Passenger Automobile Fast Track Data*: 2nd Qtr. 2010, published Sep. 30, 2010 and earlier reports. \*2010 FHWA and ISO figures are for 12 months ending 6/30/2010.

## Auto Insurance: Claim Frequency Impacts of Energy Crisis/Recession of 1973/74



Source: ISO, US DOT.

## Auto Insurance: Claim Severity Impacts of Energy Crisis/Recession of 1973/74



\*Seasonally Adjusted, Quarterly Paid Fast Track data indexed to First Quarter 1973.

Source: ISO.



# Commercial Auto Will Also See Slow Growth

## Real GDP Growth, Yearly, 1970-2014F



#### **Real GDP Growth (%)**



Estimates/Forecasts from Blue Chip Economic Indicators, 10/2010 issue. Sources: (GDP) U.S. Department of Commerce at <u>http://www.bea.gov/national/xls/gdpchg.xls</u>.

## Recovery in Capacity Utilization is a Positive Sign for Commercial Exposures

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Source: Federal Reserve Board statistical releases at <u>http://www.federalreserve.gov/releases/g17/Current/default.htm</u>.

## Business Bankruptcy Filings, 1980-2010:Q2



#### Significant Exposure Implications for All Commercial Lines

## Private Sector Business Starts, Quarterly, 1993:Q2 – 2009:Q4\*



#### Business Starts Are Down Nearly 20% in the Current Downturn, Holding Back Most Types of Commercial Insurance Exposure

\*Latest available as of October 11, 2010, seasonally adjusted Source: Bureau of Labor Statistics, <u>http://www.bls.gov/news.release/cewbd.t07.htm</u>.

## Net New Business Formations\* 1999:Q1-2009:Q1\*



## Net Business Formations Likely Were Positive Again, at Least in the Fourth Quarter of 2009 and into 2010.

\*Seasonally adjusted. Net formations equals Business "births" minus business "deaths." Latest data on business "deaths" is for 2009:Q1. Sources: Bureau of Labor Statistics at <a href="http://www.bls.gov/news.release/cewbd.t07.htm">http://www.bls.gov/news.release/cewbd.t07.htm</a>; Insurance Information Institute.

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## Unemployment and Underemployment Rates: Is the Worst Over?





Source: U.S. Bureau of Labor Statistics; Insurance Information Institute.

## Unemployment's Effect on Percent of Uninsured Motorists, 1989-2014F



Source: *Uninsured Motorists, 2008* Edition, Insurance Research Council; Blue Chip Economic Indicators (Unemployment data, including forecasts); Insurance Information Institute. The regression equation IRC developed is Y=0.103 + 0.7659X, where X= the unemployment rate and Y is the estimated percent of uninsured motorists.

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# Underwriting Trends in Auto Insurance

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# Auto Combined Ratios vs. All Lines, 2000–2010P\*



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

#### 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

\*Based on 2008 Invested Assets and Earned Premiums Source: A.M. Best; Insurance Information Institute.





## **Claim Trends**

## Rising Severity Held in Check by Falling Frequency: Can That Pattern Be Sustained?

## PPAuto Bodily Injury Liability: Severity Trends Offset the Decline in Frequency

#### Annual Change, 2005 through 2010\*



#### Cost Pressures Will Increase if BI Severity Increases Outpace Declines in Frequency

\*For 2010, data are for the 4 quarters ending with 2010:Q2. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

### PPAuto Property Damage Liability: Frequency, Severity Trends Offset in 2009/10



#### Annual Change, 2005 through 2010\*



## Stable Severity/Frequency Trends Keeping PD Costs in Check, But Are These Trends Sustainable?

\*For 2010, data are for the 4 quarters ending with 2010:Q2. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

## No-Fault (PIP) Liability: Frequency & F Severity Trends Are Adverse\*

#### Annual Change, 2005 through 2010\*



#### Multiple States Are Experiencing Severe Fraud and Abuse Problems in their No-Fault Systems, Especially FL, MI, NY and NJ

\*No-fault states included are: FL, HI, KS, KY, MA, MI, MN, NY, ND and UT; 2010 data are for the 4 quarters ending 2010:Q2. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

## **Collision Coverage: Frequency and Severity Trends Have Been Favorable**

#### Annual Change, 2005 through 2010\*



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

\*For 2010, data are for the 4 quarters ending with 2010:Q2. Source: ISO/PCI *Fast Track* data; Insurance Information Institute

## **Comprehensive Coverage: Severity Trends Very Favorable in 2009/2010**

#### Annual Change, 2005 through 2010\*



Weather Creates Volatility for Comprehensive Coverage; Recession Has Helped Push Down Frequency and Temper Severity, But This Factors Will Weaken as Economy Recovers

\*For 2010, data are for the 4 quarters ending with 2010:Q2. Source: ISO/PCI *Fast Track* data; Insurance Information Institute NSUDANC





## Inflation

## Subdued Inflation Doesn't Reflect P/C Cost Pressures

## Annual Inflation Rates (CPI-U, %), 1990–2014F

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#### The Consumer Price Index is Forecast to Remain Unusually Low for Several Years

Sources: U.S. Bureau of Labor Statistics (history); Blue Chip Economic Indicators, Oct 2010 (forecasts).

## Auto BI Liability Insurers Feel Higher Inflation than the CPI Measures



#### Healthcare Costs Are a Major Auto BI Liability Insurance Cost Driver. They Are Likely to Increase Faster than the CPI for the Next Few Years, at Least

Source: Bureau of Labor Statistics; Insurance Information Institute.

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## Auto Physical Damage Insurers Feel Higher Inflation than the CPI Measures



Sources: U.S. Dept of Labor, Bureau of Labor Statistics; Insurance Information Institute

#### All Segments of French Motor Insurance Costs Have Grown Faster than the CPI for Over 20 Years





Source : Fédération Française des Sociétés d'Assurance

## **Top Risks for Auto Insurers if Inflation Is Reignited**



### Rising Claim Severities

 Cost of claims settlement rises across the board (property and liability)

#### Rate Inadequacy

 Rates inadequate due to low trend assumptions arising from use of historical data

#### Reserve Inadequacy

 Reserves may develop adversely and become inadequate (deficient)

### Burn Through on Retentions

Retentions, deductibles burned through more quickly

#### Reinsurance Penetration/Exhaustion

 ◆ Higher costs → risks burn through their retentions more quickly, tapping into reinsurance more quickly and potentially exhausting their reinsurance more quickly

Source: Insurance Information Institute.

## We Can Have Inflation Despite High Unemployment



- We can "import" inflation.
  - For example, China is raising interest rates to tame a growing inflation rate. If the prices of things we import rise, importers will try to pass these increases along to buyers.
  - And if the dollar depreciates vs. currencies of nations from which we import, the dollar price of imports will rise.

We had high inflation during the 1980 and 1981-82 recessions.



## **The Aging Population**

# Increase in Population by Age Category, 2010 to 2020



Claim Trends in Personal Lines Will Shift With Demographics; Insurers Must Adapt

Source: US Census Bureau

## Labor Force Participation Rate, Ages 55-64, Quarterly, 1998-2010:Q3



The labor force participation rate for workers 55-64 grew from about 59% in 2000 to 64% by 2006 and then flattened, but might be inching up again.

Source: US Bureau of Labor Statistics, US Department of Labor; Insurance Information Institute.

66%

64%

62%

60%

58%

56%

## Labor Force Participation Rate, Ages 55-64, Quarterly, 1998-2018P



## Labor Force Participation Rate, Ages 65-69, Quarterly, 1998-2010:Q3



### Labor Force Participation Rate, Ages 70-74, Quarterly, 1998-2010:Q3





## Labor Force Participation Rate, Ages 75 & over, Quarterly, 1998-2010:Q3



## Younger and Older Drivers Are Over-Represented in Fatal Crashes





#### Immigration and High Birth Rates in Some Demographic Groups, Combined With Baby Boomers Aging Creates Challenges for Insurers and Auto Safety Experts

Sources: US DOT, NHTSA, Federal Highway Administration; Insurance Information Institute

## Motor Vehicle Deaths per 100,000 Persons by Age, 2008

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The elderly are almost as likely to be killed in a motor vehicle accident as a teenager. As the Baby Boomers age, this is a looming public health crisis



#### Problem: How to Keep the Elderly Safe in Cars (Not Just When They're Behind the Wheel)

Sources: Insurance Institute for Highway Safety; Insurance Information Institute





# Fraud & Abuse in Private Passenger Auto Insurance

## Skyrocketing No-Fault (PIP) Claim Costs Are a Major Concern in Several States

# Increase in No-Fault Claim Severity: 2004-2010\*



The no-fault systems in MI, NJ, NY, FL, and MN are under stress due to rising fraud and abuse which will ultimately lead to higher premiums for drivers

\*2010 figure is for the 4 quarters ending 2010:Q2. Sources: Insurance Information Institute research from ISO/PCI *Fast Track* data. NSURANCE

# New York State No-Fault Claim Severity, 2001:Q1–2010:Q2

#### **No-Fault Claim Severity**

**No-Fault Claim Frequency** 



#### About 20% of No-Fault Claim Costs Are Attributable to Fraud and Abuse

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

## Estimated Per-Claim Cost of No-Fault Fraud in New York State, 2005-2010F\*



\*No-fault severity reached a post-reform low in 2004 before, hence selection of 2005 as the first year of analysis. Actual no-fault losses in 2005 and beyond are higher than estimates indicate due to base level of fraud imbedded in 2004 data.

\*\*2009 figure is estimated based on 4 quarters ending 2009:Q3 (latest available).

Source: Insurance Information Institute analysis and research.

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