Commercial Auto Unprofitability Not All That It Seems

Why the commercial auto line is a mess

Commercial auto insurance is an unprofitable mess. It's putting some companies out of business. Among the other commercial lines, commercial auto sticks out like a sore thumb. Unprofitable for eight years, the line is making life difficult for insurance agents, brokers and their clients.

My article, "*Commerical Auto Woes*", takes an in-depth and rare look into what is *really* going on with commercial auto insurance. I went beyond the standard explanation that premiums are higher due to rising costs. Actually, that is a small piece of the story.

Why is the line in crisis? The article gets into much greater detail, but here are two hints: market changes and technological innovation. And of course, an unprofitable line does not mean that all insurers are suffering. Some are doing quite well, thank you very much.

Improving Commercial Auto

Upon completing the article, it became clear to me that there are several areas to improve. Insurers and the companies they cover need to get religion on workplace safety. That happened 25 years ago in workers' compensation and it put the line on a more solid foundation.

Further, there is a lot more to study about work-related transportation. Traffic, personal auto insurance and workers' compensation studies offer limited application commercial auto insurance. There are other factors involved in commercial auto that range from vehicle size to the impact of federal regulations and employee training.

I went beyond the standard explanation that premiums are higher due to rising costs.

Meaningful granular data is tough to come by, which makes it especially challenging to evaluate the health of an insurance line. For insurers that cover a variety of risks, including trucks, it can be tough to go granular. To better compete, carriers need to know more.

Marijuana Industry Insurance Options Grow, But Practical and Moral Issues Remain

The marijuana industry is attracting more attention from business insurance agents and brokers. As I explain in my Leader's Edge article, Budding Business, the burgeoning legal pot industry is calling for more insurance options.

However, insurance companies selling business insurance are not exactly jumping at the chance to offer the full array of coverages enjoyed by other industries. Excess and surplus carriers, which thrive in high-risk insurance markets, are providing coverage to an extent. However, admitted insurers, which are subject to state regulation, are not jumping at the opportunity.

My article digs into the marijuana industry's growing pains, the coverage gaps it is facing and some of the reasons why. Experts point to federal laws and regulations causing difficulty for financial institutions, including insurance companies. However, covering marijuana remains quite risky and unpredictable. The liability considerations alone are enough to discourage insurers. Think Big Tobacco and play it forward.

Think Big Tobacco and play it forward.

Speaking of the effects of tobacco on society, there are also insurance executives who see the moral and ethical implications of supporting a substance with a checkered past that marijuana legalization does not address. And despite the general media's general positive coverage of pot, it remains as harmful as it always was.

Thankfully, you will find balanced reporting in both my Leader's Edge and Actuarial Review articles about marijuana. Both of which are published by insurance industry associations willing to support thoughtful journalism.

A read of both articles shows that in the property & casualty insurance arena, different types of insurance are at odds with each other. Business insurance, which covers the marijuana industry, collides with personal and commercial auto coverage, which pay for the accidents caused by the drug. Workers' comp insurers face covering injuries from both the production and the use of pot at the workplace.

My hope is that this article will be shared with a wider audience. In my view, marijuana should be treated with respect as any other drug. That means regulating it through the U.S. Food and Drug Administration. This would also ensure greater research and product dosage consistency. While the FDA is imperfect, it is better than treating a drug known to cause impairment as an herbal supplement.

Emerging Risks Insurers Are Watching — and So Should You

Emerging risks are a mixture of perception and reality. If you asked executives in 1999 to name one of their top

The experts weigh in on emerging risks.

concerns, many would have answered Y2K. It turned out Y2K caused a lot of hysteria and a lot of computer consultants made a ton in the process.

Then there are the risks that people don't perceive but insurers do. Auto insurers know most accidents take place within a five-mile radius of the home. Drivers do not think about that when getting on the road.

Insurers, actuaries, risk managers and world leaders see emerging risks from the broader perspective. Insurers have to think ahead to figure out which emerging risks they can cover and the cost.

My most recent *Actuarial Review* article considers three recent surveys to break down five emerging risks from the insurance and business perspective. Consumers can benefit from the article as well.

Climate change bypassed cyber risk as the largest emerging risk of concern. One source said off the record that this is largely due to news coverage on climate change that showcases the evidence of rising sea levels. (Yeah, I covered that too.)

The insurance industry has to anticipate what is possible to make contingencies. Unfortunately, fear-mongering politicians are muddying the public climate change conversation. I am thinking of two in particular. They warn of doom in 12 years if we do not act now. Thankfully, the Associated Press fact-checked the 12-year claim and wrote, "There is no scientific consensus, much less unanimity, that the planet only has 12 years to fix the problem."

All nations should be doing their part to take care of the planet. But my largest concern relates to cyber risk and unintended consequences of emerging technologies. Insurance executives do as well, ranking cyber risk second among emerging risks. (Covered cyber too.)

An Emerging Risk for Consumers

From a consumer standpoint, I see one big risk: data privacy. We unwittingly gave away a lot of personal information by participating in social media, “trusted” websites, DNA testing…the list goes on. Suppose personal data lands in the “wrong hands.” Just look back at history, assume it repeats itself, add in personal data and play it forward.

I am hopeful about the California version of Europe’s General Data Protection Regulation, which is to go into effect next year. However, if the Silicon Valley companies (I won’t say who they are I will just point) can successfully lobby lawmakers, it might lose some teeth.

Which emerging risks concern you and why?

Legalizing Marijuana Expands Auto and Workers’ Comp Risk

Legalizing marijuana introduces greater risk.

Legalizing marijuana expands its use. And that widens the risk potential of on-the-road and on-the-job accidents.

Just how much is legalizing marijuana affecting auto and workers’ compensation coverage? I try to answer that in my latest *Actuarial Review* article, "Reefer Madness." (Non-insurance folks should read the article as well.)

Using all the information I could find – including direct queries to state workers' comp funds – my article offers insight into what I see as an emerging risk.

Since more states are liberalizing their marijuana laws, we can expect greater use of the drug. Studies are already showing this to be true. And unfortunately, too many of those using the THC-high-inducing part of the plant are not staying home. Rather, they are taking to the roads and going to work cognitively impaired, even those in dangerous occupations.

To make matters worse, too many Americans believe that driving while high is less dangerous than driving while under the influence of alcohol. Some research is showing that marijuana-related auto accidents are going up while alcohol-related incidents are declining.

That's not exactly progress when any impairment is bad news. Legalizing marijuana a growing public hazard to be sure. The insurance industry, however, is in the unique position to monitor the impact from a public safety perspective. Insurers can also reveal pot's impact on accident frequency and costs.

On the job, anecdotal evidence of the impact of marijuana impairment still drives conventional wisdom. The workers' compensation insurance industry needs to start researching the impact of marijuana on workplace safety and to realize the effects on return to work. Groups like the Workers' Compensation Research Institute helped sound the alarm of the impact of opioids on injured workers long before it became public knowledge. The same can happen for marijuana.

I know. It's illegal and therefore cannot be researched. But there has to be something that can be done.

Legalizing Marijuana Complexities

Legalizing marijuana is only possible because the once-well-believed downsides of the drug are being drowned by those extolling its untold benefits. What was once conventional wisdom is now debatable. Thought pot was addictive? Marijuana, advocates say, is not addictive — at least not physically — and it can help break opioid addiction. I would argue psychological addiction can be pretty tough to tackle. It is tough to know what to believe.

The marijuana conversation has become too hazy, allowing legalization to proceed at a faster pace. It's interesting that a reporter for the New Yorker, after looking at some of the same evidence as I did, also expresses caution for different reasons.

The marijuana conversation is muddied for another reason. Legalizing marijuana means different things to different people. While some insist that its medicinal qualities make the drug worthwhile, others think medical marijuana was a mere entry point for recreational use.

It appears that way. States begin with legalizing marijuana for medical purposes even though medical efficacy is yet to be proven. This is largely due to federal restrictions on pot, which make it virtually impossible to give it the clinical gold standard research that builds the drug's credibility. As one source says, medical marijuana is not yet offering a remedy unavailable from other drugs. And once pot transitions from medical to recreational use, people don't care much about getting doctor's orders.

...there is precious little we know for sure about cannabis.

By the way, the FEDs do make a compelling case for it. According to the U.S. Health and Human Services' review on marijuana, pot's potential benefits do not outweigh the risks. Legalizing marijuana should reveal whether the downsides of marijuana will be worth the upsides. That may or may not change public attitudes. Americans are more open to marijuana than ever. Friends tell me "it is just pot" though it is much more potent than 30 years ago.

While open-minded to pot's positive outcomes, I cannot escape the realities before me. My Godson's life is being destroyed right now because he believed the online messages that marijuana was harmless. Once he got high, was busted and removed from the drugs and his friends, he started trying other drugs and alcohol. His high school career has been disrupted. His immediate future is uncertain.

Another Look at Legalizing Marijuana

My exploration of marijuana and insurance is not over. Currently, I am working on a piece for another publication that covers the impressive growth of the cannabis industry and the developing marijuana-related commercial insurance market. Stay tuned.

Meanwhile, thanks to my extensive web activity into the subject of marijuana, yours truly is being subjected to cannabis product ads and videos on her Facebook news feed. An occupational hazard? Could be. It's kind of creepy when online searching leads directly to my inbox. The marketing emails about CBD oil and pot gummies are very misleading. Thanks to my article, I am better informed.

I hope you'll check out my *Actuarial Review* article. Let me know what you think!

Cyber Risk and Insurance Continue to Grow

Cyber risk and insurance continue to gain momentum. More companies realize they need it. And insurers are expanding coverage – and enjoying profitability. That said, cyber insurance continues to be an especially risky insurance line.

This is part of what I discuss in my recently published article, "Expansive Variance." Published in *Actuarial Review*, I titled the article very deliberately. The variance of risk expands in new ways every time I investigate cyber risk and insurance.

And frankly, the more I learn about cyber risk, the more concerned I become.

Cyber risk and insurance are expanding.

My article digs into the reasons behind the growing risk and new tools for actuaries and underwriters. Two particular trends stick out. First, Internet of Things technologies continue to introduce vulnerability to cyber attacks and personal privacy. Perhaps the best example of hacking through via app is last year's [Facebook data breach](#).

Meanwhile, the bad guys, who have the creativity to walk the gauntlet of cyber protections, are quite innovative. Last year's Equifax breach, the largest in United States history, is a case in point. Despite tight cybersecurity, the breach pulled the personal data of more than 145 million Americans in a seven-week period. Another attack, less widely known to consumers, turned off factories and interfered with commerce all over the world.

The bad actors are also discovering ways to deploy artificial intelligence to mask coding to reach directly into personal computers. And for the less innovative, the old-fashioned and tried-and-true attack methods, such as email phishing, remain effective. Many companies still need to get religion on cybersecurity. Hackers are sometimes getting away with their dirty deeds because companies do not keep up with security patches.

These breaches serve as warnings of what could come. Everyone who knows about cyber risk and insurance fear "big one" — that cataclysmic breach that could put the world on its knees. Insurers are also very concerned about it, spreading risk across individual industries to reduce exposure.

Cyber Risk and Insurance

The article also describes the unique challenges insurers are facing beyond cyber risk itself. Currently, cyber insurance is generally profitable. The market is so competitive that it is sometimes underpriced. Executives of non-cyber insurance lines are also concerned that their coverages are picking up cyber loss.

Insurers have very different philosophies on covering cyber risk. For Warren Buffett, chairman of Berkshire Hathaway, Inc., cyber risk and insurance just too risky. He believes that each year carries a 2% chance of a super catastrophe costing $400 billion or more in insured losses. Not surprisingly, his insurance group is mostly staying away from covering cyber risk.

But there's plenty of insurers – about 170 depending on classification – which are happy to offer cyber insurance. AIG and Chubb are two examples. Insurers also have more insurance scores for cyber risk than ever before. Depending on the product, such cyber scores can evaluate risk potential by company and can watch how the risk changes.

Privacy Regulations and Laws

Consumers have little remedy when personal data breaches occur. Cyber insurance covers cybersecurity protections for a limited amount of time, say two years or so. However, there is nothing that can be done to get the information back. The bad guys have it forever. Thankfully, cyber insurance for individuals is just starting to become available.

Last week I attended a seminar on protecting personal privacy sponsored by the Atlantic magazine and Salesforce.

Speakers discussed a social contract, which presumes entities collecting our data will protect it. However, this social contract has little law to support it. One privacy attorney says that the Facebook breach, while unethical, is not illegal.

The bad guys,
who have the creativity to walk
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are quite innovative.

Americans assume the government is making sure our data is respected and kept private. But in truth, our public policymakers are behind the curve. As someone at the seminar joked, "Europeans regulate what Americans innovate." Legislative remedies are being considered by Congress. During the seminar, Senator Mark Warner (D-VA) mentioned a recent hearing where the nation's largest search engine's representatives were notably absent. The company, however, *is* showing up to help China with their internet although its employees are protesting and some have quit. This is the country that is following every move of their citizens to determine their "trustfulness" and is also blamed for particular cyber breaches.

My article describes new regulations from the European Union that affect American companies. California also passed an aggressive law to protect consumers. It goes into effect January 1, 2020. Not surprisingly, technology companies are fighting the restrictions the new law will impose. After all, they need personal data to sell ads. The European and California laws have potential ramifications for cyber insurers, but those details are yet to come.

Note: My last article about cyber insurance discusses particular challenges for actuaries. To see more of my cyber articles, just enter "cyber" in the search bar below.

Lessons to Learn from the CATs of 2017

The CATs of 2017 are warning us, will we listen?

There is a lot to learn from the weather CATs of 2017. My most recent article, *2017-The Year of the CATs*, published recently in *Actuarial Review*, covers natural catastrophes Hurricanes Harvey, Irma, Maria and last fall's combined California wildfires. The article also takes a unique look each CAT, showcasing lessons learned and ones yet-to-be learned.

Combined, the 2017 CATs offered unique challenges. For example, insurers experienced higher loss adjustment expenses because the three major hurricanes took place within six weeks. On the positive side, insurers and reinsurers also developed new ways to work together to quickly pay claims.

New insurer efficiencies are great for policyholders. However, the CATs are a reminder of the nation's chronic problem of the uninsured or underinsured. The major CATs of 2017 cost $306 billion in losses — the largest amount of weather-related economic losses in United States history. Insurers, rather than property owners and the government agencies, could have carried a greater portion of the cost.

Sadly, it is not surprising to see the high percentages of residential properties in hurricane vulnerable areas lacking flood coverage through the National Flood Insurance Program (NFIP). Coverage participation in the federal program has always been a problem. Even when NFIP policyholders and taxpayers help subsidize premiums for affordability, too few still purchase it. To make matters worse, it is common for homeowners insurance policyholders to believe flooding due to weather is covered. Generally, it is not.

Ironically, the wealthy know insurance is a good bet. After last year's wildfires in California, property owners are rebuilding homes after filing claims at $1 million a piece!

…there is no negotiating with Mother Earth…

But there is also a deeper lesson. Experts predict future CATS can be more damaging and dangerous. Since there is no negotiating with Mother Earth, it is time for some tough love. Building in potentially dangerous areas must stop.

Consider Hawaii's Big Island this year where paradise turned to a fiery hell. Hedging their bets, people built in harm's way despite warnings. As a generous lot, Americans rightly open our hearts and wallets to help victims. Now they need to live on safer ground. Financially helping property owners in vulnerable areas to move is one possibility. While the idea makes me wince for several reasons, the big short-term cost would save lives and promises to be less expensive in the long term.

Broadening Sustainability

As my *Actuarial Review* article concludes, the CATs of 2017 call us to prepare for the CATs of tomorrow.

Beside relocating people from vulnerable areas, I believe the CATs of 2017 should also mean broadening the definition of environmental sustainability to include building structures that will last the test of time. The environment will be better off when we reduce the use of the earth's resources for rebuilding in CAT-vulnerable areas.

Accused of being an idealist, I see a potential future when a home's value is not about landfill-bound luxuries, but its structure for strength and sustainability. A "smart home" could mean residential structures built to withstand the test of time rather than those featuring technological Internet of Things gizmos that can increase vulnerabiilty to another risk: cyber attacks.

It can be done. Changing the American mindset towards littering and recycling en masse is one example. Growing up in the 1970s, I remember people thoughtlessly threw their garbage out of their car windows. Highways, once lined with nasty debris, are much cleaner now thanks to public awareness and fines for littering. Recycling was considered a huge bother 25 years ago but now Americans do it without giving it a second thought.

If awareness can inspire people to stop littering and start recycling, then it is possible to change the perception of what makes a home valuable. Changing perception requires a consortium of citizens, insurance companies, politicians and governmental agencies that can wield an effective public awareness campaign. By saving lives, the environment and money, the effort would be worth it.

Driverless Cars Not Proven To Be Safer

There is no proof that driverless cars will be safer than human drivers.

I found myself saying that aloud to a radio ad yesterday. In explaining his support for driverless car experimentation in Michigan, Governor Rick Snyder notes that 94% of accidents are caused by human error. The implied assumption is that driverless cars will be safer.

There's no proof that driverless cars will be safer than mere human beings.

That statistic bandied about by driverless car advocates has nothing to do with automated vehicle safety. It derives from 2005 to 2007 data in a study released a decade ago – *before* driverless cars were "a thing."

This is just one of the critical issues concerning driverless cars I discuss in my most recent article, *Driverless Utopia*. Besides delving into driverless car safety, the piece also cites new risks driverless cars can introduce, such as vehicular hackability as well as liability issues. As the cover story for the May/June issue of the Casualty Actuarial Society's *Actuarial Review,* it offers the critical perspective of actuaries. Their rubber-hits-the-road view deserves more attention because actuaries anticipate risk potential when determining insurance rates.

Actuaries who looked into the 93% statistic, which is based on a 2008 National Highway Traffic Safety Administration (NHTSA) study, conclude that 78% of accidents – *not* 93% — are due to human error. The article dives into the actuarial analysis even more.

Driverless Reality

We don't know how safe driverless cars are — for several reasons. These are:

- **There is no national clearinghouse tracking data regarding driverless car safety.** Basic information, such as fatalities and accidents related to automated technology, is not publically available in one place. Actuaries want driverless car manufacturers to share data so insurers can anticipate the risk insurers cover. That is not happening.

- **The lack of apples-to-apples comparisons between driverless cars and human-driven conventional vehicles in similar scenarios.** Existing research considers different issues. And the conclusions vary. Further, driverless car experiments are taking place in near perfect driving conditions where accidents are less likely anyway. Also, since automated cars cannot handle inclement weather or a quick Bambi crossing, imperfect humans who take the wheel can still be at fault.
- **The pass off risk between automated systems and human drivers is *huge* for determining safety and liability.** That point of transition, when automated vehicular technology senses danger and mere humans have to take control is fraught with problems. The first automated vehicle technology fatality in the United States took place in 2016 when a Telsa hit a truck moving across a highway. It appears the driver did not take control of the vehicle soon enough. Getting to the why not only reveals the complexity of fault but the difficulty in determining it. The National Transportation Safety Board and NHTSA conducted separate investigations. One emphasized that the technology did not alert the driver in time. The other stressed that the driver was not responsive enough. (See my article for more details.) (A similar fatality took place last month in California.)A fatality in March reportedly occurred because the Uber-affiliated car did not detect the female pedestrian walking at night in Tempe, Arizona. It also appears the back-up driver was distracted. Still under investigation, the video is available here. (Warning: it's quite graphic.)

- **Driverless cars might decide who dies.** One study shows the cars favor saving younger people rather than the elderly.

Finally, as my first driverless car article notes, if driverless cars are safer than human drivers, it is likely because the car will be programmed to follow traffic laws – to the letter. Lower the speed and the accidents decline, even when people are driving.

Parting Thoughts

I'm not against driverless cars. However, I am troubled by rhetoric that presumes driverless cars will be safer without sufficient proof. The logic that driverless cars will be safer because human error is the primary cause of accidents is faulty and misleading.

The safety issue might not matter anyway. In the next 10 to 15 years, I believe the average consumer will be depending on taxi-like automated vehicles, figuring that cars are risky no matter who – or what – is driving them.

And since the cars will be in a constant state of technological improvement for at least the next couple decades, they will be too costly for average consumers to own, insure, maintain and repair. Already, minor fixes, such as replacing a driver's side mirror, cost more than the typical $500 insurance deductible due to all the connecting sensors.

My hope is Americans and public policy makers will demand greater transparency from technology companies. Automated vehicle technology is just one more area where consumers should know more.

Insurers Begin to Include Rising Sea Levels into Rates

Damage from Hurricane Matthew

Insurers are beginning to introduce rising sea levels into rates, according to my latest article, "The SLR Factor: As sea levels rise, the flood risk equation changes." It was published recently in the Casualty Actuarial Society's *Actuarial Review* magazine.

The National Flood Insurance Program (NFIP), the nation's largest insurer of homeowners' flood insurance, is beginning to factor in sea level rise. So are excess insurers and reinsurers. However, rising sea levels could also affect the appetite for private homeowners insurers looking to compete with the NFIP.

While the "21st Century Flood Reform Act" is yet to pass, the omnibus budget bill signed by president Trump last Friday allows NFIP's reauthorization. The controversial budget bill gives the Federal Emergency Management Agency (FEMA) a necessary financial boost for mapping and mitigating flood risk.

Rising Sea Levels: The Reality

For the scoffers who do not take rising sea levels seriously, consider places such as New Orleans where land is subsiding. Or Norfolk, Va. where rising king tides flow onto nearby streets. A single drop of rain, by the way, does not cause these tides. Instead, they happen when the earth makes its predictable pull with the sun.

> ***"too many properties not covered for weather-related flood damage."***

What are the implications for rising sea levels?

- Covering homes and businesses near the East and Gulf coasts will become more expensive.
- Some owners will likely have to abandon their property to the tides. This has already happened in New Orleans.
- Flood exposure will spread, affecting properties once believed to be lower risk. It also means changing weather patterns that will introduce more potential catastrophic weather events.

  Beyond that, rising sea levels will affect governmental entities that need to pony up for expensive flood mitigation. As I write in the article, however, "It is difficult to convince politicians and voters to invest money into problems that are decades away, especially when rising sea levels are too often mired in the politics of global warming."

Vulnerable Property Owners

Even if sea levels remain stable, there are still too many properties not covered for weather-related flood damage.

Why? Because many homeowners fail to realize that their insurance generally covers flooding caused by something inside the house, such as a leaking pipe. People believe they do not need flood coverage from the NFIP until it is too late. And some irresponsible residents count on FEMA to bail them out instead of buying coverage from NFIP.

And don't think your property is safe because a FEMA map says so. As I explain in a previous article covering the NFIP, many maps are out-of-date. Further, specific property details can be more critical than zone location.

Rising sea levels will affect more property owners. Insurers are preparing, shouldn't you?

Insurtech Revolution Will Transform the Business of Insurance

The Insurtech Revolution is here.

The Insurtech revolution is here.

My most recent *Actuarial Review* article, "The Insurtech Revolution," cuts through the buzz and highlights areas where insurtech is likely to transform the insurance industry.

Insurtech is like any quickly emerging development. There is a lot of activity, confusion and a dash of hype.

That's why my first question to most sources was this: "What is the difference between technological innovation and insurtech?" They agreed it was a good question. The evolving broad definition of insurtech risks becoming too general to be useful. The article includes an important sidebar that further defines the term. I hope will encourage more informed insurtech conversations.

This is certain: insurtech is not a Reese's Peanut Butter Cup. Insurtech does not merely stuff new technology into insurance. Rather, insurtech is a cottage industry coming into its own. At its best, insurtech challenges insurers to re-think what insurance could look like and how it should be delivered and serviced in a digital economy.

My concern is that the most cautious insurance professionals among us will be too quick to write off insurtech as a fad. Or even worse, they will choose denial or ignore it to their peril. Insurance professionals must pay attention to insurtech because it will affect their jobs.

Make no mistake: insurtech will be transformative. It is not just about technology, but new concepts that make sense in a digital world. For example, the insurtech approach means *out* with reactionary customer service and *in* with initiative-driven customer experience. (To learn the difference, click *here*.)

"…insurtech is not a Reese's Peanut Butter Cup
…(it) does not merely stuff new technology into insurance."

Meanwhile, its emphasis on artificial intelligence and other smart technologies will change and eliminate jobs. Insurtech companies offering insurance can, for example, prefill personal information through an Application Programming Interface (API), simplifying the application process practically down to a few digital taps.

By programming a rules engine, artificial intelligence is already performing critical functions, such as statistical calculations and ensuring accurate and meaningful customer information.

Insurtech Revolution: Annmarie's Take

After watching technology change the insurance industry for 30 years, here are some personal observations about The Insurtech Revolution:

1) **Insurtech companies risk operating under false assumptions.** A technological improvement in one industry is not necessarily easily translatable to the insurance domain. The transactions, responsibilities and public accountability differ from banking, as an example.

2) **Insurtech companies are in love with their beloved technology, but insurers love real**

results. Understand the real problems the insurance industry is facing. Offer solutions using insurance industry lingo. Save that technological deep dive for those who want to go there.

3) **Insurance companies are not threatened by insurtech competitors**, also known as "disruptors," which have garnered an overabundance of media attention. Peel back the artificial intelligence, APIs and novel approaches to coverage – and you have the excitement and struggles of a new insurance company. In three years or less, Flo, the gecko and/or other insurers will be using the insurtech bells and whistles that make sense. And they will be doing it better. By that time, we'll also know if the "disruptors" are profitable.

The Insurtech Revolution is here. Please check out my article and offer comments below.

Actuaries Applying Advanced Analytics in Non-Traditional Roles

Actuaries applying advanced analytics in non-traditional insurance roles are deploying their acumen to solve business problems.

Actuaries applying advanced analytics provide a window into the profession's future.

As demonstrated in Part II of my *Actuarial Review* series about "the others," actuaries applying advanced analytics are working in various industries. ("The others" are members of the Casualty Actuarial Society who *not* working in traditional insurance industry actuarial roles.)

Part II features four actuaries applying advanced analytics in very exciting ways. It provides a window into the future of the actuarial profession. Increasingly, actuaries will be serving in roles beyond pricing and reserving. As technology moves forward, advanced analytics and artificial intelligence will become more commonplace, offering new potential roles to actuaries.

The article features:

Kevin Kuo, Software Engineer, RStudio After serving as a life actuary, Kuo applied predictive analytics for direct mail credit card acquisitions for Citibank. He's now working to enhance "R" software to offer big data and deep learning capabilities.

Aaron Fezatte, Strategy Manager, Expedia. Beginning his career as a P&C actuary for Liberty Mutual, he secured a job with Expedia to develop new ways to price and offer travel insurance.

Cathine Lam, Data Scientist, Economics & Actuarial Team, Metabiota. The former Milliman Inc. consultant works to track infectious diseases around the world and supports her company's software product. Insurance companies and government entities are key clients.

Frank Chang, Director of Insurance and Safety Analytics, Uber. Chang wrote for *The Motley Fool* and handled pricing for Esurance before working for Google and then joining a team at Uber. His multifold role includes applying analytics to encourage risk management and insure Uber drivers.

The first article about "the others," published in the September/October edition of *Actuarial Review*, was highly popular, attracting hundreds of visitors. This second and final article is a ***must read*** because it showcases how actuaries applying advanced analytics and forging new pathways for the profession.

During the past few years, I've written several articles about advanced analytics and the actuarial profession. If you would like to check them out, please visit the actuarial section of this blog. My next *Actuarial Review* article covers insurtech. Slated for early January, it explains how and why insurtech will be changing the insurance value chain – forever.