AUTONOMOUS VEHICLES: THE SHIFTING LANDSCAPE OF AUTO INSURANCE AND LIABILITY

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In this article I will discuss the effect that the shift from human-controlled vehicles to autonomous vehicles may have on the auto insurance landscape, continuing a discussion regarding the effect that the introduction of the ‘connected’ or ‘autonomous’ vehicle may have on not only the public, but also the legal landscape. Links to my previous articles on (1) the role of automakers in protecting consumer privacy[1] and (2) the ‘technopanic’ fears of cyber attack on connected cars[2] can be found here and here. Most analysts expect that fully autonomous vehicles will be available within the next 20 years, resulting in far fewer accidents and a shift in risk apportionment from auto insurance to product liability, and forcing auto insurers to perhaps drastically change the structure of traditional auto insurance. This current article will address the auto insurance issues raised by autonomous vehicles, while my next article will focus more on the product liability issues.

In January 2014, the U.S. think tank RAND Corporation released a comprehensive report (the “RAND Report,” available here) that “explores policy issues, communications, regulation and standards, and liability issues raised by the technology; and concludes with some tentative guidance for policymakers, guided largely by the principle that the technology should be allowed and perhaps encouraged when it is superior to an average human driver.”[3] The RAND Report identified the following potential benefits, possible drawbacks, and policy/liability/regulation implications:

### POTENTIAL BENEFITS

- Fewer vehicle crashes.
- Increased mobility for the young, elderly, and disabled.
- Efficient traffic flow.
- Higher productivity and less cost of travel time.
- Greater fuel efficiency.
- Repurposed space previously used for parking.

### POSSIBLE DRAWBACKS

- Lower driving costs might increase traffic congestion.
- Occupations and economies based on public transit, crash repair, and automobile insurance might suffer as the technology makes certain aspects of these occupations obsolete.

### POLICY/LIABILITY/REGULATION IMPLICATIONS

- Manufacturer liability is likely to increase while personal liability is likely to decrease. If a vehicle and a human share driving responsibility, the insurance issues could become more complicated.
- Inconsistent state regulation poses a risk — if 50 states have 50 different regulations, it would be difficult for manufacturers to match them all.
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Because many of the benefits of autonomous vehicle technology accrue to those other than the purchaser, subsidies or taxes may be necessary in order to maximize social welfare by equalizing the public and private costs and benefits.

The RAND Report also explores the shifts expected to occur within the landscape of auto insurance and product liability, as much of the risks associated with driving shift from the human driver to the autonomous vehicle. Two major themes emerge related to the future of auto insurance: (1) the impending rise of the autonomous vehicle will dramatically alter the risk focus to ultimately assign more liability to manufacturers than to individual drivers; and (2) this shift in risk apportionment will mean that auto insurers may have to abandon the traditional models of auto insurance and adopt new modern forms of "cyber coverage."

The shift to autonomous features and then fully autonomous vehicles is widely considered to be coming initially in the next few years, and then much more fully within the next 15 to 20 years, with self-driving features thought to represent a $42 billion market by 2025. The first autonomous feature is expected to be the single-lane highway autopilot introduced by Tesla and GM in 2015 and 2016, followed by autopilot with lane changing in 2018; vehicles capable of urban autopilot by 2022, and fully autonomous vehicles in 2025. According to the Institute of Electrical and Electronics Engineers ("IEEE"), "by 2030 most new cars will be made without rearview mirrors, horns, or emergency brakes. By 2035, they won't have steering wheels or acceleration and brake pedals." According to analysts at Lloyds, "industry predictions for autonomous cars range from the near-future of 2020, to a more cautious second half of the twenty-first century." In a recent survey by the Boston Consulting Group ("BCG"), many respondents said that they would buy a partially autonomous vehicle in the next five years and a fully autonomous vehicle in the next ten years, citing as reasons lower insurance premiums, increased safety, and hands-free highway driving.

But once a vehicle is fully autonomous, would it still be proper to assign fault to the driver? In addition to fewer accidents, the rise of autonomous vehicles may also come with a corresponding shift in risk from the human driver to the computer-driven vehicle, and from insurance liability to product liability. "If a point were reached whereby users were no longer expected to even oversee the autonomous driving of their car . . . motor insurance could change substantially to be something more like product liability insurance. Insurers would need to know less about the users of a car, and more about different models of cars themselves." The risk may shift to focus on the technology, not the driver: "With less reliance on a human driver's input, however, increased risk would be associated with the car technology itself. Computers can do many things that a human driver cannot: they can see in fog and the dark, and are not susceptible to fatigue or distraction. However, they can also fail, and systems are only as good as their designers and programmers. With an increased complexity of hardware and software used in cars, there will also be more that can go wrong."

Given this impending shift in risk from auto insurance to product liability, analysts currently debate whether traditional auto insurance will continue to exist, or whether it will instead be perhaps folded into homeowners or health insurance, as is currently done with, for example, bicycles. Because the majority of automobile accidents are caused by human error, "in theory by replacing human input with well-programmed computers, the risks of driving could be substantially reduced." In turn, a lower number of accidents "could potentially lead to a substantial reduction in motor insurance claims . . . Lower claims would be expected to result in lower premiums, and tighter profit margins." With lowered profit, insurers would then have to decide whether to continue to offer traditional auto insurance, although "some element of risk would be retained by the owner of a car. Damage or theft can still
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occur when a car is parked in a driveway, and for the present at least, cars with semi-autonomous capabilities are more expensive than their traditional counterparts."[14] But if autonomous vehicles do actually become almost crashless, analysts believe it is “possible that this risk could become part of a household contents policy coverage.”[15]

Most analysts firmly believe that the only way the shift to fully autonomous vehicles will occur is if some type of auto insurance is available, and that insurers may shift from a traditional auto insurance framework into a modern type of coverage called “cyber coverage.” Cyber insurance is currently available in other areas such as business computer data systems, and is “designed to mitigate losses from a variety of cyber incidents, including data breaches, business interruption, and network damage.”[16] Cyber insurance typically includes first-party coverage for expenses following a cyber attack (including notifying customers of a data breach, restoring programs/data, and restoring reputation) and “also typically contain third-party coverage to protect the policyholder for liability to others and reimbursement for expenses.”[17]

Cyber insurance may be a way for auto insurers to evolve their coverage to suit the future of the autonomous vehicle. As described above, much of the risk involved may shift to the manufacturer, not the driver. But there will always be limits to a manufacturer's responsibility under a negligence, strict liability, or warranty framework (for more on this issue, please see my next blog article). In order to cover drivers fully, auto insurance may shift into cyber coverage, “... an area of insurance that is still evolving to suit the needs of a digital era. As autonomous and unmanned vehicles become more commercially available, cyber risk policies will most likely be developed to suit the needs of stakeholders such as operators, systems designers, manufacturers, and infrastructure providers.”[18]

One thing we know for sure: the fully autonomous vehicle is coming, and in the near future. The landscape of risk assessment will shift from human driver to the computers running the vehicle (and the manufacturers), from insurance law to product liability law. Whether auto insurance becomes folded into other types of coverage such as homeowners and health insurance, or else morphs into a new type of cyber coverage, the traditional landscape of auto insurance must also change to fit the needs of this new technology.

For more information or if you would like to talk about the intersection of the emerging technology of connected cars with insurance and product liability law, please contact me at lfelsen@fbtlaw.com or post a comment below and let's start a conversation.

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[5] Id.


[10] Id. at 15.

[11] RAND Report at 115 (“If these technologies reduce crashes sufficiently, it is possible that the very need for specialized automobile insurance may disappear entirely. Injuries that result from automobile crashes might be covered by health insurance and homeowner’s liability insurance, in the way that bicycle crashes or other crashes are now covered.”)


[13] Id. at 18.

[14] Id.

[15] Id.


[17] Id.