

Clever Titles and Insurance Don't Mix: How Dodging Liability Will Allow Insurance Companies to Become a Major Player in Climate Change Law and Policy Reform

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I. INTRODUCTION

The world's climate is changing due to anthropogenic causes; the average United States air temperatures are two degrees Fahrenheit higher than they were just 50 years ago.¹ The Intergovernmental Panel on Climate Change (IPCC) estimates that the average temperature will continue to increase by 2 to 11.5 degrees Fahrenheit by the end of the century.² Climate change, along with increased global temperatures, also causes changes in local temperatures, precipitation, and wind patterns.³ In a 2014 report, the IPCC found recent climate-related extremes impacted localities through heat waves, droughts, floods, cyclones, and wildfires.⁴ These extreme weather patterns have affected human well-being and human systems, such as food production and water supply, and have emphasized human vulnerability.⁵

While some of the world's governments and industries have taken action and enforced regulations attempting to mitigate the effects of climate change, the United States has been slow to join.⁶ An increasing number of groups and public figures in the United States, however, have started to strongly advocate for climate change policy reform including stricter laws and policies. The insurance sector is a group that can influence the United States to take actions to mitigate the effects of climate change.⁷

The insurance industry comprises a significant part of the United States' economy.⁸ In 2013, net premiums written for the property and casualty sector totaled \$481.2 billion, total cash and invested assets in the property and casualty sector totaled \$1.5 trillion, and the United States insurance industry employed 2.5 million people.⁹ The key to a United States policy change is through its wallet, and insurance companies are firmly in the American wallet. The insurance industry can use its economic power to influence the United States' state and federal to advocate for climate change policy reform. The insurance companies will likely voice their concerns

1. Union of Concerned Scientists, *Climate Change in the United States: The Probative Cost of Inaction* 1 (2009), UCSUSA.ORG, http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/climate-costs-of-inaction.pdf.

2. CHRISTINA M. CARROLL ET AL., CLIMATE CHANGE AND INSURANCE 12 (2012).

3. *Id.*

4. Christopher B. Field, et al., *IPCC, 2014: Summary for Policy Makers* 6 (2014), http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-SPM_FINAL.pdf.

5. *See id.*

6. *See* CHRIS WOLD ET AL., CLIMATE CHANGE AND THE LAW 2 (2d. ed. 2013).

7. *See id.* at 826.

8. *See* Insurance Information Institute, *Industry Overview: Insurance Industry at a Glance*, III.ORG (Sept. 9, 2015, 11:40 AM), <http://www.iii.org/fact-statistic/industry-overview>.

9. *Id.*

on a small, local scale at first, but as the concerns accumulate the state, and eventually federal, governments will likely be persuaded to listen.

In this comment, Part II discusses how an insurance company operates as a business. Part III describes how insurance companies have dealt with climate change thus far. Then Part IV evaluates how insurance companies can shift the burden off themselves as the main party economically responsible after climate change-related disaster by exploring what other entities can share the burden and under what reasoning. Lastly, Part V explains how the role of insurance companies in climate change litigation will be a driving force behind law and policy reform.

II. BASICS OF HOW INSURANCE COMPANIES WORK

Insurance provides the benefits of reimbursing people and businesses for covered losses, encouraging accident prevention, providing funds for investment, enabling people to borrow money, and reducing worry and stress related to accidents or unfortunate events that may occur.¹⁰ State governments regulate and oversee insurance companies and thus insurance laws vary from state to state.¹¹ Each state has its own agency, headed by its own chief insurance regulator who is responsible for administering the insurance laws approved by their state legislature.¹² Insurance companies work within these state regulations to evaluate the risks a client may face versus the potential of exposure to that risk and determine if it is willing to offer protection to the client.¹³ To evaluate risk, insurance companies have large underwriting departments dedicated to assessing risk concerns of potential clients and determining how much coverage the client should receive, the cost of the client's premium, or whether even to accept the client.¹⁴ Once the insurance company agrees to insure a client, the firm starts collecting fees called premiums from the client, and then pools these premiums to redistribute to claimants as claims arise to satisfy policies.¹⁵

10. *See id.*

11. RICHARD H. JERRY II & DOUGLAS R. RICHMOND, UNDERSTANDING INSURANCE LAW 89 (5th ed. 2012).

12. *See id.*

13. *See* Jack A. Jones, *An Introduction to Factor Analysis of Information Risk (FAIR)*, 5–6, 8 (2005), www.riskmanagementinsight.com/media/docs/FAIR_introduction.pdf.

14. *Id.* at 8.

15. *See* Ins. Inst. of Mich., *How Insurance Works*, (Feb. 17, 2015, 9:38 PM), www.iiminfo.org/consumers/howinsuranceworks/tabid/1714/default.aspx.

Insurance companies make money in two ways: 1) by charging enough premiums to cover the expected payouts necessary to cover over the life of the policy and 2) by earning investment returns using the collected premiums.¹⁶ A combined loss ratio of 95–98% indicated in end of the year financial reports is generally considered excellent performance.¹⁷ This means that, with exemplary performance, insurance companies are only keeping 2–5% of premiums they receive as profit.¹⁸

Reinsurance companies are the entities that provide insurance companies with insurance against massive claim payouts.¹⁹ The goal of reinsurance is to reduce an insurance company's exposure to loss by passing on some of the risk to the reinsurer.²⁰ Reinsurance allows insurance companies to take on more clients because it distributes the risk insurance companies normally face alone across multiple entities and money pools reducing the financial impact of mass claims.²¹

The extent climate change will impact weather patterns is still unknown and almost impossible to determine with any certainty due to wide variances in future data.²² These variances make insurability uncertain because the current models are now unreliable in calculating the probability, frequency, and magnitude of risks associated with weather with enough accuracy to be economically viable. Insurance companies' risk assessment will change as the effects of climate change become more prevalent; insurance companies will take on fewer clients due to fear of taking on a bad investment and also have to cover more claims to existing clients because of worsening weather effects. Clients will be less likely to attain a level of insurance necessary to protect their assets and insurance companies will have a dramatic drop in profits. This will spur both clients and the insurance companies to demand climate change law and policy reform and actions to mitigate the effects of climate change. Reinsurance companies face the same problems insurance companies face relating to climate change.

16. See Ins. Bureau of Can., *What My Insurance Company Does With My Premiums* (Sept. 5, 2015, 7:41 PM), <http://www.abc.ca/on/insurance-101/insurance-basics/insurance-premium-allocation>.

17. David Hampson, *How Insurance Companies Evaluate Risk and Rate Your Exposure*, CROSS INSURANCE AGENCY (Feb. 17, 2015, 9:45 PM), <http://www.crossagency.com/index.cfm/page/How-Insurance-Companies-Evaluate-Risk-and-Rate-Your-Exposure/cdid/10643/pid/10274>.

18. *Id.*

19. See Gary S. Patrik, *Reinsurance*, in REINSURANCE PRACTICES 343 (1997), <http://www.casact.org/library/studynotes/ch7.pdf>.

20. *See id.*

21. *See id.*

22. Wold et al., *supra* note 6, at 1–3.

III. CHANGES TO INSURANCE COMPANIES DUE TO CLIMATE CHANGE

There is a continuing significant upward trend²³ in the amount insurance companies pay out due to damage caused by extreme weather events.²⁴ The IPCC predicts that the occurrence of more severe and more frequent extreme weather events will lead to increased losses and loss variability in several regions, consequently burdening the insurance systems that have to offer affordable coverage while raising more risk-based capital.²⁵

Insurance companies consider climate change an emerging risk, which is a risk that has not yet fully developed and cannot yet be accurately measured.²⁶ Insurance companies can no longer calculate risk assessment with the accuracy needed to retain the current level of profitability. The insurance industry's ability to predict, measure, and price risk is affected by climate change and its unpredictable consequences.²⁷ Risk management formulas will need to develop multi-model scenarios in order to more accurately predict the impacts of climate change. Insurance policy writers used historic data for the original underwriting of insurance policies, therefore accounted for the potential impacts of climate change. Current climate change factors render historic risk assessment models unable to accurately calculate the risks associated with future weather and natural disasters.²⁸ The lack of consistent observational data due to climate change leads to a multitude of possible occurrences, making it difficult to place confidence in one model over another.²⁹ The relationship between the rising risk levels and insurance demand, but decreasing self-protection, may create uninsurable regions.³⁰ (For example, private insurance companies in Florida

23. Louis Perroy, Conference Report, *Impacts of Climate Change on Financial Institutions' Medium to Long Term Assets and Liabilities* (June 14, 2005), http://sias.org.uk/resources/papers/?resource_id=351&type=papers.

24. Robert E.T. Ward et al., *The Role of Insurers in Promoting Adaptation to the Impacts of Climate Change*, THE GENEVA PAPERS 33, 133–39 (2008), [https://www.genevaassociation.org/media/246469/ga2008_gp33\(1\)_ward_et_al.pdf](https://www.genevaassociation.org/media/246469/ga2008_gp33(1)_ward_et_al.pdf).

25. Field et al., *supra* note 4, at 19.

26. W.J.W. Botzen et al., *Climate Change and Increased Risk for the Insurance Sector: A Global Perspective and an Assessment for the Netherlands* 11–12 (2009), <http://link.springer.com/article/10.1007/s11069-009-9404-1/fulltext.html>.

27. *Id.* at 1.

28. Ward, *supra* note 24, at 133.

29. *See id.* at 134.

30. *See id.* at 136–37.

will no longer offer insurance in areas most vulnerable to storms, leaving the state-backed insurer to pick up over one million policies.³¹)

Additionally, without a uniform meaning of climate change, insurance companies do not know the exact risk they are insuring against. Definitions and clarity are essential to insurance companies and how they operate.³² Unfortunately, there is no single universally accepted definition of “climate change” or even “global warming.”³³ While “climate change” generally means something broader than “global warming,” consumers use the two almost interchangeably.³⁴ Usage of terminology that carries different definitions creates legal uncertainty that insurance companies may not be prepared to deal with.³⁵

IV. ACTIONS TAKEN THUS FAR BY INSURANCE COMPANIES

Insurance companies are already reacting to the new pressures they are facing from climate change-related pressures and have implemented a number of strategies in an attempt to minimize lost profits. For example, in an attempt to stay profitable despite the increasing number of paid claims, insurance companies have increased premiums.³⁶ Insurance companies changed their method of risk assessment; they have turned to quantitative analysts to compile data to predict future climate change-related losses and have raised premiums accordingly. This risk assessment method change allowed insurers to still make \$49 billion the year Hurricane Katrina hit, paying out only 71.5 cents to every dollar taken in, as opposed to the \$1.27 paid out to every dollar in the year of Hurricane Andrew.³⁷ Insurance companies who covered property in areas affected by hurricanes have learned from past “mistakes” and have increased their fees in response to increasingly severe and damaging hurricanes.³⁸

31. See Stacy Vanek Smith, *More areas becoming uninsurable due to volatile weather*, MARKETPLACE (Feb. 17, 2015 9:59 PM), <http://www.marketplace.org/topics/economy/weather-economy/more-areas-becoming-uninsurable-due-volatile-weather>.

32. *AES Corp. v. Steadfast Ins. Co.* 283 Va. 609, 614 [725 S.E.2d 532, 533–34] (2012). (In granting Steadfast’s motion for summary judgment, the trial court focused solely on the definition of “occurrence” in the policies, holding that the release of greenhouse gases into the atmosphere by AES did not constitute an “occurrence” as defined by the policies).

33. Botzen et al., *supra* note 26, at 13.

34. *Id.*

35. *Id.*

36. See McKenzie Funk, *WINDFALL: THE BOOMING BUSINESS OF GLOBAL WARMING* 108 (The Penguin Press 2014).

37. *Id.*

38. *Id.*

If insurance companies decide that it is no longer profitable for them to cover property in an area because of the increased risk of damage from powerful weather patterns, they can choose to cancel policies and leave the area uninsurable, or only insurable at a great cost to the property owner. After insurance companies are forced to pay out the large amount of claims following a disaster, many companies decide to no longer insure properties in that area to protect themselves from future similar financial losses.³⁹ For example, both Allstate and State Farm dropped thousands of insurance policies in areas affected by violent weather patterns, including thirty thousand canceled policies in the five boroughs of New York most devastated by Hurricane Sandy alone.⁴⁰ Reinsurance companies are also opting to not reinsure companies that insure in these storm prone locations.⁴¹ Some reinsurance companies are now opting to withdraw from an area following financial losses and instead concentrating on domestic locations with better-understood risks (locations that are less susceptible to climate change risks).⁴²

Some insurance companies are also already requiring additional climate change–related disclosures from their commercial clients to monitor and potentially quantify the affects climate change has on them.⁴³ Insurance companies are requesting climate change-related information from their clients, such as through the Carbon Disclosure Project, the Dow Jones Sustainability Indexes, and FTSE4Good.⁴⁴ While insurance companies do not request the same information from their private clients, insurance companies incentivize private policyholders to take actions by offering discounts to property owners who make adaptations to their property. After Hurricane Andrew, the Florida legislature introduced Statute 627.029 requiring insurance companies to give discounts to building owners who made adaptations to the structure to increase wind resistance.⁴⁵ Similarly, insurance companies have taken initiative and have started offering discounts for building modifications that will limit potential damage, such as installing impact-resistant roofing material or improving old fixtures such as pipes and wiring.

39. *Id.*

40. *Id.*

41. Reinsurance Market Summaries, PWC (Apr. 15, 2015), <https://web.archive.org/web/20150423151924/http://www.pwc.com/gx/en/insurance/reinsurance-rendezvous/reinsurance-market-summaries.jhtml#us-details-panel>.

42. *Id.*

43. CARROLL ET AL., *supra* note 2, at 97.

44. *Id.* at 108.

45. Ward, *supra* note 24, at 135.

While insurance companies have taken a stand and have implemented several strategies for change, the issue of payouts for a large catastrophe still exists. Insurance companies do not want to bear the main burden of economic relief after millions or billions of dollars worth of damages occur. Insurance companies are likely to ask if the damage could have been prevented, why it was not prevented, and who was potentially responsible for preventing it. This raises the question of ultimate liability—a question that has no definitive answer as of yet.

Attempting to minimize their own financial loss after insured properties have been hit with the most damaging storms to date, some insurance companies have brought suit against the state government, local government, or community entities for failing to take adequate precautions in preparing for such storms. For example, Farmers Insurance filed a complaint against Chicago and surrounding communities for failing to take appropriate measures to prevent damage caused by a severe storm.⁴⁶ If insurance companies are successful in getting damages from the local governments, States will ultimately assume some of the climate change adaptation burden. Both states and insurance companies should work together to remedy the situation as best they can instead of throwing financial responsibility back and forth in order to mitigate the amount they are required to pay out.

Increased risk for insurance companies is only a problem if these climate change-related risks are not accounted for in the risk assessments, but not all insurance companies are looking to mitigate losses due to climate change.⁴⁷ In fact, some insurance companies are actively looking to profit from the increasing pressure on property owners to be insured in case of practically anything.⁴⁸ Companies such as Egecat and Risk Management Solutions are capitalizing on the uncertainty climate change brings to risk assessment.⁴⁹ Risk Management Solutions, for example, updated its hurricane model by flying four scientists to a vacation spot in Bermuda for expert elicitation.⁵⁰ The scientists then produced a non-peer-reviewed report for Risk Management Solutions, which sold the information to Allstate, which then used the information as a basis in an attempt to raise insurance premiums by 43%.⁵¹ State regulators, however, blocked the raise in premiums.⁵²

46. Complaint at 14, *Ill. Farmers Ins. Co. v. Metro Water Reclamation Dist. of Greater Chi.*, No. 140416 (N.D. Ill. May 2, 2014), *available at* <http://www.rff.org/files/wordpress/2014/05/Chicago-Flood-Insurance-Suit-.pdf>.

47. *See* Funk, *supra* note 36, at 107.

48. *Id.* at 107–08.

49. *Id.* at 108.

50. *Id.*

51. *See id.*

52. *Id.*

V. THE ISSUE OF LIABILITY

As damaging weather patterns and storms increase in frequency and severity, the question of who is liable for the sustained damages arises and results in the parties pointing fingers at anyone but themselves. Insurance companies are liable to pay out claims their clients make. Property owners may have to cover the costs that exceed their insurance coverage or do not fall within their policy. State and local governments may also be liable for failing to develop a plan to prepare for worsened storms or other events. What will happen if the probability, frequency, and magnitude of weather patterns and storms can no longer be calculated to within an acceptable range due to climate change? Do planning committees promulgated by local governments to construct community projects have any obligation to adapt their plans to an unpredictable future and, if so, how would they go about it?

Numerous plaintiffs, including insurance companies, have filed various types of tort claims based on their damages that have resulted from climate change.⁵³ The claims have been based on negligence, inverse condemnation, public nuisance, and the public trust doctrine.⁵⁴ Using negligence as a cause of action for damage caused by climate change-related disasters will prove impractical. Plaintiffs will have difficulty meeting the requirement of showing fault, a breach of standard of care, or the foreseeability of the harm due to climate change's uncertain future impacts. There has been some more recent success in using the theory of inverse condemnation to hold public entities liable for the damage resulting from a severe storm. Inverse condemnation, however, is a question of law and not fact and, as such, a judge, not a jury, will decide it.⁵⁵ While this allows for a person more knowledgeable in the law than a jury to hear and decide the issue, the science used by courts in their analysis is still evolving and often has political leanings.⁵⁶

Historically, there are five phases of massive tort recovery litigation:

53. CARROLL ET AL., *supra* note 2, at 69.

54. *Id.*; see *Paterno v. State*, 6 Cal. Rptr. 3d 854, 857 (2003), *as modified on denial of reh'g* (Dec. 24, 2003); *Arreola v. Cnty. Of Monterey*, 122 Cal. Rptr. 2d 38, 57 (2002), *as modified on denial of reh'g* (July 23, 2002).

55. See ROBERT MELTZ ET AL., *THE TAKINGS ISSUE: CONSTITUTIONAL LIMITS ON LAND-USE CONTROL AND ENVIRONMENTAL REGULATION* 96 (Island Press 1999).

56. See *id.* at 96.

Phase I: Prospecting – Unsuccessful, intermittent strike claims based on myriad traditional tort recovery theories, designed largely to explore the boundaries for successful recoveries.

Phase II: Defining – Increased regulatory activity supplying standards by which the standard of care and causation can be established, accompanied by increasing number of adapted claims.

Phase III: Refining – More sophisticated complaints supported by well-funded plaintiff’s attorneys, causing increased discovery costs and resulting in occasional ruling that permit claims to reach finders of fact.

Phase IV: Targeting – Intermittent settlement as litigation costs begin to systemically exceed discovery costs and vulnerable, targeted defendants are found and fall.

Phase V: Recovering – Plaintiff’s attorneys accumulate enough resources and data to evenly battle industry targets, culminating in the ultimate collapse of industry targets.⁵⁷

Climate change-related litigation is in the beginning phases of massive tort recovery litigation viability. 2011 was the first year that the Supreme Court of the United States decided a climate change-related tort case in *American Electric Power Co. v. Connecticut (AEP)*.⁵⁸ The Court addressed federal common law nuisance claims, instead of state tort claims, and claims for injunctive relief, not monetary damages.⁵⁹ This leaves open the possibilities for litigation at the state level. Plaintiffs will likely use the successful claims of *AEP*, such as going after state-level litigation, as a base for structuring state claims. Currently, plaintiffs are bringing claims under various doctrines and theories and attempting to see what “sticks”.⁶⁰ There have been many dismissed cases, but as the number of plaintiffs who feel they are owed damages increases, climate change-related litigation will gain steam and an increasing number of claims will “stick.”

One important factor plaintiffs need to know is whom exactly they need to bring suit against. There are many possibilities, including governments, insurance companies, and businesses, but as litigation develops, proper defendants will become more clear.

57. CARROLL ET AL., *supra* note 2, at 23–24.

58. *Id.* at 71.

59. *Id.* at 75.

60. *See id.*

A. Liability of the Insurance Companies

Insurance companies have been affected by emerging risks in the past, including such risks as asbestos and tobacco.⁶¹ Asbestos and tobacco related claims did not start with high priority in the courts or in the political arena.⁶² Courts easily dismissed early claims arising from both asbestos and tobacco as too tenuous, but as time and data progressed both asbestos and tobacco claims became increasingly harder to deny and eventually became accepted by the courts resulting in large monetary awards.⁶³ Climate change-related claims are falling into the same pattern. As the scientific community gains a growing consensus through data and research analysis and there continues to be congressional inaction, the likelihood for climate change-related mega-recoveries continues to grow.⁶⁴ The vast number and variety of economic sectors and demographics affected by climate change are far greater than the plaintiff groups in past emerging risk litigation of asbestos and tobacco. These differences will likely result in different drivers and patterns of claims behind climate change-related litigation.

In tobacco litigation history, the tobacco industry notoriously boasted of never having lost to a consumer in litigation.⁶⁵ As data piled up showing the correlation between smoking and health hazards, the tobacco industry ultimately had to pay billions of dollars to states and individuals.⁶⁶ Similar to the rise of tobacco litigation, legislatures historically held little concern to climate change.⁶⁷ But as scientists and administrative agencies come to a consensus about the facts and detriments of climate change, climate change-related claims gain a stronger foundation, which increases the likelihood of success.⁶⁸ Most importantly, in tobacco litigation, there was never a finding that tobacco was “the” cause of cancer, just “a” cause.⁶⁹ This suggests all climate change-related plaintiffs need to show is that climate

61. *Id.* at 22.

62. *See id.*

63. *See id.* at 22–23.

64. *Id.* at 23.

65. *Id.* at 22.

66. *Id.* at 23.

67. *See id.*

68. *Id.*

69. *Id.*

change is “a” cause of the damages sustained and not necessarily that it was “the” cause.⁷⁰

Similar to past tobacco litigation, a core point of climate change tort litigation is the emphasis that greenhouse gas (GHG) emissions are “a” cause of climate change, not “the” cause.⁷¹ The Environmental Protection Agency (EPA) has already begun the process of establishing objective criteria for the development of standards to evaluate greenhouse gas emitting activities.⁷² For businesses that regularly emit GHGs, these standards could translate into liability for those who have produced the most GHGs because this would create a record of emissions useful for showing the company helped with a known cause of climate change. Thus, these companies could be held responsible for damage caused by worsening weather patterns and the liability would, therefore, also transfer to the GHG emitter’s insurance providers.

At the same time, however, it can be argued that all businesses and every individual emit GHGs and therefore no one is “owed” anything, everyone is liable for their own damages, because they are also participating in the harmful activity.⁷³ This theory of universal participation is fundamentally different than in tobacco claims. In tobacco claims, there were people actively participating in smoking cigarettes and using other tobacco products. In tobacco related claims, people were being harmed against their will despite actively choosing not to participate in the activity, while in climate change litigation almost everyone participates by default. Almost everyone emits GHGs by using electricity, heating their homes, and driving around town, there is not a truly “innocent” party in climate-change related litigation.⁷⁴

As asbestos litigation came to its peak, plaintiffs could sue insurers directly if the plaintiffs could show insurers had knowledge of asbestos as an emerging risk and other potential targets became insolvent.⁷⁵ A similar scenario could occur in climate change-related lawsuits as insurers respond to increasing number of severe storms and other weather related claims. Some individuals successfully brought product liability claims, including failure to warn and design defect, against manufacturers of asbestos.⁷⁶ Product liability claims could translate over to climate change-

70. *See id.*

71. *See id.*

72. *See* EPA, REGULATIONS & STANDARDS (2015), <http://www.epa.gov/NSR/actions.html> (last visited Feb. 17, 2015).

73. *See* GREENHOUSE GASES, <http://www.epa.gov/climatestudents/basics/today/greenhouse-gases.html> (last visited Feb. 17, 2015).

74. *See id.*

75. CARROLLET AL., *supra* note 2, at 3.

76. *See id.* at 87.

related litigation against insurers.⁷⁷ The claims would allege GHG emitters failed to warn consumers that the products emitted GHGs known to aggravate climate change.⁷⁸ If the insurers are found to have failed to take the necessary steps to warn clients or include climate change appropriately in risk analysis and policies when there is information available about GHG emission levels and data about the impact of climate change, individuals can succeed in their claim that insurance companies failed to warn them accordingly.⁷⁹ Because insurance companies are designed to financially protect clients against risk, if they fail to do so, clients can allege policy defects in the insurance companies' product.

Climate change, however, is not a *manufactured* product in the same way both tobacco and asbestos are. Courts will likely be discouraged against allowing product liability or defect claims that were successful in asbestos litigation in climate change-related litigation because climate change is not an intended product in the same sense. Additionally, these product liability or defect claims would suffer the same causation issues as other tort claims as well as the issues climate change-related litigation has already been plagued with establishing standing, displacement or preemption by federal laws and regulations, and the political question doctrine.⁸⁰

Climate change-related claims may follow in the footsteps of past emerging risk litigation, but they are fundamentally different than tobacco and asbestos related claims. Insurance companies are there to protect against potential risks, emerging or established, and provide services to do so. Plaintiffs will likely find success similar to the asbestos litigation because of the relationship the information has on the insurance company's product. Recognition by insurance companies can likely be proved because many insurance companies already classify climate change as an emerging risk and, thus, formally recognize it.⁸¹ Plaintiffs could potentially bring claims against the insurance companies based on their knowledge of the risks associated with climate change.⁸²

Property owners, as well as state and local governments, can potentially bring suit against the insurance companies for failing to adequately adapt their economic models to handle large-scale payouts. In 2005, Gulf Coast

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.*

81. Botzen et al., *supra* note 26, at 21.

82. CARROLL ET AL., *supra* note 2, at 23.

property owners filed suit against mortgage and insurance companies.⁸³ “The plaintiffs alleged that the insurers wrongfully denied coverage for hurricane-related damage pursuant to water damage exclusions and that the mortgage companies failed to obtain adequate insurance for the mortgaged properties.”⁸⁴ While climate change litigation is still emerging and plaintiffs will continue to face problems establishing standing, proving causation, and displacement or preemption by federal laws and regulations, insurance companies could still indirectly face responsibility for climate change-related incidents through the costs of defending themselves in litigation, even if the initial claims are unsuccessful.⁸⁵

As an added concern, as climate change-related claims increase, policyholders faced with these claims may seek insurance coverage specific to protecting themselves against these types of claims.⁸⁶ This could lead to insurance companies being financially responsible for damages even when the company has otherwise distanced itself from liability.

B. State and Local Government Liability

Inverse condemnation is one claim that has seen success in recent climate change-related litigation.⁸⁷ An inverse condemnation claim is a takings claim with the parties reversed.⁸⁸ An inverse condemnation claim allows the property owner to sue the government when the government takes property without first paying for the right to do so.⁸⁹ Some states allow for an inverse condemnation claim to be brought when the property is only damaged instead of taken.⁹⁰ Two California cases address the issue of liability when floodwaters cause property damage.⁹¹ State and local governments have both have an active role in protecting their residents; part of that role includes planning and constructing projects designed to keep the residents safe from naturally occurring risks, such as floods, fires, and strong winds. *Arreola v. County of Monterey*⁹² and *Paterno v. State of California*⁹³ both deal with property damage caused by the failure of

83. *Id.* at 82.

84. *Id.*

85. *Id.* at 87.

86. *Id.* at 70.

87. *See Paterno, supra* note 54, at 857; *Arreola, supra* note 54, at 754.

88. David L. Callies, *Takings: Physical and Regulatory*, 15 ASIA PAC. L. REV. 77, 95 (2007), available at http://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/34811/Callies_15AsiaPacLRev77.pdf?sequence=1.

89. *Paterno, supra* note 54, at 866.

90. U.S. CONST. amend. V; CAL. CONST. art. I, § 19.

91. *See Paterno, supra* note 54, at 857; *Arreola, supra* note 54, at 730.

92. *Arreola, supra* note 54.

93. *Paterno, supra* note 54.

state and local government flood-control projects.⁹⁴ Courts will inadvertently decide insurance companies' roles in future cases these by determining liability in similar cases. If the courts find liability lies with the state, state funds will cover the damages. If liability lies elsewhere, however, insurance companies have a higher chance of being responsible for damage on covered properties.

1. Examples of Liability: Arreola v. County of Monterey and Paterno v. State of California

The Federal Flood Control Act of 1944 authorized the United States Army Corps of Engineers (Corps) to construct earthen levees along the Pajaro River that runs along the border of Santa Cruz County and Monterey County in California.⁹⁵ The project was designed to handle 19,000 cubic feet per second (c.f.s.), not including the safety “freeboard” amount of an additional 4,000 c.f.s.⁹⁶ The Corps turned over operation and maintenance of the levees, upon receipt of assurances, to the local agencies.⁹⁷ Maintenance of the levees required clearing vegetation and sand that would otherwise build up.⁹⁸ Without this maintenance, the capacity of the levee would be diminished in proportion to how much sand and vegetation accumulated.⁹⁹ Continuous mechanized clearing of the levees took place until 1972 when the local agencies stopped mechanically clearing the levees due to competing environmental concerns over the protection of the environment, such as wildlife protection.¹⁰⁰ Failure to mechanically clear the levees allowed vegetation and sandbars to build up and impede the flow of water.¹⁰¹

During the same time period, the State of California constructed Highway 1, which crosses the Pajaro River in an area containing natural water drainage.¹⁰² A man-made drainage system was constructed.¹⁰³ The 98 c.f.s. system was built in accordance with the state's requirement that

94. *See id.* at 1003; *Arreola, supra* note 54, at 730.

95. *See Arreola, supra* note 54, at 733.

96. *Id.* at 733.

97. *Id.* at 732.

98. *See id.* at 733–34.

99. *See id.*

100. *Id.* at 733.

101. *Id.*

102. *Id.* at 735–36.

103. *Id.* at 736.

the system be able to discharge a 100-year flood without causing water to back up, however, the state did not require the drainage system to accommodate overflows from the levees.¹⁰⁴

In March 1995, heavy rainfall hit an area of the levee and Highway 1.¹⁰⁵ The vegetation and sand that had accumulated in the channel since 1972 caused the Parajo River flow to be higher and water rushed over the levee, eroding the backside of the levee and flooding the surrounding valley.¹⁰⁶ This water reached the Highway 1 embankment, where the water backed up. The failure to mechanically clear the levees caused extensive flooding and damages because the drainage system was not designed to handle that amount of water.¹⁰⁷

In order to be held liable for the damage caused by the floodwaters, plaintiffs had to show that the public agency's design, construction, or maintenance posed an unreasonable risk of harm, and that the unreasonable design, construction, or maintenance was a substantial cause of the damages.¹⁰⁸ The *Arreola* court explained, "the necessary finding is that the wrongful act be part of the deliberate design, construction, or maintenance of the public improvement."¹⁰⁹ The court held it was enough to prove the government was aware of the risk posed and deliberately chose a course of action.¹¹⁰ In this case, that choice was inaction by failing to mechanically clear the levees, in the face of that known risk.¹¹¹ The court found that inadequate project maintenance does support inverse condemnation liability.¹¹²

The *Arreola* court applied the *Locklin* factors to determine if the project fell outside of the scope of reasonableness allowed for damage caused by floods.¹¹³ The *Locklin* factors are:

- (1) the overall purpose served by the project;
- (2) to what extent losses are offset by reciprocal benefits provided by the project;
- (3) the availability of alternatives to the plan adopted;
- (4) the severity of the plaintiff's damage in relation to risk-bearing capabilities;
- (5) the extent to which the damage is a normal risk of land ownership; and
- (6) the degree to which damage is distributed at large over the project or is peculiar to the plaintiff.¹¹⁴

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.* at 736–37.

108. *Id.* at 739.

109. *Id.* at 742.

110. *Id.*

111. *Id.* at 744.

112. *Id.* at 741.

113. *See id.*

114. *Arreola*, *supra* note 54, at 739.

The courts apply these factors only in cases where improvements failed and the damaged property has been historically subject to flooding.¹¹⁵ The *Arreola* court further reasoned that the rule of reasonableness recited in *Locklin* should not apply to Highway 1 because Highway 1 was not a flood control project and therefore would not implicate public policy considerations of discouraging flood control projects.¹¹⁶ The court found the State of California strictly liable in this case because they let the levee back up with debris, meaning the flooding was foreseeable. California had a duty to avoid obstructing floodwater and plaintiffs were not expected to take measures to protect their lands from state caused harm.

Paterno is similar to *Arreola*, but had a different result. In *Paterno*, a levee was constructed to protect the Linda Township in the Sacramento Valley sometime before 1881.¹¹⁷ The Corps subsequently issued the Sacramento River Flood Control Project (SRFCP), which included plans for levees, bypasses, and other flood control works.¹¹⁸ California approved the SRFCP in 1925 and Linda levee was incorporated into the SRFCP.¹¹⁹ The Corps improved the Linda levee in 1934 and in 1940; the levee was designed to hold up to an elevation of 80 feet of water.¹²⁰ Once the Corps completed the improvements on the Linda levee, it then transferred the maintenance and control of the levee to the State of California in 1953.¹²¹ In 1986, a tropical storm weather system raised the water level at the levee up to 76 feet.¹²² The levee failed when the water had receded to about half its designed capacity, which triggered flooding that caused damage to Paterno's property.¹²³

The Corps built the levee on non-compacted land due to previous hydraulic mining that was done in the area.¹²⁴ The levee failed because of underground water channels that made it more susceptible to seepage.¹²⁵ The seepage eroded soil from underneath the levee, resulting in a weakened

115. See Harry D. Miller & Basil S. Shiber, *Inverse Condemnation*, MILLER AND STARR CALIFORNIA REAL ESTATE, ch. 30 (3d ed. 2000).

116. See *Arreola*, *supra* note 54, at 739.

117. *Paterno*, *supra* note 54, at 1005.

118. *Id.*

119. *Id.*

120. *Id.* at 1006.

121. *Id.* at 1005.

122. *Id.* at 1006.

123. *Id.*

124. *Id.*

125. *Id.* at 1007–08.

foundation that could not withstand the pressure of the water.¹²⁶ The court found California liable for the damage caused by the failure of the levee because the State incorporated the levee into a flood control plan without ensuring design and construction standards were met. The court remanded the case down to the lower courts to analyze it in accordance with the then unreleased *Locklin* factors.

A major difference between the two California cases is that in *Paterno* the County originally built the levee and then the State of California subsequently accepted responsibility for the maintenance of the levee, as opposed to the levee in *Arreola*, which was designed and built by the Corps and the County subsequently accepted responsibility for the levee.¹²⁷ In *Paterno*, the State's acceptance of responsibility for the levee and its exercise of dominion and control over it, made it liable for the failure of the levee even though the levee was originally designed and built by Yuba County.¹²⁸ Yuba County was not liable because it had only been responsible for ordinary maintenance and did not have the authority to alter the structure of the levee to prevent its collapse.¹²⁹ The *Paterno* court determined that an unreasonable State plan, not a Yuba County plan, caused the levee to fail and, therefore, caused the damages.¹³⁰ The *Paterno* court explained that the traditional *Locklin* principles apply in cases where improvements fail and damage occurs to property located in areas historically subject to flooding.¹³¹ If the property was not located in an area historically subject to flooding, the reasonableness standard did not apply, and the public agency was strictly liable for the damage.¹³² The court in *Paterno* further explained that foreseeability does not automatically trigger liability.¹³³

The *Paterno* court's analysis suggests that a planning committee should take into consideration the probability, frequency, and magnitude of potential issues and weigh these considerations against the cost of safeguards. The risk-weighting a court would do of the probability, frequency, and magnitude of potential issues against the cost of safeguards has already been done by the body with better access to such information and should therefore not be countermanded.¹³⁴ A public entity is a proper defendant if it has the power to control or direct the aspect of the public improvement that is

126. *Id.*

127. *See id.*; *Arreola*, *supra* note 54, at 732.

128. *Paterno*, *supra* note 54, at 1029.

129. *Id.* at 1034.

130. *Id.* at 1033–34.

131. *Id.* at 1016.

132. *See id.*

133. *See id.* at 1020.

134. *See id.* at 1013.

alleged to have caused the injury.¹³⁵ The courts in both *Arreola* and *Paterno* found that the plan of maintenance, or lack thereof, was the ultimate factor in determining liability.¹³⁶ If the project's failure was due to something outside from the public entity's plan, then the public entity should not be held liable for the project's failure.¹³⁷ The basis for liability in such cases is the public entity's exercise of the governmental power, the court will determine whether the public entity failed to appreciate the probability that the project would result in some damage to private property, or whether it took the calculated risk that damage would result.¹³⁸

Another significance of *Paterno* was the court's application of the "acceptance doctrine" to the State of California. Under the acceptance doctrine, when a public entity accepts responsibility for an improvement, it becomes that entity's public improvement regardless of who built it.¹³⁹ A public agency can accept a project through implied official acts of control over the property or by continued acts of maintenance and improvements over the years.¹⁴⁰ The acceptance doctrine applies equally to both strict liability cases and to those requiring an analysis of the reasonableness standard.¹⁴¹

2. *New Instance of Liability: Illinois Farmers Insurance Co. v. Metro Water Reclamation District of Greater Chicago*

In *Illinois Farmers Insurance Co. v. Metro. Water Reclamation District of Greater Chicago*, Farmers Insurance alleged that the Reclamation District and Chicago-area governments breached their duty to store storm water safely and to repair property damage from the resulting flood.¹⁴² Farmers alleged that the defendants were responsible for flood damage caused by the overflowing storm basins. The defendants allegedly relied solely on historical data and failed to account for the effects of climate change when determining the capacity needed to avoid floods. The climate change

135. See *Paterno*, *supra* note 54, at 1029; *Arreola*, *supra* note 54, at 761.

136. *Paterno*, *supra* note 54, at 1013; *Arreola*, *supra* note 54, at 747.

137. *Paterno*, *supra* note 54, at 1016.

138. See *id.* at 1023.

139. *Id.* at 1029.

140. *Id.*

141. See *id.* at 1030.

142. Complaint, *Ill. Farmers Ins. Co. v. Metro Water Reclamation Dist. of Greater Chi.*, *supra* note 46, at 25, 28.

projections indicated greater rainfall than in the past, the defendants had a duty to plan for the increase.

The central issue in the *Illinois Farmers* case was whether the defendants maintained their storm water basins, sewers, and drains unsafely. Farmers noted that the Reclamation District published, and was therefore aware of, several watershed plans that “identified known storm water sewer . . . management defects.”¹⁴³ Moreover, Farmers Insurance claimed that the defendants knew of the lack of capacity because there was evidence that the defendants would pump the reservoirs to reduce the water levels before anticipated storms.¹⁴⁴ The basins required additional capacity due to increases in rainfall associated with climate change. This increase overwhelmed the current infrastructure and rendered the historical rainfall data obsolete.¹⁴⁵ By adopting “the scientific principle that climate change has caused increases in rainfall,” the Plaintiffs claim the Reclamation District acknowledged a causal link between climate change and heavier rainfall.¹⁴⁶ In short, Defendants allegedly knew that the storm basins were insufficient and failed to cure it. Thus, Farmers Insurance alleged a breach of the defendant’s duty to the victims.

The *Illinois Farmers Insurance Co. v. Metro Water Reclamation District of Greater Chicago* complaint is distinguished from past climate change-related litigation because the plaintiffs in *Illinois Farmers* do not use the same causation issues alleged in past climate change-related litigation. The plaintiffs in *Illinois Farmers* proposed a more modest theory of causation. Unlike the more tenuous claims that attempt to show causation between carbon emissions and the particular harm in question, here, the plaintiffs did not need to show that the defendants’ actions caused climate change, nor show that climate change itself caused the flooding (since the defendants allegedly acknowledged the increasing rainfall), rather, the plaintiffs in *Illinois Farmers* only needed to show that the defendants’ unsafe maintenance of the storm basins caused or contributed to the severe flooding.¹⁴⁷ Since the connection between climate change and increasing rainfall was admitted in the adoption of the Chicago Climate Action Plan, the only issue addressed was whether improved infrastructure would have prevented the flooding.¹⁴⁸ If so, the failure to provide those improvements establishes causation and places liability on Defendants. Admitting the link between climate change and the increase in rainfall allowed the parties

143. *Id.*

144. *Id.*

145. *Id.*

146. *Id.*

147. *See id.*

148. *See id.*

to bypass litigating the issue, but future defendants may not as readily admit to the connection and plaintiffs would likely have the burden of proving the relationship.

Since the case has subsequently been dismissed, it is unknown now whether the plaintiffs in *Illinois Farmers* actually intended to pursue the case or whether the plaintiffs merely intended to cause a stir and put local governments on notice that they may face litigation if they do not adapt to climate change. The plaintiffs' attorneys must have known that the case would be an uphill battle because of the Illinois Tort Immunity Act, which limits the tort liabilities of municipalities, and the novelty of the claim and the cost of litigation.¹⁴⁹ The claims behind this case, however, have established an additional approach climate change-related litigants could utilize in future actions. Courts are familiar with the types of claims presented in the *Illinois Farmers* case. This familiarity with these underlying theories will allow both litigants and courts to use known strategies and reasoning to further climate change-related litigation and help reduce the uncertainty that currently shrouds it.

VI. HOW INSURANCE COMPANIES CAN DRIVE CLIMATE CHANGE REFORM

Insurance companies largely impact their consumers through their actions. Insurance companies already advocate for climate change adaptation methods through implemented policies. Increasing prices of insurance in high-risk areas will make potential property owners more hesitant to move into such a location. Similarly, withdrawing from a location and no longer providing coverage will also alert consumers that the area is high risk and thus deter people from living or opening a business in the area. An insurance company that requires more information from clients puts a burden on the client to locate the information, present it in an organized fashion, and turn it over. Potential businesses will be deterred from operating in an area that requires this extra step because of the extra time it will take and money it will cost. Deterring people from moving into high-risk areas is an adaptation method to avoid climate change-related catastrophes that insurance companies are perfectly poised to support, whether they do it intentionally or not.

149. See 745 ILL. COMP. STAT. 10/101.1 (2015).

To combat climate change-related risk, insurers can develop new products that specifically address the risks unique to climate change.¹⁵⁰ For example, insurers could put restrictions on underwriting certain industries, develop new underwriting guidelines for emerging industries, change prices and risk profiles, as well as include new or revised exclusions to policies.¹⁵¹ Any of these will spur climate change reform as private and commercial entities alike will apply adaptation methods to fit within the new policies in order to keep their insurance coverage.

Insurance and reinsurance companies have also developed the Institute for Business and Home Safety (IBHS) which researches and advocates for improved construction, maintenance, and preparation practices for natural disasters.¹⁵² Similarly, American International Group, Inc. has taken adaptation initiative and formed its own mini-fire department supplying firefighters and engines designated to protect client property.¹⁵³

Climate change-related claims and litigation are still in their formative years. If history repeats itself and follows the similar tactics used in asbestos and tobacco litigation, climate change-related claims will gain steam and ultimately result in huge damage awards.¹⁵⁴ These payouts could come from insurance companies. The large polluters primarily responsible for climate change effects may become insolvent due to defense and payout costs in previous litigation, causing plaintiffs to come after the insurance company of the polluting business.¹⁵⁵ Plaintiffs in asbestos litigation targeted insurers directly as solvent defendants became increasingly rare by using claims that stemmed from the insurers' failure to disclose information about the regarding dangers associated with asbestos to an uninformed public.¹⁵⁶ As scientific data showing the correlation between polluting companies and climate change becomes more available, more accurate, and better-understood, insurers will be aware of climate change consequences and therefore may be pulled in as parties to climate change-related claims.¹⁵⁷ For example, in 2008, Liberty Mutual offered the world's first insurance policy to protect corporate executives from lawsuits alleging "improper release of carbon dioxide."¹⁵⁸ This increases the likelihood Liberty Mutual

150. Botzen et al., *supra* note 26, at 9.

151. *Id.*

152. Ward, *supra* note 24, at 134–35.

153. Daniel Taub, *AIG's Fire Trucks Save Homes of Wealthy Californians*, BLOOMBERG (Oct. 20, 2014, 10:03 PM), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=akG9v3rOnWsE>.

154. *See* CARROLL ET AL., *supra* note 2, at 22.

155. *See id.*

156. *Id.* at 3.

157. *See id.*

158. FUNK, *supra* note 36, at 100.

could be brought in as a party because they have official recognized climate-change related claims.¹⁵⁹

Liability for damage caused by climate change-related disasters is not yet clearly determined. Just how vigorously insurance companies lobby for change in climate change policy and law will likely be determined by who is liable for the damage caused by climate change-worsened weather patterns. If the state has liability, insurance companies will probably not react as strongly. State funds would cover the damages and insurers would potentially have a claim against the state, as seen in *Paterno* and *Arreola*. Bringing suit against the state would be a long and potentially costly endeavor, but is still a possibility. As long as the insurers could show they had a significant interest in the property, they could bring an inverse condemnation claim and be awarded monetary damages, a type of reimbursement for the funds lost due to massive claim payouts.

Both *Paterno* and *Arreola* lay a foundation for subsequent litigants in California and the *Illinois Farmers* case outlines yet another potential litigation strategy. An entity is a proper defendant if the entity substantially participated in the planning, approval, construction, or operation of a public project or improvement that proximately caused injury to private property.¹⁶⁰ This opens the door for plaintiffs to bring suits against third party contractors that may have been hired to facilitate planning and construction, or any other party that was substantially involved. Climate change-related tort cases have implications for commercial general liability and environmental general liability business lines.¹⁶¹ Plaintiff bars will find inverse condemnation should always be alleged in a complaint against a government entity or public utility. If the facts support the cause of action, the burden of proof required of a plaintiff is much less stringent than that of negligence or dangerous condition of public property causes of action. Also, a plaintiff who prevails under inverse condemnation is entitled to recovery of attorneys' fees and reasonable costs.¹⁶²

Inverse condemnation is available to an insurance carrier because they have a significant interest in the property.¹⁶³ A takings claim allows the property owner to sue for inverse condemnation where the government damages property without first paying for the right to do so.¹⁶⁴ Courts have held

159. *Id.*

160. *Arreola*, *supra* note 54, at 761.

161. CARROLL ET AL., *supra* note 2, at 70.

162. MELTZ ET AL., *supra* note 55, at 35.

163. *See id.* at 28.

164. *Paterno*, *supra* note 54, at 1015.

those that have an interest in property taken by a government entity, including insurance companies, are entitled to seek recovery through inverse condemnation.¹⁶⁵ As businesses go under due to not being able to economically deal with the effects of climate change, plaintiffs can go after those businesses' insurance companies. There are at least 23 other states that have inverse condemnation clauses, including Illinois, making it a possible cause of action in Farmers' suit against Chicago.¹⁶⁶ Inverse condemnation claims require the owner of the property to sue the government for the worth of the property the government damaged.¹⁶⁷

State planners are excused from liability when they can show that the developed plans had a low risk and the safeguard costs were unacceptably high.¹⁶⁸ Due to the uncertainty still surrounding the long-term effects of climate change, state project planners will not be able to show the risk they took was calculably low because there is little accuracy in the calculations used.

If the polluters have liability, however, insurance companies may opt for a more aggressive strategy to influence climate change law and policy. Major businesses and corporations carry insurance designed to protect them from having to pay out large sums of money. If, as history has shown through the asbestos and tobacco industries, climate change-related suits begin to be brought more frequently and won by plaintiffs more often, the entities that pollute the most will be unable to stay solvent. Plaintiffs could then come after the insolvent entity's insurance company. Insurance companies want to protect themselves.

In *Turner v. Murphy Oil*,¹⁶⁹ home and business owners affected by an oil spill from the Murphy Oil refinery in Louisiana caused by Hurricane Katrina alleged Murphy Oil failed to properly secure and maintain oil storage tanks.¹⁷⁰ However, prior to the first stage of the scheduled bifurcated trial the parties settled out of court for \$339,126,000.¹⁷¹ While settling matters out of court on negotiated terms allows companies and their insurers to stay solvent and pay out on their own terms, it puts money into the plaintiff's

165. See *Aetna Life & Cas. Co. v. City of Los Angeles*, 216 Cal. Rptr. 831, 835–37 (Ct. App. 1985).

166. Cozen O'Connor, *Jurisdictions Comparative Chart: Inverse Condemnation* (2010), http://www.cozen.com/cozendocs/outgoing/charts/chartofthefmonth/inverse_condemnation.pdf.

167. JAMES G. GREILSHEIMER & CYNTHIA LOVINGER SIDERMAN, *Inverse Condemnation, in EMINENT DOMAIN: A BOOK OF CONDEMNATION LAW* 123 (William Scheiderich, Cynthia M. Fraser & David Callies eds., A.B.A. 2011).

168. See *Paterno*, *supra* note 54, at 1031.

169. *Turner v. Murphy Oil USA, Inc.*, 234 F.R.D. 597, 606–08 (E.D. La. 2006).

170. CARROLL ET AL., *supra* note 2, at 81–82.

171. *Id.* at 82.

bar “war fund” and can inspire plaintiffs to bring even more tort cases related to specific climate change-related disasters.¹⁷²

Insurance companies need to look at the history of mega-payout claims and analyze the risk they face against climate change and related litigation. Insurance companies survived the asbestos and tobacco litigation, and they will likely survive climate change-related litigation, the costs can be mitigated, however, with early action. It would still be economically beneficial for insurers to lobby for climate change mitigation and adaptation methods.

VII. CONCLUSION

Insurance companies can become the driving force behind climate change law and policy reform. The insurance industry has a hand in every other sector of the economy and is therefore especially susceptible to climate change effects. As the effects of climate change become more widely felt and increase in severity, the insurance industry will feel every impact. Through self-preservation tactics, such as raising premiums and filing lawsuits against parties partially responsible for climate change related damages, insurance companies could drive the change towards a stricter and more comprehensive climate change policy in the United States. A powerful industry such as the insurance sector has a lot of money and leverage to put behind policies that it supports. Insurance companies could lobby to hold state and/or local governments as the parties held liable for damages caused by climate change-related harm. Holding state and local governments liable will shift the burden onto these parties and incentivize state and local governments to promote adaptation and mitigation plans and effectively implement and further innovate such plans.

172. *Id.*

