The Financial Impacts of Climate Change: 2022 Update

By Julie Gorte, Ph.D.

Climate change is perhaps the greatest threat to prosperity that humankind has ever faced. It is not a distant threat, though; heavy costs are being borne here and now. The World Meteorological Organization reported in 2021 that climate- and weather-related disasters have risen fivefold over the last half century, comprising 11,000 individual events, more than two million lives lost and US$3.64 trillion in financial losses. In 2021, almost one in three Americans experienced a weather disaster.

Also in 2021, we saw deadly floods in western Europe, where as much as two months’ worth of rain fell in two days. Flooding also hit central China, where a three-day downpour delivered a year’s worth of rain in one city. A “heat dome” that enveloped much of the Pacific Northwest and Canada during the summer of 2021 caused several hundred deaths and damaged transportation infrastructures and crops. Fires forced evacuations and damaged property and infrastructure in the American west, the Mediterranean and Russia. One company has even been charged with manslaughter in the deaths of four people caught in a wildfire found to have been caused by the company’s inadequate management of its transmission assets. This is just a sampling of the impacts of climate change-related extreme weather in the past year.

But today’s suffering and costs pale in comparison to what future damages will be. A recent report from Swiss Re contained the sobering estimate that climate change could cost the world 10% of its total economic value by 2050 if we stay on our current warming trajectory. By contrast, by investing the money needed to prevent warming above 1.5°C — the threshold under which we must stay to avoid climate catastrophe — the estimated negative impact on global GDP would be reduced to about 4.2% by midcentury.

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The damages, costs and suffering caused by climate change can be mitigated because we have the capacity and the technology to prevent them from becoming significantly worse. Investing now in low-carbon technologies and solutions is, in fact, likely to be less expensive than coping with increasingly severe and frequent disasters and heat waves. The IPCC estimates that it will take US$1.6 – 3.8 trillion every year to avoid surpassing 1.5°C in additional warming between now and 2050. That is a hefty price tag, but these investments will also create jobs and add to economic output, unlike the damages and losses incurred by extreme weather and the chronic effects of climate change.

Investing in mitigation need not undermine financial outcomes for both equity and fixed income investors. In fact, it should...
The Pax Global Environmental Markets Fund invests in companies that are developing innovative solutions to resource challenges in environmental markets. These markets address many long-term macroeconomic themes — growing populations, rising living standards, increasing urbanization, rising consumption, and depletion of limited natural resources. Impax believes these are companies that are well positioned to thrive amid the transition to a more sustainable economy and invests in these companies through this Fund.

Recent enhancements to the Fund’s taxonomy have expanded how Impax describes the Fund’s investible universe from four areas (new energy; water; waste and resource recovery; and sustainable food, agriculture and forestry) to six areas (new energy; clean and efficient transport; sustainable food; water; circular economy; smart environment). This helps the portfolio management team ensure that, as the environmental markets landscape evolves and new opportunities that support the transition to a more sustainable economy come to market and reach scale, this Fund evolves with it.

The Fund continues to make a measurable positive impact in terms of water provided, saved or treated, renewable energy generated, materials recovered or waste-treated, and net carbon emissions avoided, thus contributing to the mitigation of global sustainability challenges.

1 These enhancements reflect how we describe the investment universe; they are not a fundamental change to the universe, investment guidelines, or process.
2 Source: Impax Asset Management Ltd. Impact of $10m invested in the Fund for one year. Based on most recently reported annual environmental data for holdings in the Pax Global Environmental Markets Fund as of December 31, 2020.

RISK: Equity investments are subject to market fluctuations, the fund’s share price can fall because of weakness in the broad market, a particular industry, or specific holdings. Emerging market and international investments involve risk of capital loss from unfavorable fluctuations in currency values, differences in generally accepted accounting principles, economic or political instability in other nations or increased volatility and lower trading volume. The Fund is actively managed.

### New energy
- Developers & independent power producers
- Biofuels
- Hydrogen
- Solar
- Wind
- Smart grids
- Industrial, consumer & buildings efficiency
- Power storage & uninterruptible power supply
- Lighting

### Clean and efficient transport
- Aviation
- Shipping
- Railways
- E-bikes & bicycles
- Buses & coaches
- Road vehicles & devices
- Pollution reduction
- Shared mobility

### Sustainable food
- Organic & alternative
- Technology & logistics
- Safety & packaging
- Agi- & Aquaculture
- Forestry

### Water
- Distribution & infrastructure
- Treatment
- Efficiency
- Utilities

### Circular economy
- General & hazardous waste management
- Recycled, recyclable products & biomaterials
- Resource circularity & efficiency
- Technologies

### Smart environment
- R&D & consultancies
- Finance & investment
- Testing & monitoring
- Pollution control
- Environmental resources
- Efficient IT
- Cloud computing
- Digital collaboration solutions
Pax World Funds News

Biodiversity and the Role of Investors

Given nature’s critical role in underpinning our health and prosperity, there is no time to waste in reversing its destruction. In a new article, Chris Dodwell, Julie Gorte and Ian Simm explain the important role investors can play in tackling the global biodiversity crisis. Read the article here: www.impaxam.com/biodiversity

Heather Smith Named “DEI Leader”

The Defined Contribution Institutional Investment Association has named Heather Smith to its list of diversity, equity and inclusion (DEI) leaders. In her role as Senior Sustainability and ESG Analyst, Heather not only conducts research that helps the Impax investment management team determine which companies have favorable enough environmental, social, and governance characteristics to be included in fund portfolios but also she leads our firm’s engagement efforts related to board diversity and pay equity.

During her 15 years at Impax, Heather has successfully persuaded companies such as Apple, Discover Financial, KeyCorp, and T Mobile to take steps toward gender and racial pay equity and/or to bring more gender and racial diversity onto their boards of directors. She has been the impetus of tangible changes within companies that have led to more equity for women and other marginalized groups — no small task. We are delighted to see Heather recognized as the DEI leader she is.

Expanded Distribution Team

Impax has expanded its North American distribution team with the appointments of Tamara (Tami) Jackson as Director of Institutional Sales for the eastern US region and Jeffrey Vilker as Head of Defined Contribution Sales. Tami and Jeff will help Impax continue to increase its institutional client base in North America.

“Impax is recognized as a leader in investing in the transition to a sustainable economy,” says Ed Farrington, Head of Distribution for North America at Impax Asset Management. “This makes us a destination for plan sponsors and consultants who increasingly look to add sustainable options to plans — including defined contribution. We are delighted to welcome Tami and Jeff to the team.”

PAXLX Turns Five

The Pax Large Cap Fund passed its five-year milestone in December 2021. In a recent Citywire feature, Senior Portfolio Manager Andrew Braun talks about how he finds opportunities and manages valuations in a volatile market. Read the article here: www.impaxam.com/citywire

Pax Large Cap Fund RISKS: Equity investments are subject to market fluctuations, the fund’s share price can fall because of weakness in the broad market, a particular industry, or specific holdings. The Fund is actively managed.

As of 12/31/2021, Apple, Inc. was 2.1% of the Pax Sustainable Allocation Fund, 4.4% of the Pax Large Cap Fund, 6.2% of the Pax US Sustainable Economy Fund, 4.6% of the Pax Ellevate Global Women’s Leadership Fund and 0.5% of the Pax Core Bond Fund. Discover Financial Services was 0.01% of the Pax Sustainable Allocation Fund and 0.1% of the Pax Ellevate Global Women’s Leadership Fund. KeyCorp was 0.01% of the Pax Sustainable Allocation Fund and 0.1% of the Pax Ellevate Global Women’s Leadership Fund. T-Mobile US, Inc. was 1.0% of the Pax Sustainable Allocation Fund, 2.3% of the Pax Large Cap Fund, 0.2% of the Pax Core Bond Fund, 0.2% of the Pax US Sustainable Economy Fund and 0.4% of the Pax High Yield Bond Fund. Holdings are subject to change.

Pax Large Cap Fund has a four-star Morningstar rating as of 12/31/2021.
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Investing for Tomorrow
Pax World Funds focus on the investment risks and opportunities arising from the transition to a more sustainable global economy.

Investing in mitigation and low-carbon solutions, or at least incorporating both transition and physical risks into investment portfolios, can provide competitive if not superior financial results to investors. There is mounting evidence that climate change poses a great many risks, and financial markets are increasingly pricing those risks into securities markets today. Investors will do well to pay attention.

View the report on our website: www.impaxam.com/CCEF2022


You should consider a fund’s investment objectives, risks, and charges and expenses carefully before investing. For this and other important information, please obtain a fund prospectus by calling 800.767.1729 or visiting www.impaxam.com. Please read it carefully before investing.

An investment in Pax World Funds involves risk, including loss of principal. Past performance does not guarantee future results.

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