CLIMATE CHANGE

Investing in extreme weather conditions

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Environmentally-focused investors often consider climate risks. However, potential liabilities for damages from extreme weather events due to emissions from carbon-intensive sectors present risks that may not be reflected in current share prices.

Given the devastation of the recent Atlantic hurricane season, it is worth asking how close we are to some companies or sectors being held liable, at least partially, due to their activities. The answer may be that this is closer than many might expect.

Climate change and hurricane damage

The UN Framework Convention on Climate Change (UNFCCC) Paris Agreement aims to hold increases in global average temperatures to well below 2°C above pre-industrial levels while pursing efforts to limit increases to 1.5°C. However, even these increases are likely to result in more frequent extreme weather events.

The science is clear, a hotter atmosphere has a more energetic water cycle, and warmer air can hold more moisture – with likelihood of more intense downpours. Climate change is therefore likely to increase the intensity, and possibly the frequency, of hurricanes.

Human activities are well established as the main cause of global warming. Cumulative carbon dioxide emissions are the primary driver of climate changes.

Analysis has begun to quantify the contributions to climate change from individual nations and companies, including changes in extreme event frequencies.

The 2017 Atlantic hurricane season, comprising hurricanes Harvey, Irma, Jose and Maria has been the second costliest to date, with $200 billion (£140 billion) damages estimated, compared with $211 billion in 2005.

Projections suggest the frequency of Hurricane Harvey-like precipitation intensities have increased 6% since the late 20th century, with more expected.

Who are the emitters?

As cumulative CO_2 emissions are the primary cause of global climate system changes, historical responsibility can be allocated relatively simply.

The fossil fuel industry and its products accounted for 91% of global industrial greenhouse gas emissions in 2015. Since 1988 only 25 entities (both companies and state producers) accounted for 51% of global industrial emissions. Seven of these top 25 emitters were publically-owned companies, collectively accounting for 9.5% of scope 1 and 3 emissions between 1988 and 2015.

What would the financial damage be?

Although no legal precedent currently exists for climate damage liability from extreme weather events, it may be established in future.

The seven companies above have a combined market capitalisation around $1,230 billion. If, hypothetically, they contributed 9.5% of the hurricane damage from 2017 ($19 billion), this would represent a 1.5% detriment to their market capitalisations, a not insignificant sum, particularly considering that similar contributions might be requested in respect of other past and future extreme weather events.

In a world where global warming causes larger hurricane losses, under a hypothetical climate liability regime, damage contributions of around 1-2% of these companies' market capitalisations might be anticipated increasingly frequently as each annual hurricane season rolls in. Furthermore, this omits other climate change impacts, such as sea level rise, and could easily run to much larger sums if they were also included.

How should investors react?

The science of attributing extreme weather events to human-induced climate change is developing rapidly. However, the Paris Agreement explicitly rules out loss and damage estimates associated with climate change as a basis for liability.

This makes it hard to say how rapidly investors should react to the possibility of companies having (or deciding) to make contributions for damages associated with climate change caused by their past emissions.

The barriers to a successful compensation case for climate damages remain substantial, but with the science developing, the possibility remains. For major insurance companies or governments footing the bill, the prospect of multi-billion dollar pay-outs may focus minds on whether the legal barriers could be overcome, since this may allow them to pass on costs.

Should investors react? Cautious investors might be concerned, particularly if they are uncertain how much it is priced into the relevant companies' shares. Since market practitioners tend to anticipate trends, any movement towards an active liability regime could risk shares in such companies becoming orphaned assets, with other investors reluctant to buy them, except at a significant discount.

Given the mounting evidence, some cautious investors might try and stay ahead of the game and steer clear. ●

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