GLOBAL COVERAGE IMPLICATIONS FROM CLIMATE CHANGE

David M. Halbreich, W. Neil Rambin, Al Warrington & Benjamin R. Fliegel[1]

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[1] David M. Halbreich is a Partner of Reed Smith LLP, and works out of the firm's Los Angeles office. W. Neil Rambin is a Partner of Sedgwick LLP, and works out of the firm's Dallas office. Al Warrington is a Partner of Sedgwick LLP, and works out of the firm's Ft. Lauderdale office. Benjamin R. Fliegel is an Associate of Reed Smith LLP, and works out of the firms Los Angeles office.

I. INTRODUCTION

The goal of this paper is to consider the effects that a changing global climate will have on insurance claims, disputes and the marketplace for insurance. One of the fundamental premises of this paper is that global climate change is a real phenomenon, with actual effects on the world's economy and ecosystems. No attempt is made herein to address why climate change is happening. Regardless of the cause, global realities and perceptions of the changing climate will have an effect on the coverage community.

In Part II, we summarize recognized definitions and effects of contemporary global climate change. Part III of the paper looks briefly at coverage disputes arising from destructive storms, including Hurricanes Katrina and Superstorm Sandy. Both of these storms generated enormous interest in property coverage issues. In Part IV the authors consider how climate change phenomena may result in new and costlier legal disputes implicating other lines of insurance.

II. CLIMATE CHANGE IS CHANGING WEATHER BASED MODELS AND GLOBAL BUSINESS INFRASTRUCTURES

It is hard ignore the ongoing and increasingly heated debate in modern economic, political and scientific spheres about the cause and effects of recent changes to the Earth's climate. Discussions on the topic of global climate change reached a fever pitch last year (2015) and included both the Roman Catholic Churches encyclical, *Laudato Si*,[2] and the 2015 United Nations Framework Convention on Climate Change, resulting in the 196 country approved Paris

[2] Encyclical Letter, Pope Francis, *Laudato Si'* On Care for Our Common Home (May 24, 2015), *available at* http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

Accords,[3] in which both global political and religious leaders called for swift action to respond to global climate change.[4]

(a) **Physical Manifestations of Climate Change**

Put simply, climate change is a change in the usual weather found in a place.[5] Based on studies reviewed at the international level by the Intergovernmental Panel on Climate Change ("IPCC"):

> Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.[6]

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[3] Paris Agreement, Dec. 12, 2015, *available at* https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&lang=en); Joby Warrick & Chris Mooney, *196 countries approve historic climate agreement*, the Washington Post, Dec. 12, 2015, *available at* https://www.washingtonpost.com/news/energy-environment/wp/2015/12/12/proposed-historic-climate-pact-nears-final-vote/.

[4] Warrick & Mooney, *supra* note 3; Jim Yardley & Laurie Goodstein, *Pope Francis, in Sweeping Encyclical, Calls for Swift Action on Climate Change*, New York Times, June 18, 2015, *available at* http://www.nytimes.com/2015/06/19/world/europe/pope-francis-in-sweeping-encyclical-calls-for-swift-action-on-climate-change.html.

[5] Dan Stillman & JoCasta Green, *What is Climate Change?*, NASA, http://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html (last updated Sept. 4, 2015). A more complex definition has been used by the Intergovernmental Panel on Climate Change:

> a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.

Climate Change 2007: Synthesis Report, Section 1.1: Observations of climate change, IPCC, http://www.ipcc.ch/publications_and_data/ar4/syr/en/mains1.html (last visited Apr. 7, 2016) [hereinafter *Climate Change 2007*].

[6] *Climate Change 2007*, *supra* note 5; *see also Massachusetts v. EPA*, 127 S. Ct. 1438, 1448, 1455-56 (2007) (describing the IPCC as "a multinational scientific body organized under the auspices of the United Nations" and citing climate scientist Michael MacCracken's opinion

This paper does not attempt to resolve the causes of climate change, whether man-made or natural. However, it can be safely said that there is a consensus in the scientific community that the climate is changing.[7] Several different ways in which climate change manifests itself have been posited.

(i) *Warming of Surface and Water Temperatures*

One of the most significant changes to the Earth's climate is the measured increase in Land-Ocean temperatures. The 10 warmest years on record have occurred since 2000 (with the exception of 1998 tying 2009 at 6th place).[8] Similarly, 2000-2015 (plus 1998) were the sixteen warmest years since records first started being kept in 1880.[9] As of April 2016 (the date of submission of this paper), "February [2016] was the warmest month in recorded history, surpassing the previous … record set in December [2015]."[10]

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on the scientific consensus connecting global warming to a rise in sea levels, changes to ecosystems, increase in disease and a possible contribution to the ferocity of hurricanes.).

[7] *Climate Change 2007*, *supra* note 5; *Massachusetts*, 127 S. Ct. at 1448, 1455-56; *see also* Jason Samenow, *Meteorologists overwhelmingly conclude climate change is real and human-caused*, The Washington Post, Mar. 24, 2016, *available at* https://www.washingtonpost.com/news/capital-weather-gang/wp/2016/03/24/meteorologists-overwhelmingly-conclude-climate-change-is-real-and-human-caused/ (citing a survey conducted by George Mason University indicating that "more than 95 percent of meteorologists think climate change is happening"); Global Climate Change Vital Signs of the Planet, *Scientific consensus: Earth's climate is warming*, NASA, http://climate.nasa.gov/scientific-consensus/ (last visited April 7, 2016).

[8] NOAA National Centers for Environmental Information, *State of the Climate: Global Analysis for Annual 2015* (Jan. 2016), http://www.ncdc.noaa.gov/sotc/global/201513 [hereinafter *State of the Climate*].

[9] *Id.*

[10] Robin Mckie, *February was the warmest month in recorded history, climate experts say*, the Guardian, Mar. 19, 2016, *available at* http://www.theguardian.com/environment/2016/mar/20/february-was-the-warmest-month-in-recorded-history-climate-experts-say.

(ii) *Sea Level Rise*

The most commonly discussed effect of the increase in global temperatures is the rise of sea levels. There are reportedly two factors that contribute to the rise in sea levels around the globe: (1) run-off from land ice and (2) thermal expansion.[11]

First, scientists have observed a significant melting of land ice (glaciers and ice sheets).[12] For example, the 2016 annual maximum coverage of Arctic winter sea ice appeared to occur in March, and was "the lowest in the satellite record, with below-average ice conditions everywhere except in the Labrador Sea, Baffin Bay, and Hudson Bay."[13] Glaciers and ice sheets account for approximately 68% of the world's freshwater,[14] and it has been claimed that melting of the glaciers and ice sheets is causing sea levels to rise in various parts of the world.

The second factor, "thermal expansion," is a result of the physical properties of water; as water increases in temperature above a certain point, the volume of water expands, even if no additional water is added.[15]

Together, melting land ice and thermal expansion are believed to have increased sea levels along the U.S. gulf coast and the eastern seaboard.

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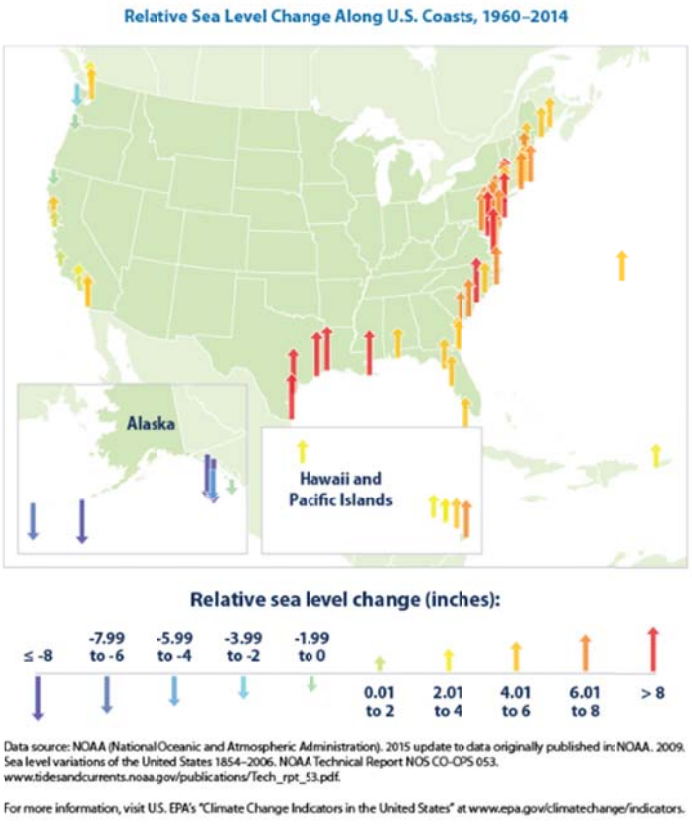
[11] *See generally* R. Warrick & J. Oerlemans, *Sea Level Rise, in* Climate Change: The IPCC Scientific Assessment (1990) 257, 261 (J.T. Houghton et al. eds., Cambridge Univesity Press 1990), *available at* https://www.ipcc.ch/ipccreports/far/wg_I/ipcc_far_wg_I_chapter_09.pdf.

[12] *See* Earth Observatory, *Global Warming and Land Ice*, NASA, http://earthobservatory.nasa.gov/Features/PolarIce/polar_ice2.php (last visited Apr. 7, 2016). In contrast, melting sea ice does little to contribute to sea level rise "because the sea ice is floating on the ocean already and is in equilibrium with it." *Id.*

[13] National Snow & Ice Data Center, *Another record low for Arctic sea ice maximum winter extent*, NSIDC (Mar. 28, 2016), http://nsidc.org/arcticseaicenews/.

[14] *See* Igor Shiklomanov, *World fresh water resources, in* Water in Crisis: A Guide to the World's Fresh Water Resources 13 (Peter H. Gleick, ed., 1993).

[15] *See* Church, J.A. et al., *2013: Sea Level Chang. in* Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change 1139 (Stocker, T.F et al., eds., Cambridge University Press 2013).



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(iii) *Hurricanes*

Many scientists also claim that climate change is increasing the intensity of hurricanes.[17] Recent theories and computer models predict a 5% increase in wind speeds for every 1 degree Celsius increase in tropical ocean temperature.[18] Other projections suggest that:

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16 *Climate Change Indicators in the United States*, EPA, https://www3.epa.gov/climatechange/science/indicators/oceans/sea-level.html (last updated June 2015).

17 Kerry A. Emanuel, *The dependence of hurricane intensity on climate*, 326 Nature No. 6112, 483-85, 483 (1987), *available at* http://www.nature.com/nature/journal/v326/n6112/pdf/326483a0.pdf; Thomas R. Knutson & Robert E. Tuleya, *Impact of CO2-induced warming on simulated hurricane intensity and precipitation: Sensitivity to the choice of climate model and convective parameterization*, 17 J. Climate No. 18, 3477-95, 3477 (2004), *available at* http://journals.ametsoc.org/toc/clim/17/18; *Gabriel A. Vecci & Thomas R. Knutson, Historical Changes in Atlantic Hurricane and Tropical Storms*, GFDL, http://www.gfdl.noaa.gov/historical-atlantic-hurricane-and-tropical-storm-records) (last visited Apr. 5, 2016). It remains an open question as to whether global climate

> global warming could lead to a 2 to 5 percent increase in hurricane peak wind speeds over the next 20 years, which in turn could result in a 30 to 40 percent increase in property insurance losses.[19]

The combination of increased intensity hurricanes and rising sea levels may mean higher associated "storm surges." A storm surge is "an abnormal rise of water generated by a storm, over and above the predicted astronomical tides" driven by a storm's wind velocity and air pressure differential.[20]

Results of this "double whammy" – increased hurricane intensity and storm surge – can be seen in the devastation caused by Hurricane Katrina in 2005 and by Superstorm Sandy in 2012. Hurricane Katrina displaced over 250,000 people, caused an estimated 1,833 deaths, over $152 billion (adjusted) in damages, destruction of 30 oil platforms, 53 levees, and precipitated riots and looting.[21] Sandy caused approximately $67 billion in damages. It eliminated power for 5 million New Jersey customers, prevented fire fighters from accessing a fire in Breezy Point,

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change increases the *frequency* of hurricanes as well. This is in part due to the fact that there is no clear consensus on what factors cause hurricanes in the first place.

[18] Knutson & Tuleya, s*upra* note 24, at 3477.

[19] Insurance Information Institute, Inc., *Climate Change: Insurance Issues* (Sept. 2014), http://www.iii.org/issue-update/climate-change-insurance-issues.

[20] National Hurricane Center, *Storm Surge Overview*, NOAA, http://www.nhc.noaa.gov/surge/ (last visited Apr. 7, 2016). The Hurricane Research Division of the Atlantic Oceanographic & Meteorological Laboratory at NOAA, shows the degree of vulnerability to the gulf coast and the eastern corridor to a "worst case scenario" Category 4 hurricane. Hurricane Research Division, *Frequently Asked Questions Subject E26) How vulnerable is my coast to storm surge?*, NOAA, http://www.aoml.noaa.gov/hrd/tcfaq/E26.html (last updated May 14, 2010).

[21] *See* National Centers for Environmental Information, *Billion-Dollar Weather and Climate Disasters: Table of Events*, NOAA, http://www.ncdc.noaa.gov/billions/events (follow "Hurricane Katrina" hyperlink) (last viewed Apr. 5, 2016); National Weather Service, *Hurricane Katrina - A Look Back 10 Years Later*, NOAA, http://www.srh.noaa.gov/lix/?n=katrina_anniversary (last visited Apr. 7, 2016); National Oceanic and Atmospheric Administration, *Wave Heights – Hurricane Katrina 2005: Description*, NOAA, http://sos.noaa.gov/Datasets/dataset.php?id=490 (last visited Apr. 2016); National Weather Service, *Service Assessment Hurricane Katrina*, NOAA 4 (June 2006), www.nws.noaa.gov/.

Queens, which burned more than 110 homes, and was described by the chairman of the MTA as the "worst disaster in the 108-year history of the [NYC] subway system.[22]

Many contend that these events are not isolated incidents. The year 2015 saw a record 25 global tropical cyclones in the Northern Hemisphere reaching Category 4 or 5; the previous record of 18 was set in 2004.[23] Hurricane Patricia (making land fall in October 2015) was the strongest tropical cyclone ever recorded when measured by maximum sustained winds.[24] Thankfully, Hurricane Patricia made landfall in a rural and sparsely populated area of Mexico.[25] While various efforts are under review to manage sea level rise (e.g. barriers, higher levees and walls, elevated development, etc.), none is certain to provide near-term protection.

(iv) *Wind/Hail Storms, Crop Damage, and Other Effects*

There could also be a correlation between climate change and other extreme events such as wind/hail storms or tornados. European scientists concluded in 2010 that climate change will lead to a 25 to 50 percent increase in outdoor crop damage due to hailstorms by 2050 in parts of

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[22] National Centers for Environmental Information, *Billion-Dollar Weather and Climate Disasters: Table of Events*, NOAA, http://www.ncdc.noaa.gov/billions/events (follow "Hurricane Sandy" hyperlink) (last viewed Apr. 5, 2016); Reuven Fenton, *At least 111 houses burn as blaze rages in Breezy Point*, New York Post, Oct. 30, 2012, *available at http://nypost.com/2012/10/30/at-least-111-houses-burn-as-blaze-rages-in-breezy-point/*; Reuters, *Sandy leaves unprecedented challenges for New York City subways*, (Oct. 30, 2012), http://www.reuters.com/article/us-storm-sandy-subway-idUSBRE89T0SU20121030.

[23] Earth Observatory, *Records Fall in 2015 Cyclone Season*, NASA (Dec. 5, 2015), http://earthobservatory.nasa.gov/IOTD/view.php?id=87092; *see also* Phil Klotzbach, *The Northern Hemisphere's record-shattering tropical cyclone season, by the numbers*, The Washington Post, Nov. 4, 2015, *available at* https://www.washingtonpost.com/news/capital-weather-gang/wp/2015/11/04/the-northern-hemispheres-record-shattering-tropical-cyclone-season-by-the-numbers/.

[24] Todd Kimberlain et al.,, *National Hurricane Center Tropical Cyclone Report Hurricane Patricia*, NOAA 1, 4, 7, 26 (February 4, 2016) www.nhc.noaa.gov/data/tcr/EP202015_Patricia.pdf.

[25] *Id.* at 7-8.

Europe.[26] The Warning Coordination Meteorologist at the Storm Prediction Center at NOAA has stated:

> NOAA's position is that extreme precipitation events are increasing, and that does appear to be a result of climate change…But we can't tell you that there's necessarily a correlation between a warmer climate and more hailstorms.[27]

According to one recent article, reinsurer Munich Re has reported that "94 percent of loss-relevant natural catastrophes in 2015 were weather related events."[28]

(b) **Impact of Physical Manifestations**

In addition to losses directly caused by the above weather events, property insurers potentially face increased losses indirectly caused by global weather events in the form of business interruption and contingent business interruption coverage. Allianz Global Corporate and Specialty issued a report in 2015 detailing the increase in frequency and severity of business interruption losses arising out of climate change, due to the increasingly interconnected nature of systems industries and supply chains.[29] Axel Theis, a Member of Allianz SE's Board of Management, put it succinctly:

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[26] Robert Krier, *As Drought Punishes, Some Americans Reeling from Billion-Dollar Hail Damage,* Inside Climate News (Jul. 18, 2012), http://insideclimatenews.org/news/20120718/hailstorms-extreme-weather-texas-billion-dollar-losses-insurers-climate-change-global-warming- (citing W.J.W. Botzen et al., *Climate change and hailstorm damage: Empirical evidence and implications for agriculture and insurance*, 32 Resource & Energy Econ., Issue 3, 341-362 (2010), *available for a fee at* http://www.sciencedirect.com/science/article/pii/S0928765509000517..

[27] *Id.*

[28] Agence France-Presse, *Natural catastrophes losses $90b in 2015*, Newage (Jan. 5, 2016), http://newagebd.net/190361/natural-catastrophe-losses-90b-in-2015/.

[29] Erin Ayers, *Business interruption losses increasing in frequency, severity, Allianz report finds*, Advisen (Dec. 10, 2015), http://www.advisenltd.com/2015/12/10/business-interruption-losses-increasing-in-frequency-severity-allianz-report-finds/.

> Companies can expect to face further disruption from technological innovation, while also being exposed to climate change impact as an underlying risk which is not within their direct control.[30]

Swiss Re cautioned that "the costs of natural disasters, aggravated by global warming, threatened to spiral out of control forcing the human race into a catastrophe of its own making" and predicted that within ten years costs attributable to climate related disasters could double to $150 billion a year, with the insurers' share of those losses estimated at $35 to $40 billion annually (20% of the industry's entire net worth).[31]

Similarly, in 2006, Lloyd's noted that it expected climate change "not only to produce extreme capital damaging events, but also to increase uncertainty around corporate business plans and potentially reduce asset values."[32] A 2008 survey conducted by Ernst & Young of top industry analysts from around the world deemed climate change to be the number one risk facing the insurance industry.[33] "The question," phrased succinctly by Swiss Re CEO John Coomber, "is no longer whether global warming is happening, but how it will affect our business, as well as our personal lives."[34]

All of this boils down to an expected increase in losses over time, without certainty as to the scope and rate of the increase of insured losses. It is reasonable to anticipate that a significant increase in losses, in unanticipated ways, will result in novel or more frequent disputes between insurers and policyholders.

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30 Press Release, Allianz, Allianz Risk Barometer 2015: Businesses exposed to increasing number of disruptive scenarios (Jan. 14, 2015), *available at* http://www.agcs.allianz.com/about-us/news/press-riskbarometer2015/.

31 Greg Munro, *Insurance Consumer Counsel's Column: Insurance and Climate Change*, Trial Trends, Summer 2010, 26-30, at 27, *available at* http://www.umt.edu/law/files/munro/InsuranceandClimateChange.pdf.

32 *Id.*

33 *Id.*

34 *Id.*

III. MULTIPLE CAUSES OF LOSS

One of the key coverage issues in storm loss cases is how the courts handle claims involving multiple causes of loss, some of which are covered and some of which are not. Below is an overview of this issue, followed by two case studies arising out of Hurricane Katrina and Superstorm Sandy. It should be noted that which causation doctrine applies (and whether there are any modifications) depends on the law of the forum applied to the policy.

(a) Causation Theories

(i) *Concurrent Causation Doctrine*

Causation theories can vary by jurisdiction. In insurance law, concurrent causation occurs when a loss is brought about by two or more potential causes. The cause, or causes, of a loss dictate whether or not an insured has insurance coverage for that specific loss. The causation question is complicated in situations of concurrent causation because one cause of the loss may be covered under the applicable insurance policy while another cause either is not covered or is specifically excluded from coverage

Although different jurisdictions apply the doctrine in different ways, an expansive view of coverage in the concurrent causation situation holds that where there is more than one cause of a loss, the loss is covered as a matter of law as long as one of the causes is a covered peril (or, in the case of an open perils form, a peril not specifically excluded or limited). This doctrine developed out of the 1973 decision in *State Farm Mutual Auto Insurance Co. v. Partridge*,[35] wherein the Court was confronted with a coverage dispute for injuries jointly caused by two negligent acts. The insured had negligently modified the trigger mechanism of a pistol and

[35] 10 Cal. 3d 94, 514 P.2d 123 (Cal. 1973).

stored it in his vehicle.[36] One day, when he was driving in the countryside hunting rabbits with two passengers, the insured went off-road, hitting a bump that discharged the pistol which shot and paralyzed the center passenger.[37]

Under the terms of the homeowner's policy an injury caused by the negligent modification of the pistol's trigger mechanism would be covered, but a "bodily injury ... arising out of the ... use of ... any motor vehicle" would be excluded.[38] The Court found that "that when two such risks constitute concurrent proximate causes of an accident, the insurer is liable so long as one of the causes is covered by the policy."[39]

Although *Partridge* addressed causation in a third party liability insurance policy claim, following this ruling California courts began applying the concurrent causation principles asserted in *Partridge* to first party property claims until 1989, when it began applying the "efficient proximate cause" doctrine described *infra*.[40]

Texas adheres to a version of the concurrent causation doctrine which provides that when covered and uncovered perils combine to cause a loss, the insured is entitled to recover only that portion of the loss caused solely by the covered peril.[41]

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36 *Id.* at 97.

37 *Id.* at 98.

38 *Id.* at 99.

39 *Id.* at 102.

40 The application of *Partridge* to property insurance claims was addressed and modified by *Garvey v. State Farm Fire & Cas. Co.*, 48 Cal. 3d 395, 399 n. 1, 770 P.2d 704, 705 (1989) (citing as examples *Farmers Ins. Exchange v. Adams*, 170 Cal. App. 3d 712, 722, 216 Cal. Rptr. 287 (Cal. App. 1985); *Premier Ins. Co. v. Welch*, 140 Cal. App. 3d 720, 728, 189 Cal. Rptr. 657 (Cal. App. 1983); *Safeco Ins. Co. of America v. Guyton*, 692 F.2d 551, 554–555 (9th Cir. 1982)).

41 *See Lyons v. Millers Cas. Ins. Co. of Texas*, 866 S.W.2d 597, 601 (Tex. 1993); *see also Hamilton Props. v. American Insurance Co.*, No. 3:12-cv-5046-B, 2014 WL 3055801 (N.D. Tex. Jul. 7, 2014).

(ii) *Anti-Concurrent Causation ("ACC") Clause*

In response to a body of cases finding coverage as long as one cause of a loss was covered, carriers began adding language to their policies stating that where a loss involves a non-covered cause, it is excluded regardless of sequence. The effect of provisions referring to sequential and/or concurrent causes of loss is frequently that any contribution by any excluded peril, however insignificant, eliminates coverage for the resulting loss, even if the proximate cause of the loss. The Texas Supreme Court recently came to this conclusion in *JAW The Pointe, LLC v. Lexington Ins. Co.*, which involved the following ACC clause:

> B. EXCLUSIONS.
>
> 1. We will not pay for loss or damage caused directly or indirectly by any of the following. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss.[42]

Insurers have had some success in enforcing ACC clauses, with the result that loss caused by a non-covered peril is excluded regardless of any other joint cause of the loss or damage.[43]

(iii) *Proximate Causation Doctrine*

Not all courts consider anti-concurrent clause causes to be enforceable. California Insurance Code § 530, for example, provides that "[a]n insurer is liable for a loss of which a peril insured against was the proximate cause, although a peril not contemplated by the contract may have been a remote cause of the loss; but he is not liable for a loss of which the peril insured against was only a remote cause." The California Supreme Court has construed § 530 as

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42 *JAW The Pointe, LLC v. Lexington Ins. Co.*, 460 S.W. 3d 597, 604 (Tex. 2015).

43 *See, e.g., id.* at 608-10.

incorporating into California law the efficient proximate cause doctrine, and precluding the enforcement of anti-concurrent cause provisions.[44]

As such, in California an exclusion can only operate to deny coverage for losses resulting from causal chains in which excluded perils are the only proximate causes, or chains in which an excluded peril is the efficient proximate cause.[45] The term "efficient proximate cause" means the predominate or most important cause, not merely the moving cause.[46] Other jurisdictions, such as Mississippi, have essentially rejected ACC clause exclusions as conflicting with the reasonable expectations of the insured.[47]

(b) **Hurricane Katrina -- *Sher v. Lafayette Ins. Co.*, 988 So.2d 186 (La. 2008)**

(i) *Facts*

The policyholder was the owner of a five-unit apartment building in New Orleans before Katrina hit land.[48] Following the levee breaks the water level on the lower levels of the building rose as high as 4 feet, damaging personal property as well as the building itself.[49] The policyholder timely tendered her claim to her insurer.[50]

The insurer conducted two property inspections to determine the cause of the loss and concluded that most of the claimed damage was due to poor maintenance, disrepair, and

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[44] *See Julian v. Hartford Underwriters Ins. Co.*, 35 Cal. 4th 747, 110 P.3d 903 (Cal. 2005) (citation omitted); *Howell v. State Farm Fire & Cas. Co.*, 218 Cal. App. 3d 1446, 1456, 267 Cal. Rptr. 708, 714 (Cal. Ct. App. 1990) disapproved of by Reid v. Google, Inc., 50 Cal. 4th 512, 235 P.3d 988 (2010)

[45] *See generally Montgomery v. Safeco Ins. Co. of Am.*, No. A094277, 2001 WL 1452776, at *3, 2001 Cal. App. Unpub. Lexis 1582 (Cal. Ct. App. Nov. 15, 2001).

[46] *Garvey v. State Farm Fire & Cas. Co.*, 48 Cal. 3d 395, 403, 770 P.2d 704, 707 (1989)

[47] *See generally Corbin v. United Services Automobile Association*, 20 So. 3d 601 (Miss. 2009).

[48] *Sher v. Lafayette Ins. Co.*, 988 So.2d 186, 191 (La. 2008).

[49] *Id.* at 191-92.

[50] *See id.* at 191.

flooding, estimated the damages to be approximately $3,300, and paid $2,700 of that amount as covered losses.[51]

(ii) *Policy Language & Arguments*

The policy contained a surface water exclusion that excluded from coverage losses from damage caused by:

> Flood, surface water, waves, tides, tidal waves, overflow of any body of water, or their spray, all whether driven by wind or not.[52]

The policyholder argued that the exclusion for flooding was ambiguous as it related to the flooding of New Orleans following the levee breaks from Katrina.[53] Specifically, the policyholder argued that the flooding of New Orleans was a "man-made" flood because it was the result of the failure of the levees and not a natural flood.[54] The term "Flood" in the policy was arguably ambiguous as to whether it excluded only natural floods or whether it was meant to include "man-made" floods precipitated by "man-made" accidents and occurrences.[55]

The insurer argued that the meaning of "flood" was unambiguous.[56] The policy made no distinction between "man-made" and natural flooding, and was not susceptible to two reasonable interpretations.[57] Thus, the insurer argued, any losses from damage caused by the flooding of the lower levels of the policyholder's building were excluded on the face of the policy.[58]

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51 *See id.*
52 *Id.* at 193.
53 *Id.* at 192.
54 *Id.* at191, 194-95.
55 *Id.* at 194-96.
56 *Id.* at 192.
57 *Id.* at 194-96.
58 *Id.*

(iii) *Legal History*

In the trial court, the policyholder won a motion for summary judgment on the flood exclusion issue.[59] The court found that the flood exclusion was ambiguous as to whether it excluded "man-made" floods as well as natural floods.[60] The policyholder eventually won a verdict for approximately $553,000 for losses from building damage, lost rents, damaged personal property, and other non-payment penalties.[61] The court also awarded additional costs and fees of approximately $317,000.[62] The appellate court affirmed the lower court's ruling on the flood exclusion issue, but adjusted the verdict down to reflect a total recovery (inclusive of all fees, costs and penalties) of approximately $515,000.[63]

The Louisiana Supreme Court overturned the lower courts' decisions, finding the exclusion for "flood" damages to be unambiguous:

> The plain, ordinary and generally prevailing meaning of the word "flood" is the overflow of a body of water causing a large amount of water to cover an area that is usually dry.[64]

Accordingly, the court agreed with the insurer's argument that this policy exclusion applies regardless of the cause of the flood; the issue is whether the damage was caused by a flood.[65] The court also found the damages were due to natural rather than man-made causes:

> [T]he flood was caused by Hurricane Katrina, *not* by man. The levees did not cause the flood, they, whether through faulty design, faulty construction, or some other reason, failed to *prevent* the flood.[66]

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59 *Id.* at 194-96.
60 *Id.* at 191.
61 *Id.* at 192.
62 *Id.*
63 *Id.*
64 *Id.* at 194.
65 *Id.* at 195-96.
66 *Id.* at 195.

The Court then relied on the expert testimony proffered by the policyholder to conclude that the damage to the lower levels of the building was caused entirely by excluded flood damage.[67] The Court reduced the award to approximately $247,000.[68]

(c) **Superstorm Sandy -- *Doerfler v. Chubb Ins. Co.* (Pending in NJ)**[69]

(i) *Facts*

The policyholder was the owner of a multi-million dollar beachfront property in Mantoloking, New Jersey, which was completely destroyed in 2012 by Sandy.[70] The policyholder timely tendered her claim to the insurer.[71]

The insurer and an engineer inspected the property to determine the cause of the loss.[72] The engineer issued a report to the insurer concluding that the property experienced "severe storm surge" and ultimately "collapsed due to the force of storm surge waves and rushing flood water."[73] The insurer denied coverage pursuant to the flood/surface water exclusion.[74]

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67 *Id.* at 196.

68 *Id.* at 208.

69 Reed Smith LLP represents the policyholder in this pending action; however the authors are not personally involved in any aspects of case. All discussion herein is based upon the materials filed with the Court, which are publically available.

70 Plaintiff's Response to Defendant's Statement of Undisputed Facts at 1, *Doerfler v. Chubb Insurance Company of New Jersey*, No. OCN-L-00483-14 (N.J. Supr. Ct. Law Div. Feb. 1, 2016).

71 Plaintiff's Brief in Support of Motion for Partial Summary Judgment at 2, *Doerfler v. Chubb Insurance Company of New Jersey*, No. OCN-L-00483-14 (N.J. Supr. Ct. Law Div. Jan. 7, 2016).

72 *Id.*

73 *Id.*

74 *Id.* at 3.

(ii) *Policy Language*

The policy provided coverage for windstorm damage.[75] However, the pertinent exclusion reads as follows:

> **Surface water.** We do not cover any loss caused by:
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> - flood, surface water, waves, tidal water, overflow of water from a body or water, or water borne material from any of these, including when any such waters or water borne material enters and backs up or discharges from or overflows from any sewer or drain located outside of or on the exterior of a fully enclosed structure;
>
> - run off of water or water borne material from a paved surface, driveway, walkway, patio, or other similar surface; or
>
> - spray from any of these, even if driven by wind.
>
> But we do insure ensuing covered loss unless another exclusion applies. [76]

The policy further defined "caused by" to mean "any loss that is contributed to, made worse by, or in any way results from that peril."[77]

(iii) *Arguments*

The policyholder argued that the loss was caused by a "storm surge" which is meteorological phenomena associated with a storm, and distinct from the specific types of causations enumerated in the surface water exclusion.[78] Moreover, following the Katrina cases, many insurers specifically included a storm surge exclusion, which was not done in this case, even though the insurer knew about storm surges, and added storm surge exclusions to other

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75 *See id.* at 1.
76 *Id.* at 3.
77 *Id.*
78 *Id.* at 8.

policies.[79] As a result of the way the policy was written, the policyholder asserted a reasonable expectation of coverage for this type of loss.[80]

The policyholder contended that the damage to the property was proximately caused by the wind.[81] Relying on New Jersey law finding coverage if a covered event is the first or last step in the chain of causation, the policyholder contended that the damage was covered and not precluded by the anti-concurrent causation clause in the policy.[82] The policyholder contended in the alternative that, even if storm surge had been excluded, the property collapse was an ensuing loss from the storm surge and should be covered.[83]

The insurer urged the court to follow the Katrina related cases, such as *Sher v. Lafayette* detailed above, and hold that the storm surge was a flood because it was "an inundation of normally dry land with water."[84] Alternatively, the insurer argued that the damage was caused by "waves" that rode on top of the sea water during the storm, and was similarly excluded under the language in the surface water exclusion.[85] As a third alternative, the insurer argued that the storm surge constituted an "overflow of water from a body of water" as was thereby excluded as well. [86]

Ultimately, the insurer argued, the collapse was caused by water.[87] The insurer relied on the policy's ACC clause that excluded losses caused even only in part by non-covered events and

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79 *Id.* at 19.
80 *Id.* at 11-12.
81 *Id.* at 12-18.
82 *Id.* at 12-15.
83 *Id.* at 18-20.
84 Defendant's Cross Motion for Summary Judgment and In Opposition to Plaintiff's Motion for Summary Judgment at 1, 8-10, *Doerfler v. Chubb Insurance Company of New Jersey*, No. OCN-L-00483-14 (N.J. Supr. Ct. Law Div. Jan. 26, 2016).
85 *Id.* at 2,10.
86 *Id.* at 11.
87 *Id.* at 11-12.

rejected the policyholder's contention that the damage was an ensuing loss because it was a direct and immediate result of the excluded perils.[88]

The parties also disputed whether the tender and payment of the policyholder's claim to FEMA under the National Flood Insurance Policy estopped the policyholder's arguments.[89]

At the time this paper is submitted, the dispute is pending.

(d) **Other Property Coverages Potentially Triggered**

In addition to claims for physical damage to property, catastrophic storms often result in claims under other types of property coverages, including those providing time element coverage, such as business interruption, contingent business interruption, and extra expense. "Business interruption" insurance is intended to reimburse the policyholder for lost income when its business is interrupted by loss or damage to of property due to an insured peril. If a company's suppliers or customers suffer loss or damage of the type insured by its property insurance policy, the business may look to its insurer for "contingent business interruption" or "CBI" coverage. These provisions generally provide coverage for loss of earnings at the insured's premises as a result of a supplier's or customer's inability to deliver or receive goods or supplies due to damage to its property. "Extra expense insurance" indemnifies the insured for costs in excess of normal operating expenses that the business incurs in order to continue operations while its damaged property is repaired or replaced. Such expenses typically include the cost to rent substitute facilities, move equipment and personal property, and pay overtime wages.

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88 *Id.* at 3.

89 *See* Plaintiff's Response to Defendant's Statement of Undisputed Facts, *supra*, at 8-9.

But other types of coverages can also be implicated. When a governmental entity issues an order restricting access to a policyholder's property, the order may trigger a policy's "civil authority" coverage. Ingress/egress clauses may provide coverage where property damage in the area surrounding the policyholder's property restricts access to or egress from the policyholder's premises.

The magnitude of some of these disruptions, particularly with respect to contingent business interruption losses, can be surprising. The 2011 Japan Earthquake and Thai floods affected factories all around the world – and not only in automobile and electronics industries.

(e) **Appraisal Awards**

Massive storms seem to increasingly lead to massive numbers lawsuits which can leave courts struggling to find efficient ways to handle them. The appraisal process can help, but also presents some challenges. In most jurisdictions insurers will be able to argue that the timely payment of a valid appraisal award eliminates claims for breach of contract and bad faith. In *Blum's Furniture Co. Inc. v. Certain Underwriters at Lloyds London*,[90] the Fifth Circuit set out three elements necessary to establish an estoppel of a breach of contract claim: (1) the existence and enforceability of an appraisal award, (2) the timely payment of the award by the insurer, and (3) acceptance of the appraisal award by the insured.

In the case of *United Neurology, P.A. v. Hartford Lloyd's Ins. Co.*,[91] the insured argued that the third element above was not met because it did not accept the payment of the appraisal award tendered to it by Hartford. In considering the insured's argument, the court noted that the issue had been previously addressed by several courts which had determined that if the appraisal

[90] 459 Fed. App'x. 366, 368 (5th Cir. Jan. 24, 2012).

[91] 101 F. Supp. 3d 584 (S.D. Tex. 2015), *aff'd,* No. 15-20241, 2015 WL 8593311 (5th Cir. Dec. 11, 2015).

award had been reached in accordance with the terms of the insurance policy and the carrier had timely tendered the full amount awarded by the appraisers, the insurer was entitled to summary judgment on the breach of contract claim.[92] Based on that precedent, the *United Neurology* court held that the award was binding and enforceable and that, despite United Neurology's refusal to accept the payment tendered, it had failed to show that Hartford breached the contract.[93] The court further held that, because United Neurology's breach of contract claim failed, so did its extra-contractual claims for the common law breach of good faith and fair dealing, violation of the DTPA, and the Texas Insurance Code.[94]

In Florida, however, the policyholder can maintain a claim for bad faith even after the carrier's payment of the appraisal award. Under this line of cases, a bad faith claim follows a determination of the insurer's liability and the policyholder's damages. The appraisal award is often cited as evidence of liability and the extent of damage. The Florida Supreme Court has

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92 *See, e.g., Providence Lloyds Ins. Co. v. Crystal City Indep. Sch. Dist.*, 877 S.W.2d 872, 875–76 (Tex. App. 1994) (holding that the appraisal award was made in substantial compliance with the terms of the contract, was not made without authority, and was not the result of fraud, accident or mistake, and is therefore binding, and that appellee should take nothing on its breach of contract claim); *Brownlow v. United Services Automobile Assoc*., No. 13–03–758–CV, 2005 WL 608252 at *2 (Tex. App. Mar. 17, 2005) ("USAA participated in the appraisal process and tendered the amount awarded by the umpire. Because USAA complied with the requirements of the contract it cannot be found in breach."); *Caso v. Allstate Texas Lloyds*, Civ. A. No. 7:12–CV–748, 2014 WL 528192 at *5 (S.D. Tex. Feb. 7, 2014) ("[T]he award remains both binding and enforceable until it is set aside, notwithstanding Plaintiffs' rejection of Allstate's tender, an apparently baseless rejection for which Plaintiffs have not offered an explanation.").

93 *United Neurology*, *supra*, 101 F. Supp. 3d at 620.

94 *Id.*; *see also Breshears v. State Farm Lloyds*, 155 S.W.3d 340 (Tex. App. 2004) ("Under Texas law, timely payment of an appraisal award under the policy precludes an award of statutory penalties under the Texas Insurance Code §§ 541 and 542 as a matter of law."); *Waterhill Cos. Ltd. v. Great Am. Assurance Co*., Civ. A. No. 05–4080, 2006 WL 696577 at *2 (S.D. Tex. Mar. 16, 2006) (once appraisal process is invoked, a delay in payment pursuant to the appraisal process does not constitute a violation of the Texas Insurance Code). *But see, Graber v. State Farm Lloyds*, No. 3:13-CV-2671-B, 2015 WL 3755030 at *10 (N.D. Tex. June 15, 2015) (concluding that State Farm's full and timely payment of the appraisal award did not preclude the insured's claim for statutory interest under the Texas Prompt Payment of Claims Act as a matter of law).

held that a bad faith action cannot accrue until the underlying lawsuit seeking insurance benefits is resolved in the insured's favor:

> [A]n insured's underlying first-party action for insurance benefits against the insurer necessarily must be resolved favorably to the insured before the cause of action for bad faith in settlement negotiations can accrue....[95]

IV. OTHER POTENTIAL INSURANCE RISKS PRESENTED BY CLIMATE CHANGE

The anticipated increase in weather related losses and damages (whether in the form of flood, windstorm, hail, wildfire due to drought conditions, subsidence, or perhaps even disease or injuries to people may very well have a continued and profound effect on the insurance industry. It doubtless presents significant underwriting challenges. Whether climate change is certain enough to be considered an inevitable risk, lacking in fortuity, is beyond the scope of this paper and probably better saved for the cocktail reception. Nevertheless, one can foresee climate change related claims being brought under policies other than property policies. These could include:

- Claims under CGL polices in respect of damages allegedly caused by insured carbon or greenhouse gas emitters;
- Environmental liability policy claims for damages to the environment itself, or for knock-on effects such as toxic releases or mold;
- Crop insurance losses;
- Health and Life Policies and claims related to heat stress and respiratory disease; and
- D&O Claims;

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95 *Blanchard v. State Farm Mutual Automobile Insurance Co*., 575 So.2d 1289, 1291 (Fla. 1991). *See also Trafalgar at Greenacres, Ltd. v. Zurich Am. Ins. Co*., 100 So.3d 1155, 1158 (Fla. Dist. Ct. App. 2012) ("An arbitration award establishing the validity of an insured's claim satisfies the condition precedent required to bring a bad faith action.")

(a) **Directors and Officers Insurance Policies**

This last category warrants special attention. Following the destruction brought by Hurricane Katrina, fourteen plaintiffs who owned property damaged in Hurricane Katrina attempted to certify a plaintiff class of all owners of property damaged in the hurricane.[96] Plaintiffs also asked the Court to certify several classes of defendants including a "Chemical Manufacturer Defendant Class" and an "Oil Company Defendant Class."[97] These two proffered defendant classes were included in the lawsuit based upon their alleged "actions that have contributed to global warming."[98]

Although the Court did not decide this issue specifically, it identified several evidentiary difficulties, including potential issues with proving which specific actions of an individual company contributed to global warming, and the difficulty of showing that global warming affected the weather system that caused Hurricane Katrina.[99] It is conceivable that similar actions will be brought for future weather events if and when the burden of proving those points is lowered, or addressed by expert analysis.

Government justice departments have also recently begun investigations into company practices and executive actions. Attorneys General from New York, California, Massachusetts, and the Virgin Islands have reportedly announced that they would be conducting an investigation into whether Exxon Mobil misrepresented the threat of climate change to investors and the public.[100] Similarly, requests by two members of congress for investigation into Exxon Mobil's

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96 *See Comer v. Nationwide Mut. Ins. Co.*, No. 1:05 CV 436, 2006 WL 1066645 (S.D. Miss. Feb. 23, 2006).

97 *Id.* at *1.

98 *Id.*

99 *Id.* at *2.

100 John Schwartz, *Exxon Mobil Climate Change Inquiry in New York Gains Allies*, The New York Times, Mar. 29, 2016, *available at http://www.nytimes.com/2016/03/30/science/new-york-climate-change-inquiry-into-exxon-adds-prosecutors.html*; Ivan Penn, *California to*

practices had been referred to the criminal division of the Federal Bureau of Investigation for an initial assessment of the facts.[101] Whether and how these allegations are made, i.e. based upon individual knowledge and representations or corporate actions and responsibility, has the potential to create new disputes on what had been considered to be standard policy language.

For example, federal courts in California and New York have permitted claims to go forward based upon the alleged failure to disclose polluting activities and the resultant non-compliance with environmental regulations.[102] An appellate court in New Jersey found that a claim for failure to disclose potential liabilities for pollution claims in SEC filings was covered under the securities claim liability coverage within a D&O policy, and not excluded under the pollution exclusion clause.[103] However, in Virginia, the Supreme Court found that the plaintiff's allegations that a company "intentionally emits millions of tons of carbon dioxide and other greenhouse gases into the atmosphere annually[, and] knew or should have known of the impacts of [its] emissions" did not constitute an "accident" for the purposes of D&O coverage.[104] The

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investigate whether Exxon Mobil lied about climate-change risks, Los Angeles Times, Jan. 20, 2016, *available at* http://www.latimes.com/business/la-fi-exxon-global-warming-20160120-story.html.

[101] Michael Phills & Susanne Rust, *Congressmen want probe of Exxon Mobil 'failing to disclose' climate change data*, Los Angeles Times, Oct. 15, 2015, *available at http://www.latimes.com/local/lanow/la-me-ln-investigation-exxonmobil-20151015-story.html*; David Hasemyer, *Justice Department Refers Exxon Investigation Request to FBI*, Inside Climate News (Mar. 2, 2016), http://insideclimatenews.org/news/02032016/justice-department-refers-exxon-investigation-request-fbi-climate-change-research-denial.

[102] *See Loritz v. Exide Techs.*, No. 2:13-CV-2607-SVW-EX, 2014 WL 4058752 at *1; 2014 U.S. DIST LEXIS 111491, (C.D. Cal. Aug. 7, 2014) (alleging failure to disclose the emission of high levels of arsenic into the air and leaking hazardous materials into the groundwater); *Meyer v. Jinkosolar Holdings Co.*, 761 F.3d 245 (2d Cir. 2014) (alleging failure to disclose injurious and non-compliant disposal of hazardous waste in an prospectus accompanying public offerings).

[103] *Sealed Air Corp. v. Royal Indem. Co.*, 404 N.J. Super. 363, 380, 961 A.2d 1195, 1206 (N.J. App. Div. 2008).

[104] *See AES Corp. v. Steadfast Ins. Co.*, 283 Va. 609 (Va. 2012).

law is not yet settled as to which types of climate change related claims might be covered under current D&O policy language.

Executives and directors may also be face shareholder lawsuits arising from climate change related losses. Businesses that choose to enter international markets that are particularly vulnerable to the effects of climate change may face claims challenging those decisions if they are shut down by natural disasters—whether or not they can be directly attributable to climate change. As scientists learn more about the predictable effects of climate change, affirmative defenses based upon the business judgment rule may be challenged. Even where a decision is warranted, policyholders may assert claims based upon a company's failure to make adequate contingency plans to ensure the continued success of the business after a "predictable" weather related catastrophe.

The fact that scientists (and other climate related experts) do not fully understand the consequences of a changing climate means new disputes based upon changing science is likely, even if the specific manifestation of these future claims are not yet foreseeable.

V. CONCLUSION

In conclusion, coverage counsel on both sides of a weather-related claims need to recognize that climate change is likely to affect standard business practices in the insurance industry. Insurers need to take this into account both on the business end, in terms of capitalization, and profitability projections. As insurers become increasingly concerned about these risks, and seek to exclude coverages based upon new and costly disputes, the insurance market for such coverages likely will expand. In the event the risks and losses become too high to reasonably insure against, insurers and coverage counsel may turn to government agencies as well—either seeking a federally sponsored insurance/reinsurance program (such as TRIA or

NFIP) or requesting that foreign developing governments share some of the risks of global climate change in order to attract investment in their countries and to off-set a corresponding decrease in their national GDP because of these changes.