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Property & casualty trend report

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Cyber crime, driverless autos, and on-demand services present emerging opportunities for insurance companies.

During a recent conference call addressing Tesla's 2015 third-quarter earnings, CEO Elon Musk provided listeners with his vision for the automobile's future. "All cars will go fully autonomous in the long term," he said, adding that it would be "quite unusual to see cars that don't have full autonomy" within the next 20 years (and far sooner for Teslas).

The switch will be driven by a growing perception that manual steering cars are inferior — so much so that they will have "negative value," according to Musk. "It will be like owning a horse."

The sentiment is one that is not lost on the insurance industry. "If true, how will that impact the insurance industry? Will auto insurers go away?" asked Travis Grulkowski, principal

and consulting actuary for Milliman, Inc., an independent actuarial consulting firm, at the Sixth Annual Plante Moran Insurance Conference, held Oct. 22, 2015, in Chicago. It's not science fiction fantasy, either, but a reality that has begun to play out and reshape notions of liability, as driverless cars — hello, Google! — are making their way onto U.S. roads.

“If something in the software malfunctions, who would be responsible?” Grulkowski asked conference attendees, introducing driverless cars as one of several emerging property and casualty insurance industry trends. And to fully appreciate evolving risks and opportunities, it's instructive to understand current industry results and performance that impact growth strategies.

2014 Insurance P&C Industry Results

DPW growth

“After 9/11, the insurance industry went through a market hardening,” Grulkowski, said, “during which rates and the volume of premiums increased.” Those numbers stabilized and even dipped beginning with the 2007 downturn, only to creep up again beginning in 2011, with total DPW (direct written premiums) topping \$500 billion in 2012.

Leading the DPW growth from 2007–2014 was North Dakota (+70.7 percent), followed by Oklahoma (36.7 percent), South Dakota (36.2 percent), and Texas (+30.3 percent). “The big growth leaders are the energy states,” Grulkowski said. Compared to policyholder surplus, DPW carried a nearly 1:1 ratio until 2009, after which the latter began increasing much quicker. “There's a lot of excess capacity and competition today, which is sending

rates downward.”

Investment income

“Investment income is huge to a company’s bottom line,” Grulkowski said, which is still below its 2007 pre-crisis peak (projected \$46.7 billion/2014 vs. \$54.6 billion/2007). The reasons? “Due to persistently low interest rates, investment income fell in 2012 (-\$1.2 billion), 2013 (-\$0.7 billion), and 2014 (-\$0.9 billion). Additionally, “property and casualty companies are generally fairly conservative investors, with roughly 80 percent of their assets today in low-yield investments.”

Aggregate Combined P&C Ratios

- Private passenger auto: “This has remained a very stable line of coverage,” Grulkowski said, noting underwriting performance has exhibited “remarkable stability.” From 1993–2014, the combined ratio has fluctuated narrowly, from a peak of 109.5 (2000) to a low of 94.3 (2004), before settling at 102.4 in 2014.
- Homeowners insurance: Combined ratios have exhibited sharp swings coinciding with major natural disasters. “Extreme regional variations can be expected due to local catastrophe loss activity,” Grulkowski said. Since 1990, the combined ratio reached a high of 158.4 (Hurricane Andrew in 1992), followed by other sharp increases during the years of Hurricane Ike (114.5/2008), Hurricane Sandy (101.4/2012), and record tornado activity (119.4/2011).
- General liability: “Commercial general liability underwriting performance has been volatile in recent years,” Grulkowski said. “A difficult line of business accompanied by 6 percent rate increases for the last few years. That’s helped a little but it’s still not where it needs to be for profitability.”
- Workers’ compensation: This line of business has fluctuated widely, though results have been steadily improving since 2012. “This line of business is heavily regulated, so

while states might want to charge 10 percent or more, it's generally not tolerated.”

- **Commercial auto:** Following a 20-year high combined ratio of 118.1 (1999), this line of business dropped sharply from 2002 to 2005, before rising slowly and settling at 103.4 last year. “Commercial auto is expected to improve only slowly as rate gains barely offset adverse frequency and severity trends,” Grulkowski remarked.
- **Commercial property:** “Underwriting performance here has been volatile in recent years, largely due to fluctuations in catastrophic activity,” Grulkowski noted. The past two years have seen low combined ratios: 82.7 (2013) and 85.8 (2014); projections for 2015 and 2016 remain strong (90.1 and 90.7, respectively).
- **Inland marine:** Since 2004, inland marine underwriting performance has been consistently strong, with combined ratios ranging from 77.3 (2006) to 97.1 (2011). “Ratios are typically in the 80s, which is very good,” Grulkowski stated.
- **Medical professional liability:** “This line of business has been very good for the past 10 years or so, and rates are now going down,” Grulkowski said. “The only negative: There is an increase in medical defense spending.”

Emerging Products and Trends

Cyber

Looking forward, Grulkowski began by citing a 2015 Allianz Risk Barometer on Business Risks survey, which laid out the top risk concerns of corporate CFOs. And making the largest leap in this year's survey to move into the top five: cyber crime (topped only by regulations, fire, natural catastrophes, and supply chain risk).

“The total number of major data breaches hit a record high of 783 in 2014,” Grulkowski said, “exposing 85.6 million records.” The trend has continued in 2015, with more than 400 breaches occurring in the first half of the year, compromising 117.6 million records.

As a result, global cybersecurity spending is rising sharply, up 8 percent annually over the past several years to a projected \$76.9 billion in 2015. These threats are evolving from a number of sources, including:

- State-sponsored groups
- Organized cyber criminals
- “Hacktivists”
- Corporate insiders
- Terrorists

In response to this growing threat, insurers are offering a number of cyber risk products that address loss prevention, loss transfer, and post-breach response activities. Collectively, those products seek to reduce, mitigate, and even prevent loss.

Driverless cars

Some industry experts have estimated that over the next two decades, up to 25 percent of new vehicle sales could be fully autonomous, with combined sales of fully and partially autonomous vehicles topping 30 million units. “Are auto insurers monitoring these trends,” Grulkowski asked rhetorically. “If so, how are they reacting?” It’s not too far-fetched to imagine Google entering the marketplace, with its own advanced program of self-driving cars already navigating U.S. roads.

Peer-to-peer

Today's "on demand" economy — with increasing influence by Uber and Lyft (transportation), Airbnb (lodging), and Task Rabbit (household errands) — is changing the way we view insurance and liability. "Do claims fall under workers' comp? Or homeowners?" Grulkowski asked. "Insurance solutions are increasingly available to fill the many insurance gaps that are arising."

Drones

Over the past several years, unmanned aerial vehicle (UAV) technology has progressed, with many industries, including insurance, adopting UAV initiatives. At least five insurers have received permission to test UAVs, which offer a range of applications, including claims and pre-event property inspections — not to mention the risks accompanying operations.

As these and other changes continue to emerge and evolve, "the insurance industry is finding a way to deal with these new technologies, products, and risks," Grulkowski said. "And the market will continue to react and evolve."



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