Howden Re

HOLLYWOOD

2025 Los Angeles wildfires

A path forward

Key findings

The wildfires in Los Angeles are first and foremost a human tragedy and our thoughts are with all those affected. The shocking impacts demand a decisive, coordinated and sustained response from communities, regulators and the insurance industry to prevent devastation on this scale happening again.

This paper is designed to assist the response by setting out a clear path forward from a risk management and (re)insurance perspective.

The pages ahead examine the cause and impact of the fires as well as the size and drivers of protection gaps. From this, we draw out the most important lessons that must be learned and break down the specifics of the response.

Even at this early stage, it is clear that a successful response hinges on a high degree of coordination across those affected on the ground, state regulators and the global (re)insurance industry.

We offer a framework to highlight the critical interdependencies across regulation, risk management and risk transfer.

The return of much needed (re)insurance capital into the California market is contingent on improved resilience.

carriers and brokers.

Loss projections

Insured loss projections released by modeling companies range from US\$20 billion to US\$45 billion, with the average of US\$31 billion more than double the previous highest wildfires loss on record.

dtl

Loss creep

Loss creep is a risk due to demand surge, the value and number of collectible items, additional living expenses, auto losses and the specter of litigation.

\simeq

Protection gap

Economic loss guidance reveals a notable reduction in the portion covered by insurance compared to other large-scale wildfires in 2017 and 2018.

The Los Angeles wildfires demand a decisive, coordinated and sustained response from communities, regulators and (re)insurance



Underinsurance

The protection gap has been aggravated by underinsurance, with average homeowners' premiums rising by only 2.6% per year between 2016 and 2023 after construction inflation.



Risk management

Risk management is vital and highly cost effective; Howden analysis shows that ~US\$75 billion of economic losses could be halved with US\$6 billion of upfront investment.



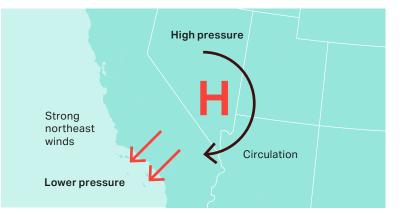
Solutions

The industry has an immediate and compelling opportunity to step up using public-private partnerships, reinsurance, MGAs and product innovation.

Cause and impact

The cause and impact of the wildfires in Los Angeles reflect a combination of climate factors, development in fire-prone areas and the age of housing stock, with many homes predating building codes that lessen wildfire risk.

The second half of 2024 brought exceptionally dry conditions to Southern California. Belowaverage rainfall, combined with unseasonably warm temperatures, significantly heightened wildfire risks. Between May 2024 and January 2025, Los Angeles recorded only 0.29 inches of rain, making it one of the driest periods on record. This prolonged lack of precipitation left vegetation extremely dry and highly susceptible to ignition, especially in foothills and mountainous areas. By January, fire season-ending rains have long since occurred in a typical year. The absence of those rains proved to play a key role in the resulting fire outbreak. The situation was further worsened by Santa Ana winds, a regular yet hazardous feature of Southern California's climate, particularly in the fall and early winter. The onset of Santa Ana winds heralds the peak of wildfire risk since their timing aligns with peak fuel dryness. Severe winds in early January 2025, measuring 50-60 mph on a sustained basis and gusting up to 80 mph in urban areas, drove at least six fires across Los Angeles County at alarming rates.





0.29_{inches}

Between May 2024 and January 2025, Los Angeles recorded only 0.29 inches of rain, making it one of the driest periods on record. The most destructive fires – Palisades and Eaton – ignited on 7 January, spreading rapidly into densely populated areas and critical infrastructure as strong winds made them extremely difficult to control, grounding air support at times. More than 16,000 structures were destroyed by these fires.

In addition to the meteorological features, significant structural and non-climate-related factors made the Los Angeles wildfires particularly devastating. One of the most pressing issues continues to be the growth of the Wildland-Urban Interface (WUI), where urban and suburban development increasingly intrudes on areas that are highly vulnerable to wildfire.

This expansion of the WUI is clear in regions like the Santa Monica Mountains, Malibu and parts of the San Fernando Valley, where new homes and businesses are being built near fire-prone landscapes. As these areas continue to expand, the exposure to wildfire risk increases, and the potential for significant damage becomes higher without mitigation.

80_{mph}

Severe winds in early January 2025, measuring 50-60 mph on a sustained basis and gusting up to 80 mph in urban areas, drove at least six fires across Los Angeles County at alarming rates. To mitigate wildfire risk in the state, California has implemented stringent building codes, such as Chapter 7A of the California Building Standards Code, which was introduced in 2008. These codes require new homes to be constructed with fire-resistant materials, including non-combustible roofing and siding, and emphasize the creation of defensible space around properties.

Because these regulations primarily apply to new construction, many homes built before 2008, which make up the bulk of housing stock in areas impacted by the Eaton and Palisades fires (see Figure 2), do not meet these standards. As a result, established neighborhoods often lack fire-resistant features, leaving them significantly more vulnerable than more recently built areas during wildfires. This disparity was highlighted during the Eaton and Palisades fires, where homes built before these requirements were implemented suffered far greater damage than newer homes adhering to the updated codes.

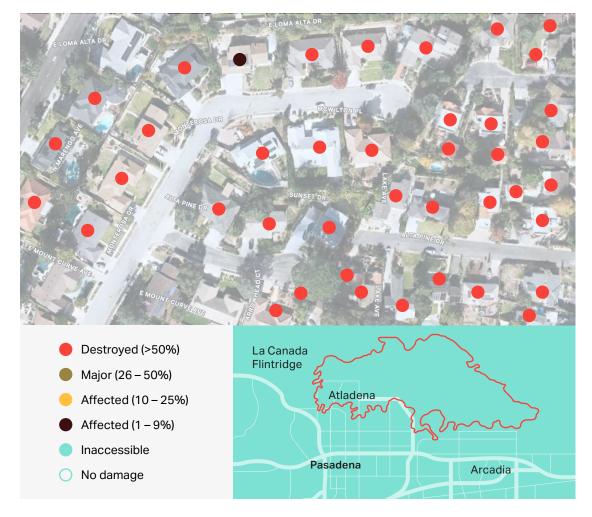


Figure 1: Pre-fire aerial imagery of Altadena where trees overhang roofs (Source: CalFire)

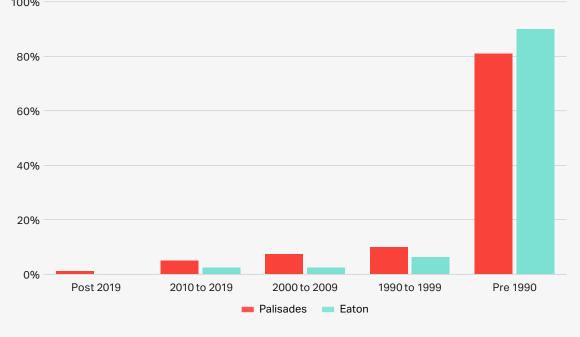


Figure 2: Age of housing stock in Palisades and Eaton (Source: Howden, US Census Bureau)

66

Homes built before building code requirements were implemented suffered far greater damage than newer ones.

Several insured loss estimates for the wildfires have been released by catastrophe modeling firms since mid-January.

Figure 3 shows the spread of projections released to date, ranging from US\$20 billion to US\$45 billion. The average across all vendors comes to US\$31 billion, which would be more than double the previous highest wildfires loss on record (the Camp Fire in 2018, which was also in California).

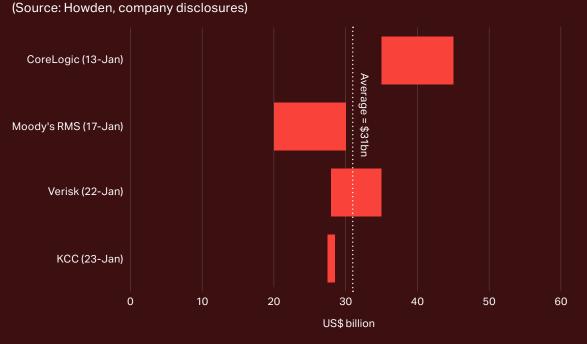


Figure 3: Market loss estimates for 2025 wildfires by modeling company

Each modeled estimate focuses on the Palisades and Eaton fires and incorporates an array of loss components, including property damage (fire in all cases and smoke in some), demand surge, additional living expenses and debris removal. The loss is heavily skewed towards residential properties, with the Palisades Fire in particular impacting high-value homes.

Commercial assets will nevertheless still make a sizeable contribution, with claims stemming from organizations that have suffered property damage and business interruption as well as secondary (indirect) impacts such as smoke damage, access denial and event cancellation.

The reinsurance market will assume a bigger portion of insured losses relative to previous wildfire events in California. Impacts to reinsurers will be influenced by how the loss event is defined. Common language in reinsurance contract allows for the number of events to be defined based on losses that occur within a set distance (150-250 miles) and time period (7-10 days). Ultimately, each situation will be different as to whether it makes most sense for stakeholders to consider these fires as one or separate events.

The scale of the losses, alongside their high-value locations, introduces considerable uncertainty into market estimates. Figure 4 shows how select modeled estimates for large wildfires in California compared to the ultimate market loss in 2017 and 2018. Outputs underscore the challenges in modeling wildfire risk, and the unique characteristics of the Los Angeles fires further restricts the read across from previous wildfire losses.

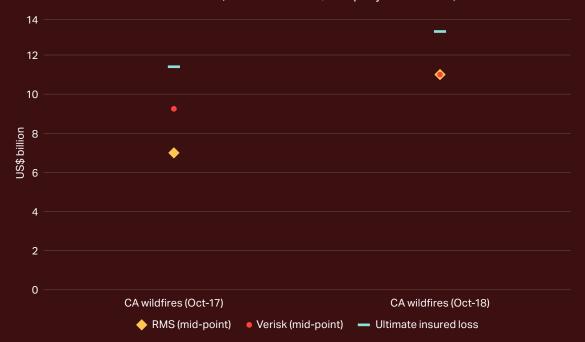


Figure 4: Performance of catastrophe models in predicting market losses for California wildfires in 2017/18 (Source: Howden, company disclosures)

Whereas average claims from California wildfires prior to 2025 have averaged residential payments in the US\$200K-300K range, or US\$400K-500K when commercial is factored in, the quantum will be significantly higher for the Los Angeles fires.

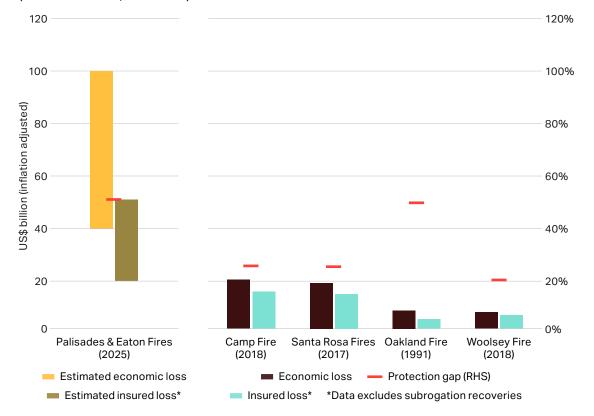
The challenges of the California insurance market aside (more on this shortly), higher inflation has seen claims costs rise. Other variables, including demand surge, additional living expenses, housing stock, building codes, considerable auto losses and the specter of litigation, add to the potential for loss creep. Any subrogation recoveries from the California Wildfire Fund would nevertheless alleviate industry losses over time.

Claims to contents from high-net-worth homeowners are also likely to be sizeable, with high-value items such as classic cars, art, wine and jewelry often separately insured (often into Lloyd's).

The number and level of households and businesses that are uninsured or underinsured for the 2025 wildfires is likely to be higher than for previous events following some high-profile carrier withdrawals from the California market in recent years.

Figure 5 shows the gap between economic and insured losses. With consensus starting to emerge around the loss estimates for the 2025 wildfires, they reveal a notable reduction in the portion of the economic loss covered by insurance compared to other large-scale events in 2017 and 2018.

Figure 5: Economic loss vs insured loss for major California wildfires (Source: Howden, Munich Re)



Estimates indicate that up to 80% of homes in California are underinsured to some degree, with default increases (of ~5%) in annual rebuild cost adjustments at policy renewal proving insufficient to keep up with significantly higher inflation. Underinsurance of this type has been most acute for homeowners living in the same property for prolonged periods. The regulatory environment in California has also forced admitted-market insurers to take an increasingly cautious approach to wildfire risk due to restrictions on risk-based pricing.

66 Loss estimates reveal a notable reduction in the portion of economic losses covered by insurance.

80%

estimated share of homes in California underinsured. In a period set apart by an increase in the frequency and severity of California wildfires, Figure 6 shows that the cost of homeowners' premiums in the admitted market have barely kept pace with construction inflation, rising by an average annual increase of 8.9%.

This figure falls to just 2.6% when construction costs are stripped out (as shown by the hashed line in the chart), and this is in spite of additional rebuilding costs (e.g. upgrades mandated by building codes) and the degree of losses suffered in 2017/18.

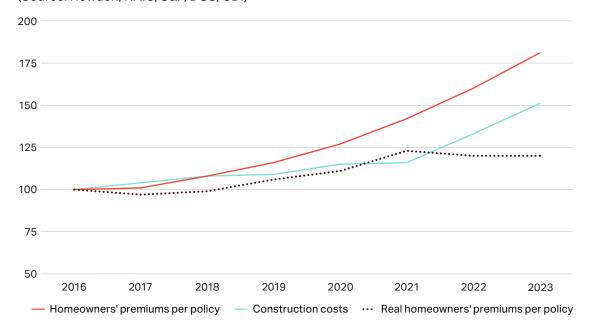


Figure 6: Index of average premiums in California vs construction costs (Source: Howden, NAIC, S&P, DGS, CDI)

Rate suppression has seen several insurers exit the admitted California market, leaving the FAIR Plan, the state's insurer of last resort, to absorb displaced policyholders.

Surplus lines have also recorded strong growth from a low base in recent years (notwithstanding substantial increases in premium costs), although the combined efforts of FAIR Plan and E&S writers were not enough to prevent the number of California residential policyholders falling by approximately 200,000 in 2023 (even as regulators applied moratoriums on residential non-renewals and policy cancellations for policies within or near fire perimeters).

Figure 7 shows the surge in policy count for the FAIR Plan relative to reductions recorded in the admitted market since 2019. The trend is just as striking on a premium basis, with FAIR Plan household written premium up by 200% from September 2021 to September 2024 and commercial up by nearly 500%.

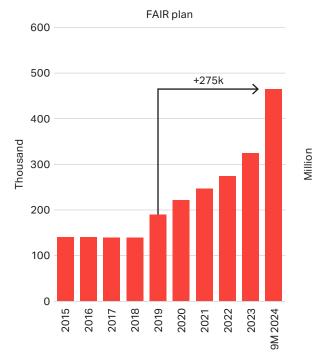


Figure 7: Policy count for FAIR Plan and admitted market in California – 2015 to 2023/24 (Source: Howden, FAIR Plan, California Department of Insurance)

In the event of a shortfall of FAIR Plan funds to pay losses, a real risk given a minimum of US\$4 billion property exposure in zip codes impacted by Palisades and Eaton fires against US\$377 million of surplus and US\$2.6 billion of available reinsurance limit after accounting for co-participation, assessments can be imposed on private insurers active in the state.

Insurers can in turn pass on some or all of these costs to policyholders; half the amount can be recouped if the assessment is for US\$1 billion or less and the full amount for more than US\$1 billion, subject to the Commissioner's approval.

The level of protection offered by the FAIR Plan, most notably a protection cap of US\$3 million for residential properties

Admitted market 8.7 -340k 8.6 8.5 8.4 8.3 8.2 8.1 2015 2016 2017 2018 2019 2020 2021

and US\$20 million for commercial entities (per location), also falls well short of coverage typically offered in the admitted market.

Zip codes impacted by the Palisades Fire have a high proportion of real estate valued in excess of the US\$3 million limit, considerably higher in some cases, and this is before additional (and meaningful) costs like contents and relocation expenses are considered.

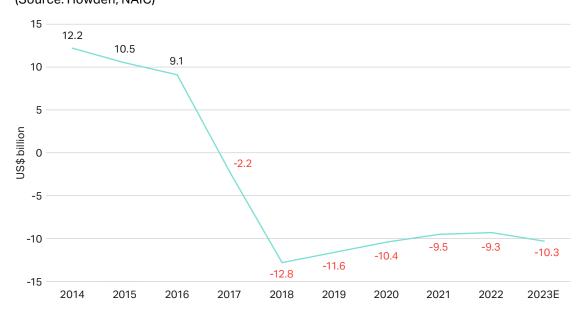
Howden analysis has the FAIR Plan market share in zip codes impacted by the Palisades Fire at 22% (versus ~3.7% state-wide).

Over a third of homes in the Palisades area also have no debt / mortgage (and therefore no mandated insurance requirements). All of which goes a long way to explaining the potentially outsized protection gap outlined in Figure 5 for the 2025 fires. New regulations implemented late last year to allow more pricing flexibility for private insurers by permitting the use of catastrophe modeling and incorporating reinsurance costs when pricing risks came too late for the latest wildfires.

They nevertheless represent an important (initial) step forward in addressing structural issues that have led to unprofitability and capital flight. In return, carriers are required to provide coverage in high-risk areas and not just lower risk locations.

Moving to risk-based pricing will go a long way to attracting fresh capacity and engendering greater competition. Figure 8 highlights the challenging environment for the California homeowners' market having sustained successive years of underwriting losses since 2017 (on a 10-year cumulative basis). 2025 will add to the pain as several insurers have taken massive losses.

Figure 8: California homeowners' 10-year cumulative underwriting profit (Source: Howden, NAIC)



The question now is how the market recovers from this position to restore healthy levels of competition for consumers faced with affordability challenges and a lack of choice. Data shows close to 7% of home purchases failed in California in 2023 due to inability to find affordable insurance. The answer lies in a shared responsibility across regulation, risk management (authorities and individuals) and risk transfer (insurance) that recognize the costs and dangers of living in high-risk areas and balance consumer protections with market sustainability.

66 Moving to riskbased pricing will go a long way to attracting fresh capacity and restoring healthy levels of competition for long-suffering consumers.

A path forward

Restoring insurers' ability to charge rates commensurate with an economic value add is the single most impactful change to drawing capacity back into the California market.

> The complex capital structure across the (re)insurance value chain is dependent on carriers having the capital needed to pay claims.

Accelerating the rate approval process is another regulatory step that will encourage insurers back into the market. The current average wait is ~280 days versus a target of 60 days.





Regulation is only one part of the puzzle. The framework outlined in Figure 9 also highlights the importance of risk mitigation / management in improving the provision of insurance for wildfire risk in California. This not only makes sense from a risk perspective, but the economic arguments are also compelling, with strong return on investment for preparedness and resilience measures.

Figure 9: Interdependence of key enablers of future Californian insurance market (Source: Howden)



66

Mitigation not only makes sense from a risk perspective, but the economic arguments are also compelling.



Figure 10 charts the considerable benefits resilience brings to a wildfire loss scenario of US\$75 billion (economic), which is within the likely range for the 2025 wildfires. The investment required to halve a wildfire economic loss of this amount is in the region of US\$6 billion, with the initial outlay paying for itself many times over in saved damage costs alone. The savings factoring in economic output saved would be higher still.

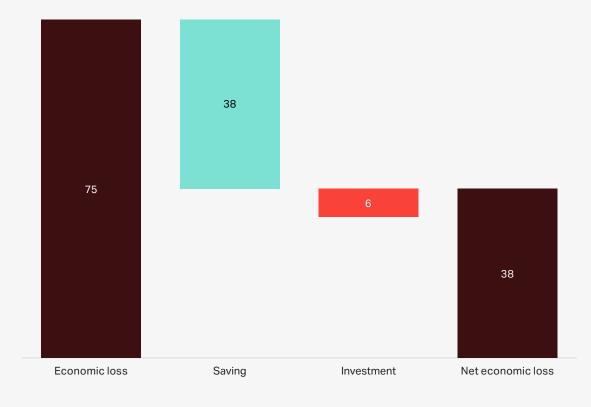
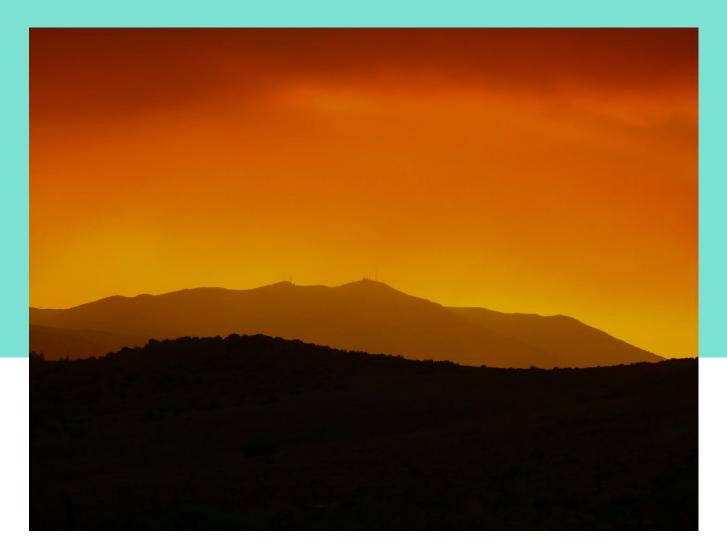


Figure 10: Return on preparedness and resilience investment for a large wildfires loss scenario, US\$ billion (Source: Howden, Allstate, US Chambers of Commerce, NIBS)

Improved risk mitigation for wildfires is crucial to delivering better consumer and carrier outcomes. The sustainability and affordability of coverage in California and other high-risk states such as Oregon, Washington, Colorado and Texas are contingent on mitigation and enhanced resilience.

The potential for risk reduction is considerable. While it is impossible to eliminate risks entirely, and the 2025 fires amounted to a perfect storm where adverse conditions came together, wildfire exposures can be mitigated by relatively simple and cost-effective measures that fall under the responsibility of local governments and communities and include disaster planning, forest management, maintenance of key / vulnerable infrastructure, building codes and 'building back better'.



01 Disaster planning

Disaster planning needs to incorporate early detection / warnings and rapid response. Regular wildfire risk assessments and community drills, as promoted by the FireWise program, give authorities the time needed to prioritize risk identification and prepare evacuation routes. Advanced technologies like satellite imaging and drone monitoring can also be used for early warning systems and provide authorities with real-time capabilities to deploy firefighter capacity most effectively.

02 Forest and land management

Clearing brush, maintaining defensible space around structures and zoning for vegetation management can significantly slow fire spread and improve property resilience. Although it is unclear how far these practices would have helped during the height of the extreme winds in Los Angeles, data from past events support these measures. Last year's wildfires in Chile demonstrated the efficacy of community-wide fire prevention measures and something as simple (and cheap) as the elimination of flammable materials across neighborhoods (e.g. the use of mulch) can save properties and lives even after a fire has spread out of control.

03 'Rebuilding better'

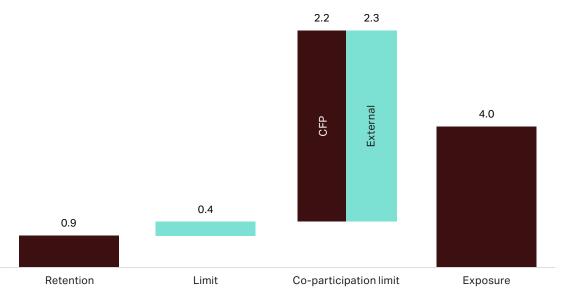
Communities recovering from wildfire devastation can achieve the highest standards of resilience by implementing strict fire-resistant building codes (non-combustible roofing, fire-rated siding, ember-resistant vents), upgrading infrastructure (widening roads for evacuation, real-time monitoring of power lines, improved water systems for high-capacity hydrants) and integrating smart technologies into their response capabilities. By taking a long-term approach, communities will be safer, more resilient to future wildfires and better served by the insurance market.

Regulatory reform and improved risk management are prerequisites to a stable and sustainable private insurance market in California. Positive changes in these areas will encourage capital entry through multiple channels.

Public-private partnerships could play a role, initially at least in supporting private market participation, and reinsurance will be front and center of solutions that include recapitalization of the FAIR Plan, reinsurer-backed MGAs, capital market participation (ILS, ILWs) and innovative product design.

There is also an opportunity for the insurance sector to go beyond traditional risk transfer and support risk mitigation and prevention. The indemnification element will continue to be crucial to shoring up resilience and expediting recovery in the event of a loss, but insurance should also be a critical component of adaptation by offering risk reduction incentives to policyholders and rewarding measures and behaviors (e.g. through more favorable price and terms) that will help mitigate the overall level of risk.

Figure 11: Simplified California FAIR Plan property catastrophe per occurrence reinsurance structure, US\$ billion (Source: Howden, FAIR Plan)



01 Public-private partnerships

Public-private partnerships have long played a critical role in facilitating the availability and affordability of insurance in markets impacted by major losses by spreading risks among (re)insurers and governments. Different models have been created for natural disasters and terrorism in several countries and the remit of these schemes vary depending on the shortage of capacity (which is typically highest post-catastrophe) and structure.

The most effective strategies in attracting private market participation back into high-risk areas have combined government support (state-run reinsurers where insurers cede liabilities to the pool) with strong mechanisms to then pass risks into reinsurance and capital markets. These pools also place a strong emphasis on risk mitigation. Solutions of this type have seen private market participation grow over time as carriers become more confident in the underwriting environment and ultimately achieving strong returns.

02 Reinsurance

Reinsurance and capital markets are essential partners to putting the private market on a more sustainable footing. Both markets offer large, efficient and diversified sources of contingent capital to protect against outsized losses.

There is an opportunity to play an even bigger role given their participation is currently triggered at the upper end of projected loss ranges for the Los Angeles wildfires. Insufficient limit is also an issue for some heavily exposed carriers, including the FAIR Plan, which has a surplus of US\$377 million and is nonetheless facing significant exposure (of at least US\$1.3 billion) in addition to the claims paying limit (see Figure 11).

03 MGAs

MGAs have an important role to play in enabling the redeployment of capacity into the California insurance market due to their ability to leverage technology, specialist underwriting expertise and broad risk capital access. Several innovative approaches, backed by multiple sources of third-party risk capital from Bermuda and London, are emerging.

One is to use AI on large datasets to construct underwriting portfolios based on a far more granular view of risk than is associated with more traditional approaches. This enables coverage for structures that would otherwise be deemed higher risk due to their location. Another is to manage risk (assessment, prevention and rapid response) using private fire services.

04 Product innovation

New products can also help fill coverage gaps. Parametric insurance will become an increasingly important and relevant offering as it provides pre-agreed payments when certain thresholds are exceeded and can pay out within hours or days of a loss.

Community-based and mutual insurance, meanwhile, allows homeowners in wildfire-prone areas to pool risks and share costs, often with state-backed reinsurance. By encouraging collective mitigation measures, it also reduces overall exposures and assists affordability.

66 Howden Re is monitoring developments in California and stands ready to support clients through this highly fluid and challenging period.



(Re)insurance sector capitalization is currently strong, but this loss brings significant challenges to the market. We are working closely with Howden's Risk & Resilience team to develop market-leading climate solutions. Howden Re exists to support clients during times of adversity, so please get in touch with any questions you may have.

Howden Re leadership



Tim Ronda CEO, Howden Re tim.ronda@howdenre.com



Rod Fox Executive Chairman, Howden Re rod.fox@howdenre.com



Elliot Richardson Vice Chairman, Howden Re elliot.richardson@howdenre.com



Rob Bredahl Vice Chairman, Howden Re rob.bredahl@howdenre.com

Authors



Julian Alovisi Head of Research julian.alovisi@howdengroup.com



Peter Evans Research Director peter.evans@howdengroup.com



Anna Neely CCRA, CEEM Managing Director, Head of Catastrophe R&D anna.neely@howdenre.com



Justin Roth ARe, ARM, CEEM Associate Director, Catastrophe Analytics R&D justin.roth@howdenre.com



-

Katie Shulka CCRA, ARe Director, Catastrophe R&D katie.shukla@howdenre.com



Lindsey Frase Managing Director, Howden Re

lindsey.frase@howdenre.com

These materials have been prepared by Howden Re to provide broad background information only and are based upon information from public and other sources which Howden Re believes to be reliable.

Howden Re does not perform and assumes no responsibility for the independent investigation or verification of such information and has relied on such information being complete and accurate in all material respects. To the extent such information includes estimates and forecasts of future financial performance, Howden Re has assumed that such estimates and forecasts have been reasonably prepared on the basis reflecting the best currently available estimates. No representation or warranty, express or implied, is made as to the accuracy or completeness of such information and nothing contained herein is, or shall be relied upon as, a representation, whether as to the past, the present or the future. The information contained herein is not intended to provide the sole basis for evaluating and should not be considered a recommendation with respect to, any transaction or other matter.

This communication has not been prepared with a view toward public disclosure under any securities laws and may not be reproduced, disseminated, quoted or referred to, in whole or in part, without the prior written consent of Howden Re.



Contact us at info@howdenre.com or call us on +44 (0)20 7623 3806

One Creechurch Place, London, EC3A 5AF

+44 (0)20 7623 3806 info@howdenre.com

howdenre.com

Howden Re is a trading name of Howden Reinsurance Brokers Limited and TigerRisk Partners (UK) Limited, both part of the Howden Group Holdings. Howden Reinsurance Brokers Limited is authorised and regulated by the Financial Conduct Authority in respect of general insurance business (FRN 531097). Registered in England and Wales under company registration number 7142031. Registered Office: One Creechurch Place, London, EC3A 5AF. Calls may be monitored and recorded for quality assurance purposes. 02/25 12217-10