

# Autonomy vs the Auto Insurers

Researched by Hey Lefty

Automated research briefings on topics you choose — heylefty.com

## TL;DR

As autonomous vehicles demonstrate massive safety gains, the traditional personal auto insurance industry faces a structural collapse of its risk pool. While manufacturers are building the in-house financial plumbing to absorb the resulting product liability, traditional insurers continue to publicly downplay this existential threat. This divergence represents a major mispricing of the autonomous adoption curve.

## The Evaporation of the Risk Pool

The risk pool anchoring the personal auto insurance industry is evaporating as autonomous vehicles demonstrate massive safety improvements over human drivers. By analyzing driverless safety data, researchers are finding that autonomous fleets operate with a nearly 90% lower claims frequency. When claims drop so precipitously across millions of miles, the mathematical justification for high premiums vanishes. This means the core revenue engine of personal auto insurers isn't just being disrupted—it is physically disappearing.

*"The Waymo Driver exhibited significantly better safety performance, with an 88% reduction in property damage claims and a 92% reduction in bodily injury claims compared to human-driven vehicles." — Waymo / Swiss Re Safety Study*

(See the primary research published on Waymo's official blog)

When claims frequency drops by around 90%, the premium pool must eventually shrink proportionally because insurance pricing is mathematically tied to expected losses. This means the core revenue engine of personal auto insurers isn't just being disrupted—it is physically disappearing.

**What to watch:** Whether reinsurance giants like Swiss Re begin adjusting their capacity or pricing for primary auto insurers as driverless miles scale.

## The Verticalization of Liability

Autonomous vehicle manufacturers are bypassing traditional insurance carriers entirely by underwriting their own policies to control the inevitable shift toward product liability. To prepare for this transition, some manufacturers are now moving to fully in-house insurance underwriting, starting in California. By taking underwriting in-house and hiring veteran insurance executives, these manufacturers are positioning themselves to absorb the product liability of unsupervised driving directly. This vertical integration keeps the entire financial ecosystem of autonomous transit inside the manufacturer's balance sheet.

*"For the first time since launching Tesla Insurance in 2019, Tesla will begin underwriting its own policies, starting in California." — Tesla Self-Underwriting Pivot*

(Read the full coverage on Not a Tesla App)

By taking underwriting in-house and hiring talent like GEICO veteran Allen Laben, Tesla is positioning itself to absorb the product liability of Unsupervised Full Self-Driving (FSD) directly, capturing high-margin premium pools that traditional carriers are too risk-averse to touch. This vertical integration keeps the entire financial ecosystem of autonomous transit inside the manufacturer's balance sheet.

**What to watch:** How Tesla structures its upcoming Robotaxi insurance bundle and whether it officially shifts legal liability to the manufacturer during unsupervised operations.

## The Incumbent Denial Gap

While long-term market forecasts predict the outright obsolescence of personal auto insurance, industry giants are downplaying the threat as a minor commercial partnership opportunity. Analysts project that Level 4 autonomous vehicles could make up 60% of cars on the road by 2044, causing massive valuation declines for heavily concentrated insurers like Progressive. This relaxed posture contrasts sharply with independent projections, as insurers rely on current high profitability to ignore a slow-moving but absolute existential threat to their primary revenue source.

*"Progressive monitors the TNC market and autonomous vehicle developments closely. They believe there will be a mix of human-operated and autonomous TNCs in the future." — Personal Auto Obsolescence*

(Access the transcript on Intellectia)

This relaxed posture contrasts sharply with independent projections, such as Morningstar's modeling of a potential shutdown of Progressive's operations by the time Level 4 AVs hit deep penetration. Insurers are relying on current high profitability to ignore a slow-moving but absolute existential threat to their primary revenue source.

**What to watch:** Whether Progressive or Allstate begin to aggressively diversify into homeowners or commercial lines to buffer against the predicted personal auto erosion.

## What surprised us

- **The sheer scale of safety outperformance:** Waymo outperforming even advanced driver assistance systems (ADAS) by a massive margin in bodily injury claims shows that AVs aren't just slightly safer than bad drivers; they are vastly superior to human-driven cars with modern safety tech.
- **Tesla's quiet operational moves:** Moving away from State National to self-underwrite in California shows they aren't just talking about robotaxis; they are actively building the financial plumbing to absorb the liability.
- **The stark asymmetric exposure between Progressive and Allstate:** Progressive is a personal-auto pure play (homeowners is only a tiny fraction of premiums), making it uniquely vulnerable to complete obsolescence if aggressive adoption timelines play out.

## Open threads worth a vote

- Autonomous Trucking and Commercial AV Fleet Insurance Impact
- Regulatory Evolution of AV Manufacturer Product Liability

## Appendix: Findings

### Waymo and Swiss Re Safety Study: 90% Claims Reduction Threatens Premium Pool

## Waymo and Swiss Re Safety Study: 90% Claims Reduction Threatens Premium Pool

A groundbreaking joint study by Alphabet's Waymo (see </markets/GOOGL/2026/06/02>) and global reinsurer Swiss Re has provided concrete, empirical evidence of how autonomous driving technology will erode the traditional auto insurance premium pool.

By comparing Waymo's real-world autonomous driving data across 25.3 million driverless miles with Swiss Re's massive human driving database (representing over 500,000 claims and 200 billion miles of exposure), the study revealed a staggering drop in claims frequency:

- **Property Damage Claims:** Waymo achieved an **88% reduction** in property damage claims compared to average human drivers. Across 25.3 million miles, Waymo recorded only nine property damage claims, whereas human drivers would typically generate 78 claims over the same distance.
- **Bodily Injury Claims:** Waymo achieved a **92% reduction** in bodily injury claims. Waymo recorded only two bodily injury claims, compared to the 26 claims typically generated by human drivers.
- **Comparison to Advanced ADAS:** Even when compared to modern, human-driven vehicles equipped with Advanced Driver Assistance Systems (ADAS) like automatic emergency braking and lane-keeping assist, the Waymo Driver still demonstrated an **86% reduction in property damage** and a **90% reduction in bodily injury claims**.

### What This Means for Insurers

Traditional insurance premium pools are sized to cover the high frequency and severity of human driver errors. While insurers like Progressive are currently enjoying high profitability (see [\[\[personal-auto-insurance-obsolescence-morningstar-report\]\]](#)), an 86% to 92% reduction in claims frequency at scale means the risk pool itself is evaporating.

Because premiums are mathematically tied to expected loss costs, a driverless fleet operating with a 90% lower claims frequency will require a fraction of the premium pool. This massive reduction in risk exposure will inevitably lead to a collapse in the total addressable premium market for personal auto insurers, shifting the remaining risk into commercial and product liability lines.

### Tesla Insurance Moves to Self-Underwriting to Prepare for FSD Unsupervised Liability Shift

# Tesla Insurance Moves to Self-Underwriting to Prepare for FSD Unsupervised Liability Shift

Tesla (see /markets/TSLA/2026/06/02) is executing a highly integrated, vertical strategy to bypass traditional auto insurers entirely and absorb the liability of its autonomous vehicle fleet. This strategy is critical because traditional insurers are highly reluctant to underwrite autonomous driving risk, which threatens to slow down the adoption of driverless vehicles.

## The Self-Underwriting Pivot

In **February 2025**, Tesla began underwriting its own insurance policies, starting in California. Since launching Tesla Insurance in 2019, policies had been underwritten behind the scenes by State National, a subsidiary of Markel Insurance Group. By transitioning to fully in-house underwriting, Tesla gains direct control over:

1. **Risk Assessment:** Utilizing its vast real-time vehicle data and "Safety Score" system.
2. **Repair Costs:** Optimizing parts, labor, and total loss decisions within its own service network to lower claims severity.
3. **Autonomous Liability:** Preparing to insure its upcoming Robotaxi fleet and FSD Unsupervised.

This shift follows Tesla's hire of **Allen Laben**, a 20-year GEICO veteran, as "Head of Insurance Partnerships" in mid-2024 to lead the expansion of Tesla Insurance and reduce costs.

## The FSD Supervised vs. Unsupervised Liability Shift

Tesla's insurance product is structured to handle the transition from driver-assist to full autonomy:

- **FSD (Supervised):** The human driver remains legally responsible. To incentivize usage, Tesla offers an FSD Supervised Discount (capped at 10%) on Tesla Insurance premiums, based on safety scores and miles driven with FSD engaged.
- **FSD (Unsupervised):** The vehicle handles the entire driving task without human oversight. Legally, the liability must shift from the driver to the manufacturer (Tesla).

Because traditional personal-auto policies explicitly prohibit autonomous use or ride-hailing networks, Tesla will likely have to bundle the cost of insurance directly into the FSD Unsupervised subscription fee or the Robotaxi network fee. By underwriting its own policies, Tesla can self-insure this liability and keep the entire premium pool in-house.

## Hollowing Out the Insurer's Moat

As detailed in [\[\[personal-auto-insurance-obsolescence-morningstar-report\]\]](#) and [\[\[waymo-swiss-re-safety-claims-data\]\]](#), autonomous driving is drastically reducing claims frequency. By taking underwriting in-house and self-insuring its autonomous fleet, Tesla is not just bypassing traditional carriers — it is capturing the high-margin premium pool that insurers like

Progressive and GEICO depend on, accelerating the hollowing out of the traditional personal-auto insurance business model.

Instance of `[[c579653da6fed]]{why="You cannot outsource liability for an AI agent's actions to the AI."}`

## **Personal Auto Insurance Obsolescence: The Existential Threat to Progressive and Allstate**

# **Personal Auto Insurance Obsolescence: The Existential Threat to Progressive and Allstate**

According to a comprehensive report by Morningstar, the rise of autonomous vehicles (AVs) poses an existential threat to personal auto insurers. In an aggressive adoption scenario, Level 4 or 5 autonomous vehicles could make up 60% of cars on the road by 2044, shifting liability entirely from drivers to manufacturers and rendering traditional personal auto insurance largely obsolete.

The report warns that the transition could destroy massive value for insurers that are heavily concentrated in personal auto premiums. The threat is highly asymmetric:

- **Progressive Corp (PGR):** Highly exposed. Personal auto constitutes the vast majority of Progressive's business (with homeowners making up only 4% of premiums). Morningstar models a 21% to 26% decline in Progressive's valuation under its aggressive scenarios, predicting that the insurer could be forced to completely shut down its operations by the time Level 4 AV penetration reaches 60% (around 2043–2044). This stands in stark contrast to its current financial success, where Progressive boasts a 18.6% market share and a highly profitable combined ratio below 90 in 9 of the last 10 quarters (as shown in </markets/PGR/2026/06/02>).
- **The Allstate Corp (ALL):** Moderately exposed. While auto insurance is its largest line, Allstate maintains a massive homeowners franchise. Morningstar estimates a more modest 13% to 15% decline in Allstate's value because it lacks an underwriting moat (meaning less high-margin profit to lose) and can continue operating as a homeowners insurer (see </markets/ALL/2026/06/02>).
- **Travelers (TRV):** Minimally exposed. Only 20% of Travelers' premiums come from personal auto, with 60% coming from commercial lines, resulting in a minor 4% to 6% projected valuation impact.

During its Q1 2026 earnings call, Progressive's management downplayed this long-term threat, treating autonomous driving primarily as a commercial partnership or Transportation Network Company (TNC) opportunity:

"Progressive monitors the TNC market and autonomous vehicle developments closely. They believe there will be a mix of human-operated and autonomous TNCs in the future. Progressive is diversifying its Commercial Lines offerings to mitigate risks and capitalize on growth opportunities in the TNC space."

This reveals a significant divergence between the rapid adoption curves projected by AV operators and the gradual, non-disruptive transition modeled by traditional insurer management.

Instance of `[[c579653da6fed]]{why="You cannot outsource liability for an AI agent's actions to the AI."}`