Swiss Re

Claims Perspectives

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This second edition of Claims Perspectives, published by our Claims Experts at Swiss Re P&C Reinsurance, reinforces our commitment to exploring complex claims topics across jurisdictions, industries, and technologies. Through these contributions, we aim to advance professional dialogue and provide practical perspectives that connect claims and underwriting.

At Swiss Re, we believe leadership in claims is grounded in curiosity and collaboration. We invite you, our clients and partners, to join the conversation, challenge conventions, and share both your experience and feedback with us.

Thank you for joining us as we continue to examine the evolving world of risk.

Continued Success,

Leo Dixon

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Plug & Abandonment Bonds:

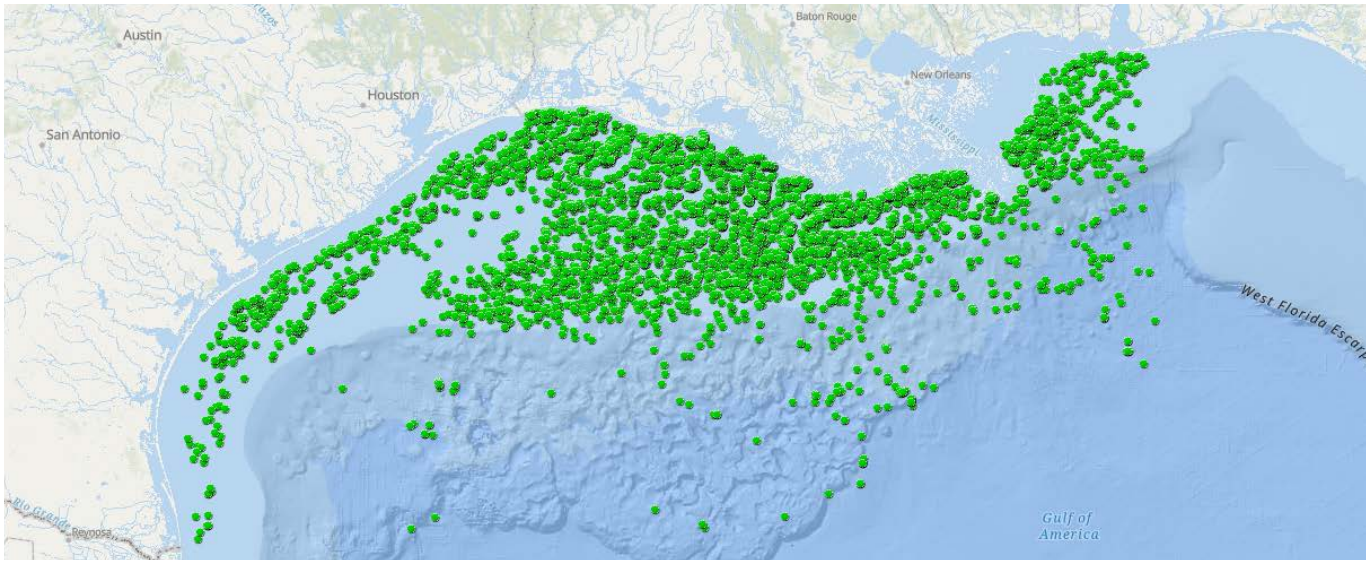
A Growing Risk for Insurance?

Over 2 700 wells and 500 offshore platforms in the Gulf of Mexico await decommissioning, and operators are reminded that the end of an oil and gas asset's life can be as complex as its beginning.

This article unpacks decommissioning obligations and the role of Plug & Abandonment (P&A) surety bonds, sharing lessons for navigating this evolving risk landscape.

75%

of end-of-lease and idle oil and gas producing infrastructure in the Gulf are overdue for decommissioning.



U.S. oil and gas offshore wells. Source: Map courtesy HomeBureau of Safety and Environmental Enforcement.

The Risk of Decommissioning Oil & Gas Platforms – Why This Matters

Plugging and Abandoning (P&A) is the process of permanently sealing a well once it reaches the end of its productive life, ensuring no hydrocarbons or gases migrate, protecting ecosystems, and maintaining subsurface integrity. The obligation to P&A wells lies with the operator who owns or operates the asset, both legally and ethically, under government and environmental regulations. This issue is now pressing as offshore wells built in the 1970 – 1980's are now reaching 'end of life'. According to the U.S. Government Accountability Office (2024), over 75% of idle infrastructure in the Gulf of Mexico was overdue for decommissioning as of mid-2023.[1]

A P&A bond is a type of surety bond that guarantees that an operator will properly plug and abandon wells according to regulations, protecting the environment and public from costs associated with closure. The surety company backs the operator's (the principal) obligation to the government or landowner (the obligee).

Recent surety cases revealed the scale of challenges and the uncertainty in enforcing P&A obligations. They emphasize the need for strong underwriting practices and recovery strategies. As the industry moves into deeper waters and renewables introduce new complexities, disposal and decommissioning will demand resilient financial strategies lasting decades.

Offshore Well Lifecycle. When and How to Secure Plug & Abandonment Obligations

The lifecycle of an offshore well can span over five decades, from exploration to decommissioning. Exploration and appraisal phases include financial planning for P&A obligations before drilling begins, ensuring long-term liabilities are not overlooked. During the production phase (up to 30 years), cash flows fund financial assurance instruments such as trust funds, surety bonds, or letters of credit to cover decommissioning costs and defaults.

Underwriting P&A bonds involves long-tail exposures that may emerge decades later. Ownership changes or restructurings can occur long before liabilities come due, introducing lifecycle and counterparty risks.

For sureties, assessing the remaining productive life of the well is critical. Younger assets allow time to fund P&A obligations. Mature or legacy wells often lack adequate reserves or early bonding. Underwriting near end of life wells is generally unadvisable. Declining production and rising maintenance costs increase insolvency risks and limit recovery prospects. In bankruptcy, indemnity agreements rarely provide sufficient collateral, reinforcing the need for robust credit analysis and lifecycle evaluation.

[1] Report to Congressional Requesters, Offshore Oil & Gas: Interior Needs to Improve Decommissioning Enforcement and Mitigate Related Risks, Jan 2024

The Nature of Plug & Abandonment (P&A) Bonds

A P&A bond is a regulator-required financial assurance instrument, activated when an operator fails to meet its decommissioning obligations. It can function as a performance bond, where the surety either performs the work or pays the penal sum, or as a reimbursement instrument replenishing trust fund capital.

P&A bonds are usually conditional-hybrid instruments: they may be called upon certification of non-performance by authorities. In some project-finance structures, they can be on-demand, allowing immediate draw-down when obligations are unmet.

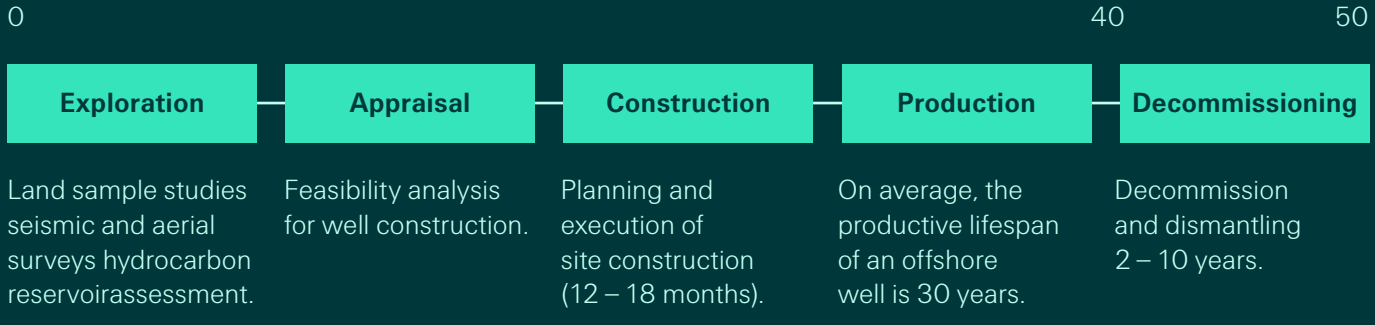
The bond amount is based on the regulator-approved cost estimate. Release is granted only after site clearance, payment of the penal sum, or substitution with another acceptable security such as a new P&A bond, trust fund contribution or letter of credit.

This makes P&A bonds a unique class of surety obligations – long-dated, regulator-driven, and often absolute in nature – requiring careful underwriting and a deep understanding of regulatory frameworks and the decommissioning economics of each specific risk.

Unlike traditional surety bonds, P&A bonds are highly regulated – their wording, structure, and scope are prescribed by law.

Sureties have little flexibility to adapt terms to their risk appetite. Once called, sureties have limited defenses and, depending on wording, cannot rely on rights such as subrogation or dispute resolution.

Average lifecycle of an offshore well (in years)



Navigating the Complexity of P&A Bonds

P&A obligations combine operational and financial risk. Lessons from past claims highlight key practices for sureties and underwriters.

Assess the Operator's Long-Term Strength

Evaluate the operator's financial health over the asset's life. Scrutinise portfolios, especially older or marginal wells, where decommissioning costs may exceed asset value.

Understand the Regulatory Framework

Clarify whether the bond is on-demand or conditional and what waivers of defense apply. These factors determine how and when a bond can be called and the surety's response options.

Strengthen Collateral

As third-party guarantors, sureties have the right to obtain collateral from their clients to secure potential recoveries once claims materialize. Traditionally, the same collateral may cover multiple bonded obligations for a single obligor, which makes it even more important to ensure that such security is enforceable and protected against competing claims or creditors. Robust collateralization – such as escrowed trust funds or letters of credit – should be prioritized, while avoiding overreliance on general indemnity agreements. Bond renewals and extensions offer valuable opportunities to strengthen collateral.

Finally, a best practice to strengthen the enforceability of collaterals is to ensure that all attached interests are properly perfected under the U.S. Uniform Commercial Code.[2]

Maintain Proactive Monitoring and Portfolio Management

Continuously assess whether liabilities can be transferred, ring-fenced, or capped to limit tail exposures. Though early exits can be difficult, they may be necessary for sureties' long-term financial stability.

Engage Early in Adverse Scenarios

Early engagement in Chapter 11 proceedings help ensure that P&A bonds are treated as executory financial accommodations under the U.S. Bankruptcy Code. This approach reinforces the protection of sureties' subrogation rights and may help preserve a priority position in the restructuring process.[3]

The industry's success depends on lessons from recent claims and proactive risk management through:

- Rigorous underwriting
- Robust collateral structures
- Clear understanding of regulatory requirements

Only by anticipating challenges and strengthening financial resilience can sureties prevent P&A bonds from turning into costly, unforeseen claims events.

Alejandra Navarro Gallo
Claims Expert
Credit & Surety

[2] Uniform Commercial Code | US Law | LII / Legal Information Institute
[3] Surety Bond Quarterly (SBPQ) - Summer 2025 - Strategies for the Surety to Avoid Disaster in Chapter 11

Liability Reloaded:

The EU's New Product Rules

When the original EU Product Liability Directive (PLD) was enacted in 1985, personal computers were rare, mobile phones weighed a kilo, and artificial intelligence was science fiction.

Four decades later, Europe's liability framework has been rebooted. While the 2025 PLD revisits the entire liability landscape, its main ambition is to bring the regime into the digital age, and the change is seismic.

2026

EU PLD comes into force in December 2026.

The new PLD, approved by the European Parliament and entering into force on 9 December 2026, updates Europe's liability framework to reflect interconnected, software-driven products.

It expands who is liable, what counts as a product, what qualifies as a defect, and what constitutes damage. For insurers and insureds alike, it reshapes the risk landscape across manufacturing, AI, mobility, medical, and digital sectors, bringing broader claims, longer exposure tails and more complex litigation.

Why a Reboot Was Needed

In 1985, a 'product' meant something tangible you could hold. Today, Europe's economy runs on interconnected, data-driven systems, from autonomous vehicles and surgical robots to AI-enabled apps.

The new Directive explicitly extends scope to software, AI systems, digital manufacturing files (3D-printing computer aided designs (CADs)), and cloud-based services integral to performance.

It has two key aims: closing digital gaps in consumer protection – so defective software updates or algorithms are treated like faulty engine parts – and harmonising liability rules across member states. Liability now follows the data trail as much as the supply chain.

1985

Original Directive defined a product as something 'tangible'.

Who's on the Hook: Expanding the Circle of Liability

Perhaps the most striking shift is who can be held liable. The Directive introduces a layered model capturing every actor influencing product safety:

- Manufacturers (including AI and software developers),
- Refurbishers and remanufacturers (circular economy companies that substantially modify existing products before resale),
- Importers, authorised representatives,
- Fulfilment providers where no importer exists,
- Online platforms that appear to be the seller or fail to identify one within a month.

Any business touching a product's route to the EU market may find itself liable – significantly widening the risk universe.

This framework ensures that an EU-based operator is always available to face claims, bringing new categories such as refurbishers and fulfilment providers under strict liability for the first time. The Directive also narrows traditional exemptions: defects linked to software, updates, or digital services under a manufacturer's control can no longer be excluded, increasing legal complexity across jurisdictions.

Scenario 1
A refurbished e-bike battery sourced from Asia explodes in a Paris apartment. The refurbisher, now deemed a 'manufacturer', faces strict liability even if the defect originated in the cell design.

What Counts as a 'Defect' in the Digital Era

Under the old PLD, a product was defective only if it failed to provide the safety a person is entitled to expect. The new Directive adds a second, very consequential test: compliance with EU or national safety law. A product can now be defective for lacking timely security patches, failing to prevent foreseeable cyber risks, or breaching digital safety standards.

Legal Safety Benchmarks

Safety now includes compliance with frameworks such as the AI Act, Cyber Resilience Act, Cybersecurity Act, NIS2 Directive[4], and General Data Protection Regulation (GDPR). Breach of these laws can render a product defective before any damage occurs.

Scenario 2
An AI diagnostic tool breaches AI Act transparency rules. Even without harm, the AI system's manufacturer bears liability for non-compliance with safety law.

Expanded Safety Expectations

Safety now extends to data integrity, cyber resilience, algorithmic bias, and software maintenance. A defective update or missing patch may trigger liability. For insurers, exposures increasingly stem from regulatory breaches rather than physical harm.

As a result, a product's safety encompasses not only physical performance but also the integrity, security, and reliability of its digital functions throughout its lifecycle. Failures in cybersecurity or software maintenance can now trigger strict product liability.

Burden of Proof: Tilting the Scale

Traditionally, claimants had to prove defect, damage, and causation. The new PLD introduces presumptions of defectiveness if the product violates safety law, fails during normal use, or if the defendant withholds key evidence.

Where technical complexity makes proof excessively difficult, as is often the case with AI systems or biotechnology, courts may also presume causation. In practice, this means that a product may be considered defective even without conclusive technical proof, and the link between the defect and the damage (causation) may also be assumed unless the manufacturer can demonstrate otherwise. This near-reversal of the burden of proof requires manufacturers to maintain transparent design records, traceable logs, and data to defend claims.

Scenario 3
An autonomous-vehicle sensor fails in heavy rain, causing a crash. Unless the manufacturer can rapidly produce detailed telemetry to disprove defect, the court may presume both defect and causation.

Disclosure: Europe's Mini-Discovery Revolution

A quiet but radical change is the new disclosure regime. Courts can now compel both parties, particularly defendants, to disclose 'necessary and proportionate' evidence such as test data or design files. Non-compliance may lead to automatic defect findings. This limited 'discovery' concept – requiring parties to exchange internal evidence before trial, a novelty in European litigation – introduces higher costs, risk of trade-secret exposure, and pressure to settle early, especially for technology firms.

[4] Network and Information Systems Directive (NIS), whereas NIS2 expands the scope to more sectors and includes clearer rules and stronger enforcement mechanisms

Damages: New Heads of Loss

- Psychological injury explicitly covered.
- EUR 500 property-damage threshold abolished.
- Loss or corruption of personal (non-professional) data compensable.
- No national liability caps allowed.

Although some Member States already recognised psychological injury, its codification and the inclusion of data loss create new challenges in valuing non-material damage. While some of these existed under national law, codification will spur more claims and collective actions, particularly for data loss or digital-property damage.

Scenario 4
A connected-home software update deletes users' photos and files. Thousands of small claims could accumulate into mult million euro exposure. Quantifying such intangible losses will be a major actuarial challenge: what is a lifetime of digital memories worth?

EUR 500

property damage threshold abolished

Time Horizons and Collective Actions

The limitation period for latent injuries extends from 10 to 25 years and resets with each substantial modification – such as software updates. For continually updated products, this can mean perpetual exposure, creating long-tail liability.

The Representative Actions Directive (RAD) now explicitly covers PLD, enabling EU-wide collective redress with third-party funding – nearly 300 funders are active – creating larger aggregation risk.

Differences in national class-action rules may also encourage forum shopping, as claimants and funders seek the most favourable jurisdictions.

Interplay with Other EU Laws: A Tighter Web

The PLD is part of a broader digital regulatory framework, including:

- GPSR – introduces cybersecurity as a safety requirement and defines 'substantial modification'.
- AI Act – imposes transparency and accountability rules for high-risk AI systems.
- Cyber Resilience Act – mandates CE-marking and updates for connected devices from 2027.
- GDPR – data-protection failures can constitute product defects.
- Digital Services Act – extends platform liability when no EU manufacturer is identified.
- Machinery Regulation 2027 – adds AI-enabled machine safety obligations.

Together, these frameworks transform product liability from a fault-based to a compliance-based regime, making regulatory breaches a direct source of exposure.

Implications for Insurers

Reassess exposure as digital products expand liability:

- Software, AI and robotics – intangible product risks.
- Healthcare and med-tech – algorithmic and data errors.
- Automotive and mobility – autonomous and connected systems.
- Consumer electronics – high-frequency claims.
- Circular economy – refurbished goods deemed new.

Risk selection now depends on clients' cyber-resilience and compliance maturity.

Carriers should review wordings in particular:

- Definitions of "product", "property damage" and "tangible/intangible goods".
- Treatment of software, software updates and AI as new products.
- Retroactive-date and long-tail triggers.
- Coordination between product liability and cyber covers.

Insurers can expect growing demand for broader coverage or PLD-specific endorsements to ensure alignment with the directive's expanded scope of liability.

These shifts will also drive claims inflation and heighten the need for close coordination between underwriting, legal and claims functions.

For claims and litigation management, the new regime increases defence costs through disclosure demands, heavy documentation, and complex technical evidence.

To stay competitive, claims teams must enhance expertise in forensic data analysis, AI-explainability, and managing cross-border class actions arising from systemic software or product failures.

Implications for Insureds

Manufacturers must embed prevention and compliance: map digital dependencies, align with AI Act, CRA, GPSR and GDPR, maintain traceable documentation, strengthen indemnities, ensure disclosure readiness, and engage insurers early.

A Forward-Looking Perspective

The new PLD does more than update an old law, it redefines what 'defective' means in a world where products think, learn and connect. For insurers and insureds, the message is clear: liability is no longer confined to the factory floor. It lives in code, data, and algorithms, and it follows every update.

To thrive in this new landscape, insurers must evolve from passive risk-takers to active partners in digital safety. The Directive also encourages collaboration with RegTech (Regulatory Technology) providers – using digital tools to automate and monitor compliance – helping clients demonstrate conformity through certification schemes and AI risk evaluations. The PLD reboot marks a move from compensating accidents to enforcing compliance. For insurers, it creates both challenge and opportunity.

PLD's impact is far reaching. Any company marketing products within the EU must comply with its new standards.

Liability has been reloaded – the real question is whether the industry is ready to reboot with it.

Elena Jelmini Cellerin
Senior Claims & Key Case Expert, Cyber

Tenth Anniversary of Tianjin Port Explosions:

A Decade of Lessons for the Insurance Industry

12 August 2025 marked ten years since the Tianjin Port Explosions. The scale and complexity of the disaster affected a number of policy types from different lines of business highlighting the importance of accumulation controls at trading hubs and industrial parks, in addition to making it a landmark case for coverage interpretation.

173 lives

were lost and 798 people injured in the Tianjin disaster

Background

Tianjin Port is China's largest integrated port in northern China, as well as the fourth largest cargo port and ninth largest container port globally.

On the night of 12 August 2015, two successive violent explosions occurred at the hazardous materials logistics warehouse. The explosive forces of both blasts were equivalent to 15 tons and 430 tons of TNT respectively, resulting in 173 fatalities, 798 injuries, and widespread damage to assets around the blast zone.

Cause of the Explosions

According to the official investigation, the fire started in a warehouse after a wetting agent, used to keep a supply of nitro-cotton in a container damp, evaporated in the high temperatures and auto-ignited. The fire quickly spread to other chemicals stored at the site, including ammonium nitrate, which triggered the devastating explosions.

Overview of Property Damage

The explosions affected a 3km radius around the epicenter with property losses resulting mainly from shockwaves, extreme heat and the ensuing fires. The explosion also scattered toxic chemicals from the hazardous materials warehouse onto nearby properties, causing pollution highly specialised environmental clean up.

Commercial Cars

The largest share of property damage was to commercial vehicles, with circa 12 000 destroyed or later dismantled because of severe damage, and tens of thousands more required repairs.

Fires caused most of the destruction, as shattered windows allowed burning debris to ignite vehicle interiors, and vaporise the remaining gasoline in the fuel tanks, which then spread to adjacent cars, creating a chain reaction fire. Most vehicles parked within the same sector were burned, whereas the neighbouring sector, separated by spare lanes, remained largely untouched.

8 metres

(approximately three traffic lanes) was considered an appropriate fire break gap between distinct storage blocks of cars.

Picture showing the spare lanes. Source: Site survey.

Buildings
The explosion damaged many nearby structures – offices, factories, warehouses and apartments – affecting over 17 000 families and 800 companies. Damage varied by direction, building type and shockwave path: within ≤1 km, exposed reinforcement in primary loadbearing elements rendered structures unsafe; between 1–3 km, only curtain walls, doors and windows were cracked or deformed and later repaired. Notably, unlike commercial structures, most households were uninsured.

Containers
Over 20 000 shipping containers impacted, with about 7 500 declared total loss due to physical destruction, thermal damage, chemical contamination, or missing documentation, making ownership verification impossible.

Other Assets
Transportation: The nearby expressway sustained damage to its columns and surface, while rail tracks in the yard shifted by two meters. A light rail station's roof was severely damaged, requiring shutdown and reconstruction.

Indirect damages: A cold-storage facility located 2 km away from the epicenter was hit by an explosion propelled fragment that pierced its ammonia refrigeration piping system, contaminating stored products and disabling the cooling capability during peak summer. About USD 100 million worth of in meat products was lost.

Response of Insurance Industry

In the aftermath of the blasts, an unprecedented number of claims were filed for cargo, property, construction, motor-vehicle, aviation and personal accident policies. Major Chinese Insurers mobilised over 1 000 experts to handle the significant volume of claims.

Facing these massive losses, Chinese insurers deployed large scale remote-inspection for the first time. Drones performed aerial surveys of insured sites before entry into the blast epicentre was permitted, providing an initial damage assessment. Satellite imagery captured the area both before and after the incident, allowing reconstruction of the explosion's timeline and supplying essential data that accelerated claims processing.

Most claims were settled within 12 months, with over 6 000 claims and USD 1.32 billion paid out by the end of 2016, and total payments expected to exceed USD 1.64 billion.

The Challenge of Loss Assessment and Claims Adjustment

Several complex issues emerged, disputing policy liability, insurable interest, pricing bases, loss assessment, residual-value disposition and tariff refunds. Commercial vehicles made up most property losses, so the discussion focuses on vehicle-related claim issues.

17 000 families

and 800 companies affected by damaged structures – offices, factories, warehouses and apartments.

Loss Extent Evaluation

Beyond those cars that were declared total losses, tens of thousands more suffered minor damage. Deciding how to handle these partially damaged vehicles sparked intense debate.

- Insured parties worried about product quality after damage, brand reputation, and chemical exposure. They pushed for 'total loss' status in the affected zones; some demanded destruction or dismantling of damaged units while claiming total loss status for full insurer compensation. Others refused any transfer of ownership of the damaged vehicle - or even its spare parts - after dismantling, despite insurers paying the full insured value.
- Insurers initially resisted a blanket 'total loss' classification for lightly damaged cars, arguing many cars could be repaired or decontaminated for resale. There were concerns that auto manufacturers might use the incident to liquidate unsold stock (stored at ports for 8 – 10 months) and shift costs onto insurance policies.
- Disputes also arose over 'trademark-and-brand' clauses, with some insureds demanding the right to dictate disposal methods, significantly increasing insurer payouts.

Outcomes varied, some insurers accepted total loss/destruction, others embraced total loss classifications and acquired ownership rights over damaged cars, and a minority of insurers only paid partial loss despite insureds eventually self-initiated destruction of their cars.

For the cars that both parties agreed to repair, debates arose over whether 'depreciation loss', the difference between new and repaired vehicle value, should be covered, with only a few policies containing explicit clauses like 'diminution in value' or comparable provisions.

Termination of cargo policy and overlapping coverage

When imported cars were stored at Tianjin Port, multiple parties (auto manufacturers, buyers, warehouse operators) might each have insurance cover in place. Determining which policy applied depended on the good's position in the transport chain.

If Tianjin was the final port before the cars were moved to a sales point in China, claims would usually fall under property insurance. However, when a local wholesaler handled the transfer - or a manufacturer used its own distribution network - it became unclear whether manufacturer's cargo, wholesaler's property or domestic-transport policies apply, especially if titles to the cars at the time of the explosion were uncertain.

For coverage overlaps, Chinese regulators advised insurers to pay their respective insured first, with subsequent recoveries or contribution settlements handled later between insurers. Most losses were ultimately settled under property policies and most recovery attempts of property policies from cargo policies failed.

8 – 10 months

Unsold stock stored at ports before incident.

Underinsurance & Policy
Weak domestic car sales in early 2015 led to a backlog at Tianjin Port, leaving warehouses and even port berths at peak levels of vehicle storage capacity. Many insured parties, or their agents, failed to meet quarterly reporting obligations for 'warehouse property declaration clauses,' resulting in declared sums insured covering only about 60% of actual value.

Total Limit and Sub-Limits in Policy
Disputes arose over aggregate versus sub-limits for individual sites. Some policies had high aggregate ceilings but low sub-limits per location, or vice versa. Most contracts, however, stated that sub-limits override the aggregate limit.

Ambiguities in policy language, such as defining 'location', led to disputes and highlighted the need for clearer wording. A global cargo policy-imposed a per-location sub-limit, yet three adjacent warehouses each suffered severe losses, pushing the total claim far beyond that limit. How 'location' is defined, single address versus a broader area, such as Tianjin Port, determines the amount recoverable. The insurer in question lost this argument, underscoring the need for underwriters to craft clearer policy language.

60%

declared sums insured for the vehicles compared to their actual value.

Lesson Learned: Accumulation of Risks in Large Centers

The Tianjin Port explosion renewed concerns about risk accumulation in large-scale facilities - ports, warehouses, cargo-storage complexes, and industrial parks, which present some of the highest potential for concentrated exposure. The dense concentration of stored, loaded and unloaded cargo, critical infrastructure and other commercial activities means that an industrial accident or severe weather event at any of these sites can produce massive, cross-line losses.

Catastrophe modelling has traditionally focused on static risks such as buildings and infrastructure within ports, but modelling mobile risks - ships, cargo and their accumulation in distribution centres remains a challenge. Current practices often code exposure simply as 'warehouse content' at a single geographic point (e.g., the port's centre), yet ports can span several kilometres.

The Tianjin case shows the need for more granular risk mapping at aggregation points to capture true exposure concentrations.

Jerry Sun
Claims Expert

Driving Into the Future:

Autonomous Vehicles and the Transformation of Insurance

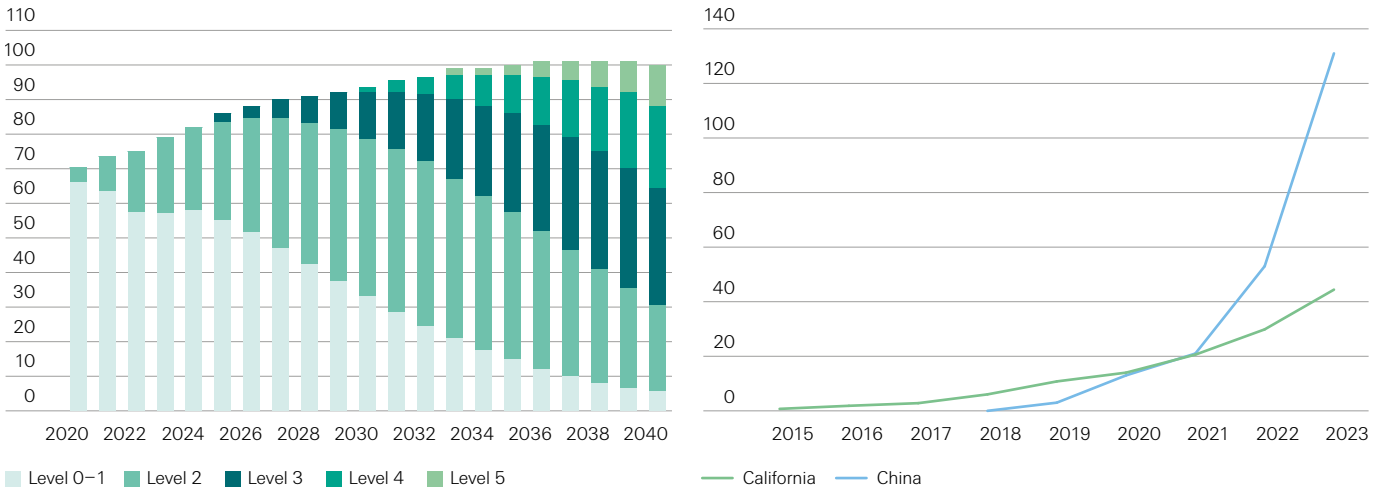
The rise of autonomous vehicles (AVs) is no longer a futuristic vision. From Tesla's advanced driver-assistance features to Waymo's self-driving ride-hailing services, AVs are steadily moving from test tracks into everyday traffic. Yet, widespread adoption of AVs still seems years away. Analysts do not predict AV sales to reach more than 10% of all vehicles sold during the next ten years, but lack of widespread adoption does not mean that insurance companies can be complacent.

Driver error contributes to

90%

of road accidents worldwide.

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



Source: Bloomberg NEF

Whether or not insurers consciously choose to insure AVs, small regulatory changes can convert a portfolio believed to be free of AV risk to a portfolio covering AV applications.

As the above example from Hong Kong illustrates: On 23 February 2025, the Hong Kong Transport Department announced new regulations - effective 1 March 2025 - allowing drivers to activate remote parking via mobile phones. Within a week, portfolios without AV risk became exposed, prompting the question: "Who, if anyone, is responsible for covering this technological leap?"

Traditionally, vehicle insurance has been built around human behaviour - drivers' habits, histories, and decisions. But what happens when the driver is no longer a person, but an algorithm? The shift challenges not only risk assessment and underwriting, but also allocation of liability and claims.

The New Risk Landscape

In conventional auto insurance, risk largely revolves around driver error. According to several studies and statistics from the NHTSA (National Highway Traffic Safety Administration), driver error contributes to more than 90% of road accidents worldwide including the US. AVs could reduce this figure by replacing fallible human drivers with precision-driven AI systems.

Yet, while some risks could diminish, others may emerge:

- System Failures: Malfunctioning sensors, flawed algorithms, or power failures could trigger accidents or 'brick' cars (completely unusable, unrepairable vehicles) which have been seen with some manufacturers.
- Cybersecurity Threats: AVs are essentially computers on wheels, vulnerable to hacking, ransomware, and system takeovers.
- Shared Liability: In a collision, responsibility could rest with multiple stakeholders - the manufacturer, software provider, fleet operator, or even the human passenger in semi-autonomous modes.
- Moral Decision-Making: AVs may face unavoidable accident scenarios, raising ethical questions about how algorithms prioritise lives.

The shift moves risk from individual behaviour toward product performance and system reliability, forcing insurers to rethink the fundamentals of coverage in the short, medium, and long term. In the short term, insurers face one challenge in particular: data.

Data for Underwriting and Claims

One of the greatest opportunities - and challenges - lies in the vast amount of data AVs generate. Each vehicle may collect terabytes of information daily from sensors, cameras, LiDAR (Light Detection and Ranging), and software logs. Leveraging connected vehicle data opens new possibilities to transform underwriting and claims processes. For example:

- Dynamic Risk Assessment: Real-time insights into vehicle performance, environmental conditions, and system reliability could enable insurers to proactively manage risk and tailor pricing models.
- Enhanced Accident Forensics: Access to detailed vehicle data could accelerate fault determination and streamline claims settlement, improving customer experience and reducing operational costs.

However, this raises privacy and data ownership issues. Who controls the data - the driver, manufacturer, or insurer? Regulators and courts will play a central role in balancing innovation with consumer rights and access to the data. Under the General Data Protection Regulation (GDPR), personal data is owned and controlled by the individual (the data subject) to whom the data relates, such as a driver in the context of vehicle-generated data.

Traditional insurance, investigations revolve around witness statements, police reports, and driver histories. In an AV world, claims will depend on:

- Data Analysis: Sensor and software logs will become the primary evidence.
- Multi-Party Negotiation: Settling claims may involve manufacturers, fleet operators, and software providers.

For insurers, data access will be of great importance and at the centre of claims handling transformation. In the immediate future, insurers will operate in a world of semi-autonomy. Human drivers and AV systems share responsibility. AV systems cannot operate in all environments, and drivers need to be able to intervene and take over control. It is those intersections that pose challenges. To prove who was at fault, the system or the driver, and thus determining liability and who pays the claim, insurers need access to the data for analysis.

USD 242.6 m

was awarded by a jury in a data access dispute.

Without the right to access the data, insurers rely on the disclosure of manufacturers. In a recent case, a manufacturer claimed for years that the data collected before and during the accident has been lost or corrupted. Only six years after the event the data was recovered and made accessible by a third party that proved the data was there all along. The manufacturer was found 33% liable and ordered to pay USD 42.6 million in compensatory damages and USD 200 million in punitive damages. While still ongoing, the case illustrates that access to data matters and helps determine liability. It establishes who is at fault and which insurance policy will pay.

Claims Complexity Increases

The importance of data will increase as the adoption rate of AVs increases. Insurers need different skills. This applies not only to data science and engineering expertise but also developing new subrogation strategies.

While data records from sensors of the vehicle can theoretically help to establish fault quicker, many cases will not be clear cut. On the contrary, liability chains can become more complex involving the driver, the Original Equipment Manufacturer (OEM), software developers etc.

With more responsibility moving to OEMs and others from the human driver, insurance companies may increasingly subrogate against OEMs and their value chain. In most cases, the insurer will pay first and then subrogate, likely targeting the OEM, who would then seek recovery through their relevant non-motor liability policies e.g. product liability, provided such coverage exists. Product liability policies are subject to coverage limits, whereas motor third-party liability is typically unlimited in countries such as the United Kingdom, France, and Belgium. This disparity can lead to significant gaps in insurance coverage.

10%

of all vehicles sold to be AV by 2035.

Cybersecurity Risks and Accumulation Challenges

The same problem arises from accumulation scenarios, e.g. in cyber. If a malicious actor exploits vulnerabilities and causes numerous vehicles with the same system to crash, which policy will respond? It might be the product liability policy of the software provider or the OEM if the accident stems from a design flaw or software vulnerability. If the loss does not stem from design flaws and preventable vulnerabilities, it might be the cyber policy that responds. However, not all cyber policies cover physical damage and bodily injury. While cyber incidents are usually excluded by the motor policy, the insurer is typically expected to pay first and subrogate. Depending on the circumstances of a cybersecurity breach, it is unclear whom to subrogate against.

The accumulation potential from cyber attacks is significant and not every attack may be recognised as one. Vulnerabilities can be exploited and malware introduced in software updates. Such malware can take the form of an adversarial machine learning attack. The models used for decision making are manipulated into misclassifying information such as traffic signs, leading to increased accident frequency that is not easily recognized as an accumulation event and can be unrecognized for a longer period of time. Recognising and proving the fault, then subrogating the software provider or OEM requires increasingly specialised knowledge.

Beyond deliberate cyber attacks, insurers must also consider the implications of cyber failures - unintentional malfunctions or breakdowns in AV software or connected systems. These failures can arise from software bugs, hardware incompatibilities, or unforeseen interactions between vehicle systems and external networks. Unlike targeted attacks, such failures may not have an identifiable malicious actor, making attribution and subrogation even more challenging. Insurers will need to establish protocols for investigating and distinguishing between cyber attacks and accidental cyber failures, as both can result in significant losses and complex liability chains.

Are Claims Handling Organisations Ready?

Insurers face two key challenges: data access and data analysis. For the former, insurers need OEM collaboration to establish data-sharing agreements to access proprietary vehicle data. This might be easier said than done. It is in the OEM's interest to protect proprietary data and intellectual property as well as the privacy of the driver. As a manufacturer that sells cars in dozens of markets all over the world, having data sharing agreements in place with hundreds or thousands of insurers is both complex and costly. The more data is shared with more entities, the higher the threat of data leakages and incompliance with data protection regulations.

Once insurers and OEMs start sharing relevant data, insurers need to be able to analyse and assess the data. It requires technical expertise from data scientists and engineers to be able to interpret data from vehicle sensors, cameras, radar and LiDAR. Only then is it possible to distinguish between human error and system failure.

Coming back to the original question "who, if anyone, is covering the technological leap?" often lacks a clear answer. Proving liability heavily relies on the quality and clarity of evidence therefore, data access and analytical capabilities are essential.

Tom Sullivan
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The road ahead: As autonomy reshapes mobility, insurers face a new risk landscape where algorithms, not drivers, impact liability.

Transactional Risk Insurance:

Claims Drivers, Macroeconomic Impacts and Market Dynamics

Transactional risk insurance (TRI), including representations and warranties insurance (RWI), plays a critical role in facilitating mergers and acquisitions (M&A). While the nature of these policies makes them less sensitive to broader economic cycles, macroeconomic factors can still indirectly shape the frequency, type, and valuation of claims.

This article explores the key types of issues giving rise to claims, how macroeconomic conditions influence them, the unique challenges of M&A related claims, the role of artificial intelligence (AI), subrogation trends, and developments in the rate environment.

Types of Issues Giving Rise to Claims and Macroeconomic Impacts

Financial Statement and Warranty Breaches

Breaches of representations and warranties relating to financial statements continue to produce the most severe claims. Valuations are also influenced by broader market conditions: higher deal multiples (notably in 2021's strong M&A market) resulted in higher claim valuations, while lower deal multiples in later years corresponded with lower loss valuations alleged.

Tax-Related Representations

Across all jurisdictions, a significant portion of claim notices arises from alleged breaches of representations and warranties relating to underpayment of taxes. The proportion of such claims is particularly high in EMEA, reflecting the region's active tax authorities. Many of these notices are triggered by the commencement of audits rather than by actual financial losses.

Economic conditions may exacerbate this trend: in financially challenging times, governments may direct tax authorities to increase tax enforcement to bolster revenues. For instance, in jurisdictions such as England, where the government has committed to not increasing income tax on individuals, it leads to corporations facing rising tax burdens. Conversely, the U.S. IRS is facing workforce reductions, therefore it is anticipated that fewer audits will be conducted in the near term. Historically, due diligence on tax matters has been robust, and increased audit activity has not necessarily translated into higher claims payments.

Broader Economic Downturns and Litigation Trends

Economic slowdowns and turbulence typically lead to increased litigation across sectors. Consequently, insurers may see a rise in third-party claims related to alleged violations of target companies prior to acquisition. Transactional risk policies are not forward-looking instruments; their terms and triggers are bound to representations made at the time of the transaction.

As such, macroeconomic shifts do not directly affect claims frequency per se. However, in periods of reduced M&A activity, deal teams often have greater capacity to review existing investments more closely. This increased scrutiny can lead to the identification of potential breaches, particularly where buyers suspect they may have overpaid for assets.

EMEA & North America Trends

In EMEA and North America, claims have increasingly involved breaches of warranties concerning material contracts and customers. Examples include cancellations of contracts due to declining demand for electric vehicles, or lost orders caused by global tariff disruptions which were not properly disclosed by the sellers during the transaction. Several claims of this type recur in North America, and they can result in large payments due to the significant impact that lost customers can have on target companies' EBITDA.

Asia Trends

Across Asia, transactional risk insurance continues to gain traction, though adoption remains below levels seen in North America and Europe. Market data suggests India, Greater China, and Korea currently account for the highest number of RWI notifications in the region. Common breach types include material contracts, tax representations, and regulatory compliance warranties, reflecting the complex legal and disclosure environments in these jurisdictions.

Why M&A Claims Are Different

Complexity and Sophistication

RWI buyers are typically experienced investors represented by specialised legal counsel. Each transaction involves heavily negotiated representations, warranties, and coverage scopes, making these policies bespoke instruments rather than standard-form contracts. Each claim requires evaluation of the unique language at play in the transaction documents, and determination of breach/coverage often requires a thoughtful legal analysis.

The quantification of loss often involves an assessment of the impact on the business of the issue giving rise to breach, which in turn often requires an understanding of how the target company was valued at the time of the acquisition. Insureds expect insurers to operate on a 'deal time' basis, with a deep understanding of the transaction at the outset of a claim investigation, thus anticipating expedited claim decision-making.

Common Challenges in Claims Resolution

Where insureds provide documentation and cooperate efficiently, even large claims can be resolved within a few months. Insureds do not always prioritise expeditious responses to information requests propounded by insurers, which slows the claim investigation. Third Party claims tied to litigation or arbitration often proceed at the tribunal's pace, prolonging resolution timelines.

Role of Artificial Intelligence (AI) in Claims and Underwriting

RWI claim handlers are often required to digest large volumes of deal-specific documentation rapidly. AI tools are increasingly being deployed to synthesise information from complex data sets and particularly to facilitate multilingual document review, especially across EMEA for matters involving third-party claims. In underwriting and due diligence processes, large law firms have widely adopted large language models (LLMs).

These tools help identify key contractual clauses (e.g., change-in-control provisions) in company contracts, it can also act as a failsafe against human error, and functions as an enhanced search and verification tool rather than a full replacement for human legal analysis. Currently, AI acts more as a 'giant CTRL+F', which is useful for efficiency, but does not provide a nuanced legal interpretation. To date, we have not observed any material claims arising out of the use of AI in RWI.

Subrogation Trends

Historically, subrogation in the RWI market is not common. Insurers typically have recourse against sellers only in cases of fraud. The legal bar for fraud tends to be high in many jurisdictions, in part because a demonstration of Seller's intent is often required and evidence of such intent is often scant.

Furthermore, in instances of overt fraud, where clear evidence of fraud exists, buyers often pursue sellers directly, as their losses often exceed policy limits. Potential subrogation may extend to other counterparties of a company, such as landlords, customers, or suppliers and should be explored.

Conclusion

Transactional risk insurance remains structurally resilient to macroeconomic fluctuations, albeit with indirect economic effects – from valuation shifts and heightened audit activity to regional litigation trends – continuing to influence the profile and frequency of claims. Sophisticated insureds, complex negotiations, and nuanced policy language ensure that M&A claims remain among the most analytically demanding in the insurance market.

The combination of claim frequency (approximately one in six policies), lower retentions, and selective rate increases signals a period of measured normalisation rather than full hardening. Capacity remains available, but pricing behaviour is increasingly shaped by claims experience rather than pure competition.

Looking ahead, AI-driven efficiencies in due diligence, heightened regulatory scrutiny, and a more data-driven approach to underwriting and claims management are expected to redefine how insurers evaluate and price transactional risk. The coming cycle should reward carriers that combine technological adoption with disciplined risk selection – supporting both profitability and responsiveness in an evolving M&A landscape.

Jennifer Hughes
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Technical Excellence & Large Loss

The Dark Side of Litigation Funding and Legal Advertising:

Costs, Delays and Conflicts

Litigation funding has grown into a multi-billion-dollar industry in the U.S., reshaping the claims landscape by giving plaintiffs access to capital and prolonging disputes. While it can expand access to justice, it also drives up claim costs, fuels "nuclear verdicts," and reduces opportunities for settlement – all of which directly impact insurers and reinsurers through higher severity, longer claim lifecycles, and social inflation. With regulation still evolving, understanding the hidden risks of litigation funding is critical for effective risk management, pricing, and claims handling strategies.

30 – 50%

of awards are claimed by litigation funders, reducing the compensation plaintiffs ultimately receive.

Litigation Funding – a Multi-billion-Dollar Industry in the U.S.

Litigation funding and aggressive legal advertising have reshaped the pursuit of justice, offering financial support and visibility to plaintiffs who might otherwise lack resources. However, these practices come with significant downsides, including skyrocketing costs, prolonged litigation, and troubling conflicts of interest and control. While they aim to democratise access to the courts, these mechanisms often prioritize profit over fairness, burdening plaintiffs and undermining the judicial system.

Litigation Funding and Third-Party Investors

Litigation funding, where third-party investors bankroll lawsuits in exchange for a portion of the settlement or judgment, significantly increases the cost of legal proceedings. Funders typically charge high interest rates or claim substantial shares of awards, sometimes 30 – 50% plus of the verdict, and as a consequence significantly reducing the amount of compensation plaintiffs receive. A 2024 study by the U.S. Chamber of Commerce noted that funded cases often incur additional expenses, such as administrative fees and extended legal processes, which inflate overall costs.[5] These expenses are frequently passed on to clients, who may end up with far less than anticipated, even in successful cases.

For example, in mass tort litigation, such as opioid lawsuits, plaintiffs may see their awards eroded by funding agreements, leaving them feeling exploited rather than empowered.

At least 16 U.S. states in the last five years have approved statutes that require disclosure of litigation-funding parties or licensing of or reporting by the financiers.

In Florida, where extensive claims litigation has significantly affected insurance costs and premiums, a comparable bill failed to pass the legislature in 2024. Had it been enacted, the legislation would have required disclosure of litigation funding parties and explicitly reaffirmed the existing prohibition on funders influencing case outcomes. Federal legislation in Congress also has gained little traction since it was introduced last year.

Prolonged Litigation

Prolonged litigation is another consequence of third-party funding. Funders, motivated by maximising returns, may push attorneys to extend cases to increase potential payouts, even when early settlement might better serve the client. This strategy can extend lawsuits for years, clogging court dockets and delaying finality. In some instances, funders encourage the pursuit of marginal claims to diversify their investment portfolios, further burdening the judicial system. A 2023 analysis by the American Bar Association found that funded cases, particularly class actions, often take 20 – 30% longer to resolve than non-funded ones, as investors prioritise financial outcomes over efficient resolution.[6] This delay not only frustrates plaintiffs but also strains court resources, hindering access to timely justice for others.

20 – 30%

increase in time to settle cases where litigation funders are involved.

[5] U.S. Chamber of Commerce 2024 Report
[6] American Bar Association Study 2023

Conflict of Interests

Conflicts of interest and control pose perhaps the most deceptive risks. Litigation funders often wield significant influence over case strategy, creating tensions between their financial interests and the client's needs. For instance, funders may pressure attorneys to settle quickly to secure a guaranteed return or, conversely, to prolong litigation to inflate damages. This dynamic can undermine the attorney-client relationship, as lawyers may feel beholden to funders rather than their clients. Additionally, the lack of transparency in funding agreements exacerbates these conflicts.

Many jurisdictions do not require disclosure of funding arrangements to courts or opposing parties, allowing hidden influences that may shape case outcomes. A 2024 report from the U.S. Government Accountability Office warned that undisclosed funding could lead to biased decision-making, as courts remain unaware of external pressures.[7]

Aggressive Legal Advertising

Aggressive legal advertising amplifies these issues by driving demand for funded litigation. In 2024 law firms spent USD 1.1 billion on TV and radio for legal advertising (that's 22% more than in 2015). More impressively, they aired over 15 million legal ads, an uptick of 57% compared to 2015. Flashy ads on TV, billboards, and social media often target vulnerable groups, promising large settlements with little context.[8] These campaigns, frequently financially supported by litigation funders, encourage plaintiffs to join lawsuits without fully understanding the downsides. The high expense of advertising further inflates legal fees, which are often deducted from settlements, leaving plaintiffs with diminished recoveries. Moreover, these ads can mislead clients about their case's merits, fostering unrealistic expectations and fuelling frivolous claims that overburden courts.

22%

increase in TV & Radio advertising spend by plaintiff attorneys in the last 10 years.

To mitigate these problems, reforms are essential. Mandating transparency in funding agreements could curb conflicts of interest, ensuring courts and clients are aware of third-party involvement. Stricter regulations for legal advertising could prevent misleading claims and protect vulnerable individuals. While litigation funding and advertising aim to enhance access to justice, their tendencies to increase costs, prolong litigation, and create conflicts of interest threaten desirable efficiencies of the legal system. Without oversight, these practices risk turning litigation into a profit-driven enterprise.

A report by The Perryman Group April 2025 (The Economic Impact of Excessive Tort Costs on U.S. Households) estimates the excess tort costs to be USD 674 billion per year in the U.S. for inflation. This translates into about USD 2 014 per person/USD 5 135 per household per year. In specific states, New York it is USD 7 914 per household annually. The consequences of rising litigation costs extend far beyond defendants and the whole judiciary society is affected. As legal expenses increase, insurance premiums become less affordable and the prices of everyday products rise, since companies must offset these costs.

For those who want to dive deeper, we include a link to a recent article by Moya Stevenson on European Litigation Funding in our first edition of Claims Perspectives

Without oversight, litigation funding and aggressive legal advertising risk turning justice into a profit-driven business leaving ordinary people to pay the price.

Jason Feldman
Claims Expert

[7] U.S. Government Accountability Office Report 2024
[8] Insurance Journal- Litigation Funders invest in law firms August 2025

Understanding IDF Curves:

Their Role in Insurance and Hydraulic Designs

Intensity-Duration-Frequency curves are graphical representations of the relationship between the intensity of a rainfall and its duration in a concrete location for a given frequency (return period). This curve embodies a true fingerprint of the affected location, and its calculation is based on local historical rainfall data.

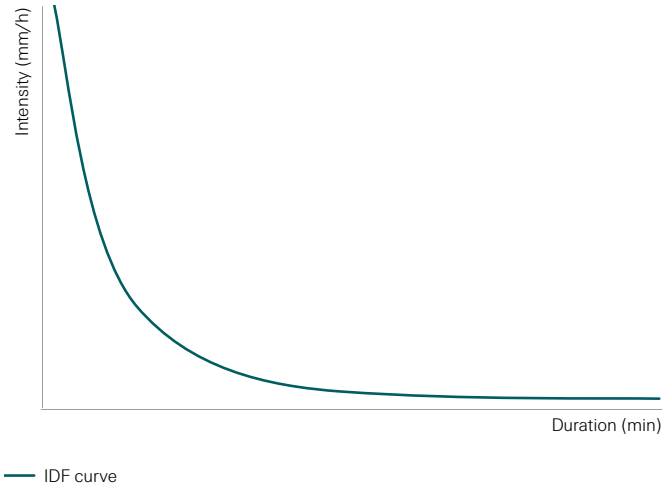
1 year

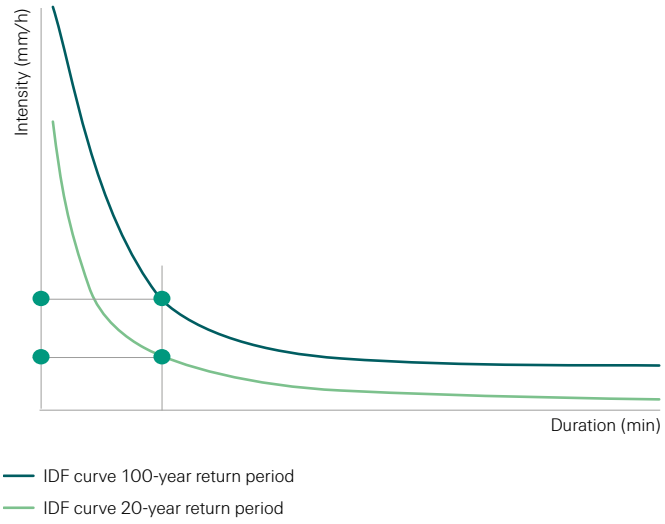
A return period means an event is expected to occur once on average within the defined time span.

Bridging Insurance and Engineering with IDF Curves

Engineering insurance and hydraulic designs share common ground on IDF curves.

- When CAR (Construction All Risks) or EAR (Erection All Risks) policies contain language referencing cover being provided for 'precipitation, flood and inundation, so long as adequate measures have been taken into account in the design and execution of the project', IDF curves help assess whether a rainfall event was extreme enough to trigger coverage under such policies, which often define thresholds based on return periods.
- The return or recurrence period represents the time span (years) in which a certain event is expected to happen at least once on average. It is important to understand that the expected event can de facto happen once, twice, three times or not happen at all in the agreed period; but on average (considering sufficient data is available) it will happen once.
- Furthermore, IDF curves help the hydrologist design and size hydraulic structures (for instance, the dimensions of the safety measures in the construction site) when analysing rain patterns.





In either field, insurance or design, rainfall intensity (water volume/time) turns out to be the key element for the return period considered, which respectively is the ultimate factor that triggers a loss or determines the hydraulic design. In principle (although not always) high intensities within short periods will produce larger damages than low intensities in longer periods.

For a given return period, the easiest way to appreciate and understand the relationship between the intensity of a rainfall and its duration is an IDF curve, which shall be distinctive for each studied location. As the following graph shows, intensities and durations enjoy an inverse relationship.

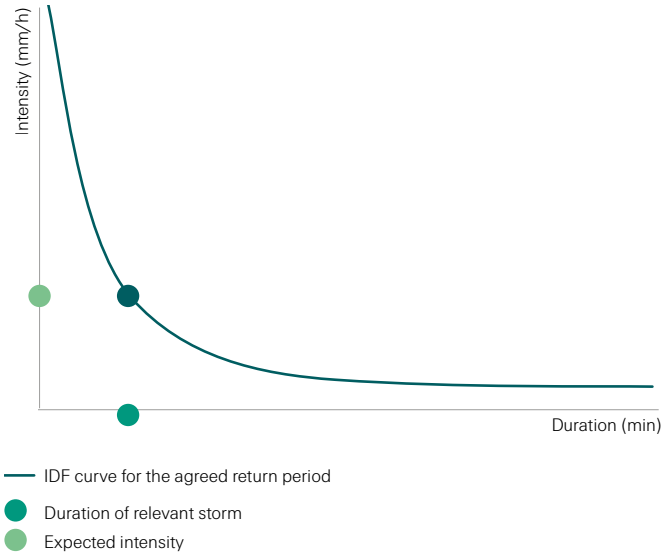
For any given fixed duration, the expected intensity will increase with the return period.

How IDF Curves Become Relevant for Claims Handling

Resorting to IDF curves to assess coverage after rainfall damage can follow a simple approach:

1. Requesting the following pieces of information from the local meteorological institute:

- The specific IDF curve for the location at stake according to the agreed return period in the policy (remember, the curve is distinctive to each location).
- Storm records on the day of the loss (i.e. precipitation and duration).



2. Using the provided curve as a tool, to calculate the intensity associated with the relevant storm duration.
If the recorded intensity on the day of the loss exceeds the expected intensity that was calculated with the IDF curve, then coverage is granted because the event shall be considered unforeseeable. Otherwise, there will be no coverage because the contractor will have failed to implement and or maintain the due protection measures (hydraulic design) to withstand the predictable event (implicitly defined in the policy by the agreed return period).

Limitations of the Use of IDF Curves

Without sufficient data, it is impossible to conduct a technical assessment of coverage. The absence of data is therefore the primary challenge – whether it occurs before a loss, preventing statistical analysis and the creation of local IDF curves, or after a loss, hindering the ability to assess coverage and properly apply policy provisions.

Data quality is another significant challenge. Calculations based on short and/or incomplete historical records can lead to substantial errors in the conclusions drawn. Additionally, data from weather stations that are distant from the loss location may not accurately reflect the conditions of the incident – this is especially common in remote areas with sparse populations and limited meteorological infrastructure.

Historical rainfall data used for IDF curves may soon be outdated due to climate change. As global temperatures rise, the atmosphere holds more water vapour, increasing both the frequency and intensity of rainfall. Since most IDF curves rely on relatively short data series (10 – 30 years) that have not fully captured climate change effects, long-term forecasts for 50, 100, 500, etc. years for extreme events may already be unreliable.

Observations for Underwriters

When considering risks in regions susceptible to heavy rainfall or flooding, it is essential to ensure that reliable historical data is available. The absence of nearby weather stations capable of providing representative data should be viewed as a significant warning sign and may warrant reconsidering risk appetite in such cases.

If robust historical data exists, increasing the return period specified in policy provisions can serve as a practical way to offset potential distortions in coverage assessments caused by climate change.

As an alternative, the insured may choose to increase the projected rainfall intensities derived from IDF curves when designing and implementing safety measures.

Taking on risks in regions susceptible to intense rainfall should never proceed without the assurance of robust historical data.

Where such data exists – and with thoughtful adjustments for climate change – IDF curves become indispensable: they guide the design of effective hydraulic safety measures and serve as a reliable basis for coverage assessment in the event of a loss.

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