Draft – Please do not cite without author's permission

The Regulatory Paradox of Climate Insurance

Aisha I. Saad[1]

WASH. U. L. REV. *(forthcoming)*

Decades of inadequate federal action on climate change have culminated in a near-total regulatory retreat. Meanwhile, the climate crisis continues to intensify, imposing escalating costs on individuals and communities. In the absence of coordinated federal response, regulatory attention has turned to alternative interventions, including state action, private litigation, and voluntary market mechanisms. Within this shifting landscape, homeowners insurance emerges as a promising means of climate governance, owing to its critical role in safeguarding what is, for most Americans, their most significant financial asset, and to the centrality of homeownership in the American political economy. This Article examines recent developments in the homeowners insurance market in response to climate change and finds that insurers simultaneously mitigate, exacerbate, and redistribute climate risk. It argues that while insurers are often characterized as presumptive agents of climate resilience, their role in climate governance is neither inherent nor inevitable. Rather, it is the result of policy choices that structure the incentives and constraints of insurance markets.

In theory, reducing climate risk aligns with insurers' economic interests, as lower catastrophe losses lead to fewer claim payouts and greater profitability. Indeed, many insurers have taken steps to promote resilience by pricing premiums to reflect climate risk, offering discounts for risk-reducing adaptations, and lobbying for stronger building codes. These initiatives have been described as a form of de facto climate regulation and celebrated as a market-based alternative to stalled public action. Yet, as this Article shows, these efforts unfold alongside a quieter restructuring of the homeowners insurance market that effectively deregulates climate risk. Insurers are increasingly shifting away from heavily regulated admitted markets in favor of more lenient surplus lines markets with fewer consumer protections; reorganizing as smaller firms with lean balance sheets that are fragile in the face of growing catastrophe losses; and shifting climate risk onto housing markets through liberalized rating practices that obscure underlying exposure to climate risk. Thus, even as insurers may attempt to mitigate climate risk at a firm level, they exacerbate climate vulnerability at a structural level. This paradox reveals that private market solutions to climate resilience are only as effective as the policy frameworks that enable them. This Article concludes by centering climate resilience as a goal of insurance regulation and elaborating how this reshapes the possibilities of private climate governance.

---

[1] Associate Professor, The Georgetown University Law Center. For valuable feedback, I thank Tom Baker, Bill Buzbee, Sara Colangelo, Ahmed Eissa, Lisa Heinzerling, David Hyman, Michael Pappas, Daniel Schwarcz, and participants at Columbia Law School's Sabin Colloquium. Nathan Fletcher provided excellent research support. All errors are my own.

Introduction

In early January of 2025[2] wildfires blazed through Los Angeles (LA) County,[3] propelled by the powerful Santa Ana winds[4] and fueled by conditions of severe drought.[5] Defying containment efforts for over a week, the fires devoured more than 40,000 acres,[6] displaced nearly 200,000 residents,[7] and leveled neighborhoods[8] in the Pacific Palisades and Altadena[9] leaving behind more than $35 billion in insured property losses[10] and a scorched land area three times the size of Manhattan. The LA fires were quickly characterized as a paragon of the catastrophic effects of climate change.[11]

---

[2] By the fourteenth, several of the fires continued to burn but their footprint had been largely contained. *Slower Winds Help L.A. Firefighters, but Anxiety Mounts Among Evacuees*, N.Y. TIMES (Jan. 16, 2025), https://www.nytimes.com/live/2025/01/16/us/la-wildfires-california.

[3] Josh Gabbatiss et al., *Media Reaction: The 2025 Los Angeles Wildfires and the Role of Climate Change*, CARBON BRIEF (Jan. 13, 2025), https://www.carbonbrief.org/media-reaction-the-2025-los-angeles-wildfires-and-the-role-of-climate-change/.

[4] Rong-Gong Lin II et al., *What Happened During the First Four Days of the Eaton, Palisades Fires in Southern California*, L.A. TIMES (Jan. 10, 2025), https://www.latimes.com/california/live/pacific-palisades-fire-updates-los-angeles.

[5] Greg Porter, *L.A. Fires by the Numbers: Here's How Unusual Conditions Were*, S.F. CHRON. (Jan. 10, 2025), https://www.sfchronicle.com/california-wildfires/article/los-angeles-fire-january-by-numbers-20025261.php (referring to region that had received just 0.16 inches of rainfall in the prior six months).

[6] Jeremia Kimelman and John Osborn D'Gostino, *Map: How Big Are the LA Fires? Use This Tool to Overlay Them Atop Where You Live*, CALMATTERS (Jan. 13, 2025), https://calmatters.org/environment/wildfires/2025/01/la-fires-size-mapped/.

[7] John Gittelsohn et al., *Los Angeles Evacuations Rise to 180,000 as Fires Keep Burning,* BLOOMBERG (Jan. 9, 2025), https://www.bloomberg.com/news/articles/2025-01-09/la-s-100-000-evacuees-flee-fires-for-shelters-second-homes.

[8] Michael Blood & Jaimie Ding, *As Wildfires Linger, Focus Turns to Rebuilding Los Angeles' Leveled Neighborhoods*, KSBY (Jan. 16, 2025), https://www.ksby.com/news/california-news/as-wildfires-linger-focus-turns-to-rebuilding-los-angeles-leveled-neighborhoods.

[9] Kierra Frazier, *As Wildfires Continue to Ravage L.A., Here's a Look at 5 of the Worst Fires in California History,* CBS NEWS (Jan. 13, 2025), https://www.cbsnews.com/news/los-angeles-worst-california-wildfires/.

[10] PRESS RELEASE, *CoreLogic Estimates the Eaton and Palisades Fires Are Causing Devastating Initial Property Losses Estimated to Be Between $35 Billion to $45 Billion*, CORELOGIC (Jan. 16, 2025), https://www.corelogic.com/press-releases/corelogic-estimates-the-eaton-and-palisades-fires-are-causing-devastating-initial-property-losses-estimated-to-be-between-35-billion-to-45-billion/. Total economic losses have been estimated to be between $200 and $250 billion. *See Extreme Fire Risk in Southern California as Powerful Santa Ana Winds Return,* ACCUWEATHER (Jan. 13, 2025, 10:42 AM EDT), https://www.accuweather.com/en/press/extreme-fire-risk-in-southern-california-as-powerful-santa-ana-winds-return/1733516.

[11] David Gelles & Austyn Gaffney, *'We're in a New Era': How Climate Change Is Supercharging Disasters*, N.Y. TIMES (Jan. 10, 2025), https://www.nytimes.com/2025/01/10/climate/california-fires-climate-change-disasters.html; Gavin Madakumbura et al., *Climate Change a Factor in Unprecedented LA Fires,* UCLA (Jan. 13, 2025), https://sustainablela.ucla.edu/2025lawildfires.

Even as the fires raged on, a second crisis was quickly brought into the frame.[12] Senator Sheldon Whitehouse warned, "We will be watching to see whether the collapse of a trembling home insurance market accelerates after this added shock."[13] For thousands of Californians, an insurance crisis years in the making left them underinsured or uninsured, compromising their ability to rebuild in the wildfires' aftermath.[14] The LA wildfires put on stark display the interrelated nature of two climate crises—a primary crisis of escalating physical damage due to catastrophic weather, and a secondary crisis of financial vulnerability brought on by the erosion of homeowners insurance.[15]

These dynamics stem from a broader breakdown in climate governance. Decades of inadequate federal response to climate change have culminated in a near total retreat from regulation,[16] and attention has turned to alternative interventions, including state action, private litigation, and voluntary market mechanisms. Within this shifting landscape, homeowners insurance emerges as a promising means of climate

---

[12] *See, e.g.*, Parinitha Sastry & Ishita Sen, *We Have to Stop Underwriting People Who Move to Climate Danger Zones*, N.Y. TIMES (Jan. 16, 2025), https://www.nytimes.com/2025/01/16/opinion/la-fires-climate-home-insurance.html.

[13] Sheldon Whitehouse (@SenWhitehouse), X (Jan. 9, 2025, 10:18 AM), https://x.com/SenWhitehouse/status/1877374404822213064.

[14] In recent years, major insurers restricted or canceled coverage in California, citing mounting losses from severe weather disasters and an inability to adequately increase rates due to state regulations. *See* Tom Jacobs & Jason Woleben, *State Farm Pullback Intensifies Spotlight on California's Rate Approval Process*, S&P GLOB. MKT. INTEL. (June 20, 2023), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/state-farm-pullback-intensifies-spotlight-on-california-s-rate-approval-process-76110864. Less than a year prior to the catastrophic wildfires, State Farm insurance had announced that it would not be renewing 30,000 existing policies, and a year before that it had stopped issuing new policies in the state. In the wake of the California fires, the state's insurance commissioner issued a moratorium preventing insurance companies from canceling policies or issuing nonrenewals in the affected areas. *See* Jack Healy, *State Farm Offers Homeowners in Fire Areas a Chance to Renew Insurance Policies*, N.Y. TIMES (Jan. 16, 2025), https://www.nytimes.com/live/2025/01/16/us/la-wildfires-california#state-farm-insurance-renewals-la-fires.

[15] *See* Christopher Flavelle, *Insurers Are Deserting Homeowners as Climate Shocks Worsen*, N.Y. TIMES, (Dec. 18, 2024) https://www.nytimes.com/interactive/2024/12/18/climate/insurance-non-renewal-climate-crisis.html (last visited July 18, 2025) (elaborating the relationship between increased costs of climate change and insurance non-renewal across the United States).

[16] Within six months of taking office, President Donald Trump declared a "National Energy Emergency" aimed at intensifying fossil fuel extraction and production, formally withdrawn the United States from the Paris Agreement under the United Nations Framework Convention on Climate Change, and dismantle key environmental regulations designed to reduce greenhouse gas emissions and promote renewable energy sources. Exec. Order, *Declaring a National Energy Emergency* (Jan. 20, 2025), https://www.whitehouse.gov/presidential-actions/2025/01/declaring-a-national-energy-emergency/; Exec. Order, *Putting America First in International Environmental Agreements* (Jan. 20, 2025), https://www.whitehouse.gov/presidential-actions/2025/01/putting-america-first-in-international-environmental-agreements/; Exec. Order, *Initial Rescissions of Harmful Executive Orders and Actions* (Jan. 20, 2025), https://www.whitehouse.gov/presidential-actions/2025/01/initial-rescissions-of-harmful-executive-orders-and-actions/ (citing "climate extremism" as a source of inflation and the overburdening of business with regulation).

governance. This Article examines recent developments in the homeowners insurance market in response to climate change and finds that insurance simultaneously mitigates, magnifies, and redistributes climate risk in critical ways. It argues that while insurers are often portrayed as presumptive agents of climate resilience, their role in climate governance is neither inherent nor inevitable. Rather, it is the result of policy choices that structure the incentives, constraints, and risk-allocation strategies available to insurers.

The importance of insurance as a key site of private governance owes to the centrality of homeownership in the American political economy. For a majority of Americans, their home represents their most significant investment[17] and primary source of generational wealth transfer. And, if homeownership is the cornerstone of the American dream, its silent underwriter is insurance. Homeowners insurance protects policyholders against unexpected loss due to hurricanes, windstorms and other forms of extreme weather. Without insurance, prospective homeowners cannot secure a mortgage, those with a mortgage go into foreclosure, and those who have already paid off their mortgage risk losing their most valuable investment in a single disaster.

Today, that insurance safeguard is in jeopardy. An unprecedented scale of physical damage driven by anthropogenic climate change[18] has destabilized the private insurance market.[19] Insurers are increasing premiums for policyholders, capping coverage, and withdrawing from high-risk regions.[20] Homeowners are directly and, in many cases, severely, burdened by these effects. A study examining more than 47 million household property insurance expenditures from 2014 to 2023 found that property insurance premiums for US homeowners increased an average of 33% each

---

[17] Rakesh Kochhar & Mohamad Moslimani, *The Assets Households Own and the Debts They Carry*, PEW RSCH. CTR. (Dec. 4, 2023), https://www.pewresearch.org/2023/12/04/the-assets-households-own-and-the-debts-they-carry/ ("An owned home is typically the most valuable asset for US homeowners. Black and Hispanic homeowners typically derive a higher share of their wealth from owned homes than White and Asian households.").

[18] One prediction estimates $118 billion in weather-related losses for homeowners by 2030. Kelly Cusick et al., *Climate Change and Home Insurance: US Insurers Have Been Hit Hard by Severe Weather-related Claims*, DELOITTE CTR. FOR FIN. SERVS. (May 29, 2024), https://www2.deloitte.com/us/en/insights/industry/financial-services/financial-services-industry-predictions/2024/climate-change-home-insurance-resiliency.html.

[19] Renée Cho, *With Climate Impacts Growing, Insurance Companies Face Big Challenges*, COLUM. CLIMATE SCH. (Nov. 3, 2022), https://news.climate.columbia.edu/2022/11/03/with-climate-impacts-growing-insurance-companies-face-big-challenges/. Along with the increasing frequency and intensity of weather events, high-risk areas are also growing in population, property values are increasing, and repairs and replacement costs are rising due to inflation, supply chain issues, and labor costs. FED. INS. OFF., *U.S. Dep't of the Treasury, Annual Report on the Insurance Industry 41 (Sept. 2023), https://home.treasury.gov/system/files/311/FIO%20Annual%20Report%202023%209292023.pdf* (attributing a 10% increase in insurance premiums in 2022 to catastrophe risks, higher home sales, rising home values, and material and labor costs increases due to inflation).

[20] Benjamin J. Keys & Philip Mulder, *Property Insurance and Disaster Risk: New Evidence from Mortgage Escrow Data*, NAT'L BUREAU OF ECON. RSCH., Working Paper No. 32579, June 2024), http://www.nber.org/papers/w32579.

year from 2020 to 2023 and largely accounts for this increase due to pass-through costs of higher reinsurance costs for primary insurers. In a 2024 Fannie Mae study, two thirds of homeowners surveyed reported that weather-related events impacted their insurance premiums, with one in four reporting a "large" impact, and one in ten expressing concern about the affordability of their premiums at the next renewal.[21] As homeowners struggle to secure affordable insurance, they are self-insuring,[22] downsizing, or even giving up homeownership altogether.[23] These incidents of individual plight, in the aggregate, prompt concern about the stability of the US housing market,[24] and about a broader economic collapse reminiscent of the 2008 subprime mortgage crisis.[25]

These outcomes may seem counterintuitive, as reducing climate risk is presumably in insurers' economic self-interest. One analysis projects that investing $3.35 billion in resilience measures could save insurers up to $37 billion by 2030.[26] Accordingly, insurers might be expected to invest in promoting the very types of resilience-

---

[21] Kevin Tillmann & Saif Amin, *Consumers Worried About the Impact of Extreme Weather on Homes and Insurance Premiums*, FANNIE MAE (Apr. 3, 2024), https://www.fanniemae.com/research-and-insights/perspectives/consumers-worried-about-impact-extreme-weather-homes-and-insurance-premiums.

[22] Sharon Cornelissen & Barry Zigas, *Millions of Consumers Lack Vital Homeowners Insurance, Resulting in $1.6 Trillion in Unprotected Market Value*, CONSUMER FED'N AM. (Mar. 11, 2024), https://consumerfed.org/press_release/millions-of-consumers-lack-vital-homeowners-insurance-resulting-in-1-6-trillion-in-unprotected-market-value/. While a mortgaged home is required to maintain insurance coverage, 40% of homes are not mortgaged. *Why We Ask Questions About . . . Housing Costs for Owners*, US Census Bureau, https://www.census.gov/acs/www/about/why-we-ask-each-question/housing/, last visited May 11, 2025.

[23] Nathaniel Meyersohn & Anna Bahney, *The Home Insurance Market Is Crumbling. These Owners Are Paying the Price*, CNN (Apr. 26, 2024), https://www.cnn.com/2024/03/29/economy/home-insurance-prices-climate-change/index.html.

[24] Jesse D. Gourevitch et al., *Unpriced Climate Risk and the Potential Consequences of Overvaluation in US Housing Markets*, 13 NATURE CLIMATE CHANGE 250 (2023), https://www.nature.com/articles/s41558-023-01594-8; Jeff Masters, *Bubble Trouble: Climate Change Is Creating a Huge and Growing U.S. Real Estate Bubble*, YALE CLIMATE CONNECTIONS (Apr. 10, 2023), https://yaleclimateconnections.org/2023/04/bubble-trouble-climate-change-is-creating-a-huge-and-growing-u-s-real-estate-bubble/; Howard Kunreuther et al., *Flood Risk and the U.S. Housing Market*, FANNIE MAE (Feb. 1, 2019), https://www.fanniemae.com/media/49146/display (stating that "flooding events adversely affect property outside of designated flood risk areas and have negative effects on their local economy").

[25] Christopher Flavelle, *Climate Risk in the Housing Market Has Echoes of Subprime Crisis, Study Finds*, N.Y. TIMES (Sept. 27, 2019), https://www.nytimes.com/2019/09/27/climate/mortgage-climate-risk.html (noting that current dynamics "echo the subprime lending crisis of 2008, when unexpected drops in home values cascaded through the economy and triggered recession"). In his opening statement at a 2024 Senate Budget Committee Hearing, Senator Sheldon Whitehouse set out an alarming chain of events: "Climate risk makes things uninsurable. No insurance makes things unmortgageable. No mortgages crashes the property markets. Crashed property markets trash the economy." *See* Riskier Business: How Climate is Already Challenging Insurance Markets, U.S. SENATE BUDGET COMMITTEE HEARING (June 5, 2024), https://www.budget.senate.gov/imo/media/doc/060524senatorwhitehouseopeningstatement.pdf.

[26] Kelly Cusick et al., *supra* note 18.

enhancing measures that mitigate harm as they profit from reduced payouts to policyholders. Insurers are also uniquely positioned to reduce the burdens from extreme weather by coordinating individual and collective behaviors. An established body of scholarship identifies private insurers as capable regulators of risk. They are key intermediaries in an era of climate change, financial first responders[27] in the wake of climate disasters, and prospective partners in climate resilience and adaptation planning.[28] Insurers' access to massive amounts of individualized loss data, sophisticated catastrophe models,[29] and expertise in analyzing and pricing climate risk, allow them to identify vulnerabilities and to incentivize risk-mitigating behaviors. While homeowners might not know what specific insurance coverage adequately protects their properties,[30] they can turn to insurers to guide them in managing their exposure to climate risk.[31]

Looking at insurers' actual practices reveals that many are, in fact, incentivizing homeowners to reduce their exposure to climate risk by, for example, installing hail-resistant shingles or hurricane windows to earn a premium discount.[32] Insurers are also promoting systemic risk-reduction by lobbying for more climate-resilient building codes and filing subrogation lawsuits against utilities providers and other third parties whose negligent activities allegedly caused catastrophic losses. At the same time that insurers are pursuing these risk-mitigating policies for individual

---

[27] Insurance Info. Inst. (@iiiorg), X (Jan. 9, 2025, 1:35 PM), https://x.com/iiiorg/status/1877423878168801444.

[28] *See, e.g.*, Cusick et al., *supra* note 18 (elaborating steps that insurance can adopt to improve resilience and limit their losses, such as promoting loss prevention and mitigation to help maintain market viability in high risk regions). In one specific example, the report notes that insurance can guide and incentivize "the 65% of consumers whose homes are currently not up to code to shore up their dwellings," thereby reducing average annual losses by as much as 48% ($37 billion). *See also Climate Risk and Insurance: The Case for Resilience*, PWC, https://www.pwc.com/us/en/industries/financial-services/library/climate-risk-and-insurance.html (last visited May 11, 2025); *Enhancing the Insurance Sector's Contribution to Climate Adaptation*, OECD (Mar. 28, 2023), https://www.oecd.org/en/publications/enhancing-the-insurance-sector-s-contribution-to-climate-adaptation_0951dfcd-en.html; IDAN SASSON ET AL., BUILDING CLIMATE RESILIENCE IN CITIES THROUGH INSURANCE 6 (Sept. 2021), https://www.climatepolicyinitiative.org/wp-content/uploads/2021/10/Building-Climate-Resilience-in-Cities-Through-Insurance.pdf (stating that "insurance can help reduce risk by increasing awareness, incentivizing risk reduction, and supporting economic development").

[29] *Catastrophe Models and Risks*, MOODY'S, https://www.moodys.com/web/en/us/capabilities/catastrophe-modeling.html (last visited May 12, 2025).

[30] A 2024 Deloitte survey of 2,000 homeowners from 21 states found 63% "expressing confusion about what coverage they need and how much to purchase." Kelly Cusick et al., *Bridging Insurance Gaps to Prepare Homeowners for Emerging Climate Change Risks*, DELOITTE CTR. FOR FIN. SERVS. (May 2, 2024), https://www2.deloitte.com/us/en/insights/industry/financial-services/bridging-the-gap-between-homeowners-insurance-companies-climate-change.html.

[31] Eighty-four percent of surveyed homeowners expressed wanting insurance carriers "to educate them on weather-related risks and how to prevent or mitigate losses." *Id.*

[32] *Discover the Discounts from State Farm*, STATE FARM https://www.statefarm.com/insurance/homeowners/discounts (last visited Jan. 27, 2025).

policyholders and communities, however, the pressures of climate change are prompting a dramatic reorganization of the homeowners insurance market at a systemic level. This has considerable implications for risk distribution and climate resilience.[33] Insurers are increasingly exiting a heavily regulated admitted market and moving into a lightly regulated surplus market, with policyholders often unaware of their own magnified financial exposure. Some insurers are reorganizing as smaller, less capitalized entities that rely heavily on reinsurance. These arrangements allow insurers to profit in the short term even as they prompt concern over long-term solvency and the possibility of taxpayer-funded bailouts. Such trends caution against an overly optimistic reliance on insurance to govern climate risk and highlight a direct link between public regulatory context and private regulatory potential.

This Article makes three core contributions to a broader literature on private governance. First, it develops a novel account of insurance as climate governance.[34] Second, it engages with a robust debate over insurers' role in risk regulation through an analytical frame that highlights how public regulation activates, and limits, insurers' incentives to regulate risk. Third, it builds on emerging "climate law" scholarship by exploring how climate change transforms private law[35] and how private law shapes climate outcomes.[36]

Part I begins by developing a theory of insurance as a form of private governance that is fundamentally shaped by public law. It begins with the core claims of the "insurance-as-regulation" thesis which holds that, under certain conditions, insurers can substitute for government regulation by using pricing and incentives to influence policyholder behavior. While that interpretation often treats insurers' regulatory function as an inherent manifestation of market logic, this section offers a broader account that more explicitly situates private governance within the incentives and constraints set by public law and regulation.

---

[33] In the aftermath of the LA wildfires, *The Wall Street Journal* noted that we might see a "longer-term, secular shift" away from the traditionally regulated insurance market to a surplus market that was historically established for unique and high risks. This shift, it encouraged, could provide a safety valve by the market to those left uncovered or under-covered by a traditional admitted market. Telis Demos, *There Is a Safety Valve for Private Insurance in California,* WALL ST. J. (Jan. 12, 2025), https://www.wsj.com/finance/wildfire-insurance-homeowners-costs-3889531f.

[34] *See, e.g.*, Michael P. Vandenbergh, *Private Environmental Governance*, 99 CORNELL L. REV. 129 (2013); Sarah E. Light & Christina Parajon Skinner, *Banks and Climate Governance*, 121 COLUM. L. REV. 1895 (2021); Madison Condon, *Market Myopia's Climate Bubble*, 2022 UTAH L. REV. 63 (2022); Cary Coglianese & Jennifer Nash, *Motivating Without Mandates: The Role of Voluntary Programs in Environmental Governance, in* DECISION MAKING IN ENVIRONMENTAL LAW (LeRoy C. Paddock et al. eds., 2016).

[35] Jim Rossi & J.B. Ruhl, *Adapting Private Law for Climate Change Adaptation*, 76 VAND. L. REV. 101 (2023) (considering ways that climate change disrupts property, tort, and contracts); Sean B. Hecht, *Climate Change and the Transformation of Risk: Insurance Matters*, 55 UCLA L. REV. 1559 (2008) (examining incentives that insurance provides to influence climate change mitigation and adaptation).

[36] *See, e.g.*, Douglas Kysar, *What Climate Change Can Do About Tort Law*, 41 ENV'T L. 1 (2011) (arguing that climate change lawsuits force "courts to confront questions of harm, causation, and responsibility that lie at the frontiers of science and ethics").

Part II disaggregates a "climate insurance" market and examines its constituent components in relation to their regulatory context. It begins with a private insurance market which is governed by two parallel regulatory schemes: a heavily regulated regime governs the majority of the market and a more lenient regime governs insurers who cover atypical risk profiles. It then turns to state-backed insurers of last resort which are intended for homeowners who cannot obtain coverage on the private market. Finally, it examines a federal program that provides coverage for flood risks widely considered uninsurable by the private market. Each of these three segments is shaped by a regulatory vision that attempts to balance market efficiency with public goals of fairness and accessibility, and inevitably governs climate risk in uncoordinated, in some cases self-contradicting, ways.

Part III investigates the regulatory dynamics playing out internal and external to the climate insurance market elaborated in Part II. It observes that insurers mitigate climate risk in some compelling ways that can be characterized as de facto governance, while at the same time the climate insurance market is reorganizing in ways that effectively deregulate climate risk. It concludes that, to understand the function of private insurers in climate governance requires looking beyond internal market dynamics to the public regulations that shape these dynamics.

Building on this insight, Part IV elaborates a regulatory reform agenda that would better align insurers' climate governance function with the goal of climate resilience. These include addressing the implications of regulatory arbitrage between parallel insurance oversight regimes, aligning climate risk assessments for insurers' assets and liabilities, facilitating cost-shifting to risk-producing actors through subrogation, and reimagining rate regulation to account for distributional consequences.

This Article concludes that the possibilities for private insurance in mitigating climate risk depend on the ambitions of public regulation. Currently, the regulatory framework for climate insurance reflects contradictory commitments that fall short of delivering on the goals of fairness and accessibility, leaving many homeowners with inadequate and unaffordable insurance and a housing market at risk of collapse under the pressures of climate change. There is a path forward, but it requires acknowledging the constitutive role of public regulation in shaping private markets and pursuing reforms that align the climate insurance sector with climate resilience objectives.

I. Insurance as Climate Governance

Scientific consensus has established that human contributions to climate change exacerbate the frequency and intensity of extreme weather events like wildfires,

floods, and extreme heat and cold.[37] As national and international climate mitigation efforts stagnate,[38] adaptation and resilience are becoming more central considerations of climate risk management and loss reduction. However, the current federal posture towards climate risk is emphatically deregulatory. Within this context, an emerging thesis advances that insurers can function as private regulators of climate risk. This section begins in Part A by rehearsing the theory and incentives that support a regulatory function for insurers. Part B elaborates incentives and advantages for insurers in regulating climate risk. Part C adds a new dimension to this theory by expanding the frame of analysis to consider how public regulation alternately enables and limits private risk governance.

A. Theories of Private Risk Governance

A robust literature on private environmental governance identifies and theorizes the shift from a traditional public model of regulation that governs by statutes and positive law, to a regulatory regime enacted through the voluntary activities of private actors.[39] As public law turns away from the goals of climate mitigation and adaptation, scholars observe that private market activities may substitute as climate regulators.[40] This scholarship has largely focused on the role of private regulation in mitigating the causes of climate change and has not dealt at great length with ways that private regulation addresses adaptation to the current and foreseeable consequences of climate change.[41]

---

[37] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SIXTH ASSESSMENT REPORT: THE PHYSICAL SCIENCE BASIS 4, https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf ("It is unequivocal that human influence has warmed the atmosphere, ocean, and land. Widespread changes in the atmosphere, ocean, cryosphere and biosphere have occurred.").

[38] *As the Climate Crisis Worsens, the Warming Outlook Stagnates*, CLIMATE ACTION TRACKER (Nov. 14, 2024) (noting that "global warming projections for 2100 are flatlining, with no improvement since 2021").

[39] *See* Michael P. Vandenbergh, *Private Environmental Governance*, 99 CORNELL L. REV. 129 (2013) (providing a synthetic and theoretical account of private environmental governance).

[40] While mitigation focuses on reducing the causes of climate change, adaptation is concerned with reducing harms from climate change. *See, e.g.*, Jonathan M. Gilligan, *Carrots and Sticks in Private Climate Governance*, 6 TEX. A&M L. REV. 179 (2018) (examining shareholder activism as a means of private climate governance and the potential for collaborative rather than confrontational governance); Michael P. Vandenbergh & Daniel J. Metzger, *Private Governance Responses to Climate Change: The Case of Global Civil Aviation*, FORDHAM ENV'T L. REV. (2018) (exploring how private governance reduces climate impacts in the civil aviation sector); Maria L. Banda, *The Bottom-Up Alternative: The Mitigation Potential of Private Climate Governance After the Paris Agreement*, 42 HARV. ENV'T. L. REV. 326 (examining the mitigation potential of private climate governance where State action is weak or lacking); Cynthia A. Williams, *Private Climate Governance of Finance: "Net-Zero" Prospects and Politics*, U. PENN J. BUS. L. (2024).

[41] *But see* Michael P. Vandenbergh & Bruce M. Johnson, *The Role of Private Environmental Governance in Climate Adaptation*, 3 FRONTIERS IN CLIMATE (2021) (stating that "no systematic analysis in the legal literature has examined private governance regarding climate change adaptation").

A separate, but related, literature theorizes the relationship between insurance and risk regulation. A traditional law and economics thesis advances that insurance coverage increases risk-taking due to moral hazard.[42] In the home insurance context, this means that homeowners might take on excess risk in deciding where to live or how to build or maintain their property with the assurance of an insurance backstop.[43] More recent scholarship has argued against this established intuition, by advancing that, in certain contexts where insurers have an informational advantage, they can reduce moral hazard and regulate more effectively than government. Regulation in this context refers to the use of premiums, deductibles, policy restrictions, and incentives to reduce risky behavior and, consequently, to lower

[42] This notion, referred to as moral hazard, claims that insurance shields policyholders from the actual costs of their risky activities such that an individual with insurance will take greater risks than she would have otherwise based on the assurance that, in the case of injury, her insurer will cover the cost. In the home insurance context, this might mean homeowners taking on excess risk in deciding where to live or how to build or maintain their property with the assurance of an insurance backstop. *See, e.g.*, Joseph E. Stiglitz, *Risk, Incentives and Insurance: The Pure Theory of Moral Hazard*, 8 GENEVA PAPERS ON RISK & INS. 4, 6 (1983), https://www.proquest.com/docview/902459700?accountid=36339&sourcetype=Scholarly%20Journals ("[T]he more and better insurance that is provided against some contingency, the less incentive individuals have to avoid the insured event, because the less they bear the full consequences of their actions."). *But see, e.g.*, Steven Shavell, *On Moral Hazard and Insurance*, 92 Q.J. ECON. 541 (1979) (modeling alternative interventions by insurers to account for insured's moral hazard); Peter Molk, *Playing with Fire? Testing Moral Hazard in Homeowners Insurance Valued Policies*, 2 UTAH L. REV. 391 (2018) (examining moral hazard in home insurance markets. Molk finds that in the eighteen states where "valued policy" laws require insurers to provide more generous compensation for certain total losses, losses were significantly lower than in states without these laws. A moral hazard theory would have predicted the opposite finding.). Tom Baker situates the modern use of this notion in insurance as a means of deregulating and individualizing risk bearing. He critiques the "economics of moral hazard" as being incomplete: they give too much weight to individual control for preventing or minimizing loss and ignore institutional determinants. Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237, 234–35 (1996).

[43] In the home insurance context, for example, flood insurance has been interpreted as encouraging economic development in high-risk coastal areas. *See, e.g.*, Kenneth J. Bagstad et al., *Taxes, Subsidies, and Insurance as Drivers of United States Coastal Development*, 63 ECOLOGICAL ECON. 285, 287 (2007) (arguing that state and local policies encouraging coastal development can provide perverse subsidies that increase flood damage risk). The thesis extends to reinsurers, identifying state guaranty funds as creating a moral hazard problem for property insurers. *See, e.g.*, James G. Bohn & Brian J. Hall, *The Moral Hazard of Insuring the Insurers*, *in The Financing of Catastrophic Risk* 121 (Kenneth A. Froot ed., 1999).

overall insurer costs.[44] By this account, several factors including competition, policyholder demand, and a profit imperative incentivize insurers to regulate.[45]

An opposing account rebuts the insurance-as-regulation thesis, arguing instead that insurance has limited potential to solve for the failures of public regulation.[46] This account highlights obstacles to insurers' regulatory possibilities, including "collective action problems, information asymmetries, competing long-term and short-term incentives, and limitations on [insurers'] ability to manage [their] impact … on third parties".[47] The private market for insurance is underpinned by a primary goal of profitability, which relies on accurately pricing and underwriting risk rather than actively mitigating it. Therefore, insurers lack the incentives and authority to regulate.

Notably, these accounts begin with the presumption of a public-private divide with government regulation on one side, and private insurance markets on the other.[48] This presumption takes insurers' incentives as given, alternatively arguing that they are sufficient or insufficient to support a regulatory function. As the following sections will demonstrate, however, private regulation is co-constituted by public regulations that alternately enable or constrain private incentives.

B. Incentives for Private Climate Governance

The thrust of an insurance-as-regulation thesis is that insurers' information about risk is superior to that of government, and that market competition incentivizes insurers to reduce overall risk-related losses.

Where markets are competitive, insurers will attract customers by offering lower premiums. This competition means that insurers will invest in risk reduction when

---

[44] *See* Omri Ben-Shahar & Kyle D. Logue, *Outsourcing Regulation: How Insurance Reduces Moral Hazard*, 111 MICH. L. REV. 197, 230 (2012). For some latent harms, like climate change, Ben-Shahar and Logue argue that latent regulation by insurance is less likely to succeed due to the long-time horizon required to reap the benefits of behavioral modification. However, they also note that given the political coordination challenges that prevent government from acting on this risk, insurance might still maintain a relative advantage. *But see* Kenneth S. Abraham & Daniel Schwarcz, *The Limits of Regulation by Insurance*, 98 IND. L.J. 215 (2023) (arguing that the insurance-as-regulation thesis overstates the loss-reducing potential of behavioral interventions by insurance and that insurance is limited in overcoming the failures of regulation); RICHARD V. ERICSON ET AL., INSURANCE AS GOVERNANCE (2003) (examining how insurance functions as a governance mechanism by influencing individuals' and businesses' risk management practices and exploring how insurance goes beyond risk-spreading to actively shape social norms and behaviors, thus acting as a regulatory force in society).

[45] Ben-Shahar & Logue, *supra* note 44, at 247. A law-and-society argument supplements this thesis, elaborating how insurance governs by influencing individuals' and businesses' risk management practices and actively shaping social norms and behaviors. *See, e.g.*, ERICSON ET AL., *supra* note 44.

[46] Abraham & Schwarcz, *supra* note 44.

[47] *Id.* at 222.

[48] Ben-Shahar and Logue structure their argument as a comparative one, foiling the two domains against each other.

that investment lowers the cost of their insurance product.[49] However, if insurers cannot reap the value of their investment in the form of lower costs, then they will not regulate. For example, insurers might incentivize risk reduction through home retrofits by offering lower premiums. However, if a policyholder moves coverage to another insurer a year later, those benefits pass on with the policyholder.[50]

In theory, insurers have a long-term financial incentive to mitigate climate risk. Lowering the physical costs of climate change would lower their claims payouts and allow them to maintain market viability. A study by the US Chamber of Commerce, Allstate, and the US Chamber of Commerce Foundation demonstrates the economic payoff of investing in resilience and preparedness. Based on modeling for 25 disasters, researchers found that every $1 of investment in resilience and disaster preparedness saved communities $7 in economic costs and $6 in damage.[51] However, reaping the costs of investment requires temporal proximity between risk reduction and payoff. In the climate context, the latency of harms undermines this incentive as insurers' efforts to reduce risk largely benefit future insurers. This problem of "coordination-across-time" makes insurance a poor regulator of climate damage.[52]

One workaround to this problem of externalized benefits is that if insurers can coordinate with each other, they might supply this public good and allow all insurers to benefit. For example, state-mandated participation in a guaranty fund or a system of mandatory assessment that levies surcharges on all private insurers operating in a state might incentivize coordination between insurers. This coordination could produce an overall public good of risk reduction that benefits insurance as a sector even if it does not create competitive advantage. Notably, the benefits of overcoming

---

[49] Ben-Shahar & Logue, *supra* note 44, at 229.

[50] *See* Abraham & Schwarcz, *supra* note 44, at 274 (noting that "loss-prevention insights that an insurer communicates to its applicants and insureds are likely to become available to competing insurers" and that "even if competitors cannot identify these insights directly, they may be able to appropriate them indirectly simply by offering lower premiums" to those that have benefited from these insights).

[51] *The Preparedness Payoff: The Economic Benefits of Investing in Climate Resilience*, US Chamber of Com., https://www.uschamber.com/security/the-preparedness-payoff-the-economic-benefits-of-investing-in-climate-resilience (last visited Dec. 10, 2024).

[52] *Id.* at 230. Indeed, most insurance products have a one- to three-year renewal period. Proposals for policies of longer duration confront a challenge with respect to solvency requirements. To provide contracts of a duration more complementary to climate adaptation, insurers would need larger capital reserves. Accounting for these reserves in premium pricing would make insurance prohibitively expensive. A 2012 study modeling long-term insurance products against adaptation scenarios found that capital requirements for a ten-year contract could be 50% higher than for a one-year contract, and the annual premium around 5.5% higher. *See* Trevor Maynard & Nicola Ranger, *What Role for "Long-Term Insurance" in Adaptation? An Analysis of the Prospects for and Pricing of Multi-Year Insurance Contracts*, *in* THE GENEVA PAPERS ON RISK AND INSURANCE 169, 169–95 (Christophe Courbage ed., 2016).

this coordination problem have existential significance for a private homeowners insurance market.[53]

It is also worth noting that insurers' incentives to regulate climate risk are informed by a causal understanding of physical climate damage that is itself evolving. Historically, extreme weather events were understood to be "natural disasters," outside the scope of human agency, which eliminated the possibility of risk reduction.[54] A more recent causal narrative explains the physical costs of climate change as resulting both from climate change caused by GHG emissions and from failures of resilience and adaptation to mitigate the costs of climate change. This causal narrative supports the case for regulation by insurance because it reframes resilience and adaptation as affirmative contributions to damage creation or damage mitigation. This causal account would identify choices that mitigate or exacerbate harms from extreme weather as opportunities to incentivize risk-reducing behaviors. Furthermore, methodological advances like climate resilience models[55] bring into relief structural conditions of climate vulnerability[56], supporting interventions that alter choices by individual policyholders and that incentivize systemic regulation.

C. Private Governance as a Function of Public Regulation

The insurance-as-regulation scholarship begins with a limited characterization of private insurance that takes an existing regulatory context as given and focuses on internal firm dynamics and incentives. This is as true of arguments supporting the merits of insurance as regulation, which point to favorable market and firm-level incentives, as it is of arguments against insurance as regulation which point to internal market conditions that prevent or limit private regulatory potential. As currently framed, the debate does not adequately contend with the regulatory context that creates market incentives for insurers or recognize its direct bearing on the viability of private risk regulation by insurance. The market and firm-level incentives that proponents and critics identify are neither static nor do they emerge from a vacuum. In related scholarship, Tom Baker and Anja Shortland identify three principal ways in which government creates the capacity for insurers' private

---

[53] *See, e.g.*, Sean B. Hecht, *Climate Change and the Transformation of Risk*, 55 UCLA L. REV. 1583 (2008) ("To the extent that climate change's impacts can be limited, they will be more predictable and thus more insurable, creating business opportunities for insurers.").

[54] New scientific tools flesh out the theory that human activities in the industrial era have destabilized the Earth's climate system and forced an acceleration of global warming, bringing on a cascade of climate calamities in the form of floods, windstorms, hurricanes, wildfires, and other forms of extreme weather. *See, e.g.*, TED STEINBERG, ACTS OF GOD: THE UNNATURAL HISTORY OF NATURAL DISASTER IN AMERICA 127–49 (1st ed. 2000).

[55] *See, e.g.*, Flanagan et al., *A Social Vulnerability Index for Disaster Management*, 8 HOMELAND SEC. & EMERGENCY MGMT. 1, https://stacks.cdc.gov/view/cdc/134506 (last visited May 22, 2025).

[56] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY at 144, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf (last visited Dec. 10, 2024).

governance: by setting standards, investing in risk reduction, and co-insuring losses.[57]

As the coming sections will illustrate, incentives for private risk regulation are essentially contingent on such public regulatory conditions. These conditions emerge from federal regulation, including regulation of credit ratings agencies that assess solvency and stability of insurance companies and give them ratings that are consumed by the public and by mortgage lenders. They include regulation establishing a federal insurance option for flood risk, the National Flood Insurance Program, which subsidizes flood coverage for homeowners in high flood risk areas and therefore modifies the scope of a competitive market for private insurance. They also include state-level insurance-specific regulations including state-backed insurers of last resort, the sanctioning of two parallel regulatory schemes for private insurers in the form of admitted and surplus designations, regulations concerning rate increases and policy forms, and regulations concerning state guaranty funds that protect policyholders when their private admitted insurer goes insolvent. These public regulations shape the market and firm-level incentives of private insurers and, variably, enable regulation, limit regulation, and in some cases go so far as to enable deregulation.

The coming sections will situate and explain climate insurers' regulatory activities within the public regulatory context that enables them.[58] I argue that the prospects for regulation by insurance is not merely a function of internal market or firm dynamics, but, more importantly, the result of external structural and regulatory arrangements that incentivize them to mitigate, exacerbate, and distribute climate risk.[59] Understanding the constitutive relationship between these public and private dynamics does not resolve, but recasts the current debate over insurance as regulation. It does so by clarifying possibilities for regulation by insurance, while pointing to reforms that might enable them.

II. Climate Insurance: Market Structure

---

[57] Tom Baker & Anja Shortland, *The Government Behind Insurance Governance*, 15 Regulation & Governance 589 (2021) (arguing that insurance markets never govern risk in isolation but always rely on state action, and developing a three-part typology of state functions: (1) setting the legal and regulatory standards that enable insurance to operate as a governance mechanism; (2) investing in the public goods that reduce the underlying risks insurers cover; and (3) co-insuring catastrophic losses through backstops like residual market mechanisms, reinsurance facilities, or direct public insurance programs).

[58] Various legal traditions, including the legal realist movement, critical legal studies, law and political economy, and legal institutionalism, theorize and elaborate ways that the state creates markets. *See, e.g.*, Gregory Brazeal, *Markets as Legal Constructions*, 91 U. CIN. L. REV. 595 (2023); Simon Deakin et al., *Legal Institutionalism: Capitalism and the Constitutive Role of Law*, 45 J. COMP. ECON. 188 (2016).

[59] For example, in Switzerland, the insurance market structure and regulatory environment incentivizes their involvement in disaster risk prevention and mitigation. *See, e.g.*, Jarzabkowski et al., *Disaster Insurance in Switzerland: The Canonical Public Sector Insurance System* (Oct. 2022), https://espace.library.uq.edu.au/view/UQ:a1c4b99.

This Article adopts the label "climate insurance" to refer to an array of insurance lines including homeowners, fire, flood, and windstorm coverage that collectively govern exposure to climate-related hazards.[60] While these are conventionally treated as distinct lines of property and casualty insurance, they are increasingly unified by a common entanglement with climate risk. Their pricing, availability, exclusions, and design shape how climate risk is distributed across households, markets, and the state. The following sections will treat "climate insurance" as an analytical frame for understanding how insurance markets respond to and structure the risks of a climate-instable world.

Understanding the governance dynamics of the climate insurance market requires first disentangling the complex public and private arrangements that comprise it. These include a dual-track private market, structured to uphold actuarial fairness while mitigating the effects of a presumed natural monopoly and offering a release valve for sophisticated consumers via surplus lines; a residual market in the form of state-backed insurers of last resort, financed through various combinations of private sector mandates and public subsidies; and a federal program that provides flood insurance for risks widely considered uninsurable by private carriers. This architecture bears the imprint of regulatory intervention through and through, reflecting an effort to balance market efficiency with public goals of fairness and accessibility. The insurance sector does not align along a distinct public/private divide, but is more accurately characterized as a hybrid system where private market mechanisms operate under substantial regulatory coordination.

Part A outlines the structure of the private market, distinguishing between admitted and surplus lines insurers. Part B examines the role of state residual market mechanisms. Part C elaborates the federal flood insurance program that operates alongside and outside the state-based framework.

A. Private Homeowners and Catastrophe Insurance

Private homeowners insurance in the United States precedes the country's founding, beginning in 1752 with Benjamin Franklin's *Philadelphia Contributionship for the Insurance of Houses from Loss by Fire*.[61] By the mid-19th century, demand for property insurance in the US grew in response to industrialization and

[60] This functional usage is distinct from the use of "climate insurance" as a product category. In some industry contexts, "climate insurance" describes specialized financial instruments such as catastrophe bonds, weather derivatives, or parametric risk pools.

[61] *Our History*, PHILA. CONTRIBUTORSHIP, https://1752.com/about-us/history/ (last visited May 12, 2025). Incorporated in 1768, the Contributorship was based on a cooperative model: policyholders shared both the risks and costs of fire damage. The Contributorship promoted fire safety by refusing to insure homes that it deemed to be high risk, like wooden homes with nearby trees.

urbanization.[62] Today, private property and casualty (P&C)[63] insurers offer standard homeowners' policies[64] that include coverage for certain climate change-related perils like windstorms or fire. Homeowners insurance providers include familiar household names such as State Farm, Progressive, Berkshire Hathaway and Allstate. Most U.S. homeowners insurers offer policies modeled on the ISO HO-3 "special form" [65], which insure the dwelling on an open perils basis, meaning all risks of direct physical loss are covered unless specifically excluded.[66] Certain natural disasters, most notably floods and earthquakes, are excluded and require separate coverage through specialized insurers or government programs.[67] In some high-risk regions,

---

[62] The mutual aid model became less practical for insurers who required more capital to cover risks from urban fires, large industrial properties, and, eventually, natural disasters. The cooperative model was largely overtaken by private, for-profit models, allowing insurers access to additional capital through stockholder investment rather than through policyholder contributions alone. The shift toward for-profit insurance accelerated in the latter half of the 19th century as private insurers offered varied, competitive policies backed by substantial reserves and reinsurance policies. This market-driven approach ultimately allowed insurers to offer wider and more customized coverage, attracting a broader client base and establishing a competitive insurance market that largely replaced the mutual model.

[63] Property and casualty (P&C) insurance is a broad category of insurance that covers personal property including cars, homes, and liability. *The Property-Casualty Insurance Business*, AXA (2024), https://www.axa.com/en/about-us/property-and-casualty-insurance. A 2023 Treasury Department report values the P&C sector at $876 billion. FED. INS. OFF., U.S. DEP'T OF THE TREASURY, 2032 ANNUAL REPORT ON THE INSURANCE INDUSTRY (Sept. 2023), https://home.treasury.gov/system/files/311/FIO%20Annual%20Report%202023%209292023.pdf. As of 2022 there were 2,656 P&C insurers in the US. The private P&C insurance market is concentrated, however, with the top 10 insurers making up nearly 50% of the cumulative market. *See* NAT'L ASS'N OF INS. COMM'RS, PROPERTY & CASUALTY INSURANCE MARKET SHARE REPORT (2023), https://content.naic.org/sites/default/files/research-actuarial-property-casualty-market-share.pdf (stating that the top ten insurers make up 48.01% of the market, while the top twenty-five make up 66.54%).

[64] These policies reduce the risk of major financial loss for homeowners by transferring risk from homeowner to insurer. *See* Chris Kawashima & Joseph Reyes, *What Is Property and Casualty Insurance?*, CHARLES SCHWAB (Jan. 21, 2025), https://www.schwab.com/learn/story/what-is-property-and-casualty-insurance.

[65] The most common type of homeowners insurance is HO-3 and covers dwellings and other structures on a policyholder's property under open perils coverage. Insurance Services Office, HO-00-03-10-00 Homeowners 3 – Special Form (Sample Policy), at cover (1999), available at https://www.iii.org/sites/default/files/docs/pdf/HO3_sample.pdf.

[66] In practice, however, insurers use proprietary forms that can depart in significant ways from the Insurance Services Office (ISO) standard, so the precise scope of coverage varies by carrier and state. For a thorough evaluation of these variations and an account of the ways this shifts risks onto policyholders and lenders, *see* Daniel Schwarcz, *Reevaluating Standardized Insurance Policies*, 78 U CHI. L. REV. 1263 (2011).

[67] *See, e.g.*, *Natural Disaster & Catastrophe Coverage*, CHUBB, https://www.chubb.com/us-en/individuals-families/products/natural-disasters.html (last visited Dec. 26, 2024) ("A homeowners policy alone isn't always enough, which is why we provide specialized services and coverage to preserve what matters most.").

homeowners may also need specialized policies for windstorm[68] or wildfire[69], though they are generally included in standard coverage elsewhere.

Private insurance is regulated at the state level.[70] State insurance commissioners oversee licensing and capital requirements[71] and solvency[72]. They also review and rule on insurers' proposed rate increases, and form changes including modifications to the standardized policy language, terms and conditions.[73] Insurance that is administered on a regulated market, called an admitted market, is generally subject to strict licensing, oversight, solvency, and reporting requirements. Alongside the admitted market, all states maintain an excess and surplus (E&S) insurance market that provides coverage to individuals with higher risk profiles who cannot find coverage in the regulated market.[74] These surplus lines insurers develop policies for new and innovative insurance products that are less conducive to common actuarial pricing, and are thus subject to a much lower degree of regulation. Notably, E&S insurers are not limited by the same rate and form requirements or solvency requirements as admitted insurers.

B. State Insurers of Last Resort

---

[68] While many homeowners' insurance policies cover wind damage, some areas, particularly along coastlines or in tornado-prone regions, require separate windstorm coverage due to increased risk. This specialized insurance provides protection against damage caused by high winds, including hurricanes and tornadoes.

[69] Wildfire coverage may not always be included in standard homeowners' insurance, particularly in regions susceptible to wildfires, such as parts of California and other areas in the western United States. Some insurers offer additional wildfire protection or endorsements that specifically cover damage caused by wildfires. Homeowners in these areas may also be encouraged to take preventive measures, such as creating defensible space around their homes, to lower their insurance premiums and reduce risk.

[70] The regulatory arrangement emerges from the McCarran-Ferguson Act of 1945. 15 U.S.C. § 6701 (2024), https://www.law.cornell.edu/uscode/text/15/6701.

[71] Insurers that are authorized to do business in a particular state are "admitted," and they are "domiciled" in the state issuing their primary license. They may also seek licenses to do business in other states as "foreign" insurers. Surplus lines insurers need only be admitted in the state where they are admitted and elsewhere are non-admitted and free of regulations concerning rate and policy. All insurers are subject to capital requirements. *Commercial Insurance*, INS. INFO. INST. (2024), https://www.iii.org/publications/commercial-insurance/how-it-functions/regulation.

[72] Insurers are required to file annual financial statements, and states regulate their solvency. All admitted insurers are required to pay into guaranty funds that cover claims against insolvent insurers. When admitted insurers become insolvent, their unpaid claims are covered by the guaranty funds. Notably, surplus lines insurers are not included in the guaranty funds. *Id.*

[73] States regulate rates in different ways. "Prior approval" requires state permission to put rate or policy form changes into effect. "File and use" and "use and file" govern insurers making rate changes, with the former requiring filing before the change and the latter allowing the change to be followed by filing with the state. If a state deems rates to be excessive then the insurer may be required to refund the overcharged amount to policyholders.

[74] *Surplus Lines*, NAT'L ASS'N INS. COMM'RS (last visited Dec. 26, 2024), https://content.naic.org/insurance-topics/surplus-lines ("Surplus lines insurers primarily focus on the development of new coverages and the structuring of policies and premiums for these unique risks.").

In recent years, the cost of private homeowners insurance has grown consistently as a consequence of increased disaster risk. The National Association of Insurance Commissioners (NAIC) reports "steady rate increases for 25 consecutive quarters."[75] In a December 2024 report, the Senate Budget Committee found that insurance markets are destabilizing all across the US, with insurance non-renewal rates increasing in most states.[76] Coastal and wildfire-prone areas, in particular, are experiencing an insurance availability crisis,[77] with a correlation between climate risk and nonrenewal. As a consequence of the destabilized private homeowners insurance market, state-backed residual market programs, including Fair Access to Insurance Requirements (FAIR) plans[78], are growing in popularity as a gap filler for those who otherwise could not obtain insurance.[79]

Currently, thirty-six states[80] and the District of Columbia have residual market programs offering state-backed homeowners insurance policies.[81] The number of policyholders relying on state insurers of last resort has exploded in recent years. The insurance rating agency AM Best reports that state insurers have doubled the

---

[75] NAT'L ASS'N INS. COMM'RS, ANNUAL PROPERTY AND CASUALTY INSURANCE INDUSTRY 2 (providing 2023 results), https://content.naic.org/sites/default/files/2023-annual-property-and-casualty-insurance-industries-analysis-report.pdf (last visited May 12, 2025). A study of homeowners insurance rates concluded that average premiums increased by more than 30% from 2020 to 2023. While home insurance data is not publicly available, a recent economics study used novel techniques to assemble a large set of mortgage escrow data and quantified the year-on-year increase in premiums. *See* Benjamin J. Keys & Philip Mulder, *Property Insurance and Disaster Risk: New Evidence from Mortgage Escrow Data*, NAT'L BUREAU OF ECON. RSCH. (Working Paper No. 32579, June 2024), http://www.nber.org/papers/w32579 (examining data for over 47 million household property expenditures and attributing the increase to the pass-through of increased reinsurance costs).

[76] The Senate Budget Committee collected nonrenewal data from 2018 to 2023 from twenty-three companies making up 65% of the homeowners' insurance market nationwide. SENATE BUDGET COMM., NEXT TO FALL: THE CLIMATE-DRIVEN INSURANCE CRISIS IS HERE—AND GETTING WORSE (Dec. 2024), https://www.budget.senate.gov/imo/media/doc/next_to_fall_the_climate-driven_insurance_crisis_is_here__and_getting_worse.pdf.

[77] *Id*. at 9.

[78] NAIC CIPR Topics, *FAIR Access to Insurance Requirements (FAIR) Plans*, NAT'L ASS'N INS. COMM'RS, https://content.naic.org/cipr-topics/fair-access-insurance-requirements-fair-plans (last visited Dec. 10, 2024).

[79] For a review of the origins of state insurance of last resort programs and analysis of how they function as de facto climate adaptation and housing affordability policies, *see* Michael Pappas, *Climate Last Resorts* (2025).

[80] Alabama, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New Mexico, New York, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconsin.

[81] Personally compiled spreadsheet. Thirty-three states plus the District of Columbia have FAIR plans, while seven Atlantic and Gulf coast states offer Beach and Windstorm Plans: Alabama, Florida, Mississippi, New York, North Carolina, South Carolina, and Texas. Camille Joyce Lisay, *Residual Markets Post Double-Digit Growth: A.M. Best*, INS. BUS. MAG. (Oct. 22, 2024), https://www.insurancebusinessmag.com/us/news/breaking-news/residual-markets-post-doubledigit-growth-am-best-510656.aspx.

number of policies over the past five years.[82] In Florida, the state-backed insurer is now the state's largest provider. After major hurricanes hit Louisiana in 2020 and 2021, the state-run program more than tripled the number of homeowner policies issued.[83]

These residual insurers are grouped under a shared umbrella, but their structure and arrangements vary widely.[84] In some states, like California and New York, FAIR plans are privately administered. For example, California's FAIR Plan was established in 1968 as a private association managed by private insurers and authorized by the California Department of Insurance.[85] It primarily targets high-risk wildfire areas and does not offer comprehensive homeowners insurance. All licensed P&C insurers are required to participate in the FAIR plan's profits, losses, and expenses in proportion to their market share in the state. New York maintains a similar arrangement in the form of the New York Property Insurance Underwriting Association (NYPIUA).[86] It is also funded by policyholder premiums and managed by private insurers.

In other states, like Florida and Louisiana, the state itself is the insurer of last resort. In 2002, the Florida legislature established Citizens Insurance as a not-for-profit, tax-exempt entity providing property insurance to those unable to secure coverage on the private market.[87] Citizens is primarily funded by policyholder premiums. In the case of a deficit, however, Florida law requires Citizens to impose assessments on most Florida policyholders on top of their policy premiums, including those who are

---

[82] A.M. Best, *Special Report: Residual Market Policy Counts Double in Five Years Amid Weather-Related Challenges*, A.M. BEST (Oct. 21, 2024), https://www3.ambest.com/ambv/sales/bwpurchase.aspx?record_code=347886&altsrc=.

[83] LA. CITIZENS PROP. INS. CORP., MANAGEMENT'S DISCUSSION AND ANALYSIS 2022, https://www.lacitizens.com/docs/default-source/financial-reports-and-statements/2022-management-discussion-and-analysis.pdf?sfvrsn=1676ee03_2. The number of policies issued by the Louisiana Citizens Property Insurance Corporation increased from 47,093 in 2021 to 154,507 in 2022. This is a consequence of severe hurricane losses in 2020 and 2021. Additionally, eleven Louisiana property insurers became insolvent and another twelve companies submitted withdrawal notices to the state's department of insurance.

[84] States structure their FAIR plans in various ways, with considerable variation in the degree of government intervention and in how they prioritize physical risk concerns against financial transition concerns. *See* Mark Nevitt & Michael Pappas, *Climate Risk, Insurance Retreat, and State Response*, 58 GA. L. REV. 4 (2024), https://digitalcommons.law.uga.edu/glr/vol58/iss4/4.

[85] *About FAIR Plan*, CAL. FAIR PLAN, https://www.cfpnet.com/about-fair-plan/ (last visited May 12, 2025).

[86] *General Information*, N.Y. PROP. INS. UNDERWRITING ASS'N, https://www.nypiua.com/general-information (last visited Dec. 19, 2024).

[87] *Who We Are*, CITIZENS PROP. INS. CORP., https://www.citizensfla.com/who-we-are (last visited May 13, 2025).

privately insured.[88] Louisiana's legislature similarly established Citizens insurance in 2003, with a funding structure comparable to Florida's.[89]

These arrangements demonstrate a hybrid public-private market arrangement for insurers of last resort. Critics of state FAIR plans highlight their lack of financial sustainability and their increasing financial precarity as a consequence of growing catastrophic losses.[90] They also identify trends suggesting that these government insurance subsidies result in regressive redistribution that favors wealthy homeowners.[91]

C. The National Flood Insurance Program

Most standard home insurance policies and state FAIR plan policies do not cover flood damage. In 1968, the federal government established the National Flood Insurance Program (NFIP) under FEMA's authority to address this market gap by issuing flood insurance policies to residents of eligible communities.[92] The NFIP transfers some financial risk from home owners to the federal government, and aims to mitigate flood risk through floodplain management.[93] This mitigation effort includes surveying and publishing flood maps,[94] requiring standards for community land use and building codes as a condition of NFIP eligibility, providing a funding mechanism for rebuilding after a flood, and administering incentives schemes that improve property and community resilience.

While the NFIP is a federal program, the government only underwrites coverage, and private insurers administer the program through the Write Your Own (WYO) program. WYO allows private insurers to earn a fixed fee for every flood insurance

---

[88] *Assessments*, CITIZENS PROP. INS. CORP., https://www.citizensfla.com/assessments (last visited Dec. 26, 2024). In the case of a deficit, Citizens first levies a 15% premium surcharge on Citizens policyholder assessments. If a deficit remains, then it can levy an emergency assessment of up to 10% on statewide premiums, including most types of P&C policies, for as long as necessary to eliminate the deficit.

[89] Act 1133, 2003 REG. SESS. (La. 2003), now R.S. 22:2291 et seq. (creating the Louisiana Citizens Property Insurance Corporation).

[90] Sen. Sheldon Whitehouse, *Whitehouse Presses Citizens Property Insurance for Answers About Company's Solvency*, U.S. SENATE COMM. ON THE BUDGET (Mar. 19, 2024), https://www.budget.senate.gov/chairman/newsroom/press/whitehouse-presses-citizens-property-insurance-for-answers-about-companys-solvency-.

[91] *See, e.g.*, Omri Ben-Shahar & Kyle Logue, *The Perverse Effects of Subsidized Weather Insurance*, 68 STANFORD L. REV. 571 (2016) (observing that "existing government subsidies are allocated differentially across households, resulting in a significant regressive redistribution favoring affluent homeowners in coastal communities").

[92] The NFIP is currently authorized until September 30, 2025. *Congressional Reauthorization for the National Flood Insurance Program*, FED. EMERGENCY MGMT. AGENCY, https://www.fema.gov/flood-insurance/rules-legislation/congressional-reauthorization (last visited May 15, 2025).

[93] *A Brief Introduction to the National Flood Insurance Program, IF10988*, CONG. RSCH. SERV. (Jan. 2, 2025), https://crsreports.congress.gov/product/pdf/IF/IF10988.

[94] *Flood Maps*, FEMA (last updated Jan. 22, 2024), https://www.fema.gov/flood-maps.

policy they issue.[95] Currently, 48 private insurance companies are authorized to write and service NFIP policies.[96] Thus, a homeowner might purchase a standard policy from State Farm, Farmers, or any one of the eligible providers and bundle with it a flood policy that is separately guaranteed by the federal government rather than by the private insurer. The risk management structure in the WYO program reserves financial risks associated with flood insurance claims to the federal government with no risk sharing by the participating insurance companies. Currently, the NFIP has more than five million active policies across 27,000 participating communities,[97] and comprising nearly $1.3 trillion in coverage against flooding.[98]

Homes and businesses located within areas designated as high flood-risk that have mortgages from government-backed lenders are required to maintain flood insurance. By design, the NFIP discounts rates below their actuarial price and maintains caps on annual rate increases. Critics argue that this subsidized pricing structure creates moral hazard because it often does not reflect the true risk of flooding and thereby encourages further development in the flood zone.[99] The NFIP is subject to routine political attack as climate change continues to exacerbate the frequency and severity of flood events rendering it increasingly insolvent.[100]

---

[95] In 2009, the Government Accountability Office (GAO) found that the NFIP pays one-third to two-thirds of annual premium revenue to WYO companies but does not collect any data to compare these payments with actual expenses of the companies, making it impossible to know whether these payments are appropriate or excessive. *See* Carolyn Kousky & Leonard Shabman, *Pricing Flood Insurance: How and Why the NFIP Differs from a Private Insurance Company*, RFF-DP-14-37, RES. FOR THE FUTURE (Oct. 2014), https://media.rff.org/documents/RFF-DP-14-37.pdf at 9. The Biggert-Waters Flood Insurance Reform Act of 2012 required reforms of the NFIP, including greater oversight and accountability of the WYO program. Section 100231 required FEMA to disclose the total amount of compensation paid to WYO companies for each fiscal year. This includes commissions and administrative fees paid to these companies for servicing flood insurance policies under the NFIP. Biggert-Waters Flood Insurance Reform Act of 2012, Pub. L. No. 112-141, § 100207, 126 Stat. 405, 919 (2012). However, a 2017 GAO report found that a lack of data continues to present a problem for developing an effective compensation methodology for WYO companies. *Flood Insurance: FEMA Needs to Address Data Quality and Consider Company Characteristics When Revising Its Compensation Methodology, GAO-17-36*, U.S. GOV'T ACCOUNTABILITY OFF. (Dec. 8, 2016), https://www.gao.gov/products/gao-17-36.

[96] *Write Your Own Flood Insurance Company List*, NAT'L FLOOD INS. PROGRAM, https://nfipservices.floodsmart.gov/wyo-program-list.

[97] *Flood Insurance*, FED. EMERGENCY MGMT. AGENCY, https://www.fema.gov/flood-insurance (last visited Dec. 10, 2024).

[98] *Id.*

[99] Critics also note that discounted rates are not means tested, so they provide an inadequate subsidy for some and an excess subsidy for others. They also argue that subsidizing rates undermines the NFIP's financial stability. *Can FEMA and Flood Insurance Keep Up with Rising Tide Risks?*, GAO WATCHBLOG (Nov. 12, 2024), https://www.gao.gov/blog/can-fema-and-flood-insurance-keep-rising-tide-risks.

[100] *See, e.g.*, *A Wave of Concerns Facing the National Flood Insurance Program*, GAO BLOG, https://www.gao.gov/blog/wave-concerns-facing-national-flood-insurance-program (last visited Dec. 10, 2024); Brian Palmer & Jeff Turrentine, *It's Time to Fix the Water-Logged National Flood Insurance Program*, NAT. RES. DEF. COUNCIL, https://www.nrdc.org/stories/time-fix-water-logged-national-flood-insurance-program (last visited Dec. 10, 2024); Tik Root, *Our National Flood Insurance Program Is a*

While the NFIP is a public program, it relies on private insurers as its administrative arm, further demonstrating the hybridized public-private nature of climate insurance.

III. Climate Insurance: Regulatory Dynamics

This section begins in Part A by identifying how climate insurance governs policyholder and third-party behaviors de facto. Part B goes on to elaborate a set of structural shifts in the climate insurance market that result in fragile arrangements which increase the climate vulnerability of unsophisticated policyholders and systematically externalize costs of climate change to the public even as insurers profit in the short term. Part C explains these dynamics as a function of public regulation that shapes insurers' responses to rising climate risk.

A. De Facto Climate Governance

As this section details, insurers do indeed mitigate climate risk for policyholders. Beyond the insurer-policyholder relationship, I further identify examples of insurers influencing third party behaviors including those of cities and municipalities, and those of public utilities providers.

i. Influencing Policyholder Behavior

Insurers influence individual policyholders' climate risk exposure through several mechanisms.

First, they attempt to limit moral hazard. Insurance policies define qualifying events and exclusions to disincentivize risks over which individuals have considerable agency or that are vulnerable to the logic of moral hazard. They do this by limiting coverage to damage emerging from specific causal sources. For example, Allstate's standard homeowners insurance policy excludes loss "caused by rain, snow, sleet, sand or dust", "unless the wind or hail first damages the roof or walls and the wind forces rain, snow, sleet, sand or dust through the damaged roof or wall."[101] Excluding damage that results from already damaged roof or walls incentivizes policyholders to invest in property upkeep rather than leave it to fall into disrepair with the assurance of indemnification.

Trainwreck, MOTHER JONES (Dec. 17, 2023), https://www.motherjones.com/politics/2023/12/national-flood-insurance-program-debt-mismanagment-fema-private-brokers/.

[101] ALLSTATE INS. CO., ALLSTATE INSURANCE COMPANY STANDARD HOMEOWNERS POLICY 7, http://docs.nv.gov/doi/documents/home_policies/AllStateForms/AP1.pdf (last visited May 13, 2025).

Second, insurers motivate proactive risk-mitigating behaviors. Allstate,[102] Farmers,[103] and State Farm,[104] all provide premium discounts to home owners who adopt various damage-mitigating measures. In Alabama, Farmers Insurance provides discounts to policyholders who have "added protection to resist natural disasters and extreme weather events."[105] In Florida, Allstate offers windstorm mitigation discounts for homeowners who adopt features that lower the risk of damage from hurricane wind and rain, or from severe windstorms. Some states require that insurers include in their policies specific endorsements that allow homeowners to mitigate property damage through specific types of retrofits or renovations.[106] For example, Alabama, Georgia, Mississippi, North Carolina, Oklahoma, and South Carolina participate in the IBHS FORTIFIED program which provides discounts for resilience-enhancing home modifications.[107]

Third, insurers price policy premiums to reflect property-specific climate risks. For example, in 2023 American Family Insurance partnered with First Street Foundation[108] to obtain specific information about flood, wildfire, extreme heat, and future peril exposure for individual properties.[109] They rely on this information to

---

[102] *Home Insurance Discounts*, ALLSTATE, https://www.allstate.com/home-insurance/home-insurance-discounts (last visited Dec. 10, 2024).

[103] *Homeowners Insurance Discounts*, FARMERS INS., https://www.farmers.com/discounts/homeowners-insurance/(last visited Dec. 10, 2024).

[104] *Homeowners Insurance Discounts from State Farm®*, STATE FARM, https://www.statefarm.com/insurance/homeowners/discounts (last visited Dec. 10, 2024).

[105] FORTIFIED HOME, REGULATORY FRAMEWORK FOR FORTIFIED INSURANCE INCENTIVES, https://disastersafety.org/wp-content/uploads/FORTIFIED-Home-Incentives_IBHS.pdf (last visited Dec. 10, 2024). Fortified is a project of the Insurance Institute for Business & Home Safety that recommends climate-related risk-prevention measures.

[106] For example, in Alabama, "[i]nsurers are required to offer an endorsement to a Homeowners policy to upgrade their home to an IBHS FORTIFIED Roof if it is damaged and needs replacing." *List of Fortified Discounts and Incentives*, SMART HOME AM., https://www.smarthomeamerica.org/discounts-and-incentives/list-of-fortified-discounts-and-incentives (last visited Dec. 10, 2024).

[107] A home may be evaluated against a FORTIFIED standard to determine its degree of protection from severe weather and to make the homeowner eligible for insurance discounts, reduced deductibles, and tax credits. *See Financial Incentives*, FORTIFIED HOME, https://fortifiedhome.org/incentives/ (last visited Dec. 10, 2024).

[108] A notable critique of First Street Foundation is that it is not, as the name insinuates, a foundation but rather a for-profit company. While it was initially established as a nonprofit foundation, it reorganized as a for-profit company. Insurers' reliance on private risk data without public oversight and with a profit motive invites concern about the equity implications. *See* Press Release, First St. Found., First Street Announces New Structure, Investment Partners, and Advisor (Feb. 29, 2024), https://firststreet.org/press/first-street-announces-new-structure-investment-partners-and-advisor ("First Street has created First Street Technology, Inc., a new Public Benefit Corporation (PBC) that will be assigned the mission and assets of the non-profit First Street Foundation, Inc. and receive an influx of private investment, allowing the company to significantly grow its impact.").

[109] Press Release, First St. Found., First Street Foundation Enters First Partnership with Major P&C Insurer (Oct 12, 2023), https://firststreet.org/press/first-street-foundation-enters-first-partnership-with-major-pc-insurer. First Street has also similarly partnered with Fannie Mae and Freddie Mac. *See* Press Release, First St. Found., First Street Foundation Partners with Fannie Mae to Deliver Climate Risk Insights (Oct. 30, 2022), https://firststreet.org/press/first-street-foundation-partners-

inform proposed rate increases. These rate increases can function as a market signal for areas that should no longer be built or developed.[110] Indeed, proponents of rate deregulation argue that premiums that are not limited by state regulation would incentivize building patterns that price in climate risk.

Increasingly, states are allowing large rate increases and more lax consumer protections.[111] Last year, in North Carolina, for example, home insurers requested a rate increase averaging 42.2% across the state and up to 99.4% in some areas.[112] After a year of negotiations, the N.C. Department of Insurance settled with insurance companies on a 7.5% increase in 2025 and another 7.5% increase in 2026.[113] The rate increases were explained as a reflection of large payouts due to natural disasters and increased reinsurance costs.[114]

Fourth, insurers influence policyholder behavior by reducing coverage or withdrawing from areas with high-risk exposure. For example, American International Group (AIG) cut homeowners' policies in nearly 200 zip codes exposed to high risks of flooding and wildfires.[115] Farmers Group stopped issuing new policies in Florida[116] and limited new policies in California.[117] State Farm stopped

---

with-fannie-mae-to-deliver-climate-risk-insights; Press Release, First St. Found., First Street Foundation Partners with Freddie Mac to Deliver Climate Risk Insights (Aug. 25, 2023), https://firststreet.org/press/first-street-foundation-partners-with-freddie-mac-to-deliver-climate-risk-insights.

[110] Shankar Parameshwaran, *How Higher Property Insurance Premiums Mirror Climate Risk*, KNOWLEDGE AT WHARTON (Sept. 24, 2024), https://knowledge.wharton.upenn.edu/article/how-higher-property-insurance-premiums-mirror-climate-risk/.

[111] Jean Eaglesham, *Home Insurance Premiums Surge as States Approve Increases*, WALL ST. J. (July 11, 2024) https://www.wsj.com/finance/regulation/home-insurance-premiums-surge-states-approve-8656877d.

[112] *Insurance Companies Ask for 42.2% Rate Increase for Homeowners' Insurance*, N.C. DEP'T INS. (Jan. 5, 2024), https://www.ncdoi.gov/news/press-releases/2024/01/05/insurance-companies-ask-422-rate-increase-homeowners-insurance. For a typical homeowner this would have meant that annual premiums increase from about $3,400 to $6,800. Jane Eaglesham, *Insurers Rake in Profits as Customers Pay Soaring Premiums*, WALL ST. J. (Jan 25, 2024) https://www.wsj.com/finance/insurance-companies-profits-stock-ebae7fd1.

[113] *Commissioner Causey Negotiates Settlement on Rate Bureau's Homeowners' Insurance Request*, N.C. DEP'T OF INS. (Jan. 17, 2025), https://www.ncdoi.gov/news/press-releases/2025/01/17/commissioner-causey-negotiates-settlement-rate-bureaus-homeowners-insurance-request.

[114] *Id.*

[115] *Insurance Giant AIG to Limit Homeowners Insurance Sales for 200 Counties Across U.S.*, PUB. CITIZEN (June 8, 2023), https://www.citizen.org/news/insurance-giant-aig-to-limit-homeowners-insurance-sales-for-200-counties-across-u-s/.

[116] Jordan Valinsky, *Farmers Insurance Pulls Out of Florida Affecting 100,000 Policyholders*, CNN (July 12, 2023), https://www.cnn.com/2023/07/12/business/farmers-insurance-florida/index.html.

[117] Ramishah Maruf, *Another Major Insurance Company Limits New Homeowners Insurance in California*, CNN (July 10, 2023), https://www.cnn.com/2023/07/10/business/farmers-insurance-california/index.html.

underwriting residential property in California,[118] and declined to renew 30,000 existing policies.[119] Allstate also stopped underwriting new homeowners' insurance in California.[120] These decisions effectively shape where and how development occurs by signaling which areas are too risky to insure.[121]

ii. Governing Third Party Behavior

Insurers are also governing climate risk beyond the direct insurer-policyholder contract. This includes resilience-enhancing incentives that require community-wide coordination, local and state lobbying for climate resilience, and subrogation lawsuits against third parties.

First, insurers influence community-level decision-making by denying coverage or increasing rates in regions where communities fail to implement risk mitigation. For example, the NFIP requires that communities adopt floodplain management regulations to qualify for coverage.[122] Insurers also offer community-level incentives that make them eligible for premium discounts. For example, the NFIP's voluntary Community Rating System (CRS) program rewards communities[123] that implement floodplain management practices exceeding minimum NFIP requirements. Communities earn discounts by participating in any of nineteen activities that reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the NFIP, and foster comprehensive floodplain management.[124] By implementing these practices, participating communities earn premium discounts up

---

[118] State Farm, *State Farm General Insurance Company California New Business Update*, State Farm Newsroom (May 26, 2023), https://newsroom.statefarm.com/state-farm-general-insurance-company-california-new-business-update/ (announcing this policy effective May 27, 2023).

[119] *State Farm General Insurance Company®: Update on California,* St. Farm Newsroom (Mar. 20, 2024), https://newsroom.statefarm.com/update-on-california/.

[120] Claire Hao, *Yet Another Home Insurance Giant Quietly Stops New Policies in California*, S.F. CHRON. (June 1, 2023), https://www.sfchronicle.com/california/article/insurance-allstate-fires-18130622.php.

[121] *See, e.g.*, Elliott Mittler, *A Case Study of Florida's Homeowners' Insurance Since Hurricane Andrew*, NAT. HAZARDS CTR. (1997), https://hazards.colorado.edu/research/working-papers/96 (developing a case study of Florida's regulatory response to insurers withdrawing from the state after suffering $16 billion in losses from Hurricane Andrew. The case study identifies state-level reforms, including "aggressive mitigation programs designed to retrofit existing structures and to encourage the future construction of hurricane-resistant structures.").

[122] In order to participate in the NFIP, a community "must adopt and enforce floodplain management regulations that meet or exceed the minimum NFIP standards and requirements." FEMA, UNIT 5: THE NFIP FLOODPLAIN MANAGEMENT REQUIREMENTS (2008), https://www.fema.gov/pdf/floodplain/nfip_sg_unit_5.pdf.

[123] Municipalities, counties, special districts, tribal governments, regional authorities. For a full list of CRS communities with respective discounts, see FEMA, CRS ELIGIBLE COMMUNITIES, https://www.fema.gov/sites/default/files/documents/fema_crs_eligible-communities_apr-2025.pdf (last accessed May 15, 2025).

[124] *Community Rating System*, FEMA, https://www.fema.gov/floodplain-management/community-rating-system (last visited May 13, 2025). Activities fall under four categories: public information, mapping and regulations, flood damage reduction, and warning and response.

to 45% that reflect the amount of reduced flood risk.[125] Discount-eligible activities include maintaining open space in flood-prone areas, implementing stricter building codes, and extending public outreach programs about flood risk. The NFIP further incentivizes proactive flood management through grants and resources that support flood mitigation in participating communities, including support for flood control infrastructure and buyout programs for properties in high-risk areas.

In the context of fire risk, the National Fire Protection Association (NFPA)[126] Firewise USA[127] recognizes communities that take specific actions toward wildfire risk reduction. Some insurers, like USAA, offer premium discounts to homeowners in Firewise communities.[128] California's "Safer from Wildfires" regulations require insurance companies to provide discounts to property owners in Firewise USA designated communities.[129]

These community-level regulatory efforts conceive of the risk-bearing agent at a higher scale than the individual homeowner, by incentivizing communities to mitigate risk at a level that corresponds to a scale at which infrastructure-based decisions are actually made and at which risk mitigation is most effective. Indeed, studies have identified a correlation between community participation in CRS and flood resilience, evidenced by reduced flood losses for insured properties.[130] In

---

[125] Discounts are offered in increments of 5% and capped at 45%. FED. EMERGENCY MGMT. AGENCY, NATIONAL FLOOD INSURANCE PROGRAM: COMMUNITY RATING SYSTEM – A LOCAL OFFICIAL'S GUIDE TO SAVING LIVES, PREVENTING PROPERTY DAMAGE, AND REDUCING THE COST OF FLOOD INSURANCE, FEMA B 573/2018) https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_local-guide-flood-insurance-2018.pdf (last accessed May 15, 2025).

[126] Angelo Verzoni, *History of the National Fire Protection Association*, NAT'L FIRE PROT. ASS'N (NFPA) (Nov. 6, 2024), https://www.nfpa.org/news-blogs-and-articles/Blogs/2024/11/06/history-of-nfpa (stating that the NFPA was founded by a group of insurance professionals and now has more than 250 technical committees that publish NFPA codes and standards).

[127] *Firewise USA*, NAT'L FIRE PROT. ASS'N, https://www.nfpa.org/education-and-research/wildfire/firewise-usa (last visited Dec. 10, 2024).

[128] *Property Insurance*, USAA, https://www.usaa.com/inet/wc/property-insurance?akredirect=true (last visited Dec. 10, 2024).

[129] *Safer from Wildfires*, CAL. DEP'T OF INS., https://www.insurance.ca.gov/01-consumers/200-wrr/Safer-from-Wildfires.cfm (last visited Dec. 10, 2024).

[130] Robyn L. Wilson et al., *Incorporating Resilience into the Floodplain Management Decision-Making Process: A Case Study of the Community Rating System in Ohio*, 18 ENV'T RSCH. LETTERS 074029 (2023), https://iopscience.iop.org/article/10.1088/1748-9326/acbaae; Abdul-Akeem Sadiq et al., *Review of the Federal Emergency Management Agency's Community Rating System Program*, 21 NAT. HAZARDS REV. (2019), https://ascelibrary.org/doi/10.1061/%28ASCE%29NH.1527-6996.0000320; Eugene Frimpong et al., *Flood Insurance and Claims: The Impact of the Community Rating System,* 42 APPL. ECON. PERSP. AND POL'Y 245 (2019), https://onlinelibrary.wiley.com/doi/abs/10.1093/aepp/ppz013; David A. Moser & Alan M.P. Stokes, *Estimating the Benefits of Risk Reduction from Flood Insurance and Risk Mitigation Programs*, 44 NAT. HAZARDS REV. 04019007 (2023), https://ascelibrary.org/doi/abs/10.1061/%28ASCE%29NH.1527-6996.0000114; Wesley E. Highfield & Samuel D. Brody, *Impact of Risk Mitigation Measures on Community Resilience to Natural Disasters: A Case Study of the Gulf Coast*, 21 ENV'T SCI. & POL'Y 396 (2017), https://www.sciencedirect.com/science/article/pii/S2212420916303983.

research by the Environmental Defense Fund, CRS premium discounts earned for qualifying activities correlated with the percent reduction in paid claim amounts. Between 1998 and 2020, cumulative damage reductions attributable to CRS amounted to $11.4 billion while cumulative NFIP premium discounts were $12.1 billion.[131]

Second, insurers lobby for building codes that reduce overall risk[132], and for actuarial pricing that would limit construction in high-risk areas[133]. For example, State Farm has been active in discussions concerning building code reforms.[134] In 2007, Dave Hill, the Vice President and Regulatory General Counsel at State Farm spoke at a public hearing of the National Association of Insurance Commissioners (NAIC) Southeastern Zone, noting that the 2004 and 2005 hurricane seasons had resulted in massive devastation and financial burden. He expressed support for proposed legislation that creates federal incentives for the adoption of statewide building codes.[135] Allstate similarly claims to be engaging in building code and land use planning reform.[136] Travelers insurance reports efforts to "promote stronger building codes" and "develop initiatives aimed at building communities that can better withstand changing weather patterns."[137]

---

[131] Letter from Talley Burley et al., Env't Defense Fund, to Deanne Criswell, FEMA (Sept. 6, 2024), https://www.icrrl.org/wp-content/blogs.dir/102/files//EDF-Comment-On-FEMA-Community-Rating-System-Redesign.pdf.

[132] *See* Emily Flitter, *By Burning Down Buildings, Insurers Want to Change How They're Built*, N.Y. TIMES (Jul. 15, 2024), https://www.nytimes.com/2024/07/15/business/wildfires-home-insurance-building-standards.html (reporting on advocacy by the Insurance Institute for Business & Home Safety, backed by more than 100 insurance companies, promoting "new standards for landscaping, fencing and building materials that it says can help prevent a wildfire from ripping through a neighborhood").

[133] *See, e.g.*, Alistair Gray, *Lloyd's of London Urges U.S. Government to Stop Insuring Floods*, FIN. TIMES (May 15, 2016), https://www.ft.com/content/b3eb751c-16da-11e6-9d98-00386a18e39 (discussing Lloyd's of London's opposition to the NFIP subsidizing insurance in high flood-risk coastal areas).

[134] STATE FARM, 2022 TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT 9 (Aug. 2023), https://impact.statefarm.com/data/docs/2022/2022_TCFD_Report_08_2023.pdf ("[T]hrough its federal and state lobbying efforts, State Farm is active in public policy discussions, promoting improved building code adoption to help mitigate potential risk and build resilient communities.")

[135] Dave Hill, Public Hearing of the NAIC Southeastern Zone: Insurance Issues in Coastal Zones, National Association of Insurance Commissioners (Sept. 24, 2007), https://content.naic.org/sites/default/files/committee_related_documents/committees_c_070924_state_farm.pdf.

[136] CARBON DISCLOSURE PROJECT, THE ALLSTATE CORPORATION—CLIMATE CHANGE 2023 55, https://delivery.contenthub.allstate.com/api/public/content/e96f228943cb452db6e0d8a108ae1b25?v=53787239 ("Allstate actively engages federal and state governments on catastrophe management issues and building code and land use planning reform. This engagement began prior to 2017 and is expected to continue through 2023 and beyond.").

[137] TRAVELERS, TRAVELERS TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT 2023 19, https://sustainability.travelers.com/iw-documents/sustainability/Travelers_TCFDReport2023.pdf.

Besides lobbying efforts, insurers fund and support NGOs like the National Fire Protection Association[138] and the Insurance Institute for Business and Home Safety (IBHS).[139] The IBHS maintains a research facility in South Carolina that conducts research on building resilience and disaster mitigation[140] including testing of building materials and techniques, and recommending industry best practices.

Third, insurers influence third party activities through subrogation lawsuits. As the foreseeability of damages due to climate change acquires mainstream recognition,[141] insurers are attempting to shift the costs of climate change to utilities providers and municipal authorities. Through these lawsuits, they are advancing a duty to adapt to climate change.

Recent subrogation[142] claims against utility companies, including PG&E, Southern California Edison (SoCal), and the Electric Reliability Council of Texas (ERCOT), adopt a legal strategy that effectively holds utilities accountable for failing to adapt to foreseeable climate risks. In this line of cases, insurers seek reimbursement for climate-related payouts, arguing that companies in high-risk industries should have taken proactive steps to mitigate wildfire impacts through fire prevention and infrastructure resilience.

In one example, California utilities provider PG&E reached an $11 billion settlement with insurance carriers related to payments made to individuals and businesses for wildfire damage in 2017 and 2018.[143] State Farm, Allstate, Travelers, and Hartford

---

[138] The National Fire Protection Association is an industry-supported organization concerned with "fire prevention, wildfire preparedness, and electrical safety to hazardous materials, community risk reduction, and public safety."). *About Us*, NFPA, https://www.nfpa.org/about-nfpa (last visited May 14, 2025).

[139] The IBHS is funded by insurance companies. *See About IBHS,* INS. INST. FOR BUS. & HOME SAFETY, *https://ibhs.org/about-ibhs/* (last visited Dec. 30, 2024).

[140] Beginning in the 1970s and '80s, the IBHS began providing the insurance industry with "technical information about building codes, effective land use controls, new building designs and retrofit applications." *See IBHS History,* INS. INST. FOR BUS. & HOME SAFETY, *https://ibhs.org/about-ibhs/* (last visited May 19, 2025). In 2010, it opened the Research Center to conduct testing of various construction materials and systems.

[141] In the recent case of *Aloha Petroleum, Ltd. v. National Union Fire Insurance Co. of Pittsburgh, PA*, the Hawaii Supreme Court held that greenhouse gases are an example of "traditional environmental pollution." Aloha Petroleum, Ltd. v. Nat'l Union Fire Ins. Co. of Pittsburgh, PA, 557 P.3d 837 (Haw. 2024) (adopting the insurer's rationale, affirming that the "court respects climate science" and had held that Hawaii's constitution protects the "right to a stable climate system," and finding that "GHGs are 'pollutants' under the insurance policies' pollution exclusion clause").

[142] Subrogation allows an insurer to stand in the shoes of the insured and to pursue repayment for losses from a third party who caused or contributed to the covered loss event. For example, a home insurance policy might cover losses due to an accidental fire and subsequently pursue a subrogation claim against a neighbor who negligently caused the fire.

[143] *PG&E Settles Wildfire Claims with Insurers for $11 Billion*, REUTERS (July 23, 2019), https://www.reuters.com/article/business/pge-settles-wildfire-claims-with-insurers-for-11-billion-idUSKCN1VY1FN.

Financial Services Group, among other insurers, received payouts based on their subrogation claims.[144] The causal contribution alleged, but not ultimately tried, concerns PG&E's failure to inspect and maintain relevant systems and equipment, and relevant vegetation in light of the conditions of climate change.[145]

In another example, more than 130 insurers pursued similar subrogation claims in Texas against the Electric Reliability Council of Texas (ERCOT) for failing to winterize its power production facilities and power grid, resulting in damages during 2021 winter storm Uri. The insurers alleged that ERCOT was grossly negligent in failing to "plan and prepare for the winter storm event" resulting in energy outages that caused significant property damage to plaintiffs' policyholders. The Texas Department of Insurance reported more than half a million related insurance claims, with more than 85% coming from residential property owners and homeowners.[146] Insured losses reached $10.3 billion. Ultimately, the Texas Supreme Court granted ERCOT government immunity.[147] A 2023 Florida statute resulted in a similar

---

[144] *State Farm Receives $1.2B from PG&E Wildfire Subrogation Trust*, S&P Glob. Mkt. Intel. (Apr. 8, 2020), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/state-farm-receives-1-2b-from-pg-e-wildfire-subrogation-trust-60037841. Several other insurance companies, including Farmers Insurance and CSAA Insurance Exchange, sold off their subrogation rights to the distressed debt investor Baupost Group.

[145] *In re* Parties' Joint Statement on Estimation at 6, *In re* PG&E Corp., No. 3:19-cv-05257-JD (N.D. Cal. Oct. 21, 2019).

[146] TEX. DEP'T OF INS., INSURED LOSSES RESULTING FROM THE FEBRUARY 2021 TEXAS WINTER WEATHER EVENT: CATASTROPHE STATISTICAL PLAN DATA AS OF JULY 31, 2021 (Dec. 27, 2021), https://www.tdi.texas.gov/reports/documents/feb2021-tx-winter-weather-summary-july2021.pdf.

[147] The Texas Supreme Court addressed the issue of sovereign immunity for the Electric Reliability Council of Texas (ERCOT) in a consolidated opinion encompassing two cases, *CPS Energy v. Elec. Reliability Council of Tex.*, 648 S.W.3d 520 (Tex. App.—San Antonio 2021), aff'd, 671 S.W.3d 605 (Tex. 2023) and *Panda Power Generation Infrastructure Fund, LLC v. Elec. Reliability Council of Tex., Inc.*, 641 S.W.3d 893 (Tex. App.—Dallas 2022), rev'd, 671 S.W.3d 605 (Tex. 2023). The court's decision affirmed the dismissal of claims against ERCOT in the CPS Energy case and reversed the lower court's decision in the Panda Power case, rendering judgment in favor of ERCOT in both instances. *CPS Energy v. Electric Reliability Council of Texas, Inc.*, 671 S.W.3d 605 (Tex. 2023). The Texas Supreme Court found in a 5–4 decision that ERCOT, though a private nonprofit, is entitled to sovereign immunity due to its status as an essential governmental function under the direct oversight of the Texas Public Utility Commission. This status means ERCOT is shielded from certain civil lawsuits, including claims related to its actions during winter storm Uri in 2021. The court determined that ERCOT's role as the state's independent system operator, mandated by the Public Utility Regulatory Act, makes it an "arm of the state" performing uniquely governmental duties.

outcome,[148] preventing subrogation cases against Florida Power and Light based on harms from Hurricane Irma.[149]

Outside the utilities, context, the case of *Farmers Insurance Co. v. Metropolitan Water Reclamation District* implied a duty for public authorities to adapt to the conditions of climate change. This case arose out of a flooding incident in 2013 that caused extensive property damage to Farmers Insurance policyholders. Farmers sued the Chicago Water Authority in its capacity as subrogee of insured property owners in Cook County, seeking damages for payments made to insureds for emergency intervention to deal with sewer water contamination, damage to real property, damage to personal property, lost business income and other economic damages, and evacuation costs.[150] Farmers alleged that the city's failure to prepare adequately for foreseeable climate impacts,[151] such as severe rainfall, contributed to the policyholders' extensive property damage. Farmers alleged that these risks were not only foreseeable, but that they had been explicitly identified in Chicago's Climate Action Plan[152] years prior, suggesting the city had an obligation to adapt its infrastructure accordingly.[153] While the case did not ultimately proceed to adjudication,[154] it demonstrates insurers' recognition that climate risks are exacerbated by systemic actions (and inactions) and attempts to expand the risk

---

[148] FLA. STAT. § 366.98 (2023) ("A public utility is not liable for damages based in whole or in part on changes in the reliability, continuity, or quality of utility services which arise in any way out of an emergency or disaster, including, but not limited to, a state of emergency declared under s. 252.36. Consistent with the commission's jurisdiction over public utility rates and service, issues relating to the sufficiency of a public utility's disaster preparedness and response shall be resolved by the commission.").

[149] William Rabb, *Florida Power & Light Class Action Opens Door to Subrogation, Future Storm Claims*, INS. J. (Jan. 18, 2022), https://www.insurancejournal.com/news/southeast/2022/01/18/649667.htm.

[150] Original Class Action Complaint and Demand for Jury Trial at 27, Ill. Farmers Ins. Co. v. Metro. Water Reclamation Dist. of Greater Chi., No. 2014-CH-06608 (Ill. Cir. Ct. Oct. 7, 2014), https://climatecasechart.com/wp-content/uploads/case-documents/2014/20140417_docket-2014L00385_complaint.pdf.

[151] *Id.* at 20 ("This Defendant knew or should have known that climate change in Cook County has resulted in greater rain fall volume, greater rainfall intensity and greater rainfall duration than pre-1970 rainfall history evidence, resulting in greater stormwater runoff from a rainfall with Cook County and its Watersheds.") The complaint further details that the defendant failed to plan for or take any mitigating steps ahead of the rainfall period. ("If this Defendant had adopted reasonable stormwater management practices, the sewer water invasions suffered by members of the Plaintiff Class would not have occurred.")

[152] *Id.*; *Chicago Climate Action Plan: Chapter 6*, CITY OF CHI. (2008), https://www.chicago.gov/content/dam/city/progs/env/CCAP/CCAP.pdf.

[153] Farmers Ins. Co., No. 2014-CH-06608, at 15 ("If this Defendant had adopted reasonable stormwater management practices, the sewer water invasions suffered by members of the Plaintiff Class would not have occurred.")

[154] Less than two months after filing, Farmers Insurance withdrew its lawsuit. Akiko Shimizu, *Farmers Insurance Withdraws Class Action Alleging Failure to Adapt to Climate Change*, CLIMATE LAW BLOG (June 16, 2014), https://blogs.law.columbia.edu/climatechange/2014/06/16/farmers-insurance-withdraws-class-action-alleging-failure-to-adapt-to-climate-change/.

narrative to account for choices preceding the occurrence of a discrete catastrophe, thereby extending the temporal definition of the risk-event. Notably, this case also recast the conventional framing of climate risk exposure from an individual consideration to a systemic production by developers, city planners, and local governments.

By holding municipal authorities accountable for failing to mitigate known climate risks, litigants broaden a traditional understanding of climate risk and reframe it as the result of systemic inaction and negligence. Construed more broadly, a duty to adapt to climate change reconfigures the distributional map for costs arising from extreme weather events. Insurers face fewer hurdles than individuals would in bringing these claims as they handle claims at scale and have more information at scale, making them better positioned to identify contributory third parties and to reassign costs.

While subrogation claims have thus far been limited to recovering costs from utilities providers, the principles they establish could conceivably extend to other sectors. For example, insurers could pursue similar subrogation claims against fossil fuel companies whose operations and emissions contribute to climate risks, arguing that such companies bear responsibility for climate impacts tied to their activities. These cases reframe causation by asserting that the failure to adapt or to mitigate known risks constitutes negligence. As climate-related claims become more prevalent, companies may be expected to invest in adaptation as a standard risk management practice.

B. The Quiet Deregulation of Climate Insurance

Even as insurers mitigate climate risk in the ways elaborated in Part A, a quieter deregulation of the climate insurance market is simultaneously playing with considerable consequences for policyholders and the public at large. Subsection *i* describes a process of insurance market dislocation from a more heavily regulated admitted market to a lightly regulated excess and surplus market under the pressures of worsening climate risk combined with stringent rate regulation. Subsection *iii* elaborates the shift to fragile arrangements based on smaller, heavily reinsured insurers. Subsection *ii* identifies a liberalization of insurance ratings, particularly for small and regional insurers, that relies on methodologies which inflate insurers' financial strength in relation to traditional ratings methods. Subsection *iv* explains how these dynamics, together, amplify and externalize climate risk from insurers and policyholders to the public. The shifts elaborated in these sections provoke systemic vulnerabilities in the climate insurance market and undermine long-term resilience and equitable risk-sharing.

i. Dislocating to the Surplus Market

Homeowners insurance is a subset of the Property & Casualty (P&C) insurance market. The P&C market is bifurcated into admitted insurance, which is heavily regulated by the state and excess and surplus (E&S) insurance which is subject to comparatively few regulations. While admitted insurers comprise most the private P&C market, surplus insurers provide a fallback option for high or emerging risk properties that cannot find coverage in the admitted market.[155] These surplus lines providers are typically licensed in a state of domicile and authorized to issue non-admitted policies in other states.[156]

States regulate admitted insurers with respect to their financial solvency, including capital and surplus requirements. They regulate the substance and form of admitted insurance policies, as well as premium prices and rate increases. To make changes to form or rate, admitted insurers have to obtain approval from a state insurance commissioner.[157] States also administer guaranty funds in the case that an insurer becomes insolvent. Admitted insurers are required to pay into these funds.

By contrast, E&S insurers are not subject to oversight over policy terms or prices which allows them more flexibility to price premiums reflective of actual risk. They are required to maintain specified levels of capital and surplus levels set by states.[158] With the exception of New Jersey, which is an outlier, they do not participate in state guaranty funds. In the case that an E&S insurer goes bankrupt, there is no backstop for policyholders.[159]

---

[155] California's export list of items eligible for E&S coverage includes sawmills, amusement parks, explosive manufacturing, and fireworks displays. RICARDO LARA, CAL. INS. COMM'R, BULLETIN 2022-4 (June 24, 2022), https://www.insurance.ca.gov/0250-insurers/0300-insurers/0200-bulletins/bulletin-notices-commiss-opinion/upload/ADA-Compliant-Bulletin-2022-4-Export-List.pdf (export list). In addition to the export list, risks and coverages may be exportable subject to a diligent search and full documentation pursuant to section 1763 of the California Insurance Code. New York's export list includes aircraft manufacturing, carnivals, monster trucks liability, and hazardous waste disposal sites. *Export List*, EXCESS LINE ASS'N OF N.Y., https://www.elany.org/export-list (last visited May 14, 2025).

[156] *U.S. Excess & Surplus Insurance Market Outperformance to Continue*, FITCH RATINGS (Oct. 4, 2023, 9:29 AM ET), https://www.fitchratings.com/research/insurance/us-excess-surplus-insurance-market-outperformance-to-continue-04-10-2023.

[157] *Surplus Lines Insurance: Background and Current Legislation*, CONGRESSIONAL RSCH. SERV. RS 22506 (updated July 22, 2010), https://crsreports.congress.gov/product/pdf/RS/RS22506.

[158] Courtney Baggett & Cassandra R. Cole, *Regulation and Surplus Lines Activity*, *in* 37 J. INS. REG. 5, 2 (Cassandra Cole & Kathleen McCullough eds., 2018), https://content.naic.org/sites/default/files/jir-za-37-05-el-regulation-surplus-lines.pdf.

[159] Several attempted legislative reforms would have brought surplus insurance under federal regulation and required guaranty funds for surplus insurers. *Surplus Lines Insurance: Background and Current Legislation* 3–6, CONGRESSIONAL RSCH. SERV. RS22506 (updated July 22, 2010), https://crsreports.congress.gov/product/pdf/RS/RS22506.

The surplus lines market has expanded in recent years. As non-renewals increase in the admitted market, the E&S market picks up this reduced capacity.[160] In 1994, E&S comprised 6% of all commercial-line premiums. By 2022, surplus lines direct premiums totaled 11%. E&S lines premium volume nearly doubled between 2018 and 2022, with 97% growth in the national market.[161] This growth is attributable to shrinking admitted markets. Since 2018, the E&S share of total property lines direct premiums written has grown the most in three states facing major climate risk crises: Florida, California and Louisiana.[162] The four states with highest E&S line premium volume are consistently California, Florida, Texas, and New York.[163] Florida saw the surplus lines' commercial coverage market rise from $4.8 billion in premiums written in 2022 to almost $7 billion in 2023.[164] In California, the number of surplus lines carriers issuing homeowners policies increased from 102 in 2015 to 159 in 2024.[165] Data from the California Surplus Lines Association shows that from 2023 to 2024 alone, the total number of surplus lines homeowners' transactions increased nearly fourfold, from 63,875 to 218,699.[166]

Surplus lines insurance presents several vulnerabilities for policyholders. Because surplus carriers operate outside the rate and form regulations that govern the admitted market, they face less oversight and can shift more risk to policyholders through broad exclusions, higher deductibles, and nonstandard terms. Unlike admitted insurers, surplus lines carriers are not backed by state guaranty funds,

---

[160] John Horneff, *Climate Change Is Pushing Insureds to the E&S Market*, PROPERTYCASUALTY360 (Sept. 13, 2022, 5:00 AM), https://www.propertycasualty360.com/2022/09/13/climate-change-is-pushing-insureds-to-the-es-market/?slreturn=20240614-22729. ("The amount of direct homeowners' premiums in California by E&S filers has almost tripled in the last three years, rising from $85.1 million in 2018 to $235 million in 2021, according to an S&P Global Market Intelligence analysis of regulatory statements submitted to the National Association of Insurance Commissioners.")

[161] Of the $899 billion in property and casualty direct premiums written in 2022, $99 billion were written by E&S insurers.

[162] Press Release, BusinessWire, Excess and Surplus Lines See Growth in Recent Years Due to Admitted Markets Pulling Back or Exiting Markets (Sept. 23, 2024, 1:13 PM EDT), https://www.businesswire.com/news/home/20240923194906/en/Excess-and-Surplus-Lines-See-Growth-in-Recent-Years-Due-to-Admitted-Markets-Pulling-Back-or-Exiting-Markets-Triple-I.

[163] David Blades, *Viewpoint: Challenging P/C Market Generates Opportunities for Surplus Lines' Writers*, *Surplus Lines Insurance: Overview and Market Trends,* INS. J. (MAY 8, 2025), https://www.insurancejournal.com/news/national/2025/05/08/822819.htm (last visited May 21, 2025).

[164] Cina Welch, *Florida-based FCCI Moving Into Excess and Surplus Market Oct. 1*, INS. J. (Sept. 6, 2024), https://www.insurancejournal.com/news/southeast/2024/09/06/791664.htm.

[165] Jillian D'Onfro, *Why a 'scarlet letter' insurance is increasingly one of the only options for homeowners*, THE SAN FRANCISCO STANDARD (Jan. 10, 2025), https://sfstandard.com/2025/01/10/california-insurance-crisis-surplus-line-la-fires/.

[166] Data on homeowner' policy counts and premiums from 2004 to 2024 was obtained by the author from the California Surplus Lines Association (on file with the author). These figures show a growing surplus market, though surplus coverage remains a small share of the broader private market. The California Department of Insurance reported 8.3 million admitted homeowners policies in 2023. *See* Cal. Dep't of Ins., *Residential Insurance Policy Analysis by County, 2020–2023*, at 1 (2024), https://www.insurance.ca.gov/01-consumers/200-wrr/upload/Residential-Insurance-Policy-Analysis-by-County-2020-to-2023-2.pdf.

leaving policyholders with limited recourse in the event of insolvency.[167] These conditions often result in underinsurance[168], particularly for lower-income and high-risk households, who may accept inadequate coverage out of necessity.[169] In turn, coverage gaps increase the likelihood of unmitigated losses and delayed recovery after disasters, further intensifying community vulnerability and shifting recovery costs onto public disaster relief.

The growing E&S market is attributed to new market entrants but also to reorganization of traditionally admitted insurers as surplus lines providers. For example, the national admitter carrier Allstate stopped writing homeowners policies in California, while its subsidiary North Light[170] now writes them as a surplus line provider. Some national insurers are restructuring in the wake of large losses as smaller and less capitalized subsidiary firms with a narrower scope of operation and less solvency. This restructuring shifts risk away from a parent company which does not assume the financial obligations of its subsidiary.[171] Large firms create separate corporate entities in high-risk markets so losses do not spread nationally and remain concentrated in the affected market. When small firms are bankrupted, the costs shift to state guaranty associations if they are admitted insurers[172] and directly to homeowners[173] if they are surplus insurers without the backing of guaranty associations.

---

[167] Notably, AM Best gives surplus lines a favorable rating. *See* AM Best, *Improved Underwriting and Operating Results Sustain US Surplus Lines Market Momentum* (Sept. 18, 2024), https://web.ambest.com/docs/default-source/events/improved-underwriting-and-operating-results-sustain-us-surplus-lines-market-momentum.pdf?sfvrsn=33bf05ef_1#:~:text=In%20hopes%20of%20bringing%20clarity,products%20and%20forging%20relationships%20with ("98% of surplus lines insurers had AM Best long-term Issuer Credit Ratings (ICRs) of 'a-' or higher, compared with 84% for the total P/C industry").

[168] *See* Susie Neilson & Megan Fan Munce, *California, four other Western states launch prove into underinsurance following Chronicle investigation*, S.F. CHRON. (July 2, 2025), https://www.sfchronicle.com/california-wildfires/article/multistate-underinsurance-investigation-20418092.php (referencing an investigation which found "nearly every state in the coalition [of five states] had identified widespread underinsurance following at least one wildfire").

[169] *See* Parinitha Sastry et al., *Climate Risk and the U.S. Insurance Gap: Measurement, Drivers and Implications* (Working Paper, Nov. 2024), https://conferences.fuqua.duke.edu/corpfinance/corporate-finance-2025/papers/3%20HO_Demand_Elasticities_20241118_SSST%20%281%29.pdf (finding that "households respond to rising premiums by both dropping coverage as well as increasing mortgage debt").

[170] North Light Specialty Ins. Co., Welcome to North Light Specialty Insurance Company https://northlightspecialty-preprod.allstate.com/#:~:text=North%20Light%20Specialty%20Insurance%20Company%20(%22NLSIC%22)%20provides%20specialized,rated%20(Excellent)%20insurance%20company, (Last visited July 17, 2025).

[171] In this manner, a national insurer can maintain its presence in a given market through a subsidiary. If the subsidiary goes bankrupt, it can fold without creating financial liability for the parent company.

[172] Carolyn Kousky, UNDERSTANDING DISASTER INSURANCE: NEW TOOLS FOR A MORE RESILIENT FUTURE 115 (2021).

[173] *Id.*

ii. Restructuring as Fragile Entities

Insurers are also responding to climate risk by adopting capital-light business models that rely heavily on reinsurance. While this arrangement allows them to remain active in high-risk regions without bearing the full burden of potential claims, it also introduces new forms of systemic vulnerability. The stability of homeowners insurance becomes dependent on the solvency and discretion of reinsurers, many of whom have been paring back their exposure to catastrophe risk by raising prices and increasing the levels at which coverage is triggered.[174] This structure creates a fragile chain of financial dependency in which policyholders may be left exposed if reinsurers fail or decline to honor their obligations.

One example of this restructuring and its implications is State Farm's transformed operations in Florida. The national insurer withdrew its operations in Florida due to losses claiming that homes were too high risk to insure. Instead, it helped set up a reinsurer, DaVinci, providing coverage to more than 50 insurance carriers representing the owners of 3.7 million homes.[175] State Farm facilitated a move of its policyholders to DaVinci-backed local insurers by directing them to a list of providers that would allow them to retain multi-policy discounts and by allowing State Farm agents to retain their clients if they moved them to these pre-approved companies.

The result is a home insurance market reliant on thinly capitalized Florida-based companies backed by an offshore reinsurer. DaVinci is domiciled in Bermuda which has less conservative solvency requirements than the U.S. that enable it to write more business with less capital. Under this arrangement, small companies can underwrite billions of dollars in property with limited financial reserves.[176] In effect, policyholders rely on the financial health of the reinsurer and if it becomes insolvent or refuses to pay, then the primary insurer may be unable to cover claims.[177]

iii. Relying on Liberalized Insurance Ratings

Insurance ratings are an important information source for state regulators assessing insurers' financial health and for mortgage lenders protecting their collateral in the

---

[174] Lee Harris, *Reinsurers little exposed to LA fires after retreat from disaster risks*, FIN. TIMES (Jul. 24, 2025), https://www.ft.com/content/51e2f893-6822-4962-9469-112c6b72a3fe.

[175] Paige St. John, *State Farm Cashes in on a Crisis*, SINCLAIR LAW (Apr. 13, 2023), https://www.sinclairlaw.com/state-farm-cashes-in-on-a-crisis/.

[176] *Paige St. John*, Sarasota Herald-Tribune, The Pulitzer Prizes, https://www.pulitzer.org/winners/paige-st-john#:~:text=John%20of%20Sarasota%20Herald%2DTribune,-Share%3A%20Twitter%20Facebook&text=For%20her%20examination%20of%20weaknesses,Lee%20C. (last visited Dec. 10, 2024).

[177] The oversight regime in Bermuda differs from US state regulations, potentially leading to less-stringent capital and solvency requirements than would be required for an admitted US insurer.

event of property damage. Buyers of insurance and reinsurance also rely on insurance ratings to assess whether a firm is likely to be solvent when claim payments are due. Insurers are placed on an "approved" list if they receive a rating of A- or higher by an authorized ratings agency.[178] AM Best is the oldest[179] and widely considered a leader among these ratings agencies. It is recognized by the US Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (NRSRO)[180] under the Credit Rating Agency Reform Act of 2006.[181] AM Best is the leading ratings agency for national admitted insurance providers, while most small and regional insurers are rated by Demotech rather than the major ratings agencies.[182]

Notably, ratings from the different credit rating agencies are not clearly comparable due to the variation in methodologies adopted by each.[183] An A- by one ratings agency does not denote the same that an identical ranking by another agency does. Since insurers seek out and apply for ratings, this discrepancy encourages "ratings shopping" by insurers and reinsurers, resulting in market distortions.[184]

Such discrepancies have reverberating effects. Ratings inflation may fail to communicate in full the financial risks implicated even as they facilitate transfer of this risk from private mortgage lenders to public Government-Sponsored Enterprises (GSEs) Fannie Mae and Freddie Mac. In one study by researchers at Columbia and Harvard Business Schools and a member of the Federal Reserve Board only 10% of Demotech-rated insurers met AM Best's GSE eligibility requirements.[185] Nearly 67%

---

[178] FITCHRATINGS, NOT ALL INSURER FINANCIAL STRENGTH RATINGS ARE CREATED EQUAL: WHITE PAPER ON LACK OF COMPARABILITY OF A.M. BEST'S "A-" IFS RATINGS TO THOSE OF FITCH 4 (July 2016), https://content.naic.org/sites/default/files/inline-files/cipr_events_impact_rating_fs_handout.pdf.

[179] *About Us*, AM BEST, https://web.ambest.com/about-us#:~:text=Founded%20in%201899%2C%20AM%20Best,specializing%20in%20the%20insurance%20industry (last visited Jan. 22, 2025).

[180] *Current NRSROs*, U.S. Sec. & Exch. Comm'n, https://www.sec.gov/about/divisions-offices/office-credit-ratings/current-nrsros (last visited Dec. 19, 2024).

[181] Credit Rating Agency Reform Act of 2006, Pub. L. No. 109-291, 120 Stat. 1327, https://www.sec.gov/ocr/cra-reform-act-2006.pdf. The Credit Rating Agency Reform Act recognized the importance of overseeing the rating industry and developed disclosure requirements for NRSROs, including procedures and methodologies used to determine ratings and policies and procedures to prevent misuse. As an NRSRO, the rating agency must comply with specific regulations regarding transparency, conflict of interest policies, and oversight. *Id.* at 1329–00.

[182] *Financial Stability Ratings®*, DEMOTECH, https://www.demotech.com/financial-stability-ratings/ (last visited Dec. 19, 2024). ("[W]hile operating profit remains an important element and consideration of [Financial Stability Ratings], the ability of an insurer to remain financially stable under a variety of economic scenarios requires a focus on balance sheet integrity, including a review of the quality and quantity of reinsurance protection as well as the relative adequacy of loss and loss adjustment expense reserves.").

[183] *Id.*

[184] *Id.* at 11 ("Ratings shopping skews the ratings coverage of the most optimistic opinion, thus severely limiting ratings coverage across other CRAs. This practice can put ratings users at significantly heightened risks when making a (re)insurance security decision.").

[185] Parinitha Sastry et al., *When Insurers Exit: Climate Losses, Fragile Insurers, and Mortgage Markets* 19 (Dec. 23, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4674279.

of the Demotech-rated insurers failed to meet Freddie Mac's eligibility requirement while 21% failed to meet Fannie Mae's requirement. These findings point to considerable and consequential variation in GSE eligibility requirements across rating agencies, and indicating that inflated ratings facilitate market participation by insurers and the issuing and sale of mortgages that otherwise would not have been possible.

Florida's insurance market highlights the importance of insurance ratings agencies for the housing market. Demotech began rating Florida insurers in the 1990s after national carriers left the state in the wake of Hurricane Andrew and the market became dominated by smaller homegrown insurers. The ratings agency is credited with keeping Florida's insurance market viable with the exit of major carriers and the emergence of smaller providers.[186]

iv. Externalizing Climate Risk

The quiet deregulation this section has elaborated, arising from subtle market shifts and ratings methodologies, has the effect of systematically externalizing climate risk from the private insurance market to taxpayers and to the federal government. These dynamics emerge from a relationship between mortgage lenders, insurers, and Government-Sponsored Enterprises in the US housing market.

Mortgage lenders originate loans to individual home buyers, and, rather than hold them on their balance sheets, they often sell these loans to GSEs, key among them Fannie Mae and Freddie Mac. GSEs then pool these loans into mortgage-backed securities and sell them to investors. GSEs guarantee these securities and take on the credit risk of loans that conform to their requirements. Among these requirements is maintaining home insurance coverage.[187] Fannie and Freddie require that an eligible home insurance provider meets certain financial criteria indicating its reliability and stability. They accept ratings from major credit rating agencies to assess an insurer's financial strength. For example, Fannie Mae and Freddie Mac approve insurers with an AM Best rating of B or higher and a Demotech rating of A or higher.[188]

---

[186] Demotech's president notes that without Demotech's ratings, much of the Florida insurance market may not exist. William Rabb, *Harvard Study Again Stirs the Pot on Demotech Ratings of Florida Carriers*, INS. J. (Apr. 15, 2024), https://www.insurancejournal.com/news/southeast/2024/04/15/769916.htm.

[187] Selling guides for lenders outline requirements, including that homes must be covered for at least the replacement cost of the property, hazard insurance, and flood insurance where the property is located in a flood zone. *See, e.g.*, *Selling Guide: B7-3-02 - Property Insurance Requirements for One- to Four-Unit Properties*, FANNIE MAE (Feb. 7, 2024), https://selling-guide.fanniemae.com/sel/b7-3-02/property-insurance-requirements-one-four-unit-properties.

[188] *Selling Guide: B7-3.1-01 - General Property Insurance Requirements for All Property Types*, FANNIE MAE (Dec. 14, 2022), https://selling-guide.fanniemae.com/sel/b7-3-01/general-property-insurance-requirements-all-property-types.

This regulatory scheme is compromised by the market dynamics elaborated above. As insurers shift to small and regional models that are not rated by the traditional credit ratings agencies, the oversight scheme for insurance reliability breaks down. A study by Sastry and colleagues also found that GSEs bear large unpriced exposure to climate risk.[189] They examined data on mortgages and insurance in Florida from 2009 to 2018, and found that GSEs are accepting insurance from companies with a high risk of insolvency while failing to price for this risk. They estimate that 31% of expected GSE losses in Florida come from insurance fragility. Fragile insurers who underwrite insurance in high-risk areas experience higher rates of insolvency.[190] Notably, as increasing climate risk weakens the climate insurance market, mortgage lenders are shifting more climate-exposed mortgages off of their books to GSEs.[191] In one study, Amine Ouazad and Matthew Kahn found that in the aftermath of natural disasters, "lenders are more likely to approve mortgages that can be securitized, thereby transferring climate risk."[192]

Expansion of the E&S insurance market, combined with insurance firm restructuring in the form of undercapitalized, local providers also contributes to reduced effectiveness of state guaranty funds. State guaranty associations provide a form of consumer protection for insurance policy holders that transfer risk associated with insurer default to other insurers operating in the same state. If an insurer goes bankrupt, a policyholder is covered by the state guaranty association[193] which distributes that cost across participating insurers.[194] However, the guaranty associations are compromised in three ways. First, as the admitted market contracts, E&S insurers fill the void. They are not party to guaranty association requirements, so there are fewer insurers participating in the guaranty association and the incentive to operate as an admitted insurer is reduced. Second, as the costs of climate change increase, they surpass the capacity of guaranty funds preventing the possibility of immediate payout as regulatory limits cap the amount that an insurer has to pay each year, resulting in a 100+ year payout timeline. Third, costs of bankruptcy in one state spill over to other states where the same insurance company also operates as firms levy assessments and rate increases to account for guaranty payouts.

---

[189] Sastry et al., *supra* note 185.
[190] *Id.*
[191] *Id.* at 8.
[192] Amine Ouazad & Matthew E. Kahn, *Mortgage Finance and Climate Change: Securitization Dynamics in the Aftermath of Natural Disasters* (Nat'l Bureau of Econ. Rsch., Working Paper No. 26322, Sept. 2019) (revised Feb. 2021), http://www.nber.org/papers/w26322.at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4425910.
[193] LAWRENCE POWELL ET AL., IS THE U.S. INSURANCE INDUSTRY RESILIENT TO CLIMATE CHANGE? INSURER CAPITALIZATION AND THE PERFORMANCE OF STATE GUARANTY ASSOCIATIONS (Sept. 2022), https://laweconcenter.org/wp-content/uploads/2022/12/SSRN-id4207834.pdf.
[194] The funds in a guaranty association are collected from insurance companies in the state at a rate of about 1% of total premiums collected.

Increasing frequency and severity of catastrophic property losses undermine state guaranty fund systems that provide a coverage backstop for homeowners if their insurer goes bankrupt.[195] State regulations cap the amounts of annual assessments on solvent insurers which means that a large-scale loss event may exceed a state's guaranty capacity. One example of this occurred in 2023 when Florida and Louisiana were forced to borrow a combined $1.3 billion[196] to pay the claims of more than a dozen insolvent insurers after Hurricane Ian.[197] Insurers repay these costs through assessments, or surcharges, that last a decade or longer. They pass these costs on to their policyholders through premium increases and surcharges. While the claims were filed by coastal residents, the cost is subsidized by higher premiums across the state and across other policies. The debt is also subject to high interest rates costing hundreds of millions of dollars in interest payments.[198]

C. How Regulation Shapes Private Climate Governance

The dynamics elaborated in Parts A and B show insurers mitigating climate risk at one scale, while overall structural shifts exacerbate the vulnerability of climate insurance as a whole. These contradictory trends can be explained as a function of the contingency of private governance on the public arrangements that alternately enable or obstruct incentives to mitigate climate risk.

i. *Regulation Activates Private Governance*

Public regulation enables private climate governance by creating demand for insurance products, reducing coordination costs among insurers, and accounting for informational asymmetries between insurers and policyholders.

One example of regulation enabling private climate governance is through the creation of market demand. Homes with mortgages are required to maintain active

---

[195] *See* POWELL ET AL., *supra* note 193 (simulating unexpected loss shocks to the insurance industry and finding that insurance guarantees "present short-term problems for policyholders and create long-term challenges for competitive private insurance markets").

[196] Thomas Frank, *Fla. and La. Must Borrow Millions to Pay Insurance Claims*, E&E NEWS (May 2, 2023, 6:32 AM EDT), https://www.eenews.net/articles/fla-and-la-must-borrow-millions-to-pay-insurance-claims/. Louisiana had to borrow $600 million and Florida had to borrow $750 million.

[197] *Id.*

[198] *Id.* (stating that Louisiana's interest charges will reach $275 million by the time the debt is repaid in 2038).

homeowners insurance,[199] which guarantees market demand for these products.[200] Even homeowners who are more risk tolerant and might otherwise self-insure are required to transfer risk to insurers. This requirement creates an insurance market with national reach.

The majority of homeowners insurance remains privately supplied, even as state-sponsored FAIR plans have expanded. In 2023, private homeowners premiums amounted to $152 billion,[201] while direct premiums underwritten for FAIR plans totaled $7.37 billion making up less than 5% of total premiums written.[202] The reach and administrative capacity of private insurers is evidenced by the NFIP's reliance on a private insurance infrastructure to administer its public insurance scheme in the form of the Write Your Own program. The scale and reach of the private insurance market positions it to be an effective regulator of climate risk at scale, which is particularly relevant to the systemic nature of effective climate resilience.

Public regulation also overcomes a coordination problem among private actors. In some states, like New York and California, private insurers are required to support a state insurance option of last resort. This requirement prevents insurers from selectively underwriting low risk properties if insurers bear financial liability for properties of all risk profiles, they may be incentivized to collaborate and to overcome coordination problems to reduce overall risk. State-backed insurers of last resort, like California and Louisiana, might achieve this same objective through their assessments policies. In Florida, for example, if the state-backed Citizens insurance faces a deficit due to large payouts, it first levies a 15% premium surcharge on its own policyholders but then levies an emergency assessment of up to 10% on statewide premiums including most types of P&C policies for as long as necessary to eliminate the deficit.

Furthermore, some states treat private insurers as an extension of their regulatory power, requiring them to offer premium discounts for policyholders who adopt

---

[199] *See, e.g.*, *Selling Guide: B7-3-02, Property Insurance Requirements for One- to Four-Unit Properties*, FANNIE MAE (Feb. 7, 2024), https://selling-guide.fanniemae.com/sel/b7-3-02/property-insurance-requirements-one-four-unit-properties; *Selling Guide: B7-3.1-01 - General Property Insurance Requirements for All Property Types*, FANNIE MAE (Dec. 14, 2022), https://selling-guide.fanniemae.com/sel/b7-3-01/general-property-insurance-requirements-all-property-types.

[200] *See* CARY COGLIANESE, GETTING THE BLEND RIGHT: PUBLIC-PRIVATE PARTNERSHIPS IN RISK MANAGEMENT 6 (2019), https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=3928&context=faculty_scholarship.

[201] *See* NAT'L ASS'N OF INS. COMM'RS, 2023 MARKET SHARE REPORTS FOR PROPERTY/CASUALTY GROUPS AND COMPANIES BY STATE AND COUNTRYWIDE 152, 153–54 https://content.naic.org/sites/default/files/publication-msr-pb-property-casualty.pdf (last visited Dec. 19, 2024) (including figures for private insurers).

[202] *See Insurance Provided by FAIR Plans by State, Fiscal Year 2023*, INS. INFO. INST., https://www.iii.org/insurance-provided-by-fair-plans-by-state-fiscal-year-2023-1 (last visited Dec. 19, 2024) (stating that the figure for total state FAIR plan direct premiums written also includes habitational and commercial policies, but the commercial policies represent only 1.75% of policies).

resilience-enhancing home modifications. In Connecticut, for example, insurers are required offer premium discounts for homeowners who install permanent storm shutters or impact-resistant glass to mitigate loss from hurricanes or severe storms.[203] In Florida, insurers must offer discounts for installing fixtures or adopting construction techniques that reduce windstorm loss.[204] Other states like Georgia, Louisiana, Maryland, Mississippi, New Jersey, New York, North Carolina, Oklahoma, South Carolina, and Texas offer insurance discounts or waive deductibles[205] for specific types of coverage if homeowners adopt mitigation measures. In these cases, public regulation directly implicates private regulation through conventional command and control measures rather than through less directly enabling market conditions and incentives.

Regulation also accounts for informational asymmetries between policyholders and insurers by overseeing insurance ratings. The Securities and Exchange Commission (SEC) regulates ratings agencies through its Office of Credit Ratings. To become Nationally Recognized Statistical Rating Organizations (NRSROs), these firms must meet transparency, governance, and methodology criteria. By providing policyholders with more reliable ratings, these regulations help to mitigate an informational asymmetry between insurance companies and policyholders to foster more efficient market transactions.

These regulations enable private governance of climate risk by insurers.

ii. *Regulation Undermines Private Governance*

At the same time that regulation enables and, in some cases, requires climate governance by insurers in ways that improve climate resilience and shield policyholders from climate risk, it also creates and exacerbates dynamics that increase policyholder vulnerability and increase their exposure to climate risk. These dynamics include facilitating regulatory arbitrage, externalizing climate risk to taxpayers, limiting the ability to shift costs to climate-exacerbating agents, and suppressing price signals.

State regulation that creates parallel regimes—one for admitted insurers and another for excess and surplus (E&S) insurers—facilitate regulatory arbitrage. These dynamics allow admitted insurers, facing increased payout obligations, to reorganize as more lightly regulated surplus insurers. As Part II elaborated, many are in fact doing so. The expansion of the surplus lines market is attributable to new market

---

[203] CONN. GEN. ASSEMBLY, CHAPTER 700: INSURANCE COMPANIES AND RELATED ORGANIZATIONS, https://www.cga.ct.gov/current/pub/chap_700.htm#sec_38a-316b (last visited Dec. 10, 2024).

[204] FLA. ADMIN. CODE r. 69O-170.017, https://www.flrules.org/gateway/ruleNo.asp?ID=69O-170.017 (last visited Dec. 10, 2024).

[205] Rhode Island requires that insurers waive a hurricane deductible if homeowners adopt approved mitigation measures. R.I. CODE r. § 230-20-05-13, https://rules.sos.ri.gov/regulations/part/230-20-05-13 (last visited Dec. 10, 2024).

entrants who find a market opportunity in growing demand from homeowners unable to access coverage in the admitted market, and to a migration of admitted insurers into the surplus market. In some cases, insurers withdrawing from admitted lines are the companies re-entering the market as surplus insurers.[206] The result of maintaining parallel admitted and surplus markets is that, even as state regulators invoke consumer protection rationales to limit rate increases, they simultaneously provide insurers with an alternative, unregulated pathway through the surplus market—effectively undermining the very rate restrictions imposed on admitted carriers. Consequently, policyholders not only end up paying higher rates, they also lose the protections and backstops provided by the admitted market.

Several regulatory provisions further enable insurers to externalize climate risk to policyholders and taxpayers. For example, except for New Jersey, no other state establishes a guaranty fund for surplus insurers.[207] This means that if a surplus insurer becomes insolvent, policyholders are left to bear the full financial burden.

Furthermore, business regulations that permit large insurers to effectively spin off smaller offshoots with limited capitalization and geographically narrow market presence[208] shift climate-related financial risks onto homeowners who may be left

---

[206] Carolyn Cohn & Noor Zainab Hussain, *International, Domestic Insurers Push into Catastrophe-Hit U.S. Property Markets*, REUTERS (Dec. 17, 2024), https://www.reuters.com/markets/us/international-domestic-insurers-push-into-catastrophe-hit-us-property-markets-2024-12-16/. ("Nationwide and AIG are among major US insurers to offer E&S as well as admitted property cover.")

[207] Currently, only admitted insurers are required to contribute to state guaranty funds. New Jersey is one idiosyncratic exception. In 1984, New Jersey enacted the first surplus lines guaranty fund through the New Jersey Surplus Lines Insurance Guaranty Fund Act. The Act requires all eligible, non-admitted insurers to participate in the Fund. N.J. STAT. ANN. §§ 17:22-6.70 to 17:22-6.83). In 2022 the Fund's coverage was limited to eligible surplus lines insurers issuing property insurance covering owner-occupied dwellings of fewer than four units. The surplus lines guaranty fund effectively functions as a symbolic consumer-protection measure that has had little practical relevance in recent decades because surplus lines insurer insolvencies are rare. *But see* James F. Johnson IV, *Surplus Lines Guaranty Funds—New Jersey and Beyond*, 20 THE FORUM 773 (1985) (arguing that the New Jersey Surplus Lines Insurance Guaranty Fund Act would dislocate the state's surplus lines market advising against transferring this model to other jurisdictions). Mississippi, Pennsylvania, Michigan, and Louisiana considered but rejected legislation establishing surplus lines guaranty funds. Mississippi H.B. 1094 (1971); Pennsylvania H.B. 651 (1975); Michigan H.B. 4962 (1979); Louisiana H.B. 421 (1984). While the proposal of state guaranty funds was considered in the 1970s and '80s, it has not been a recent subject of serious deliberation. *See, e.g.*, Richard R. Spencer Jr., *Surplus Lines Insurers and Guaranty Funds*, 10 SETON HALL J. LEGIS. & PUB. POL'Y 93 (1986) (concluding that a guaranty fund for surplus lines insurers is an ineffective protection of policyholders and that a more compelling regulatory intervention would focus on preventive efforts to stem insolvencies through controls on financial stability).

[208] The insurance industry is shifting away from large, national insurers to smaller, localized firms. For example, out of 269 surplus insurers in Florida, 241 wrote fewer than 10,000 policies in 2024 and more than half wrote fewer than 1,000 policies. Sophie Alexander & Leslie Kaufman, *The Quiet Rise of Lightly Regulated Home Insurance*, BLOOMBERG GREEN & THE BIG TAKE (Dec. 3, 2024), https://www.bloomberg.com/graphics/2024-home-insurance-risky-policy/ (stating that as surplus insurers tied to large admitted carriers cut their policies, newer and smaller companies are filling the

with unpaid claims and no recourse in the event of widespread insurer failures. In turn, this increases the likelihood that state and federal governments, and ultimately taxpayers, will be forced to step in as de facto insurers of last resort through disaster relief and emergency programs.

Another example of regulation undermining private insurers' climate governance, are the statutory restrictions in Florida which prevent insurers from subrogating claims against public utilities.[209] These restrictions impose an external limitation on insurers' private governance function. Traditional subrogation doctrine allows insurers to shift costs to the party best positioned to prevent harm, aligning with the cheapest cost avoider principle in law and economics. By allowing insurers to recover payouts from negligent third parties, subrogation creates financial incentives for those parties—such as utilities providers—to take proactive risk mitigation measures. However, when insurers are barred from subrogating claims against third parties that contribute to climate-related damages, they are forced to internalize these costs rather than reallocate them to the entities that are better able to reduce those risks.

Current insurance rate regulation suppresses price signals based on an earlier interpretation of property and casualty insurance as a natural monopoly. While related critiques typically focus on the rate-distorting effects of NFIP and state FAIR plans, they can also be extended to state-based regulations for private, admitted insurers that limit rate increases. While unregulated insurance premiums might be priced to reflect actual risk exposure, capped rates in the admitted markets effectively subsidize policyholders' choices to build and live in areas prone to climate-related disasters.[210] This prevents insurers from sending a complete price signal to policyholders that might otherwise inform risk-reducing choices concerning rebuilding or relocating. More recently, insurers attribute their exit from the regulated insurance market to the inability to reflect, and therefore regulate, risk through premium pricing.

IV. Activating the Government Behind Insurers' Climate Governance

Part III exposed a central contradiction in the governance of climate risk through insurance: while homeowners insurers increasingly function as de facto regulators by shaping land use, construction standards, and individual risk management through underwriting, pricing, and incentives, the insurance industry itself is

---

market void). One hundred fifty-four of 269 wrote fewer than 1,000 policies, according to the Florida Surplus Lines Service Office. *Surplus Lines Premium Report*, FLA. SURPLUS LINES SERV. OFF., https://www.fslso.com/header-utility-items/market-data-reports/surplus-lines-premium-report (last visited Dec. 27, 2024).

[209] FLA. STAT. § 366.98 (2023). In Texas, controlling doctrine has similar effect. *See* CPS Energy v. Electric Reliability Council of Tex., No. 22-0056, at 3 (Tex. 2023).

[210] *See, e.g.*, Ben-Shahar & Logue, *supra* note 91 (arguing that state insurance subsidies "induce excessive development (and redevelopment) of storm-stricken and erosion-prone areas").

simultaneously undergoing a deregulatory shift that undermines the efficacy of these interventions at scale. Rather than attribute these opposing trends to deterministic market forces, they might be more accurately explained as the outcomes of regulatory design. In the U.S., regulation of homeowners insurers has historically been animated by two public objectives: access to coverage and affordability.[211] Under the current conditions of surging climate risk, these ends do not automatically support, and at times actively undermine, insurers' capacity to advance climate resilience. Returning to Baker and Shortland's framework introduced in Part I, this Part considers how centering climate resilience as a regulatory goal would reshape each of the state's three core functions in insurance governance. Section A examines the state's role in standard-setting to promote resilience, Section B evaluates state investment in resilience, and Section C considers the state's role as co-insurer.

A. Standard-Setting

In Baker and Shortland's typology, the state's first regulatory function is to establish standards for the underlying risky activity that gives rise to loss.[212] In the context of homeowners insurance, the underlying activity can include the siting, construction, and maintenance of a residential dwelling. These choices generate risks to the policyholder including structural failures, fire hazards, and exposure to flood, for example. Currently, states set standards for these activities through building codes, housing ordinances, and land-use or zoning restrictions that regulate where and how homes are built.

Re-centering climate resilience as a regulatory objective requires reinterpreting these risk-generating activities to account for climate change and shifting risk exposure.[213] This has implications for land-use decisions, building practices, household resilience,

---

[211] *See, e.g.*, Cong. Research Serv., *Insurance Regulation: History, Background, and Recent Congressional Oversight* 2 (2005), https://www.everycrsreport.com/files/20050211_RL31982_1d5eff403f858929157d365c96ccc029206575a7.pdf (explaining that state insurance regulation developed to ensure consumer protection, market stability, and fair access to coverage); U.S. Dep't of the Treasury, *How to Modernize and Improve the System of Insurance Regulation in the United States* 46 (2008), https://home.treasury.gov/system/files/311/How%20to%20Modernize%20and%20Improve%20the%20System%20of%20Insurance%20Regulation%20in%20the%20United%20States.pdf (identifying access, affordability, and consumer protection as central goals of state insurance regulation).

[212] In the auto insurance context, for example, the relevant activity is driving. The state sets substantive standards governing this activity in the form of licensing rules, speed limits, seatbelt mandates, and vehicle safety requirements. In turn, insurers reinforce these standards through coverage terms, pricing, and underwriting.

[213] Some localized efforts are already revising existing standards to account for new climate risks. *See, e.g.*, Claire Rush, *Oregon places new rules on homeowners living in certain high-risk wildfire areas,* AP News (Jan. 7, 2025), https://apnews.com/article/oregon-wildfire-hazard-map-45c0335d93632580e07512a276dea7da (discussing Oregon's revised wildfire hazard maps following record-breaking wildfires due to climate change).

and community-level infrastructure, which all contribute to a policyholder's exposure to climate risk.

To date, standards that directly advance climate resilience remain largely voluntary, relying on homeowners to pursue certifications or on communities to adopt resilience-focused codes. Some recent initiatives require insurers to adopt these standards in their rate-setting and policy incentives. In Colorado, House Bill 25-1182 requires insurers to account for property-specific wildfire mitigation measures, including defensible space and building hardening, when using risk models to set rates.[214] In California, new Department of Insurance regulations require that insurers recognize and reward wildfire safety and mitigation efforts by homeowners.[215] It is worth noting that these measures apply only to the admitted market. Recognizing the fragility of the current bifurcated market in the face of climate shocks, a more durable approach would extend resilience-oriented standards to surplus carriers who increasingly serve as the primary market in climate-exposed regions.[216]

B. Investments in Resilience

If standard-setting provides the framework for climate-resilience through insurance governance, the second state function of investment in risk reduction supports households and communities with the means to act on those rules and reduce their exposure. Currently, regulatory strategies at the state and federal levels emphasize affordability by subsidizing coverage ex ante, through residual market programs or rate suppression. While these measures stabilize access in the short term, they leave underlying risks unaddressed.

Centering resilience as an objective of market regulation would alternately direct investments towards lowering expected losses such that insurance markets remain

---

[214] Colo. H.B. 25-1182, 74th Gen. Assemb., 1st Reg. Sess. § 10-4-124(3)(a)–(b) (2025) (to be codified at Colo. Rev. Stat. § 10-4-124(3)(a)–(b)) ("An insurer that uses a wildfire risk model, a catastrophe model, or a combination of models shall ensure the following factors are either incorporated in the wildfire risk model, catastrophe model, or combination of models or are otherwise demonstrably included in the insurer's underwriting and pricing: (a) Property-specific mitigation actions such as establishing defensible space, incorporating building hardening measures, or receiving certification from an entity with expertise in mitigation of properties against wildfire; and (b) Community-level mitigation activities or designations, including forest treatment and other fuel reduction activities.").

[215] Cal. Dep't of Ins., Commissioner Lara Enforces Groundbreaking Regulation to Expand Insurance Coverage in Wildfire-Prone Areas (Nov. 21, 2024), https://www.insurance.ca.gov/0400-news/0102-alerts/2024/Commissioner-Lara-enforces-groundbreakin.cfm.

[216] In California, the Surplus Line Association reports that "surplus lines homeowners insurance is no longer limited to high-value or high-risk properties—it has become a broader solution as admitted carriers withdraw and demand rises." *Surplus Line Association of California Highlights Homeowners Insurance Market Shift at 2025 Annual Meeting*, SURPLUS LINE ASS'N OF CA (Feb. 25, 2025), https://www.slacal.com/docs/default-source/general-content-documents/news-releases/2025-sla-annual-meeting-press-releaseff0000daf5f3605fb3205a7b47057041.pdf?sfvrsn=50f360c4_2. In these contexts, surplus lines now function less as a last resort market for idiosyncratic risks and more as a shadow system for delivering essential residential coverage.

solvent under stress. On the physical side, states might invest in resilience enhancing infrastructure like levees, sea walls, stormwater systems, wildfire fuel management, or buyout programs. They might also tie premium discounts to voluntary community investments in infrastructure resilience. Two notable examples of this approach are the National Flood Insurance Program's Community Rating System elaborated in Part II which ties premium discounts to local investments in floodplain management, and California's "Safer from Wildfires" initiative which links discounts to both building-code upgrades and community-wide risk-reduction projects. Rather than stabilize insurance capacity by suppressing prices, this approach to state investment would alternately focus on lowering the losses that insurers must ultimately finance.

In addition to direct investment in physical infrastructure, state regulation can also reshape capital-market instruments to incentivize and facilitate private investment in long-term resilience. Currently, catastrophe bonds and other insurance-linked securities[217] represent a $48.3 billion market[218], designed to transfer a portion of catastrophic risk from insurers to global capital markets and to protect insurer balance sheets.[219] Regulatory design might alternately redirect these financial instruments to operate as resilience bonds, with premiums invested in flood defenses or storm-resilient infrastructure, coupling financial protection with physical risk reduction.[220] These instruments that currently function as financial hedges might alternately facilitate public investments that lower expected losses across entire

---

[217] Catastrophe bonds have gained traction in recent years as a mechanism to secure funding for large-scale disaster recovery efforts. Similarly, ILS deals allow insurers to package risks into securities that can be sold to institutional investors, further diversifying the sources of capital available to manage catastrophic events. *See, e.g.*, Andy Polacek, *Catastrophe Bonds: A Primer and Retrospective*, CHICAGO FED LETTER No. 405, 2018, https://www.chicagofed.org/publications/chicago-fed-letter/2018/405 (elaborating the origins, function, and purpose of catastrophe bonds).

[218] *Catastrophe Bonds & ILS Issued and Outstanding by Year*, ARTEMIS, https://www.artemis.bm/dashboard/catastrophe-bonds-ils-issued-and-outstanding-by-year/ (last visited May 15, 2025). For a breakdown of cat bonds and ILS risk capital outstanding by risk or peril, *see Catastrophe Bonds & ILS by Risk or Peril*, ARTEMIS, https://www.artemis.bm/dashboard/cat-bonds-ils-by-risk-or-peril/ (last visited May 15, 2025).

[219] When claims from a hurricane or wildfire exceed specified thresholds, for example, the bond principal is released, providing insurers or public pools with immediate liquidity. Currently, catastrophe bond premiums are primarily invested in low-risk treasury instruments until a trigger event occurs.

[220] In one example, the nonprofit Refocused Partners has proposed RE.bound Program, which proposes linking physical resilience measures to monetized insurance benefits, leveraging the financial payoff of resilience planning to add value to catastrophe bond investors while supporting community resilience. The program uses catastrophe models that insurers currently rely on to price risks in existing capital markets and applies these models to price project-based risk reductions. In doing so, the RE.bound Program would extend the insurance industry's own methodologies to identify and advance project-based risk reductions that generate resilience dividends and revenue. REFOCUS PARTNERS, LEVERAGING CATASROPHE BONDS AS A MECHANISM FOR RESILIENT INFRASTRUCTURE PROJECT FINANCE 2, https://www.refocuspartners.com/wp-content/uploads/2017/02/RE.bound-Program-Report-December-2015.pdf (last visited May 15, 2025).

markets, creating more durable insurance capacity and a reduction in the root causes of catastrophic loss.

C. Co-Insurance

Even with stronger standards and long-term investments, private insurance markets will contract under stress, making the state's role as co-insurer an indispensable part of a resilience-oriented regime. Currently, government-backed co-insurance is most visible in residual market programs and the National Flood Insurance Program. These arrangements prioritize access and affordability by providing subsidized coverage where private markets contract. Yet, their structure often undermines resilience and fails to account for resulting distributional inequities.[221] For example, the NFIP's subsidized rates have historically muted risk signals and entrenched development in floodplains. FAIR plans, originally conceived as temporary markets of last resort, now hold billions in exposure but often without commensurate capital reserves. The result is a system that supplies coverage but remains financially fragile, with deficits routinely shifted to taxpayers through post-event borrowing.[222]

A resilience-oriented approach might recast the state's role from blunt insurer of last resort into targeted co-insurer. Rather than suppressing risk signals, public schemes might allow private pricing and withdrawals to convey climate risk, while cushioning their exclusionary effects through transparent, means-tested subsidies.[223] A state-

---

[221] For example, bluelining occurs when insurers raise premiums or avoid underwriting policies in geographic areas facing higher climate risk. It disproportionately impacts lower-income and marginalized groups: there is considerable overlap between high-flood risk maps and redlining maps from the early twentieth century. Further, wildfire risk is 50% higher for majority Black, Hispanic, or Native American census tracts than for other census tracts. Without the considerations of distributional equity, insurers might lower their own costs by providing resilience-enhancing policy incentives for wealthy areas and properties where larger savings might be achieved. Where property values are low, however, the returns of investing in resilience may not be worth the regulatory costs. These dynamics entrench geographic and racial disparities in access to climate security. *See, e.g.*, Lily Katz, *A Racist Past, a Flooded Future: Formerly Redlined Areas Have $107 Billion Worth of Homes Facing High Flood Risk—25% More Than Non-Redlined Areas*, Redfin (Mar. 14, 2021), https://www.redfin.com/news/redlining-flood-risk/ (finding that, on average, "8.4% of homes in areas that were once deemed undesirable (redlined or yellowlined) face high flood risk, compared with 6.9% of homes in areas that were deemed desirable (greenlined or bluelined)."); Ian P. Davies et al., *The Unequal Vulnerability of Communities of Color to Wildfire*, 13 *PLOS ONE* e0205825 (2018), https://doi.org/10.1371/journal.pone.0205825 (finding that "wildfire vulnerability is spread unequally across race and ethnicity").

[222] The case for liberalizing insurance finds support in a robust economics literature. These accounts would abandon the types of rate-regulations that artificially suppress climate risk signals. *See, e.g.*, Daniel Schwarcz, *Ending Public Utility-Style Rate Regulation in Insurance*, 35 YALE. J. ON REG. 978-987 (2018).

[223] For example, Caroline Kousky and Howard Kunreuther have proposed a means-tested voucher program and mitigation loans, https://www.rff.org/publications/journal-articles/addressing-affordability-in-the-national-flood-insurance-program/; https://www.rff.org/publications/journal-articles/addressing-affordability-in-the-national-flood-insurance-program/;

level climate risk equity pool offers one model for distributing the costs of climate-related insurance and adaptation more fairly across households with varying exposure, vulnerability, and capacity to pay. Property owners might contribute on a sliding scale keyed to property value, geographic risk zone, and income. Insurers could be assessed in proportion to market share or net underwriting profits, much like existing guaranty fund obligations. The pool could subsidize premiums for high-risk, low-income households through vouchers or direct transfers, finance resilience upgrades, and establish an affordability floor for actuarially high-risk properties while preserving the informational value of market pricing.

Recasting the state's co-insurance function along these lines would convert what are currently fragile fiscal stopgaps into mechanisms of climate resilience. In effect, the state remains the insurer of last resort but in a way that stabilizes markets and steers policyholders toward adaptation rather than perpetuating risk and socializing losses.

Conclusion

This Article has argued that insurers' role in climate governance is neither automatic nor inevitable. While insurers are often characterized as technocratic actors that price and allocate risk according to market signals, their response to climate risk is deeply contingent on the regulatory frameworks within which they operate. The central insight is that insurers' capacity to support climate resilience depends on policies that align financial incentives with long-term climate goals and limit the shifting of climate-related costs in ways that deepen vulnerability. If insurance is to function as a lever for climate transition rather than merely as a mechanism for risk transfer, it must be governed by a regulatory architecture that itself prioritizes climate resilience and responds to the structural dynamics of the insurance market accordingly.