



ESTIMATING AND REPORTING CATASTROPHE LOSSES

Casualty Actuarial Society Spring Meeting
May 23, 2017

Antitrust Notice

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- **It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.**

Agenda

The Event

The Estimate

Reasonability Checks

Results



Because reserves are estimates of unpaid portions of losses that have occurred, including incurred but not reported (“IBNR”) losses, the establishment of appropriate reserves, including reserves for catastrophes, is an inherently uncertain and complex process. The ultimate cost of losses may vary materially from recorded amounts, which are based on management’s best estimates. The highest degree of uncertainty is associated with reserves for losses incurred in the current reporting period as it contains the greatest proportion of losses that have not been reported or settled. The Company regularly updates its reserve estimates as new information becomes available and as events unfold that may affect the resolution of unsettled claims.

March 2016 - Texas

“We define a “catastrophe” as an event that produces pre-tax losses before reinsurance in excess of \$1 million and involves multiple first party policyholders, or a winter weather event that produces a number of claims in excess of a preset, per-event threshold of average claims in a specific area, occurring within a certain amount of time following the event. Catastrophes are caused by various natural events including high winds, winter storms and freezes, tornadoes, hailstorms, wildfires, tropical storms, hurricanes, earthquakes and volcanoes. We are also exposed to man-made catastrophic events, such as certain types of terrorism or industrial accidents. The nature and level of catastrophes in any period cannot be reliably predicted.”

3/17/16

Texas: Early morning storms moved through the Texas Region March 17 producing large hail. Hail as large as a tennis ball has been reported. Areas of major impact include: Tarrant, Dallas, Denton, Wise, Parker, Grayson, and Red River Counties. Damages include: hail damage to roofs, fences, siding, windows and automobiles.

3/23/16

Texas: A storm system moved across the Texas Region March 23-24 producing strong winds and hail reported up to 1.75 inches. Area of primary impact is Collin County with the expectation for this to expand to Denton, Dallas, and Travis counties. Damages include: hail damage to roofs, siding, gutters and windows.



Tornadoes sweep across the U.S. (40 Videos)

Home



Auto



Our Commitment

Beginning May 12, 2011:

“In the future, **Allstate plans to announce monthly and quarter-to-date estimates for catastrophe losses when monthly catastrophe losses are estimated to exceed \$150 million.** These announcements will inform investors who have a strong interest in the company’s catastrophe loss estimates when there is significant severity or frequency of catastrophe events. Over the past 10 years, Allstate had catastrophe losses exceeding \$150 million in about 30 percent of months.”

* Announcements occur on the 3rd Thursday of the following month. March 2016 estimates to be reported April 21, 2016.

Selecting Comparable Historical Events

We start by selecting past events with similar characteristics to the event being modeled. We assume the same development patterns (both counts and severity) will apply to the new event and use them to project ultimate losses for the new event.

When selecting past events, we have found that it is most important to try to match:

- Peril (wind, hail, fire, freeze, tornado, etc.)
- Time of year
- Geography (Metro area or state)
- Size of event



Selected Comparable Events

All of these events are hail events that occurred early in the year and took place in Texas. Each of these events is considered a Top 20 Texas event by the Insurance Council of Texas.

Peril	√	Geography	√
Time of Year	√	Size of Event	√

4/2/12

Texas: A severe storm system consisting of multiple tornadoes and tornadic activity, up to baseball sized hail, extremely strong winds and rain have moved across Texas and have struck Dallas/Fort Worth and the surrounding communities. Some of the hardest hit are Campbell, McKinney, Arlington and Hutchinson.

6/11/12

Texas: A powerful windstorm pushed across Texas June 12 and 13, 2012 primarily resulting in damages to roofs and siding in South Texas, but there are some reports of damage resulting from lightning strikes and rain. The counties reporting the greatest concentration of losses are Montgomery, Harris, Bell, Bowie and Ector.

4/3/14

Texas: A storm system produced large hail up to 4.25", with most 1.75" to 2.75" in size in the Denton, Texas area, April 3. Damages to roofs, skylights, windows, siding and fences are expected.

The 03/17/16 and 3/23/16 hail events are expected to be larger than all three comparables.

There are no larger Texas hail events in the last 10+ years.

Other Considerations

- Day of the Week/Time of Day/Holiday Timing
- Contract/Coverage Changes
 - Limit Additional Living Expense
 - Reporting Requirements
 - Limit Replacement Cost Coverage
 - Actual Cash Value
 - Roof Payment Schedule
 - Exclusions
 - Pool Enclosures
 - Roof
 - Cosmetic Damage
- Deductibles (All-peril, Wind/Hail)
- Underwriting Guidelines (Non-renewals, Inspections/Re-inspections)
- Mix of Business Changes (Roof type, Home type, Geography)
- Expenses and use of vendors
- Reinsurance
- Salvage



Estimated Ultimate – Illustrative Only

Projections

Claim Counts for Hail Event

% of Ultimate Count for the Comparables as of 10 Days	
Modeled Ultimate Claim Count	
Ultimate Claim Count w/Incremental Development*	
% of Claims Closed Without Payment (CWP) so far for the Hail 2016 Event	
Factor to take CWP rate at 10 Days to its Ultimate rate for the Comparables	
Ultimate %CWP	
Ultimate Closed With an Amount (CWA) Claim Count [Ultimate Count * (1 - %CWP)]	

Severity for Hail Event

% of Ultimate Severity for the Comparables as of 10 Days	
Ultimate Paid Severity (Severity per CWA)	
<u>Incurred Severity (Severity per Notice)</u>	
Ult Losses (Ultimate Paid Severity * Ultimate CWA Count)	

Expense Provision

Total Loss and Expense

	Comparable Events			Average
	1	2	3	
	10,000	10,000	10,000	10,000
	65.0	55.0	60.0	0.60
	15,385	18,182	16,667	16,744
	13,000	13,500	14,000	13,500
	15.0	15.0	15.0	15.0
	1.1	1.3	1.2	1.2
	16.5	19.5	18.0	17.7
	10,855	10,868	11,480	11,108
	\$5,000	\$5,000	\$5,000	\$5,000
	0.75	0.65	0.70	0.70
	\$6,667	\$7,692	\$7,143	7,167
	<u>\$5,567</u>	<u>\$6,192</u>	<u>\$5,857</u>	<u>\$5,897</u>
	\$72,366,667	\$83,596,154	\$82,000,000	\$79,616,034
				10.0%
				\$87,577,637

Data for Event being Projected

Data for Comparable Events

* Incremental Development adjusts for how the actual event's claim count development compares so far to the comparables being used.



What's the Industry saying?

Insurance Council of Texas announced that the two March 2016 Hail events are each expected to be among the 20 Costliest Texas Storms since 1950 (>\$500 million each in 2016 dollars).

Allstate Implication: Each storm is likely greater than \$70 million

Farmers Insurance® (April 4, 2016 News Release):

“Farmers reports more than 22,000 claims filed already and anticipates another 16,000 claims as a result of the storms. Overall the insurer estimates these combined storms will result in more than \$250M in losses.”

Allstate Implication: Losses from the storms combined likely to be more than \$250 million

PCS released preliminary estimates of Insured Property Damage in early April.

Allstate Implication: Allstate's estimates were much higher than its market share of the PCS estimates.

Challenge the Estimate

Is the estimate too high?

- Anecdotally, we were hearing that the claim reports were coming in much faster than they do with typical storms.
- Allstate introduced a new homeowners product with coverage differences.

Is the estimate too low?

- April storms impacted the same areas. This could impact the development patterns of the March storms.
- Demand surge, fraud or litigation could result in higher costs.

Why would competitors be lower?

- Coverage differences
- Different geographic distribution

Reporting Concerns:

- Don't want our estimate to turn out to be very inaccurate
- How to explain these events being larger for Allstate than others in the industry?

What Happened

- April 10-12, 2016 – Another hailstorm strikes Texas, primarily in the San Antonio area. On April 20th, Insurance Council of Texas declares it the “**Costliest Hailstorm in Texas History**” and increased attention is paid to all the Texas events.
- **April 21, 2016** – “The Travelers Companies, Inc. today reported net income of \$691 million, or \$2.30 per diluted share, for the quarter ended March 31, 2016, compared to \$833 million, or \$2.55, in the prior year quarter. Operating income in the current quarter was \$698 million, or \$2.33 per diluted share, compared to \$827 million, or \$2.53 per diluted share, in the prior year quarter. **These declines were primarily due to higher catastrophe losses mainly arising out of hail storms that occurred in Texas in late March.**”

What Happened - Allstate

April 21, 2016

“The Allstate Corporation (NYSE: ALL) today announced estimated catastrophe losses for the month of March 2016 of \$638 million, pre-tax (\$415 million after-tax), and an estimated \$827 million, pre-tax (\$538 million after-tax), for first quarter 2016.”

“Two severe hail events, primarily impacting the state of Texas in March, accounted for two-thirds of the catastrophe losses for the quarter.”

May 19, 2016

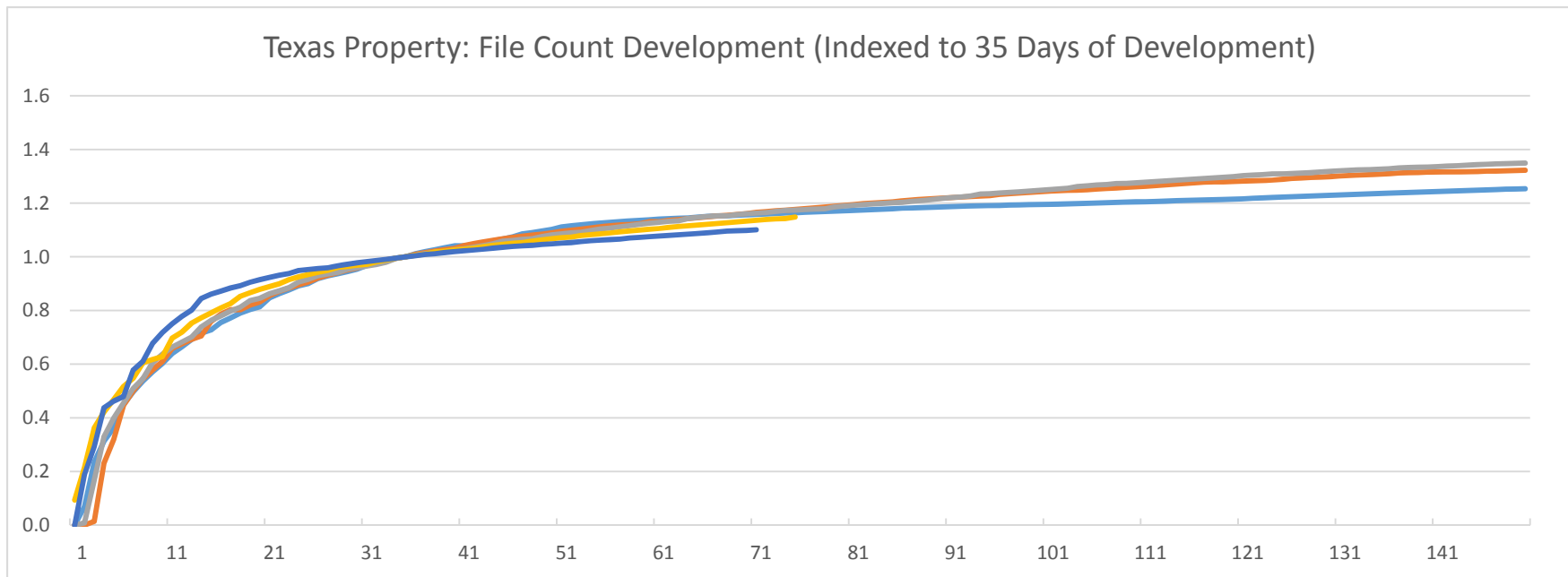
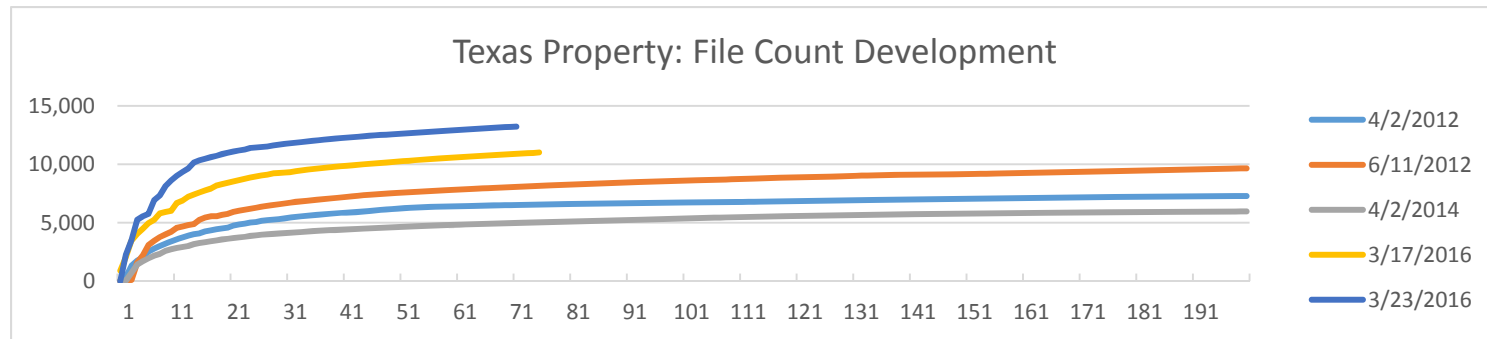
“The Allstate Corporation (NYSE: ALL) today announced estimated catastrophe losses for the month of April 2016 of \$633 million, pre-tax (\$411 million after-tax). Catastrophe losses occurring in April comprised eight events at an estimated cost of \$660 million, pre-tax, partially offset by favorable reserve reestimates of prior reported catastrophe losses.”

“The reserve reestimates primarily relate to lower than anticipated reported claims and severity for March 2016 events and represent a 6% change in the previously reported estimated catastrophe losses for March 2016 events.”

June 16, 2016

“The Allstate Corporation (NYSE: ALL) today announced estimated catastrophe losses for the month of May 2016 of \$202 million, pre-tax (\$131 million after-tax). Catastrophe losses occurring in May comprised eight events at an estimated cost of \$259 million, pre-tax, **partially offset by favorable reserve reestimates for March and April 2016.**”

Not Done Yet



Ultimate counts and severity are reestimated each month based on the latest information. It is also necessary to reevaluate the selection of comparable events periodically.

Questions?

