

Shifting gears in a changing landscape

A global perspective of motor (re)insurance



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A global perspective of motor (re)insurance

Motor insurance is one of the largest non-life lines of business globally, making up about 40% of the total USD 2.2 trillion property and casualty market. At Swiss Re we have supported our clients in the motor insurance market for nearly 125 years with proportional and non-proportional reinsurance treaties. Beyond risk transfer coverage we have also collaborated with clients to develop innovative products, provide claims assistance and market insights backed with dedicated local expertise.

Given the importance of motor, largely due to compulsory covers in much of the world, Swiss Re's Casualty Reinsurance Department prepared a global report covering some of the recent trends and dynamics impacting the line of business from a global reinsurance perspective. The report is aimed at C-suite decision makers, motor underwriters and brokers covering the casualty and motor sector.

The report covers a number of key themes, including:

- A global outlook on the motor insurance market
- Factors driving motor insurance performance
- The impact of rising technology in modern vehicles

In addition, the report includes four country specific reports covering local dynamics and trends in China, Germany, the UK and the US.



We hope you enjoy the insights provided in the report and if you'd like to discuss motor reinsurance please contact us.



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Introduction

While the century-old concept of motor insurance is familiar, this dynamic market has undergone rapid change, impacted by forces including the COVID-19 pandemic and its influence on mobility patterns and claims inflation; telematics and the rise of the sharing economy; the proliferation of electric vehicles (EV); introduction of new safety features such as advanced driving assistance systems (ADAS) and, more recently, autonomous driving; and legal and regulatory change.

At Swiss Re, we have supported our clients since 1901, the year we wrote our first motor reinsurance agreement (see image below). Nearly 125 years later, we continue to gather and disseminate insights about critical lines of business, to improve our underwriting decisions and to support clients.

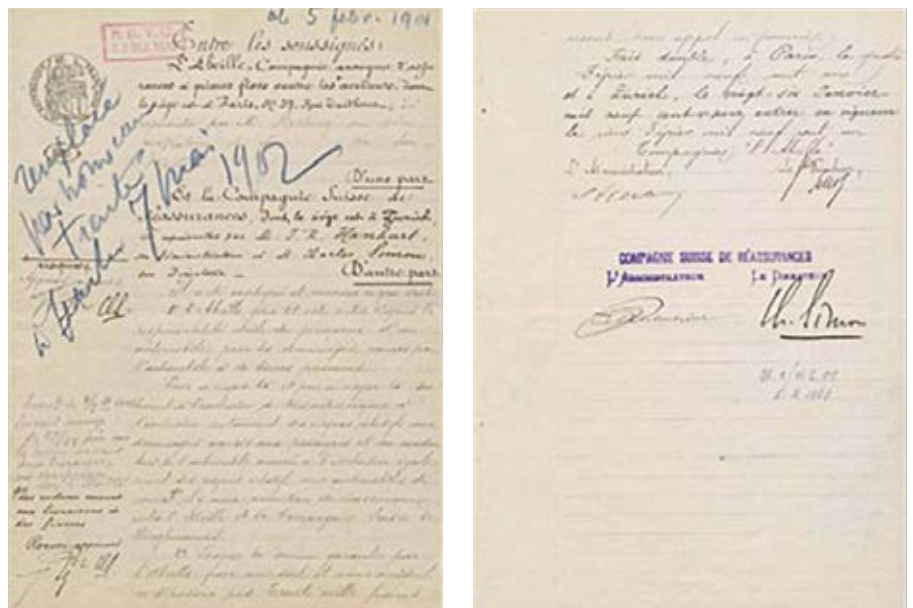


Image of our first motor reinsurance treaty: Back in 1901 motor insurance mainly covered liability for injury to third parties and was typically an add-on to accident insurance. With the introduction of optional components, comprehensive coverage, regulation, no claims discounts and telematics motor insurance is far more comprehensive and tailored today reflecting changes in society, technology and consumer expectations.

Motor insurance is a strategic business for our clients, given its compulsory nature and status as the largest Property & Casualty (P&C) line of business. Given its importance, Swiss Re's Casualty Reinsurance Department recently conducted a review of the global motor insurance landscape. This resulting report, which explores several key trends that are impacting the motor insurance business, is aimed at C-suite decision-makers, motor underwriters and brokers covering the casualty and motor sector.

A strong commitment

Based on our global analysis of motor insurance from multiple sources, several trends merit closer scrutiny by primary insurers and reinsurers:

- Swiss Re's near-term global outlook for motor insurance is relatively positive with some country specific nuances as the industry works through the impacts of COVID-19-related inflation, but competition levels are increasing after price corrections.
- The introduction of new tariffs will materially impact claims severity and significantly drive-up repair costs as inventories of spare auto parts diminish. This will also increase the time taken to undertake repairs whilst manufacturers set up local operations and supply chains come under pressure.
- Medical inflation is on the rise, with many countries experiencing significant increases, including in India, Europe and the United States.
- The rising complexity of modern vehicles will likely continue to drive maintenance and repair costs higher in the short-term. However, over the long-term advanced safety features, including ADAS, have the potential to reduce accident frequency, which would have a favourable impact on motor insurance profitability globally.
- As total distance driven recovers from pandemic-related lows, higher speeds on the roads and distracted drivers have contributed to greater accident severity and higher fatality rates even as new safety features exert downward pressure on accident frequency.
- Motor insurance in emerging economies like India is also changing, as rising affluency, the proliferation of higher-value vehicles and electric vehicles, and litigiousness pose potential challenges to what has historically been a profitable line of business.
- China's rapidly expanding EV fleet and the development of its insurance market offer an interesting model for insurers elsewhere to watch closely, as they anticipate similar changes in their own markets.
- Intensifying weather-related perils may so far be insufficiently reflected in premiums, driving greater motor-own damage losses.
- Commercial motor performance remains impacted by inadequate rates and challenges like social inflation in the US that are driving up litigation costs. The role of changing demographics is also a consideration, as experienced workers retire and less experienced commercial operators fill jobs, including in delivery services.

The pandemic was a well-documented shock to the motor insurance system. While 2020 combined ratios dipped below historic levels, inflation and supply chain challenges quickly began weighing on results. Insurers responded by raising premiums.

With the pandemic now in the rear-view mirror, we were anticipating that the motor market would revert to more normal dynamics over the next 18 months. However, the introduction of new tariffs will likely cause claims cost to rise and consequently lead to a reversal of the recent reductions we've seen in motor premiums.

Before the emerging trade wars and associated tariffs came sharply into focus in April 2025, the motor insurance market had seen improved profitability and signs of increased competition had emerged. The uncertainty about how global trade policies may impact supply chains, claims losses and inflation is now front of mind for motor insurers. The upshot is, this competitive market's challenges persist and are being joined by new ones, as mobility undergoes a dramatic transformation. With volatility that accompanies such changes, our midterm-view calls for more caution.

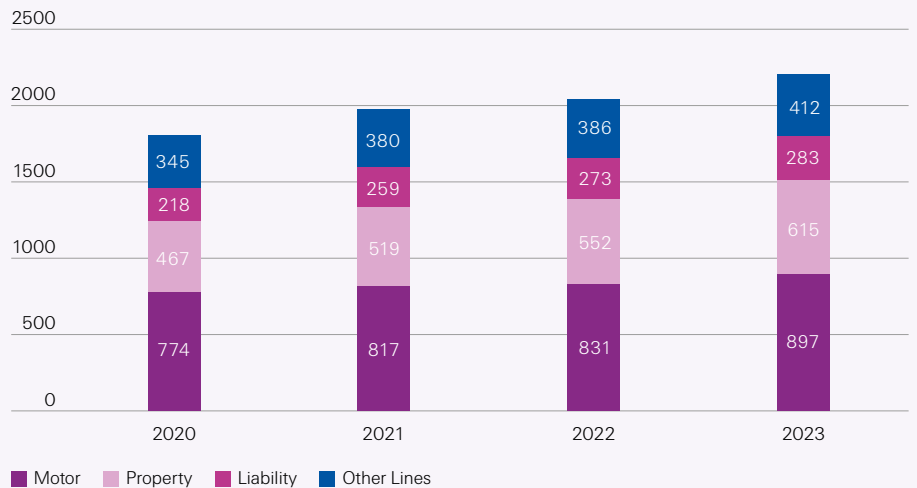
A critical segment for insurers and reinsurers

Worldwide light vehicle sales rose to nearly 90 million units in 2024 according to a report by S&P Global Mobility. The collective fleet now on the roads represents the most diverse assortment of vehicles since the automobile’s invention. Despite this vast diversity, however, these cars and trucks have something important in common: virtually all of them, and their owners and drivers, are covered by a compulsory insurance policy.

Without insurance, risk of accidents and their potentially crippling financial losses would be too much for vehicle owners to shoulder on their own. For P&C insurers and reinsurers, the significance of motor insurance cannot be overstated, either: globally, premiums collected from personal and commercial vehicle owners make up about 40% of the USD 2.2 trillion P&C market (see figure 1).

These premiums range from coverage for motor third-party liability (MTPL) for property damage and bodily injuries suffered by third parties in vehicle accidents, as well as motor-own damage (MOD) protecting against harm to a driver’s own vehicle, including natural catastrophes like hail and floods as well as no-fault schemes for bodily injuries.

Figure 1
Global primary insurance premiums by line of business (USD bn)



Source: Swiss Re Institute

Motor insurance is highly strategic but a very competitive market, with historically low volatility and low margins. As an entry product, it is an enabler for insurers to deepen their relationships with clients via other insurance products. Motor insurance’s underlying volatility overall is lower than with other lines of insurance, too. However, recent inflation spikes and the impact of extreme weather events on motor own damage are stressing volatility in the motor sector in many countries. That said, globally, less than 5% of the motor insurance risk pool is ceded to reinsurers.

Still, reinsurance plays an important role. Motivations among primary insurers to enter into proportional and non-proportional reinsurance treaties include requirements for capital relief, boosting underwriting capacity and helping insurers reduce volatility, especially in geographies where there may be high or unlimited compulsory third-party bodily injury (TPBI) limits.

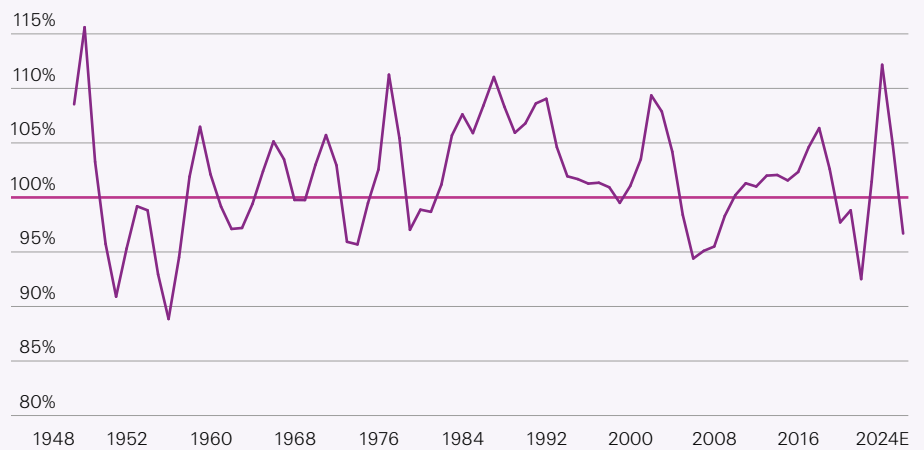
With non-proportional reinsurance, primary insurers rely on reinsurance to manage their risk appetite in key areas, including:

- Reducing volatility from high or unlimited compulsory TPBI limits
- Managing risks associated with changes in statutory compensation rates
- And to protect themselves from volatility that comes with natural catastrophes like floods, hail or other events that can quickly impact hundreds or even thousands of vehicles at once.

Viewed globally, personal motor insurance profitability is structurally challenging (see figure 2), with highly competitive markets where consumers can easily compare prices. Often, it relies on investment income to compensate for technical underwriting losses. Compulsory third-party liability insurance is used as a means of acquiring clients, with profits generated through the sale of ancillary products and through other lines of business.

While mainly driven by local dynamics, the sector is vulnerable to global shocks, with COVID-19 a recent example: during lockdowns, many drivers remained home, reducing their mileage and the frequency of minor accidents. Some insurers offered significant discounts as people drove less.

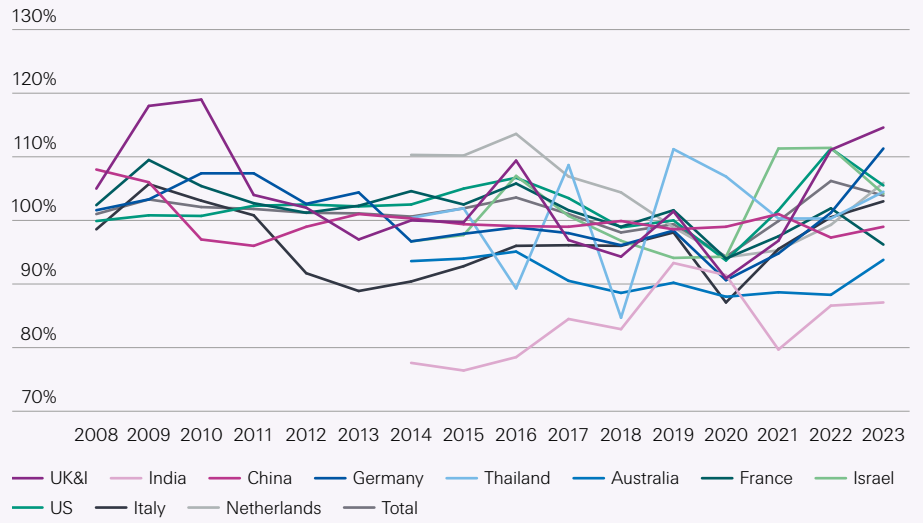
Figure 2
Personal auto combined ratio
1945–2024E



Source: AM Best, US Bureau of Labour Statistics, Swiss Re Institute

With pandemic-related supply chain disruptions and a sudden jump in prices, there was a shortage of spare parts and rising repair costs. This had a significant impact on profitability of motor insurance in many regions, with combined ratios rising to the highest levels in more than a decade (see figure 3). For example, US personal motor insurers lost a cumulative USD 53 billion in 2022-23 according to the Swiss Re Institute. In response, insurers increased premium rates once state regulators approved the rate increases, to help restore underwriting results. At the start of 2025 rate increases had slowed, largely due to disinflation, improved underwriting performance, and increased competition. However, vehicle repair costs are set to rise significantly due to newly introduced tariffs and increased claims costs will need to be factored into pricing models. This is expected to result in rate hikes of at least 8% for motor insurance by the end of 2025 according to [Insurify](#), an American insurance comparison site.

Figure 3
 Motor combined ratio for selected insurance markets since 2008



Source: S&P Global Insurance Statutory Financials, Underwriting and Investment Exhibit

Know your market: local factors drive motor performance

Historically, primary motor insurance business performance has been largely driven by local market conditions, including the impact of legal changes on in-force portfolios, impacts from new market entrants, and – with the intensification of weather-related hazards that have struck areas that have experienced population growth, urbanisation and the accumulation of valuable assets including vehicles – natural catastrophes. Some specific local drivers include:

In the UK, the Ogden discount rate plays a crucial role in shaping the performance of motor third party liability for bodily injury claims. Reviewed at least every five years, it's used to calculate lump-sum compensation payments for long-term injury claims, ensuring they receive fair settlements while still accounting for investment returns. A recent change in the Ogden rate that took effect in December 2024 should ease the pressure on UK non-life underwriting results.

In the US, state regulation of insurance can impact insurers' ability to adjust rates as they balance consumer protection with the business interests of insurers. In some instances, this can lead to slower implementation of rate adjustments, with more abrupt increases in rates when changes are approved.

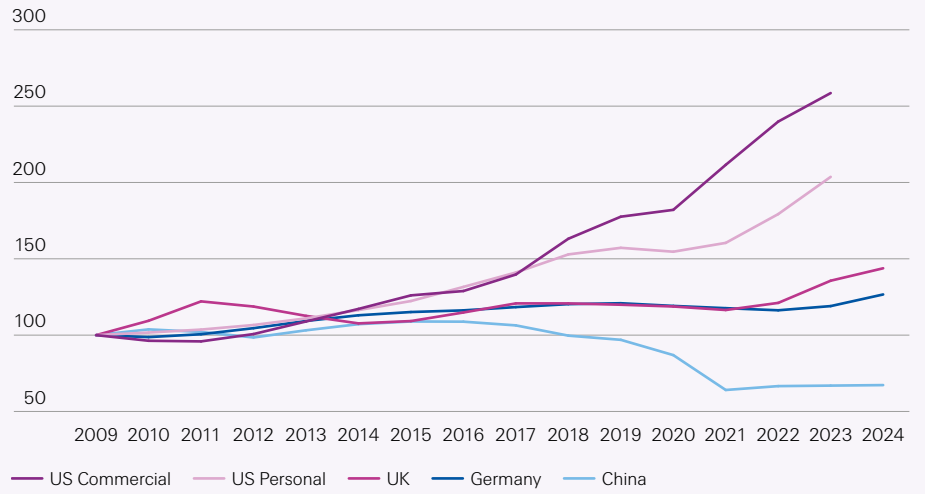
The role of telematics varies from market to market. In the US, it is often used to calculate premium levels based on driving behaviour, while in the UK it is a tool that helps enable insurance coverage for younger, less experienced drivers; in Italy, telematics has been deployed to help clarify claims and as a defense against theft mainly through black-box or other installed devices, while South African insurers have used telematics as a way to reward safe behaviour with discounts and benefits through an ecosystem of service providers, and to enhance cross-selling and engagement.

The EU's motor insurance directive has established the framework for those holding a compulsory motor insurance policy in the 27-member bloc, governing broad-ranging areas including minimum third-party liability cover and the pace of claims settlement while leaving issues of civil liability and the calculation of compensation awards to individual countries.

In the United States, commercial motor insurance has been challenging, a trend likely to continue given the market remains a focus for plaintiffs' lawyers. Social inflation plays an outsized role, having added some USD 20 billion to commercial auto liability claims from 2010 to 2019, according to a 2022 study by the Insurance Information Institute and the Casualty Actuarial Society (CAS).

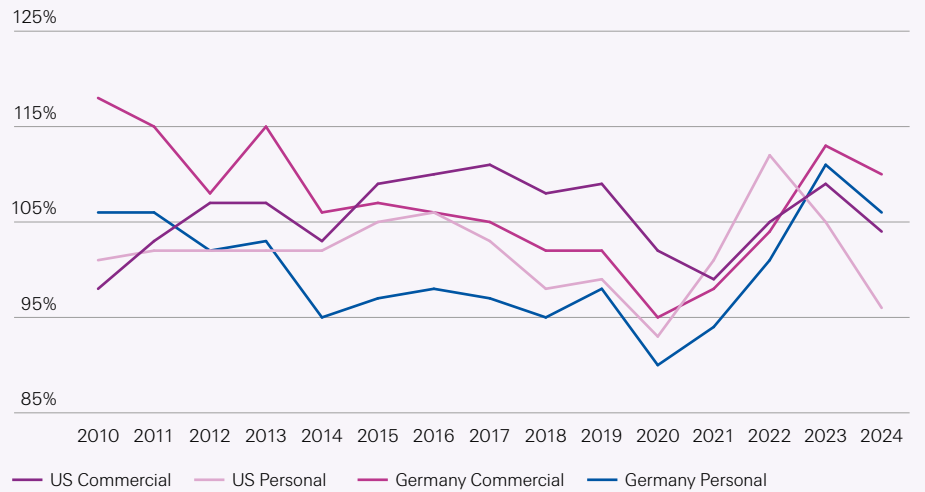
Demographics may be important to consider, with a generational change among commercial motor operators occurring and younger, less experienced people filling driving roles especially in the trucking sector (see figure 6); studies have found that the first year of driving a commercial vehicle is riskier in terms of crash rates, crash involvement, and moving violations, regardless of age. Despite material commercial motor rate increases since 2015, profitability has yet to be restored (see figures 4&5).

Figure 4
Rate changes for selected markets
(2009 = 100)



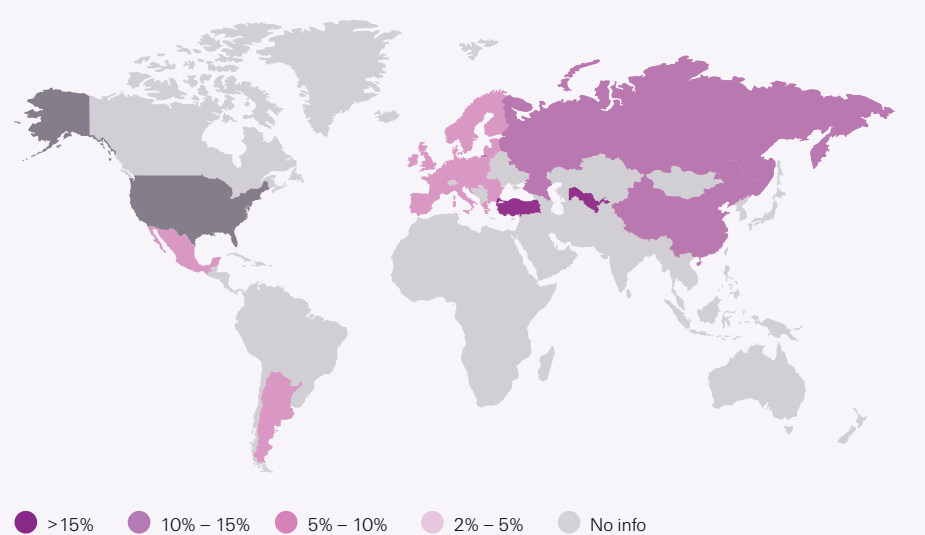
Source: Swiss Re Institute

Figure 5
Commerical and Personal Auto combined
ratio for US and Germany



Source: Swiss Re Institute

Figure 6
Global truck driver shortages in 2023



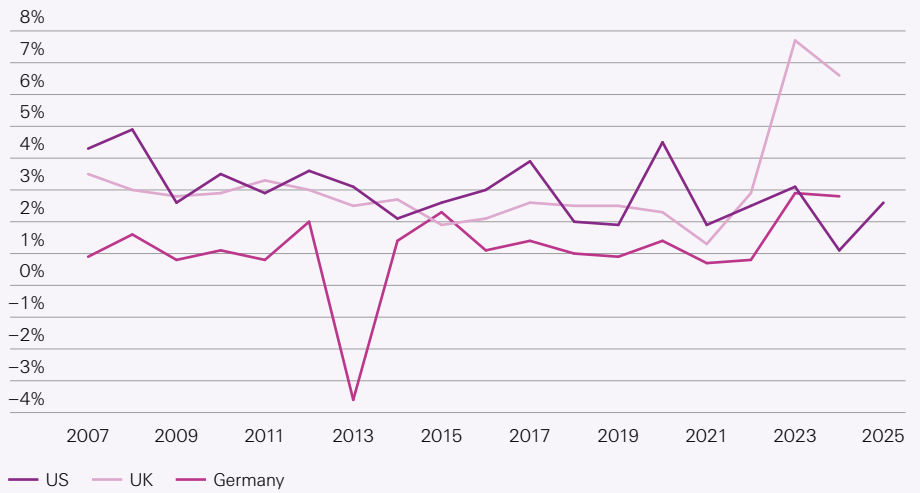
Source: IRU survey 2023, National Road Transport Associations and Eurostat

Specific near- and medium-term trends impacting motor insurance performance

Key economic drivers for Motor re/insurance include:

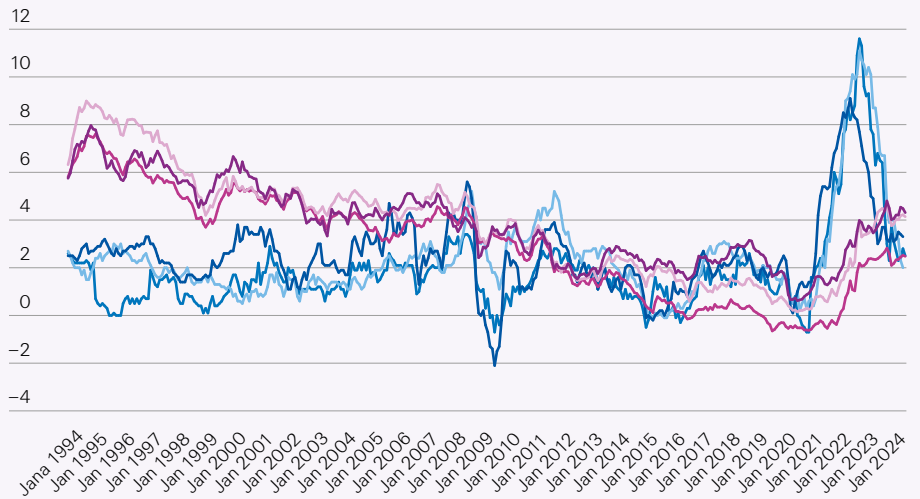
- **Maintenance and repair costs** for motor own damage, impacted by inflation spike. On the rise as car complexity increases, expected to continue.
- **Health expenses** impact bodily injury compensation, expected to increase in long-term.
- **Mobility patterns** changed post-pandemic led to fewer minor claims, more large losses. Continued reduction in frequency expected long-term.

Figure 7
Health inflation is on the rise



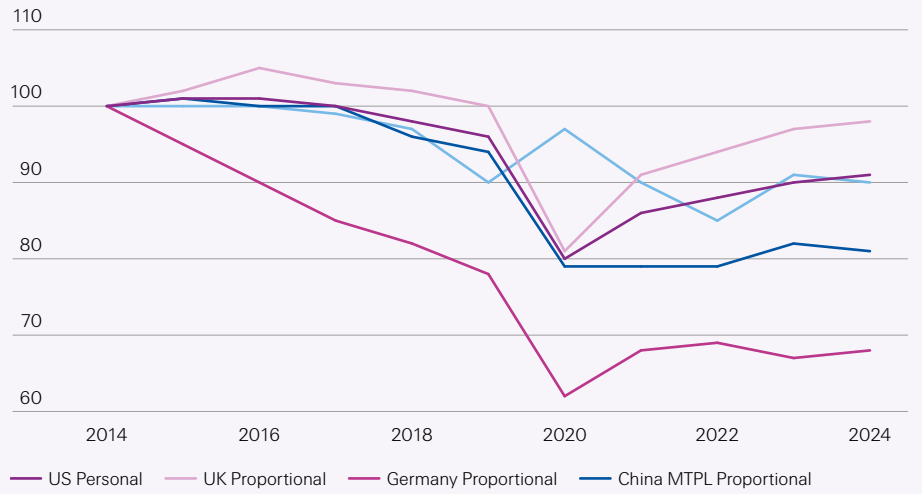
Sources: Eurostat, US Inflation Calculator, UK Office for National Statistics

Figure 8
Interest rates have reached levels unseen since 2008



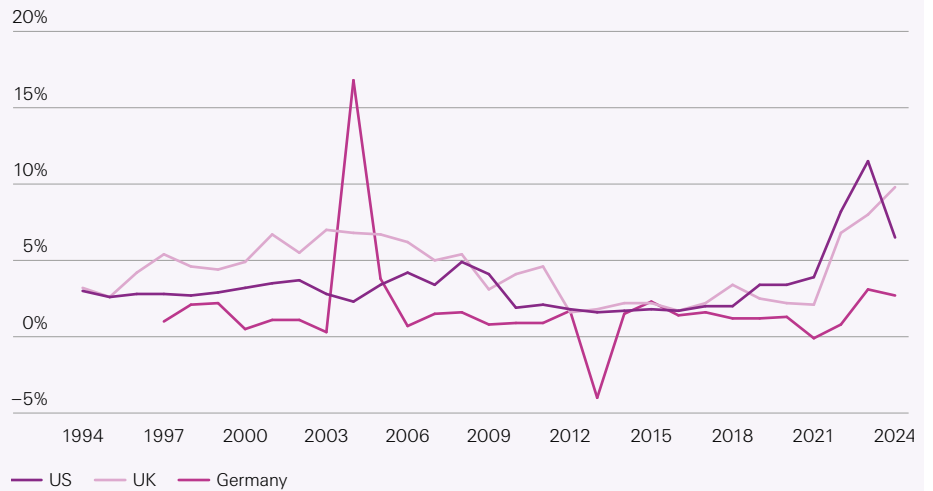
Sources: Eurostat, Federal Reserve Bank of St. Louis

Figure 9
Long-term downward frequency on claims



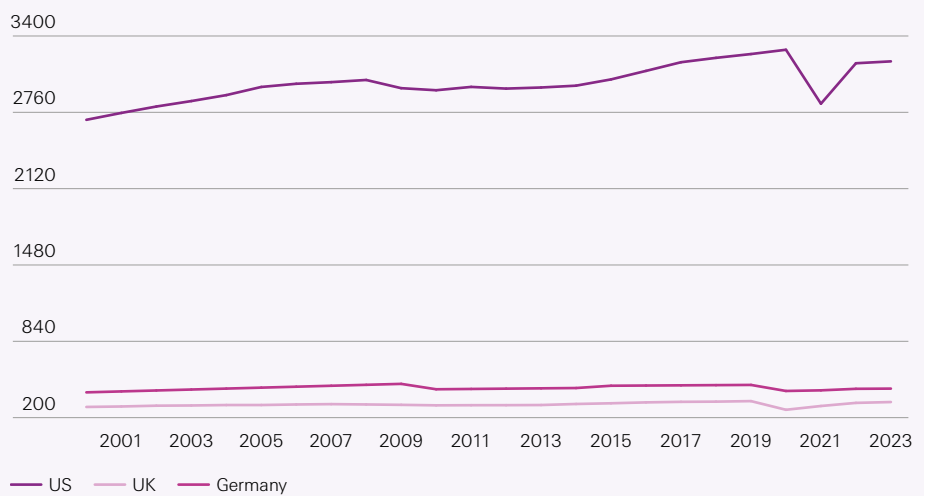
Source: Swiss Re

Figure 10
Annual rate change of maintenance & repair costs



Sources: Eurostat, UK Office for National Statistics, Federal Reserve Bank of St. Louis

Figure 11
Total distance driven (in billion miles)



Sources: Federal Highway Administration, monthly traffic volume trends report (US), Department for Transport National Road Traffic Survey (UK) and Bundesanstalt für Straßenwesen (DE)

Health expenses and medical inflation: The costs of health and medical care for people who have suffered bodily injury in a vehicle accident are expected to continue to increase, particularly in regions where medical personnel shortages are expected to intensify.

Medical costs in China, for example, are expected to rise by almost 11%, marking a second consecutive year of double-digit increases. Furthermore, medical costs in India increased by over 12% in 2024 and could go higher in 2025 due to medical technology costs and rising healthcare demand. Asia-Pacific is not alone, according to US government figures, there will be a shortfall across nursing staff, long-term care services and among physicians, with the gap intensifying between now and 2037. Other markets including Germany and the UK also report health and medical staff shortages that may exert increasing pressure on costs. As indicated in the chart above, health inflation in the UK and Germany rose in 2024 to around 6% and 2.8%, respectively (see figure 7).

Repair costs: While inflation and supply chain challenges have moderated since their COVID-19 peak, repair costs remain high, resulting in pressure on claims (see figure 10). This will be further impacted by auto tariffs being imposed on vehicle parts coming into the US, and retaliatory tariffs on US exported vehicle parts will only exacerbate the impact. Much of the car repair market is heavily reliant on imports, for example in February the American Property Casualty Insurance Association (APCIA) reported that 6 out of every 10 auto replacements parts used in US auto shop repairs are imported from Mexico, Canada and China. The US itself exports over USD 41 billion in motor vehicle parts and accessories, and this will add to repair costs globally, especially in countries that receive the goods including Mexico, Canada, Australia, China and Germany. Additionally, APCIA estimates that personal auto insurance claims costs alone could increase by between USD 7 billion and 24 billion annually. The tariffs will also increase the costs of imported new cars worldwide and this will have a knock-on impact on the price of used cars which will also need to be accounted for in actuarial models.

As well as driving up repair costs, the tariffs will also result in increased total loss determinations as vehicles become too expensive to repair from a financial standpoint. The tariffs will also upend supply chains and as inventories of spare parts shrink repair costs will be pushed higher. The previous tariffs from 2018 were factored into pricing models for certain auto insurance programmes and rate adequacy will need to be reassessed to account for the new tariffs in 2025. Insurify projects the average annual cost of full-coverage car insurance will climb 19% by the end of 2025. Additionally, a decline in cross-border freight traffic will further impact commercial motor insurance, potentially limiting premium growth.

Moreover, the increasing sophistication of 21st century vehicles and the complexity of repairs add to pressure on motor insurers' costs. With EV sales forecast to grow 30% annually up to 2030, studies in the US, Germany and UK have all indicated differing views on repair costs, including those linked to accidents, for EV (further information on insuring EV is available from the Swiss Re Institute). This may change over time, however as scale is reached by mass-market EV car makers. In the US, Mitchell, a Enlyte company, reports that claims severity between EV and newer internal combustion engine (ICE) vehicles is narrowing. Last year the average severity of newer ICE vehicles with more technology onboard was USD 6,127 compared to the average claims severity for repairable EV which was USD 6,236 in the US, a 3% decrease year on year. However, Germany and the UK report that repairing an EV is as much as 35% higher than ICE vehicles and can take 14% longer. However, it's important to note that all vehicles are getting more complex in terms of high-tech features and sophisticated electronics that are expensive to replace. Furthermore as the insurance industry becomes more familiar with EV it will allow for better assessment of repair needs and more competitive pricing for coverage.

Coverage changes: Different countries have varying regulations regarding minimum cover requirements, which can significantly impact insurance coverage. In the US for example, several states, including California, North Carolina, Virginia, Maryland and Utah are increasing minimum coverage requirements, the first such update in 56 years. While these adjustments reflect rising accident costs, they could lead to increased premiums for those drivers that carry minimum coverage as well as the potential for more aggressive litigation, if higher coverage boosts the incentive for more lawsuits. Similarly in Germany, there have been discussions about adjusting minimum coverage limits to better reflect current vehicle repair costs and safety standards.

In the UK however, changes to the whiplash reform should result in a reduction in premium levels as all whiplash and minor psychological injuries lasting less than two years will be compensated under a fixed tariff (see figure 12).

Figure 12

Comparison of Current and Revised UK Whiplash Tariff

Duration of Injury	Current Whiplash	Current Whiplash + Psych	Revised Whiplash	
0–3 months	£240	£260	£275	£300
3–6 months	£495	£520	£565	£595
6–9 months	£840	£895	£965	£1,025
9–12 months	£1,320	£1,390	£1,510	£1,595
12–15 months	£2,040	£2,125	£2,335	£2,435
15–18 months	£3,005	£3,100	£3,445	£3,550
18–24 months	£4,215	£4,345	–	

Source UK Parliament

Traditionally, in developing countries like India policy wording, structures and premiums have been standardised and governed by high tariff regulation. However, since 2007 the Insurance Regulatory and Development Authority of India (IRDAI) has started to detariff motor insurance starting with motor own damage insurance, allowing insurers the freedom to set their own premium rates based on market conditions and risk assessments, however motor third party liability remains regulated. This transition has also heightened competition and resulted in a wider range of motor insurance products, including usage-based insurance, add-on covers and multi-year policies for motorcyclists, as well as technological advancements, such as telematics to enhance underwriting process and assess risk more accurately. The competitive landscape has also led to challenges, including increased instances of fraudulent claims, which can be as high as 15-20% in some countries, necessitating robust claims management processes. A similar scenario played out in China from 2006 when the China Insurance Regulatory Commission (CIRC) initiated a gradual deregulation process, allowing insurers more flexibility in pricing motor insurance products and has led to innovation in product offerings, including customised policies and usage-based insurance plans.

Drive time and accident frequency: Despite a sharp initial recovery in mileage driven as COVID-19 lockdowns were eased, distance driven in many markets still has not returned to the levels of 2019 (see figure 11). This comes, at least in part, from persistent workplace changes including home office. Although the trend to bring employees back to the office could see distances driven increase in future years. Simultaneously, safety improvements in cars – notably linked to ADAS for new vehicles like those already in effect in the EU or US rules due to take effect come 2029 requiring automatic emergency braking systems – have potential to reduce accident frequency over a longer time horizon. That said in many countries, such as Germany and the US the increased level of accidents from distracted drivers through factors such as in-car technologies, mobile phone use, eating and drinking and even grooming, is a concerning trend for insurers and reinsurers.

In growing economies like India road safety is a pressing concern. Despite a comparable average driver distance to European countries, the number of road accidents and fatalities in India has reached new heights claiming between 150,000 to 178,000 lives each year predominantly due to parked trucks, lane discipline, motor cyclists not wearing helmets and indifference to traffic laws. However, national road safety policies, technology, and public engagement, should help to reduce road accidents in future years. In China however, which has seen a rapid increase in vehicles, drivers and road mileage, the number of major accidents and fatalities saw a significant year-on-year decrease of nearly 50% in 2024, according to the ministry of emergency management.

Interest rates: The general economic uncertainty induced by escalating trade tensions is likely to delay buying and investment decisions by business and consumers (see figure 8).

Central banks will continue to lower interest rates in 2025, with trade tensions posing a larger asymmetric impact on economic growth than inflation. In particular the euro area and China will see relatively lower interest rates compared to the US, which will impact insurers' investment returns, including those of motor insurers.

However, long-dated government bond yields are likely to still see a natural floor both in the US (stubborn inflation and rising inflation expectations) and Europe (greater fiscal spending, especially in Germany) and will remain elevated relative to the rates seen over the decade prior COVID-19.

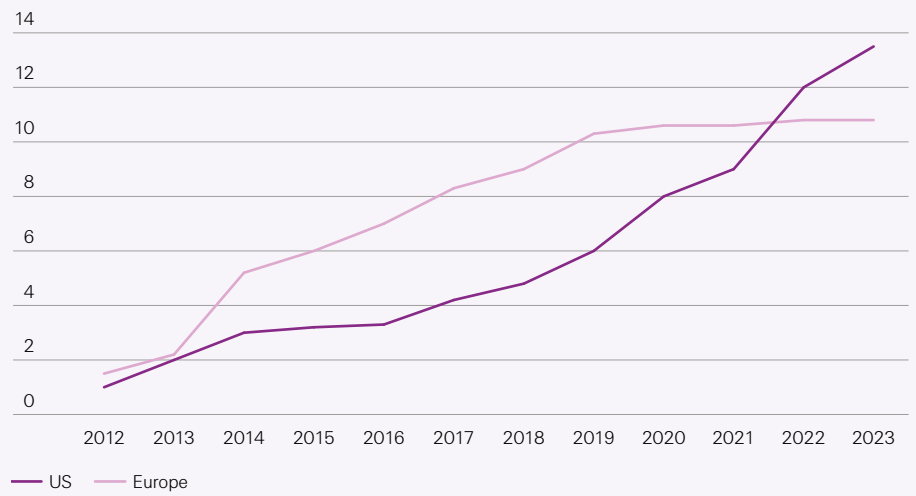
Intensifying hazards: Increasing weather-related natural catastrophe losses challenge the profitability of insurers' motor books that already experience thin margins amidst high competition. For instance, the hailstorm in Calgary, Canada in August 2024 caused significant motor losses and estimates put the insured auto losses from this event at approximately CAD 1 billion. Moreover, intense hailstorms in Europe, North America and Asia in recent years have caused widespread damage including to vehicles, in some instances resulting in losses that far exceeded original expectations. In India motor insurance claims spike by as much as 40% during monsoon season between June and September due to an increase in accidents and vehicle own damage. Another case in point is the unexpected floods in Dubai last year that damaged thousands of vehicles. Like the recent LA wildfires the short evacuation lead time, coupled with the high value assets in Dubai led to a larger than usual motor proportion on the total loss. Furthermore, many residents in Dubai worried about possible hail damage parked their cars in underground garages that made them extremely vulnerable to flood, which ultimately exacerbated the motor insurance losses.

The future is CASE

Over the next two decades, motor insurance and companies that offer this protection will need to evolve to rise to the challenges and opportunities associated with a mobility sector undergoing rapid transformation. Vehicles of the future will be more connected, autonomous, shared and electric (CASE), and insurance must be tailored to fit this new reality.

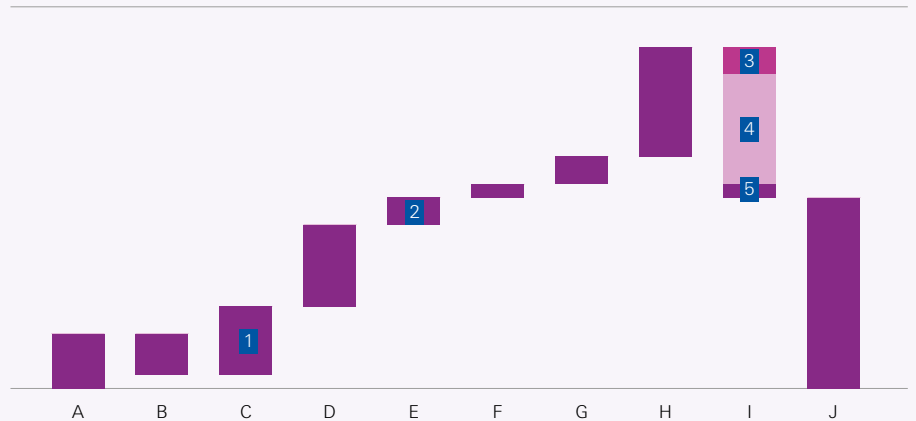
Connected: The increased penetration of telematics will allow insurers that leverage the vast volumes of driving data being produced – by 2023, insurers had already received data from more than 20 million connected vehicles and drivers globally – to glean even greater insights about driver behaviours (see figure 13&14). This can help them better mitigate risks and improve the performance of their motor portfolios, something that insurers deploying this technology have already demonstrated after more than a decade of experience.

Figure 13
Telematics: number of cars connected with an insurer (in millions)



Source: IoT Insurance Observatory

Figure 14
Combined ratio improvement from a telematics programme



Source: IoT Insurance Observatory

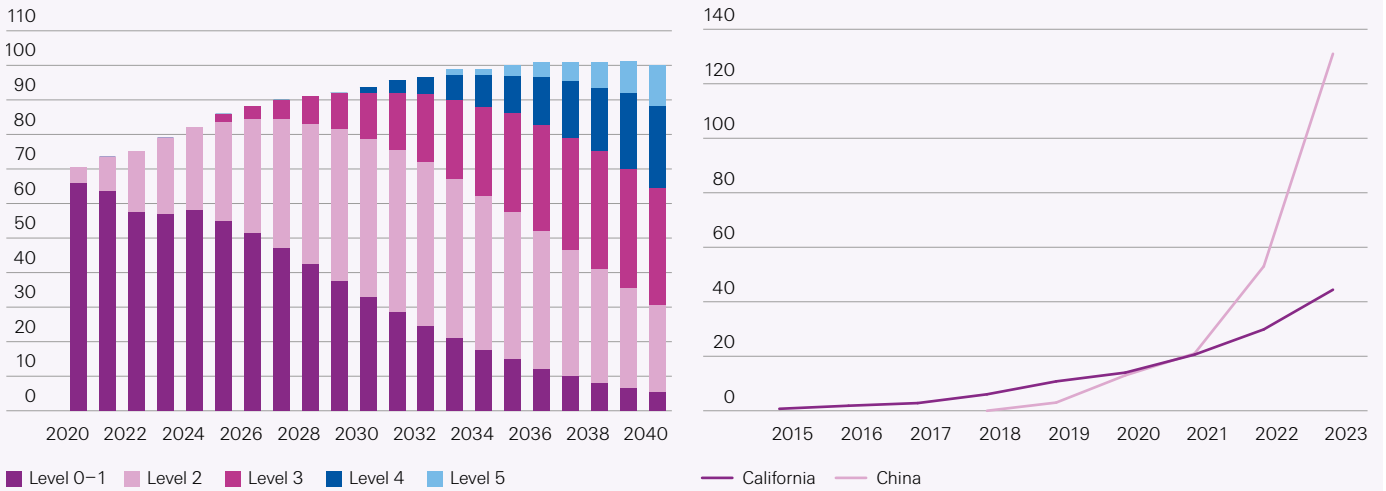
Categories	Comments
A Traditional bottom line	1 Best practices showed up to 3 percentage points on the loss ratio at portfolio level through a structured behavioural change programme.
B Telematics costs	
C Risk prevention	
D Enhanced claim management	
E Churn reduction	2 Best practices showed:
F Increased efficiency	<ul style="list-style-type: none"> Up to 20% better retention than the market average (0.5 – 1 percentage points on the combined ratio). Extremely lower churn in the clients who received rewards
G Partners' contributions	3 Rewards to the customer
H Street value of telematics services	4 Street value of the IoT services
I Value sharing	5 Intermediary remuneration
J Bottom line with telematics	

Autonomous: While estimates vary, some predict as many as 25% or more of new vehicles sold by 2040 will be either semi- or fully autonomous vehicles (AV) (see figure 15). Consequently, we may see a shift to product liability insurance over the medium term. This will likely impact not only AV producers but their suppliers, as well, including those who provide artificial intelligence (AI) systems that guide a new generation of self-driving cars. Still, there is evidence that autonomous vehicles may be safer than even advanced human-driven vehicles, a study by Swiss Re and Waymo indicates 88% reduction in property damage claims and 92% reduction in bodily injury claims associated with autonomous driving. One area for insurers to watch includes consumer perceptions about who is at fault when an AV is involved in an accident.

In a study published in 2023, Swiss Re and Harvard Business School researchers, led by Prof. Julian De Freitas, found that many consumers may judge companies that make autonomous vehicles more liable than companies that make human-driven vehicles and human drivers for damages when not at fault. If consumers are inclined to hold AV firms more liable than HDV firms for identical accidents not at fault, then this outcome has both economic and societal implications – and implications for insurers. Over time, a large AV rollout will likely 'normalise' consumers' perceptions of these vehicles, potentially reducing the likelihood of bias over who to hold accountable in the event of an accident.

Figure 15

New vehicle sales per ADAS level installed (in millions, LHS) and cumulated distance driven testing L4+ (KM mio, RHS)

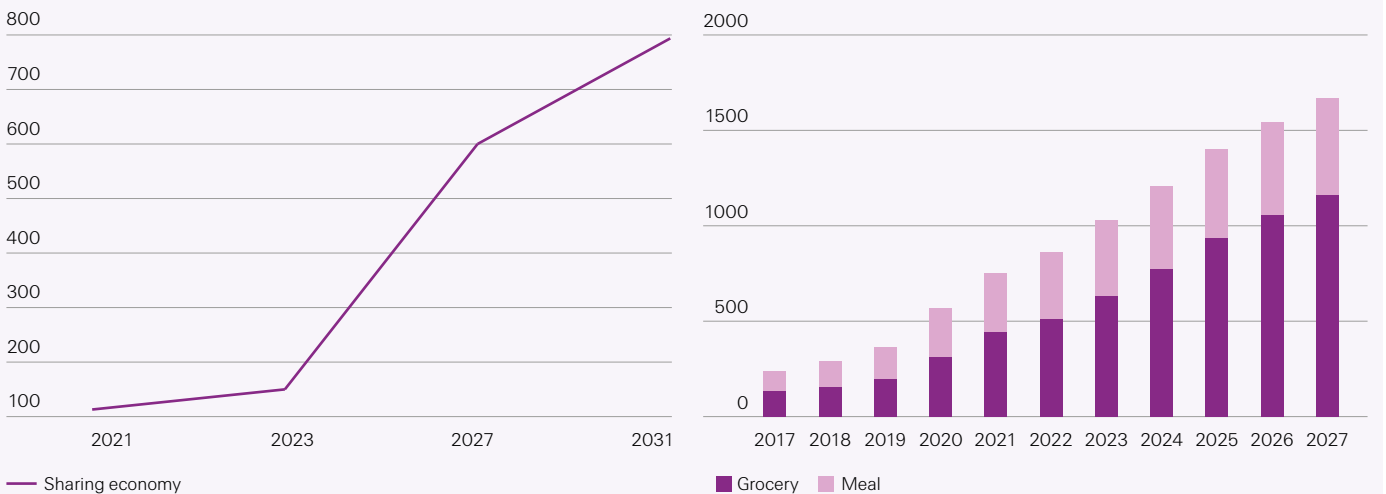


Source: Bloomberg NEF

Shared: Car ownership itself is changing, spurred in part by the expansion of the so-called sharing economy (see figure 16). Sharing economy business models imply a shift of operational risks, and a need for new types of protection coverage. Generational shifts support this, as well, with younger Gen Z consumers indicating that car ownership is less of a priority for them than it is for older Baby Boomers, at least for now. Even so, we expect vehicle-sharing to account for only a fractional shift in premium revenue from personal to commercial motor insurance lines, which is seen as more than doubling to USD 390 billion in global revenue by 2033, according to Allied Market Research. Despite underperformance in recent years due to social inflation, commercial motor has a path to profitability built on investing in technology to collect data and improve understanding of risk.

Figure 16

Worldwide value of the sharing economy (LHS) and only food delivery services (in USD bn, RHS)



Source: Bloomberg NEF

Electric: With vehicle transportation among the largest current sources of greenhouse gas emissions, carbon-dioxide (CO₂) reduction ambitions laid out by the 2015 Paris agreement have boosted sales of hybrid and battery electric vehicles. Battery electric passenger vehicle (BEV) sales in 2025 are expected to reach about 15.1 million units, according to some estimates, which would represent a 30% rise from 2024 levels; by 2035, half of all vehicle sales could be EV. China is currently leading the way, as sales of all types of electrical vehicles there (including buses, passenger cars, and trucks) rose 4.5% in 2024 to 31.4 million units.

Globally, the sophistication of EV now contributes to higher repair costs and increased insurer losses. According to a report published by Thatcham in 2023, the cost of repairing a BEV in the UK can be 25% higher than a car powered by an ICE due to lack of specialised repair network, higher replace-to-repair ratio and drawn-out spare part delivery. And, according to a 2024 report published by the German Insurers' Association, each EV claim costs up to 25% more on average than comparable ICE vehicles. Furthermore, batteries are a significant factor in claims severity and in the most serious incidents, when EV catch fire they are harder to extinguish than ICE vehicles and the risk of reignition is higher.

Worryingly EV drivers tend to have a higher frequency of claims, in China we see that the accident rate for EV is almost double the rate of ICE vehicles. Part of the reason is a bigger share of EV driving on roads for commercial use, including ride sharing, and the difference in vehicle handling that take time to adapt to because they accelerate more quickly. The statistics clearly show that in the first year, frequency and therefore loss ratios are higher. However, on the plus side ADAS will reduce accidents, both in EV and ICE vehicles. In fact, the US National Highway Traffic Safety Administration predicts that if all vehicles are equipped with effective ADAS technology, 62% of total traffic deaths could be prevented. A study in the US also found that ADAS could reduce accident frequency by over 23%.

However, many of the factors driving up EV losses are short-term. As they become more prevalent and drivers adapt to differences in the way EV handle and accelerate, and garages get more used to repairing EV, they should be able to reduce the repair time and cost. This means that the loss ratio between ICE vehicles and EV will likely close in time especially with standardisation of parts, advancements in diagnostic tools, wider availability of trained technicians and advancements in battery technology. Recent information from the Insurance Association of China indicates that the severity of EV incidents is lower than that of ICE vehicles. This is likely due to the large-scale production of mass-market EV, which has reduced the cost of repairs.

AI and connected vehicles drive opportunities and risks

AI is undoubtedly changing the way we think about cars and driver safety. AI helps cars to see the road, make decisions and drive safely, thanks to ADAS like emergency braking, collision detection and lane-keeping systems that react faster than humans and can prevent accidents. [Research](#) has shown that AI-powered automated braking systems alone can reduce rear-end collisions by up to 50%.

In addition, AI is equipping insurers with new capabilities that are helping reshape the motor insurance industry. One of the most significant impacts is that it will allow underwriters to analyse far more granular data, enabling risk assessment on data from connected vehicles, driving habits, routes and time of day for example. By analysing driving habits through telematics data, AI will enable insurers to further personalise and dynamically adjust premiums based on individual risk levels. Telematics has also advanced considerably since they were introduced in the 1990s and now can use video-based technology, such as computer vision, to more accurately assess driving behaviour, predict accidents and reconstruct driving incidents. However, the uptake of telematics-based insurance products is still limited, but according to research from consulting firm [Berg Insights](#), the number of insurance telematics policies in force in Europe and North America will reach 43.9 million by 2028. The benefits of telematics will need to be evaluated alongside ethical considerations ensuring fleet and consumer data is handled confidentially and avoids biases coming into the underwriting process.

AI algorithms are being used to identify anomalies and flag potential fraudulent claims. Fraud in motor insurance can range from exaggerated claims, ghost accidents, staged accidents and false theft reports. [Allianz](#) has reported that it uncovered more than 33,000 examples of insurance fraud in 2024 worth over GBP 154 million, up 10% year-on-year. Although AI is helping make bogus claims more difficult to detect, the same technology is being used by insurers to flag suspicious claims for future investigation in real-time. For example, AI is being used to compare new claims with historical data, recognise specific patterns associated with fraudulent claims such as frequency and unusual amounts, spot inconsistencies in claims reports, manipulation in photos submitted with claims and analyse geolocation data to determine whether the reported accident location is consistent with the claimant's driving patterns.

In addition, AI is being used to speed up claims processing which is reducing waiting times and speeding up the approval of parts needed for repairs as these can be automatically sent to repair centres immediately after a collision. AI can also verify claims forms, match claims with policies and limits and even approve smaller claims following minor accidents without human intervention. Despite the benefits there are also challenges such as the need to adhere to privacy and data protection laws and the ability to handle complex claims. However, the power of AI, when complemented with experienced loss adjusters and claims experts, has the potential to save the insurance industry billions of dollars and free up time for insurance professionals to focus on higher value activities and investigations.

However, like all technological innovations, AI and connected vehicles bring many risks and makes cars vulnerable to cyberattacks. According to the European Union Agency for Cybersecurity (ENISA), cyber threats to connected vehicles increased by 225% between 2020 and 2024. These threats range from unauthorised remote access to vehicles to AI manipulation that could disrupt automated driving functions. In 2015, two security researchers hijacked a vehicle over the internet. They were able to turn the steering wheel, disable the brakes and shut off the engine. More recently in 2024 security researchers discovered vulnerabilities in Subaru's Starline service that allowed hackers to take control of the vehicles and access sensitive customer data. They could unlock car doors, remotely start and stop the car and track the vehicle's real-time location. Kia also experienced issues that allowed hackers to locate and steal vehicles using just the license plates. Furthermore, earlier this year from January to mid-February, ransomware incidents have impacted vehicles across Europe, the US, Asia and the number of incidents exceeds those in the same period of 2024.

Many automotive manufacturers are testing and deploying a number of cyber security measures to help prevent attacks, such as AI-driven security tools to detect suspicious activity for example. Jaguar Land Rover has deployed AI anomaly detection to spot cyber threats in connected cars. And one global automaker tested a new AI-based intrusion detection system that successfully detected malicious code that was trying to be injected into the vehicle's infotainment system and was able to isolate the impacted component and neutralise the threat.

In addition, government regulations are also being mandated to ensure stricter protocols such as the UK's 2025 cybersecurity framework for connected vehicles. Furthermore, the AI Act in the EU looks to establish a series of cybersecurity requirements for high-risk AI systems.

Paving the road ahead

The global motor insurance market is both dynamic and rapidly evolving. Recent years have posed significant challenges for motor insurers and reinsurers, as we have navigated heightened inflation, geopolitical uncertainty, extreme weather events, and advancements in safety features and technology. These factors bring short-term challenges but also long-term questions. As we move past these hurdles and look towards 2025 and beyond, the industry will once again face the delicate task of balancing underwriting profits while supporting policyholders. Trade wars and the ongoing technological transformation, including the introduction of autonomous vehicles, will undoubtedly add complexity. However, it also presents unprecedented opportunities to innovate motor insurance.

In this context, reinsurers like Swiss Re will become even more vital partners for motor insurers. Reinsurers provide risk transfer and capital relief to absorb large claims losses especially in catastrophe risks such as motor own damage caused by extreme weather perils and bodily injury. In turn this enables motor insurers to maintain financial stability to cover their regulatory obligations and support ongoing operations. Reinsurers also bring both global and local expertise to your motor portfolio that can help bolster risk assessment with advanced risk modelling tools and inform decisions about pricing, coverage and geographical exposures. Furthermore, in the event of large claims such as bodily injury claims, reinsurance can provide expertise and support to help streamline claims processes and provide benchmarking analysis to see trends in claims severity, identify how they are performing relative to competitors, which can also help to refine underwriting practices.

The partnership between reinsurers and motor insurers has a long-standing history and has been crucial in navigating market complexities. Through risk transfer and expertise that spans from traditional motor insurance topics to CASE trends, Swiss Re can contribute to a more resilient and sustainable insurance landscape. Not only while drivers are behind the wheel but also in the future, as product liability may gradually replace traditional motor insurance, and drivers will gently move to the passenger seat.

Country spotlights: China, Germany, UK and US

Each market has its own nuances – country spotlights In our state of motor reinsurance report we've focused on some of the key trends impacting this line of business. However, each country has its own dynamics and legal regulations. Therefore, in this section we'll take a deep dive into four markets.

China

Motor is by far the biggest non-life insurance line of business in China accounting for over CNY 913 billion in premiums in 2024 – more than 54% of the total non-life gross written premiums. [CEIC](#) data shows that the number of registered vehicles or car parc, increased to almost 353 million units in December 2024 compared to 336 million for December 2023.

During the past several years, performance of China's motor insurance market has been largely impacted by two interconnected factors, the 2020 motor insurance reform, which resulted in a significant drop in motor insurance premium and the COVID-19 pandemic, which reduced the loss ratio due to less traffic on the roads.

Looking back at the 4th motor insurance reform and its impact on motor insurers

Similar to previous rounds of motor reforms that have been implemented since 2015, regulators aim to achieve three clear goals:

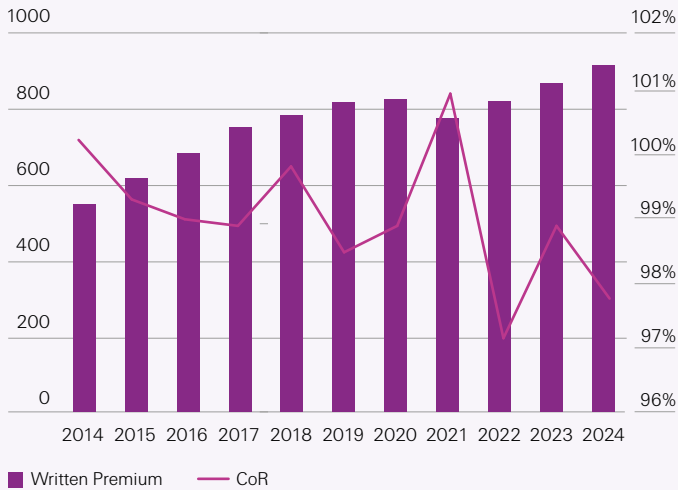
1. Improve consumer benefits through expanding coverage at reduced rates and commission
2. Promote safe driving through the implementation of no-claim discount (NCD)
3. Allow more flexible pricing through widening self-pricing factor range applicable to the base rates

As a result of the motor reform, which was launched in September 2020, market premium stayed flat in 2020 and experienced a negative 5.7% year-on-year (YoY) growth in 2021, whilst it increased 8.2% CAGR over 2014-2019. In addition, the overall market combined ratio increased to 101% in 2021, making an underwriting loss for the first time since 2015.

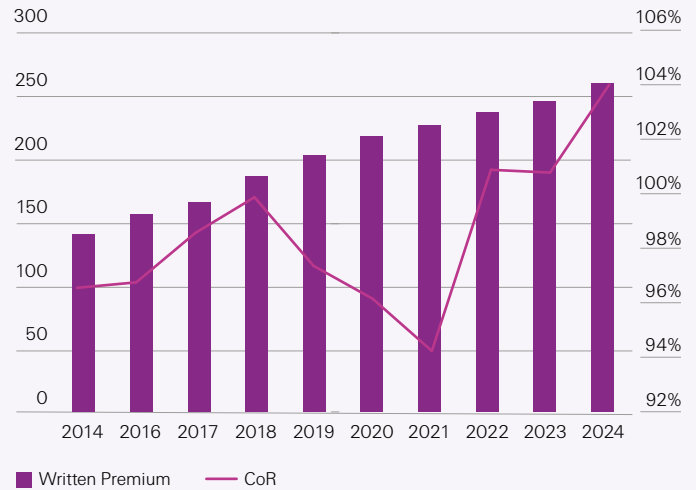
2022 was a year of transition for motor insurers and the market adapted to the motor reform impacts and enjoyed lower claim frequency due to less traffic and activity during the COVID-19 outbreak. Premium growth and profitability has generally returned to pre-pandemic levels and during the period from 2022-2024, premiums increased by 5.5% CAGR, in line with 5.2% CAGR in car parc, and a combined ratio average of 98.1% (see figure 1).

Figure 1

Motor Insurance Written Premium (in CNY bn) and CoR



Compulsory Third Party Liability Insurance Written Premium (in CNY bn) and CoR



Source: National Financial Regulatory Administration

Emerging trends bring challenges and opportunities

Despite the stabilized performance of the motor insurance portfolio, a few notable claim trends and emerging risks pose both challenges and opportunities to the industry.

NatCat events trigger increased claims

Motor losses resulting from NatCat events, such as Super Typhoon Doksuri are occurring at an increased frequency and severity (see figure 2). Based on recent claims experience, one major NatCat event can cost almost 1% of market premium, which challenges the profitability of insurers' motor books that are kept at thin margins under high competition. The rising impact of secondary perils, such as floods and severe convective storms, also contributes to increasing aggregate NatCat losses in motor portfolio.

Claims inflation stable but profitability challenges remain

Claim inflation has been at a mild level for both motor own damage (MOD) and motor third party liability (MTPL) cover. Looking at the Vehicle Use and Upkeep Fare CPI, which helps track changes in repair and replacement costs and is therefore closely linked with MOD severity, the YoY change was 1.5% during 2021 and 2022. It then decreased through 2023 and became stable at around 0.5% in 2024. In addition, the Automotive Manufacturing Producer Price Index (PPI), which is a proxy for claims costs, has declined since 2022, and this trend continued through 2023 and even dropped further in 2024.

However, with the increasing penetration rate of Electric Vehicles (EV), the Part-to-Whole Price Ratio has kept rising in past years as components get more expensive and is expected to have slight increases over the next few years.

With decreasing rates due to the motor insurance rate reform and insurers' ambition to upsell, the average sum insured of Voluntary Third-Party Liability (VTPL) has kept increasing. Despite the Supreme People's Court of China decision on unifying bodily injury compensation standards for urban and rural residents in 2022, VTPL severity has slightly increased due to road safety improvement and increasing adoption of assistive driving features based on Swiss Re insights.

Electric Vehicles impact loss costs in the short-term

EV sales have been growing rapidly, accounting for around 50% of new vehicles sold and contributing to 15.4% of motor premium in 2024. EV are identified with higher loss cost than internal combustion engine (ICE) vehicles and the sector is currently at an underwriting loss. We explore the reasons for this in the section below entitled: Collaborative approach key to addressing EV higher loss ratios. However, the combination of advanced safety features, improved technology and better risk management practices could lead to lower loss ratios in China over time.

‘Connect To’ ecosystem products – diving into Liability space

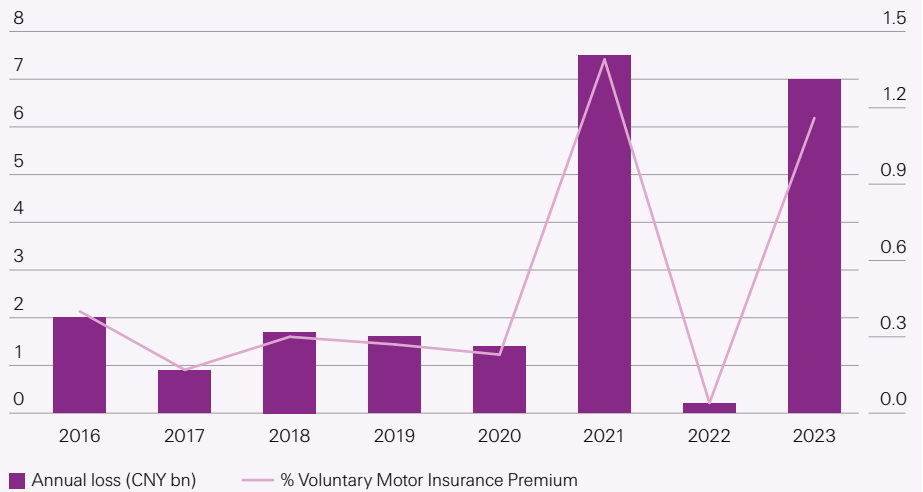
Leveraging motor OEM & dealership channels for a more holistic partnership, Chinese insurers also sell motor affinity insurance to vehicle owners such as motor vehicle extended warranty, GAP (guaranteed assets protection) and courtesy vehicle cover. As affinity products encourage vehicle owners to go back to the OEM/dealership for repairs, it adds to the motor ecosystem with insurers cross-selling products while OEM/dealership benefit from automotive aftermarket revenues.

With the increasing adoption of assistive/autonomous driving functions in EV, since 2024, more and more EV OEMs are looking for autonomous/intelligent driving function liability insurance to cover their obligations to vehicle owners and third parties in case of faulty design and malfunction of these advanced features.

Collaborative approach key to addressing Electric Vehicle higher loss ratios

China has gradually become a world leader in the New Energy Vehicles (NEV) market over the past five years. Globally China’s NEV volume contributes to 70% of the global NEV market share in 2024 (see figure 3). In China alone, NEV penetration has increased to 48% (including plug-in hybrid EV, range extended EV and hybrid EV), in 2024 with around 13 million NEVs sold.

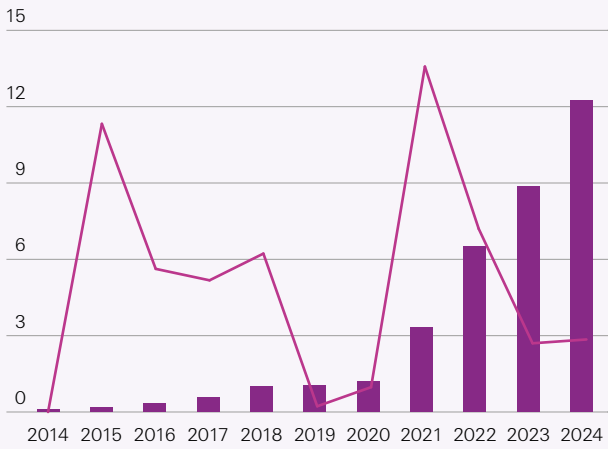
Figure 2
Motor insurance losses from NatCat events in China



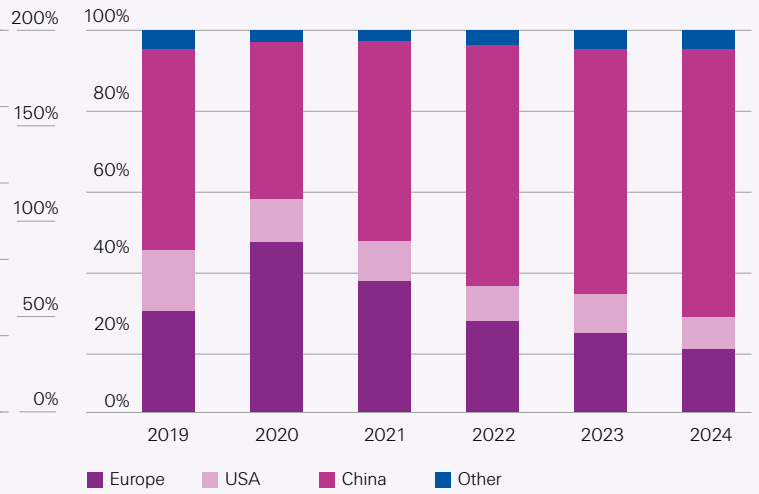
Source: Swiss Re

Figure 3

China NEV sales volume (in 1 million cars)



Global NEV market share



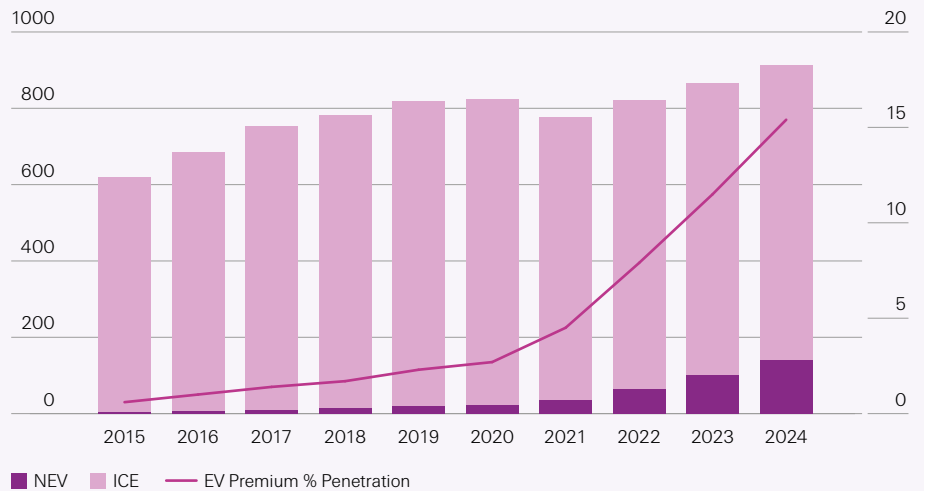
Source: China Passenger Car Association

As a result, EV Motor Insurance premium volume has been growing rapidly in recent years, but it is also loss making. EV motor insurance premium increased significantly in the past five years and in 2024 EV premium (including both mandatory and voluntary motor insurance only) stood at CNY 140.9 billion, accounting for 15.4% of total motor insurance premium (see figure 4). Furthermore, by 2030 EV premium is expected to account for 37% of total motor insurance premium.

In 2024, the average combined ratio of EV voluntary motor insurance was around 107%, with CNY 5.7 billion underwriting losses. The high combined ratio is mainly driven by high loss ratios, for example, out of 301 EV passenger vehicles with car parc >10k vehicles, 99 models have a loss ratio >100%. What's more, out of 55 EV trucks with car parc >5k vehicles, 38 models have a loss ratio >100%. In comparison to traditional ICE Vehicles, EV higher loss cost is about 2.2 times, driven by frequency claims.

Figure 4

Motor Insurance Premium Volume (incl. Compulsory & Voluntary Motor Insurance) in CNY bn



Source: China Actuaries Association

According to a [Swiss Re report](#), the average EV insurance premium for drivers was 81% higher than for standard motor in 2023. The high risk premium associated with EV motor insurance can be attributed to several factors:

- Certain physical characteristics can lead to high claim costs, because of:
 - Low reparability resulting from wide application of integrated casting technology
 - Power battery costs around half of the total vehicle value on average and is of high vulnerability as it is typically attached to the chassis
 - EV fires are difficult to extinguish, hence such incidents often result in large-scale damages
- High claims frequency is identified for EV during the first year of usage as drivers adapt to driving characteristics that are significantly different from ICEs:
 - Low noise during operation
 - Mismatch with traditional driving habits, such as faster speed-up and uncertain lag at deceleration due to kinetic recovery features
- User base is overweight in risk segments with the worst claim experience:
 - Younger age groups below 35
 - More developed cities
 - Commercial vehicles such as buses, taxi and rental vehicles

Due to the sector's poor underwriting result, the insurance industry and EV manufacturers are working collaboratively to address the challenges. A few examples include the following:

- In Jan 2025, the National Financial Regulatory Administration (NFRA) and three other ministries jointly issued the "Guiding Opinions on Deepening Reform and Strengthening Supervision to Promote High-quality Development of New Energy Vehicle Insurance", which introduced measures to reduce repair and maintenance costs, innovate and optimize insurance supply, and strengthen insurance management and supervision.
- On the same day of the issuance of the Opinions, the Shanghai Insurance Exchange launched a NEV insurance platform, aiming to achieve full coverage availability, especially to high-risk vehicles. 22 insurers are currently registered with the platform, where they are prohibited from declining any coverage request.
- Swiss Re has been actively engaged in the topic with industry players. Besides multiple publications issued on EV, Swiss Re also works with the China Automotive Maintenance and Repair Trade Association to co-develop and publish a set of insurance standards, titled "Power Battery Testing and Repair Standards for New Energy Vehicles" in October 2023, which serves as valuable reference material for claim professionals to deliver accurate and consistent claim assessments.

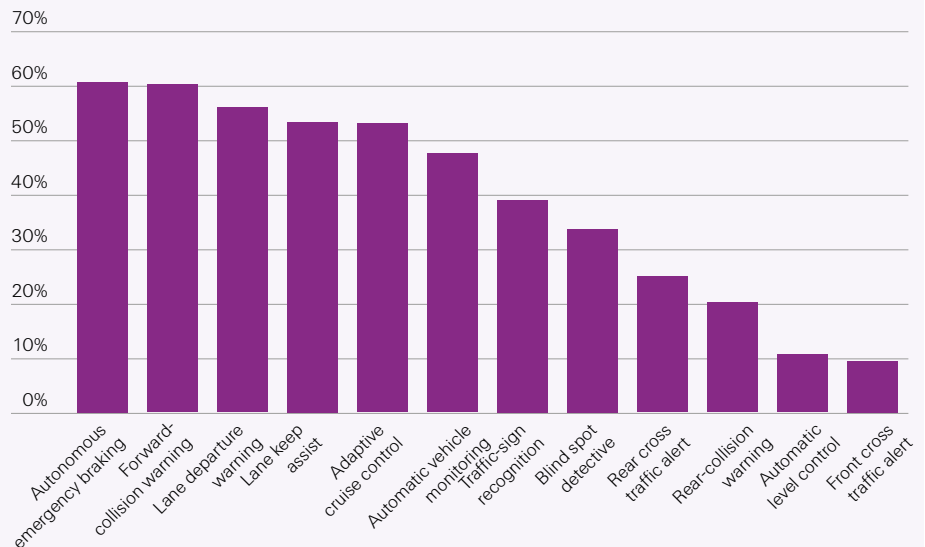
Autonomous Driving set to reduce accident frequency and redefine motor insurance

Since 2024, Autopilot functions have started to become a key competence of new vehicle models, especially for electric vehicles (see figure 5). In early 2025, Build your Dreams (BYD), a high-tech company, announced the God's Eye system, an advanced driving assistance system (ADAS), which is comparable with Tesla's Full Self-Driving (FSD), for no extra cost on their cars. This autopilot system will be equipped on vehicles with price points below USD 10,000.

This is the key milestone for the migration of the autopilot functions from luxury vehicles to cheaper, standard models. As such, the 'Democratizing Autopilot Technology', becomes a powerful theme of the Chinese car manufacturing industry. The market expects 2025 to be a booming year for autopilot and autonomous driving.

Figure 5

Autopilot Function Penetration on new cars



Source: Gasgoo

Recent notable developments in autonomous driving include:

- AEB (Autonomous Emergency Braking), FCW (forward-collision warning) and LDW (Lane departure warning) being integrated into almost all new vehicles, with the penetration higher than 50% as of September 2024. Furthermore, at the end of 2024, APA (Automatic Parking Assist) installation hit 4.9 million vehicles, indicating a growth rate at 39.7%, with the penetration reaching 21.3% on new cars.
- From 2024, the adoption of the Highway NOA (Navigation on Autopilot) and City NOA have been fast-growing. According to market data, the NOA installation hit 1.97 million passenger vehicles in 2024, indicating a 162% YoY growth rate. The penetration of NOA on EV reached 21.68% in 2024 and is expected to increase to higher levels especially when OEMs are installing NOA to vehicles with lower price.
- After years of government support, the cellular vehicle-to-everything (V2X) technology in China has gradually evolved to the stage to sufficiently support commercial robotaxi. By April 2024, the open autonomous driving testing area had reached 29,000 km, and more than 6,800 licenses have been issued to companies for Level 3/Level 4 pilot (L3 is defined as conditional driving automation and L4 is defined as high automation). And the total tested driving mileage has reached to 88 million km. Robotaxis have been put into commercial operation in multiple cities including Beijing, Chongqing, Shenzhen and, Shanghai. And, after months of operation, Baidu reported the accident frequency is estimated to be around 7% of human drivers.

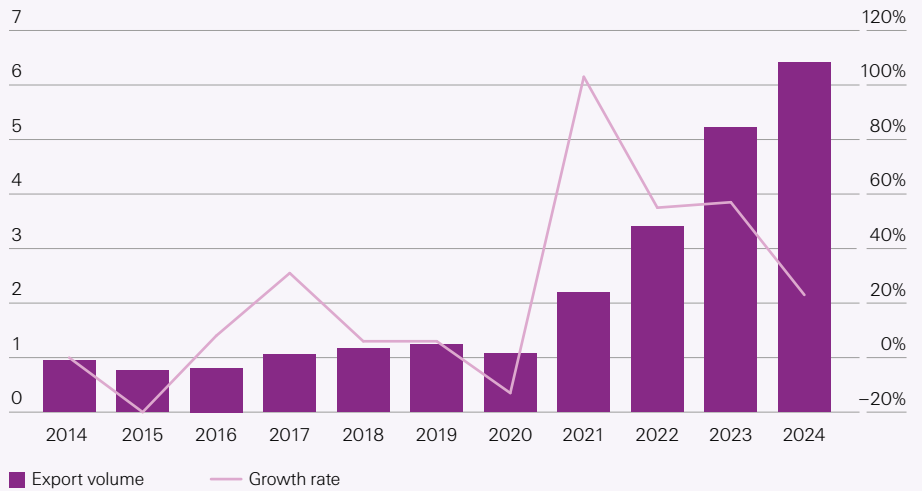
The rapid rise of autonomous vehicles (AV) is also presenting new opportunities for motor insurers in China to design new coverage strategies and liability frameworks. For example, since late 2024, Autonomous Driving Liability insurance has started to increase with the higher penetration of autopilot functions. This insurance product indemnifies for the loss caused by defects in the AV system and boosts the confidence level on AV, OEMs usually bundle this insurance product into their service package and the subscription of the AV functions. As more vehicles with self-driving capabilities hit public roads, new risks are emerging related to software safety and reliability as well as data and cyber security. At Swiss Re we are playing our part, supporting our clients by providing end-to-end solutions, including product design, pricing, and claim adjustment expertise.

Supporting China’s Auto Export fast-lane

China’s export business has increased rapidly worldwide surging by almost 500% since 2021. During the epidemic, global automobile markets have been volatile, however, China’s auto exports have been a bright spot.

China auto exports have now surpassed Japan to become the world’s largest auto exporter, with 6.4 million exported cars in 2024 valued at USD 117 billion. In 2025, China auto export is expected to increase to 7 million cars, however, trade barriers could stall export momentum.

Figure 6
China Auto Export volume (in million cars)



Source: China Passenger Car Association

Market data shows that the volume of auto exports has increased in many countries, especially passenger vehicles and to a lesser degree trucks and buses, in the United Arab Emirates, Saudi Arabia and Brazil to mention a few.

The growth in auto exports has many implications for motor insurers. In general, we are embracing the historical record level of auto exports. For example, several OEMs and traders require export related insurance products, such as Export Warranties Insurance (EWI), which provides exporters with confidence and the protection needed to engage in international trade and also helps promote car exports from China. Meanwhile, it would be essential to build an after-market ecosystem, including Third Party Administrators (TPA), repair networks and sales channels. The more mature the motor ecosystem can be, the faster overseas insurance will grow, and more insurance products will serve overseas customers.

China’s motor insurance market is fast-moving and dynamic. Demand for insurance is rising with rapid growth in vehicle ownership and new regulations and the integration of technology in vehicles is transforming the insurance landscape. Moreover, the rise of EV presents unique risks and coverage needs at a time when consumers are demanding more personalized and flexible insurance products.

With our local presence and global motor expertise, we are partnering with insurers to manage risk, support product development and provide global expertise and knowledge to help enhance the resilience of the Chinese motor insurance market.

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Germany

Much like in the UK, the post-pandemic period has proven to be particularly challenging in the German motor insurance market.

While 2020 and 2021 had seen significantly positive results, the increase in traffic density from 2022 onwards led to an increase in claims frequency:

- The number of motor third party liability insurance (MTPL) claims increased 6.9% from 2022 to 2023, and then a further 4.5% in 2024.
- The number of motor own damage (MOD) claims increased 7.4% in 2023 – a significant uptick that dropped by just 0.6% in 2024.

In Germany, there is roughly a 1% increase in the number of cars of the road each year, with traffic density also gradually increasing owing to trends such as urbanisation and reductions in remote working. In addition, housing shortages in major cities demand longer commutes, further driving up traffic density and contributing to an increase in claims frequency.

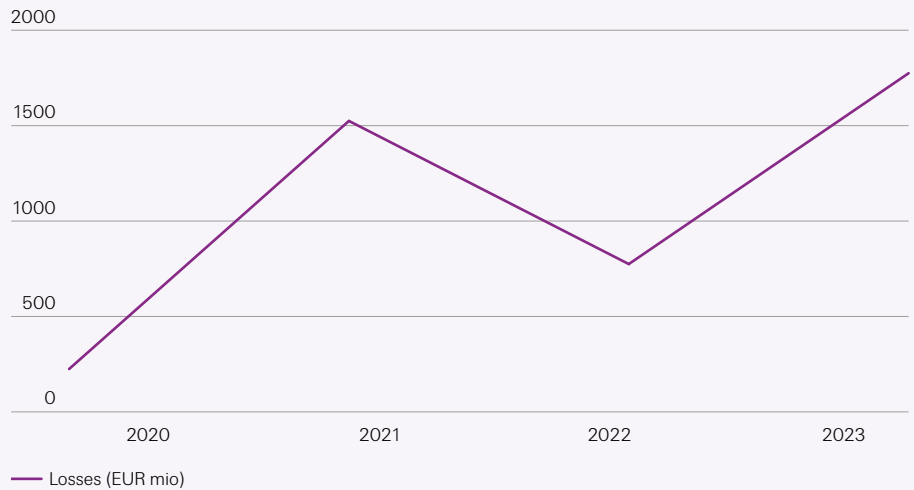
In tandem, the severity of motor insurance claims has also increased significantly. External influences such as the war in Ukraine have had a major bearing on the German economic situation in recent years, while the motor market has experienced higher than average inflation:

- According to the German Insurance Association (GDV), the price of spare parts increased 6.2% between 2023 and 2024, while the Consumer Price Index (CPI) increased 2.3% by comparison.
- Wage increases for repair shop workers also increased 7.9% between 2023 and 2024, exceeding the average national wage increase of 5.4%.
- Between 2017 and 2024, repair shop wages had a compound annual growth rate of 6%, and spare parts had a CAGR of 6.2%. The CPI increased 3.1% per year during the same period.

There are several other external factors also driving up the severity of claims, however:

- 2023 saw significant losses in MOD claims stemming from extreme hailstorms just two years after the hailstorms of 2021 that badly affected motor losses (see figure 1):

Figure 1
Motor insurance losses from NatCat events in Germany (EUR million)



Source: Swiss Re

- In the case of MTPL, health and care costs for injured individuals have continued to rise due to severe skills shortages in the German market. Further, in contrary to other markets, the care of policyholders in Germany is covered until the victims either recover or pass away, which can drive up costs significantly.
- In recent years, German repair shops have also been impacted by supply chain disruptions. With lead times on sourcing spare parts being lengthier, the costs of rental cars required to substitute policyholders with an alternative mode of transport are higher as they're needed for a longer interim basis. However, while supply chain disruptions are still a challenge, they are not so prevalent today as they have been in previous years.

Owing to this combination of factors, claims severity has increased significantly, contributing to a significant deterioration in overall results in the German motor insurance market in recent years.

In 2023, a nominal result reduction of -11.3% emerged, driven by significantly poor performance in MOD (-25.3%) due to extreme NatCat damages, inflation being high and premiums being too low.

In response to these poor results, there was a major increase in average premiums (up 8.4% in MTPL, and 10.2% in MOD) in 2024, which improved the situation, but still wasn't enough to achieve a positive nominal result:

- MTPL in 2024: The frequency of claims dropped 1%, while the severity of claims increased by 5.6% due to inflation. However, the loss ratio decreased because average premiums were adequately increased.
- MOD in 2024: While a more typical year was experienced in terms of NatCat, the combined ratio was significantly over 100%.

In total, MTPL achieved a nominal result of +2% for 2024. However, despite dropping from the -25.3% recorded in 2023, MOD still recorded a nominal result of -12.0% in 2024. In total, the nominal result dropped from -11.3% in 2023 to -3.9% in 2024.

In an effort to further correct the imbalance, 2025 has again seen a major increase in premiums (11% for MTPL, 15% for MOD), which are projected to deliver a positive nominal result of 1% for the German motor insurance market this year.

However, there are several long-term trends which could impact the profitability moving forward:

- In Germany, a key focus is improving road safety, while cars are getting safer owing to technical improvements and new technologies such as advanced driver assistance systems (ADAS). This could reduce claims frequency, yet more expensive features like ADAS could drive up claim severity.
- Contrary to these safety improvements, there is an issue of distracted driving, with people using smartphones or on-board entertainment systems while driving.
- The future impacts of NatCat (mainly hailstorms) remains uncertain. Critically, meteorologists still don't have common opinion on whether impact of global warming will lead to more frequent, more dramatic hailstorms.
- Electric vehicles (EV) may further drive-up claims severity. With designs readily prioritising lightweighting, any damages can result in exchanging large components, which is more expensive. However, EV currently account for less than 5% of the market. Further, the German government recently ended its EV subsidy program, designed to incentivise purchases, that had been in place since 2016 due to budget constraints.
- Geopolitical uncertainty may also result in the implementation of trade wars and tariffs moving forward that could significantly impact market inflation in relation to aspects such as the cost of spare parts.

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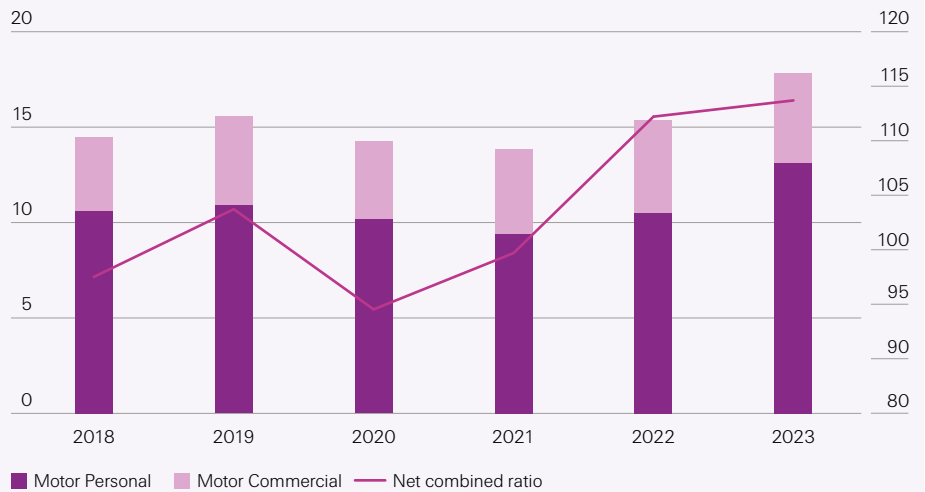
United Kingdom (UK)

Recent years have been the most challenging for the UK motor insurance market, recording a loss-making financial year net combined ratio (FYNCR) of 112.7% in 2023. This followed a tough 2022, when the sector saw FYNCR of 111.1%. This was caused by claim frequency increasing from COVID-19 induced lows and adaption to changing regulation and tort reform including:

- Whiplash reforms (May 2021) which reduced compensation for minor whiplash injuries and introduced a fixed tariff system for claims below GBP 5,000.
- General Insurance Pricing Practices (GIPP) reforms (January 2022), in which the Financial Conduct Authority (FCA) addressed price walking. These new rules require home and motor insurers to offer renewal prices that are no higher than what would be offered to cover the same risk if it was new.

The average NCR over the past 6 years from 2018 to 2023 stood at 101.2%, according to Swiss Re data (see figure 1).

Figure 1
UK motor insurance market premiums (GBP bn) and Net Combined Ratio



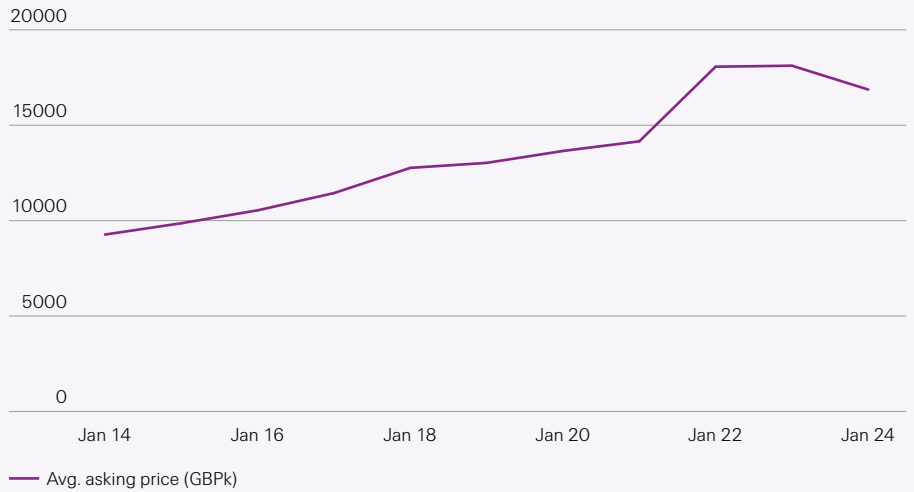
Source: Swiss Re

Despite rising market premiums, up to 17.8 billion in 2023 compared to 15.4 billion in 2022, claims trends impacted by socio-economic factors continued to negatively impact the sector.

Maintenance and repair costs in the UK increased to 9.8% as recorded in January 2024, whilst health inflation increased to 7.6% in 2023. Similarly, the median hourly earnings for all carers increased by 8% in 2023 and provisionally, 7% in 2024, according to the [Annual Survey of Hours and Earnings \(ASHE\)](#).

In addition, the total distance driven by motorists in Great Britain reverted to levels seen in 2019 prior to COVID-19, with almost 334 billion vehicle miles travelled in the 12 month period ending September 2024, according to [government figures](#). Furthermore, the price of [used cars](#) in the UK, which is a proxy for own damage and third-party property damage claims inflation, also peaked in 2023 to an average asking price of just over GBP 18,000, however, this reduced in 2024 to under GBP 17,000 with inflationary pressure decreasing (see figure 2).

Figure 2
UK motor insurance market premiums (GBP bn) and Net Combined Ratio



Source: Autotrader

As well as falling inflation, continued improvements in claims frequency, and pricing corrections on premiums in 2023 have resulted in many commentators, including [Ernst & Young \(EY\)](#), forecasting a return to profitability last year with a NCR expected to be in the low to mid 90% range. EY also expects the motor insurance market to record a FYNCR of 101.6% in 2025 as premiums start to reduce.

However, the UK motor insurance market faces a number of headwinds and tailwinds that require a disciplined approach to underwriting and policy structures for both insurers and reinsurers:

- The long-term trend of improving safety levels on UK roads continues. Despite the rising human and financial cost of road traffic accidents, [Great Britain](#) has experienced a downward trend in fatalities, with 1,624 fatalities in 2023, a decline of 5% compared to 2022 and in total 132,977 casualties of all severities, a decline of 2% from 2022.
- [ABI](#) has unveiled a combination of actions that industry, government or regulators could initiate to help bring the cost of premiums down in a 10-step roadmap.
- Whilst there are more cars on the road there have been fewer accidents, however insurers paid out GBP 9.9 billion in 2023, according to the [Association of British Insurers \(ABI\)](#), the highest figure since they started collecting claims data back in 2013 and up by 18% from GBP 8.4 billion in 2022. This demonstrates continued willingness by insurers and their reinsurance partners to support policyholders when accidents happen.
- According to data from the [RAC foundation](#), 1.3 million electric vehicles (EV) entered UK roads in 2024, up almost 39% year on year. Although numbers are increasing it has not impacted EV repair costs yet, however we expect more costly repairs in the long term. According to a 2023 report by the UK's [Thatcham Research](#), EV damage claims are currently 25% higher than Internal Combustion Engine (ICE) vehicle equivalents and can take 14% longer to repair.

- The Autonomous Vehicles (AV) Act 2024 could mean that self-driving vehicles are on British roads by 2026. On one hand this is likely to reduce the frequency and severity of road traffic accidents eventually by reducing human error, which contributes to 88% of road collisions. On the other hand, this safety gain could be offset by distracted drivers. The Act sets out where liability lies when a vehicle is in autonomous mode. Additionally, the potential for cyberattacks on AV presents a step change in the nature of the risk, especially with regard to accumulation.
- Following the 2021 Whiplash reforms, the UK government announced a ~15% increase in the fixed tariff for whiplash injuries, set to take effect on 31 May 2025 for injuries occurring on or after this date. This adjustment aims to account for inflation since the original tariffs were introduced in 2021 and includes a buffer for further inflation up to the next review in 2027.
- Geopolitical uncertainty and potential supply chain disruption, affecting the availability of vehicles and spare parts. This can lead to delays in repairs and increased costs, which will need to be reflected in insurance premiums.
- The UK's aging population increases uncertainty in quantifying care costs in large bodily injury claims settling 5 to 10 years or further in future, arising from accidents in present underwriting years.

There will be a lot of discuss in coming years and to ensure the re/insurance market can help to make the roads safer and maintain profitability.

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United States (US)

The US motor insurance market (commonly referred to as Auto) generated USD 377 billion in premiums in 2023 and is the largest such market in the world.

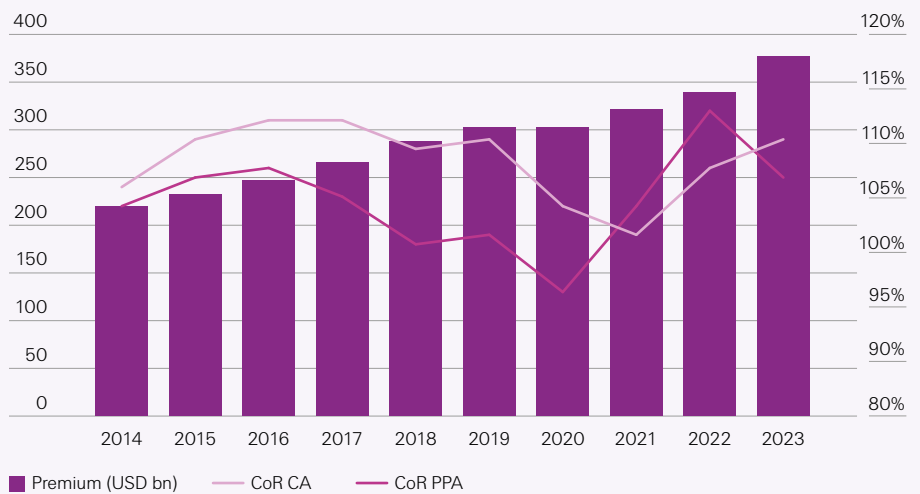
After years of suboptimal results, the Personal Auto segment rebounded in 2024 due to a decrease in claims severity coinciding with rate increases to make up for hikes in repair costs and vehicle prices. The industry combined ratio for US Personal Auto dropped to 97% – 15 points below an all-time high of 112% just two years prior.

Commercial Auto, on the other hand, continues to suffer from the effects of litigation, escalated claims costs and reserving uncertainty, posting a 108% combined ratio in 2024 on a 10% increase in premiums.

The outlook for 2025 is for rate deceleration in Personal Auto due to increased competition and sustained social inflation headwinds for Commercial Auto.

2024 notwithstanding, the US market has suffered its worst results in generations (see figure 1). This is compounded by loss reserve deficiencies and unfavorable loss development since 2012 in Commercial Auto.

Figure 1
US motor insurance market premiums (USD bn) and Net Combined Ratio



Source: Swiss Re

A number of underlying loss trends bear closer examination.

Inflationary challenges come in many forms

Economic, social and medical inflation are driving losses in US auto insurance. As shown in the graph below the cost of used cars, which is a proxy for total attritional claims inflation, rose rapidly in 2021 and 2022 according to the [Manheim Index](#).

Figure 2

Manheim Index (cost of used cars, January 1997 = 100)



Source: site.manheim.com/en/services/consulting/used-vehicle-value-index.html

Although CPI inflation rates have moderated from the peaks seen in 2021 and 2022, repair costs remain high due to labor shortages, supply chain disruptions and advanced vehicle technology. A study by the [American Automobile Association \(AAA\)](#) found that advanced driver assistance systems (ADAS) can add up to 37.6% to the total repair cost after a crash.

Social inflation has also contributed to increased loss severity, fed by negative attitudes towards large corporations and the increase in attorney involvement. High profile litigation in the trucking industry has led the way yet commercial auto operators such as ride sharing companies and personal auto lines are also impacted.

At the same time, the cost of treating bodily injury claims has been exacerbated by medical inflation. Based on KFF's analysis of Bureau of Labor data since 2000, the cost of medical care has increased by 121.3%, which far exceeds the price of consumer goods and services, which rose by 86.1% in the same period. With rising drug prices, the adoption of advanced medical equipment, administrative overheads and increased labor costs, medical inflation isn't likely to ease in the near term.

Technology comes with challenges and opportunities

Although sales of Electric Vehicles (EV) in the US represent less than 1% of the 297 million vehicles in operation, those numbers are expected to grow as 38% of US adults consider an EV for their next vehicle purchase. This presents unique challenges for auto insurers because the average repair cost for EV is significantly higher – approximately 29% more than their gas counterparts due to labor costs, specialized components and complex technology.

Autonomous vehicles (AV) are also poised to make their mark and could be a game changer for the auto insurance market with the potential to reduce human error, which is the cause of 90% of traffic incidents.

Road safety improvements and the challenge of distracted drivers

Road safety is a topic of huge economic and social importance, according to the [National Highway Traffic Safety Administration \(NHTSA\)](#). 18,720 people died in motor vehicle traffic accidents in the first half of 2024, a reduction of 3.2% from the same period in 2023 and the ninth straight quarter of declines.

This reduction is welcome news and national safety campaigns will hopefully help address the increasing number of distracted driving and speeding violations.

Despite improvements in road safety, though, [claims severity](#) continues to be a challenge. Bodily injury claims have risen 20%, largely due to social inflation, and so has severity as material damage increased by 47% in 2023.

Looming tariffs and geopolitical uncertainty

Elevated tariffs imposed on auto parts imported from mainland China in 2018 contributed to increased claims costs for US auto insurers. The new round of tariffs on China, Canada and Mexico could cause supply chain challenges and delays which would drive up claims severity and the cost of replacement parts including windshields and airbags.

The rising impact of extreme weather drives auto losses

The [Swiss Re Institute](#) reports that estimated insured losses from natural catastrophes were on track to exceed USD 135 billion in 2024. The frequency and severity of extreme weather events is increasing, and the US auto insurance segment is impacted by hurricanes in Texas and Florida, hail in Colorado and wildfires in California, to mention a few. For example, [Carfax](#), an auto data company, estimated as many as 138,000 vehicles experienced flood damage across six states from Hurricane Helene.

Regulation & legislation

Regulation plays an important role in shaping the US auto insurance market, influencing pricing, coverage options and consumer protection. In Florida, tort reforms have resulted in a reduction in litigation related to auto glass repairs and eliminated one-way attorney fees. This has helped ease pressure on auto rates; however, at this writing lawmakers are considering several bills that could roll back some of the reforms in Florida's Property and Auto markets.

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We hope you have enjoyed the insights and commentary provided in this report and they prove helpful in managing your own motor insurance portfolio.

If you would like to discuss the insights further or investigate how we can support you with proportional and non-proportional reinsurance treaties, please contact us via email here or with one of our local casualty experts.



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