

# The Value Impact of Flood Events

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Natural disasters have tended to affect the share prices of financial institutions such as banks and (re)insurers, rather than those of non-financial corporations. This has changed.

Traditionally, non-financial corporations have purchased insurance for natural disasters and the stock markets have not penalised these firms for the ensuing disruption to their operations. The independent research paper – *Risk, Reputation and Accountability* – demonstrates that companies are now being held accountable for their management of natural disasters, where previously they were not. Specifically, the study measures the shareholder value impact of US Hurricanes Harvey, Irma and Maria for companies that suffered direct financial damage. A significant and sustained impact of minus 5% to share prices is evident. Investor perceptions of hurricane damage have moved from bad luck to bad management.

The purpose of the latest analysis is to isolate flood and determine whether an impact on shareholder value is evident in a global context.

## THE FLOOD EVENT PORTFOLIO

The table below identifies named events over the last five years for which flood was the dominant peril and industry insured losses exceeded USD1 billion.

Date	Named Event	Territories Affected
03-Dec-15	Storms Desmond, Eva and Frank	UK, Ireland
27-May-16	Storms Elvira and Friederike/David <sup>1</sup>	Germany, France, Belgium
28-Sep-16	Hurricane Matthew	US and the Caribbean
23-Mar-17	Cyclone Debbie	Australia
17-Aug-17	Hurricane Harvey	Texas - USA
19-Aug-17	Cyclone Hato	China, Vietnam, Hong Kong, Macau
28-Jun-18	Typhoon Prapiroon <sup>2</sup>	Japan, South Korea
31-Aug-18	Hurricane Florence	North Carolina, South Carolina - USA
07-Sep-18	Typhoon Mangkhut <sup>3</sup>	China, Hong Kong, Philippines, Macau
02-Oct-19	Cyclone Hagibis	Japan

<sup>1</sup>Known as Friederike in Germany, David in France.

<sup>2</sup>Known also as the Japan Floods.

<sup>3</sup>Known as Ompong in the Philippines.

Non-financial, US-listed companies (with at least USD3 billion annual revenue) that disclosed direct financial damage in their annual 10-K statement from one or more of these named flood events were identified. Pentland Analytics then modelled the share prices of these companies across the year following the relevant event, risk-adjusting the returns and removing all market-wide influences. This provides a clean measurement of impact that is over and above the relevant market index, and adjusted for the inherent sensitivity of the stock price to the index.

## THE VALUE IMPACT

Across the post-event year (261 trading days), the 71 companies identified suffered an average 5% drop in shareholder value, equivalent to a total USD82 billion.



The size of impact is consistent with that found in the earlier hurricane analysis and reflects investors' lowered expectations of future cash flow following disruption from a major flood event.

## WHAT DOES THIS MEAN FOR CEOs AND CFOs?

The brunt of value destruction from natural disasters used to be felt by (re)insurers, who paid for the losses, and by banks, through the deterioration of their loan portfolios and compromised lending capacity. The evidence presented shows that the stock market is now recognising the cost of disruption to non-financial corporations.

Given that share prices are forward-looking, the USD82 billion in lost shareholder value represents not the physical damage, nor even the immediate loss in profits, but the long-term impact of disruption to the business. This includes, for example, the reputational loss from missing targets, the growth opportunities that are gone forever and a strategic plan that is now awry. Investors have reassessed the future and it is 5% worse.

That would seem to dwarf the cost of investing in flood protection.