IMPAX Asset Management

How does climate change impact investors?

Climate change creates a spectrum of risks, often classified in three categories: **adaptation**, **transition** and **physical**. We believe these risks - and their associated opportunities - are often ignored or mispriced, significantly impacting companies' financial performance.

Climate change will cost the world's economies trillions of dollars over the 21st century. Creating a low-carbon economy that can adapt to new climate and weather patterns will support economic prosperity, while simply waiting for increasingly frequent disasters can only grow more chaotic and costly.

Adaptation risks

- Asset valuation
- Operational impairment
- Cost of business adjustments
- Regulatory changes
- Loss of subsidies

Transition risks

- Technology
- Regulation
- Commodity prices
- Consumer preferences
- Litigation

Physical risks

- Water stress
- Heat stress
- Sea level rises
- Extreme precipitation
- Extreme weather
- Expansion of disease / pest ranges

Source: Adapted from Buhr, B., 2023: Climate Risks: An Investor's Field Guide to Identification and Assessment

Climate-related risks

Adaptation risks

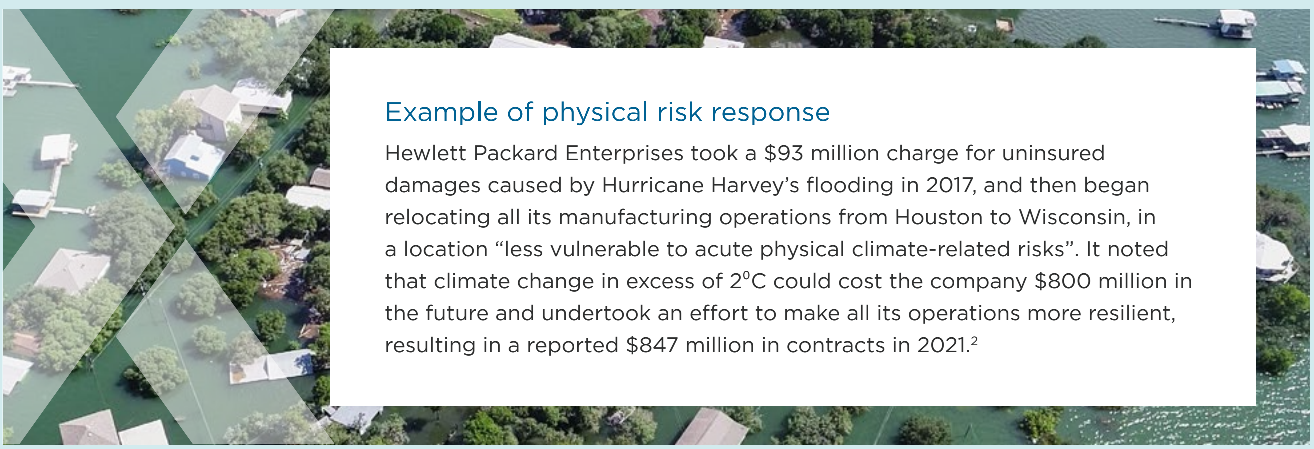
The move toward net zero is creating differentials in corporate competitiveness. From adoption of low-carbon products and services to impairments against assets that are no longer viable, all of this is happening in real time. If we don't adapt to the new climate regime we've already created, more will be spent reactively – and often chaotically – on disaster recovery after each crisis.

Transition risks

Transition risks are disruptive economic changes caused by shifts in regulation, technology and consumer preferences. A growing body of research demonstrates the financial materiality of transition risks. Lower corporate emissions, for instance, have been shown to be positively and significantly correlated with higher excess returns and productivity.[1] Companies that do not address climate risk could face credit rating downgrades.[2]

Physical risks

Physical risks are related to damages caused by more frequent and/or severe weather events and chronic conditions. Once largely dismissed or ignored as 'acts of God' to be covered in standard business continuity plans, physical risks are increasingly recognized as things that investors can anticipate and should price, if possible. Doing so will require more disclosure from companies – not only where their operations are located, but also how they are preparing for increasingly volatile weather and climate conditions that could affect operations.



Example of physical risk response

Hewlett Packard Enterprises took a $93 million charge for uninsured damages caused by Hurricane Harvey's flooding in 2017, and then began relocating all its manufacturing operations from Houston to Wisconsin, in a location "less vulnerable to acute physical climate-related risks". It noted that climate change in excess of 2°C could cost the company $800 million in the future and undertook an effort to make all its operations more resilient, resulting in a reported $847 million in contracts in 2021.[2]

1 JKazdin, J. & Schwaiger, K., et al, 2021: Climate Alpha with Predictors also Improving Firm Efficiency, *The Journal of Impact and ESG Investing*
2 Faralli, M. & Ruggiero, F., 2023: The Rise of Climate Risks: Evidence on Firms' Expected Default Frequencies. See also Shah, A., et al, 2023: Green Performance Since the Paris Agreement, *Jefferies*
3 Gold, R., 14 March 2021: Companies' Climate Risks Are Often Unknown. Here's How One Opened Up. The Wall Street Journal

At Impax, we aim to price climate risks in every investment we make. Our goal is to make our portfolios resilient to transition and physical risks, while capturing the potential upside from higher growth rates associated with clean technology, renewable energy and enabling infrastructure. The data, methods and tools at our disposal are not perfect. But despite underlying uncertainties, we are well beyond a binary debate about whether climate change matters. We work toward a more sophisticated, probabilistic view of the magnitude of its financial impacts on assets, firms and portfolios.

Impacts on corporate performance

There is mounting evidence that financial markets, companies and investors are increasingly attuned to both the financial materiality of climate risk and the policy advances that address it.

Transition and physical risks have already affected firm-level financial performance and are likely to be much greater than most expect. Insurers have raised prices for fire, flood and drought coverage, dampening real estate markets. Emissions regulations are raising the cost of carbon-intensive products for both producers and consumers, and carbon border adjustment taxes will only add to this. Appropriate company disclosures will allow us to better gauge the future ranges of these impacts.

Physical climate risks are not reliably anticipated by corporate investors, which is why Impax petitioned the SEC to require that companies report the locations of assets whose loss or damage could be a material event.[4]

Though many experts believe markets are widely underestimating climate-related risks, studies show that lower-emitting companies and those with transition plans have delivered financial outperformance.[5] We also know that lower-emissions firms have been outperforming for some time.[6]

Pricing risks and capturing opportunities

For 25 years, Impax has analyzed the impact of environmental and social trends on global economic activity and investigated how climate change impacts financial performance.

Our conclusion: climate risks and opportunities are often mispriced by the market. To model the risks accurately, however, investors need companies' climate disclosures to be both appropriate and comprehensive. Meanwhile, we believe deep research can help us understand the opportunities presented by companies that provide solutions to climate challenges. By avoiding depletive products and processes, these companies enable climate adaptation and mitigation.

Learn more on this topic from our recent whitepaper reviewing the research that demonstrates the financial materiality of physical, transition and adaptation risks to companies, issuers and their investors. Read the report at impaxam.com/climatechange.

4 Gorte, J., 2023: A well-conceived rule with room for improvement
5 Wang, X. & Panagiotopoulos, A., 2023: Did Low-Carbon-Transition Strategies Differentiate Energy Companies?, *MSCI*
6 Bauer, M., Huber, D., et al, 2023: Where is the Carbon Premium? Global Performance of Green and Brown Stocks, *CESifo Working Paper no. 10246*

Why Impax?

Founded in 1998, Impax is one of the largest and longest established asset managers dedicated to investing in the transition to a more sustainable economy. We offer a well-rounded suite of investment solutions spanning multiple asset classes, aiming to deliver strong risk-adjusted returns over the medium to long term. Our global investment team includes former scientists and policy specialists, business analysts, bankers and venture capitalists. Their diverse backgrounds and experiences have supported the development of our proprietary investment tools, designed to allocate clients' capital towards the sustainable economy.

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