Allocating Capital Effectively in a Warming World

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Key Takeaways

- Climate adaptation addresses the physical impacts of climate change through infrastructure improvements, enhanced cooling systems, water management solutions, and predictive analytics.
- The investment case for adaptation is compelling: Solutions yield returns of $2 to $43 for every $1 spent while addressing growing market demand as extreme weather events intensify.
- Companies providing adaptation solutions span multiple sectors and offer investors exposure to a resilient growth theme with strong fundamentals—adaptation baskets have recently outperformed broader market indexes.
- Quality companies across diverse industries are innovating to help communities, businesses, and infrastructure become more resilient to climate risks. In this paper, we highlight five leading companies that we believe offer compelling growth characteristics.

Understanding Three Essential Climate Strategies

While much of the climate conversation centers on mitigation—reducing greenhouse gas emissions—a parallel imperative is gaining momentum: climate adaptation. Yet the relationship between mitigation, adaptation, and resilience is frequently misunderstood, which creates confusion for investors seeking to allocate capital effectively in a warming world.

1. **Mitigation** addresses the root cause of climate change by reducing greenhouse gas concentrations in the atmosphere. Mitigation is fundamentally about slowing the pace of warming, an effort that benefits everyone globally, with results unfolding over the long term. This includes transitioning to renewable energy, improving energy efficiency, protecting natural carbon sinks like forests, and developing carbon capture technologies.
2. **Adaptation** involves adjusting to the actual or expected impacts of climate change. It's about protecting communities, infrastructure, and economies from physical climate risks that are already occurring or are inevitable given existing atmospheric carbon levels. Adaptation addresses the effects of climate change through measures like flood barriers, drought-resistant crops, enhanced cooling systems, and reinforced building codes. Most importantly, adaptation delivers tangible, local benefits that can be measured in avoided losses and protected assets.
3. **Resilience** refers to the capacity of systems, whether human, ecological, or economic, to anticipate, prepare for, cope with, and recover from climate shocks. If adaptation is what we do to manage climate risks, resilience is the outcome we're seeking. A resilient system can withstand disturbances and "bounce back" effectively.

These three approaches are intrinsically linked. Mitigation makes adaptation easier by limiting the extent to which the climate will ultimately change. Adaptation investments build resilience by reducing exposure and vulnerability to climate impacts. Resilience creates economic value by protecting productive assets and maintaining business continuity during climate events.

Mitigation, Adaptation, and Resilience: All Create Investment Opportunities

For investors, this framework presents distinct opportunities:

Mitigation investments such as renewable energy, electric vehicles, energy storage, and carbon capture have dominated climate investment flows to date, benefiting from policy support and clear decarbonization mandates. These investments address transition risk: the risk that fossil fuel assets become stranded as the economy decarbonizes.

Adaptation and resilience investments address physical risk: the risk that climate impacts damage assets, disrupt operations, or destroy value. At Climate Week NYC Dr. Sarah Kapnick, Managing Director and Global Head of Climate Advisory at J.P. Morgan summed it up, “Climate adaptation equals business resilience. Companies that invest in adaptation are protecting their competitive position in a climate-altered world.”

The investment case for adaptation is particularly compelling. Research indicates that adaptation investments deliver returns of $2 to $43 for every dollar spent, primarily through avoided losses.[1] A recent study by the National Institute of Building Sciences found that building to current (2018) resilient-building-code standards versus 1990s standards returns $11 for every dollar invested.[2] These aren't theoretical but actualized savings realized when climate events occur.

Beyond the favorable return profile, adaptation investments offer a distinct advantage in their benefit-delivery timeline. Unlike mitigation investments, where costs are immediate and certain but benefits unfold over decades, adaptation solutions provide measurable, near-term value through avoided losses and protected assets. When a flood barrier prevents property damage or an improved cooling system maintains operations during a heat wave, the return on investment is tangible and quantifiable, often within the same fiscal period as the expenditure.

Moreover, adaptation investments may offer shorter payback periods and more predictable demand than mitigation technologies. Although policy shifts can impact the economics of solar panels or EVs, the physics of climate change ensures consistent demand for flood protection, water management, and cooling systems regardless of political winds.

All Three Strategies Are Necessary

The urgency is clear from both climate science and economic data. Climate-related disasters accelerated between 2014 and 2018, with the US experiencing 63 disasters costing over $1 billion each, representing more than 25% of all such disasters since 1980 in just five years.[3] In Europe, climate disasters cost more than €77 billion in 2023 alone.[4] The financial stakes are substantial: sectors including energy, materials, real estate, and industrials face asset impacts ranging from 5% to 30% by the 2050s, depending on the hazard.[5]

Even with successful mitigation limiting warming to 1.5°C, significant adaptation will be required because of climate change already locked in from past emissions. Without mitigation, adaptation needs could become unmanageable. The pace of warming directly determines our capacity to adapt effectively.

For investors, we believe this creates a clear imperative: To be effective, climate portfolios should include both companies driving decarbonization and businesses providing adaptation solutions. The most resilient investment approach doesn't choose between mitigation and adaptation, it recognizes both as essential responses to different dimensions of climate risk.

Why Adaptation Matters for Sustainable Investors

For those focused on sustainable investing, climate adaptation offers a distinct value proposition. These investments directly address material environmental and social challenges, protecting communities from climate risks, reducing economic losses, and improving resilience of critical infrastructure. At the same time, adaptation solutions often align with quality investment characteristics: stable cash flows, strong competitive positions, and secular growth tailwinds.

Adaptation also complements mitigation-focused investments. While Calamos' Sustainable Equity Portfolios seek to invest in companies driving decarbonization and resource efficiency, we recognize that adaptation solutions will be essential regardless of how successfully the world reduces emissions.

And the financial case is equally compelling. Analysis by Jefferies showed that a basket of "adaptation" stocks—issued by companies that address the physical environmental risks of climate change—significantly outperformed a portfolio of clean energy stocks over five years. The clean energy portfolio, represented by the iShares Global Clean Energy ETF, includes companies that produce energy from renewable sources such as solar, wind, hydroelectric, geothermal, biomass, and biofuels, as well as those involved in related technologies like fuel cells and photovoltaic cells. The adaptation basket outperformed by more than 75% cumulatively.[6]

Finding Quality Growth Companies Across Adaptation Innovators

One way to organize climate adaptation solutions is around five primary natural hazards: extreme heat and heatwaves, floods (including sea-level rise), droughts and dry spells, wildfires, and storms and cyclones. Within each hazard category, investment opportunities span from physical infrastructure to advanced analytics and forecasting technologies.

Companies providing adaptation solutions operate across diverse industries and geographies, and many exhibit the strong financial characteristics the Calamos Sustainable Equities team seeks, including strong margins and consistent cash flows. Below, we highlight five examples.

Natural Hazard	Solution	Innovator
Extreme Heat and Heatwaves	Cooling Systems and Climate Control	Trane Technologies develops advanced HVAC systems with smart controls that optimize energy use while maintaining comfort during extreme heat events. As global temperatures rise and heat waves become more frequent and intense, demand for efficient cooling solutions grows. The cooling systems category shows robust fundamentals with attractive margins and consistent demand drivers.[7]
Floods	Building Materials and Distribution	Ferguson serves as a critical distributor of plumbing, HVAC, and infrastructure products that support both new construction and retrofits for climate resilience. From efficient cooling systems to flood-resistant building materials and drainage solutions, distributors play an essential role in delivering adaptation solutions to end users.
Droughts and Dry Spells	Water Management and Quality	Ecolab provides water treatment and efficiency solutions that help industrial and municipal customers reduce water consumption and improve water quality. As droughts intensify in key agricultural and industrial regions, these technologies become increasingly valuable. Water management solutions represent some of the strongest margin profiles within the adaptation landscape.[8]
Wildfires	Home Hardening Solutions	Home Depot offers products that support home hardening against wildfires, including fire-resistant building materials, fire safety and alarm systems, and protective equipment. The company's broad distribution network makes these solutions accessible to homeowners in fire-prone regions.
Storms and Cyclones	Power Infrastructure and Grid Resilience	Eaton Corporation manufactures electrical equipment and power management solutions that strengthen grid resilience against storms and extreme weather. From underground power infrastructure to backup power systems and smart grid controls, these companies help ensure critical infrastructure remains operational during climate events. Energy infrastructure solutions show compelling margins with stable demand.[9]

[1] Center for Climate and Energy Solutions. "What is Climate Resilience and Why Does it Matter?" Apr. 2019.
[2] National Institute of Building Sciences. *Natural Hazard Mitigation Saves: 2018 Interim Report*. 2018, p. 33.
[3] Center for Climate and Energy Solutions. "What is Climate Resilience and Why Does it Matter?" Apr. 2019; NOAA National Centers for Environmental Information. *U.S. Billion-Dollar Weather and Climate Disasters*. 2018.
[4] Jefferies Sustainability & Transition Strategy. "Resilient Returns: The Investment Case for Climate Adaptation." 20 Jan. 2025.
[5] Jefferies Sustainability & Transition Strategy. "Resilient Returns: The Investment Case for Climate Adaptation." 20 Jan. 2025.
[6] Jefferies Sustainability & Transition Strategy, "Resilient Returns: The Investment Case for Climate Adaptation," 20 Jan. 2025.
[7] Jefferies Sustainability & Transition Strategy. "Resilient Returns: The Investment Case for Climate Adaptation." 20 Jan. 2025, p. 21, table 7.
[8] Jefferies Sustainability & Transition Strategy. "Resilient Returns: The Investment Case for Climate Adaptation." 20 Jan. 2025, p. 21, table 7.
[9] Jefferies Sustainability & Transition Strategy. "Resilient Returns: The Investment Case for Climate Adaptation." 20 Jan. 2025, p. 21, table 7.

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