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Climate Solutions Investments

How to gain exposure to climate opportunities in listed equities with "pure-play" climate solutions

Asset owners are increasingly looking to incorporate climate change into their investment considerations. Various climate funds and indices have been launched seeking to reduce the carbon footprint of a portfolio by excluding/underweighting firms with very high carbon emissions. However, while this approach could reduce exposure to climate risk, it does not necessarily provide investors with access to climate opportunities. The transition to a low carbon economy requires the development and scaling of several key new technologies, products, and services. These climate solutions range from renewable energy, electrification of transportation and processes, battery technology, energy and process efficiency, circularity, and new agricultural practices to plant-based protein meat alternatives.

Climate Solutions Portfolio Performance 4.50 Climate Solutions Portfolio, VW MSCI ACWI MSCI ACWI Low Carbon 2.50 1.50 0.50 0.50 0.50

Source: State Street Associates
Note: The figure presents the portfolio performance of the value-weighted climate solutions portfolio based on a global sample of pure-play climate solutions companies from January 2011 to October 2021. The portfolio is formed at the end of 2010 with \$1 dollar investment, and is rebalanced on a monthly basis.

In this paper, we develop a methodology to identify pure-play climate solutions companies and construct portfolios based on these publicly-traded companies, which allows us to study their geographic composition, accounting fundamentals, valuation ratios, and stock performance over time. Our analysis reveals several insights about the growing market for decarbonization. First, emerging markets have a significant presence in our sample — almost half of the climate solutions companies are from emerging markets. Second, a portfolio of climate solutions companies exhibits higher revenue growth, higher investments in research and development as well as talent, alongside lower profitability margins. Third, climate solutions portfolios have outperformed in the most recent years, in both developed markets and emerging markets excluding China, as well as in energy, fuels, battery, and transportation segments. Finally, the portfolio's returns exhibit very little correlation with the returns of portfolios that seek to reduce their carbon emissions by underweighting high carbon emission companies, suggesting that climate solutions portfolios are distinct from low carbon indices.

We hope our study provides investors practical examples of how to identify and build portfolios from targeted, pureplay climate solutions companies, as well as a better understanding of the properties and financial performance of these portfolios. As key climate change technologies and innovations continue to develop and accelerate, we expect to see more companies joining forces to provide decarbonization products and services, giving rise to greater investment opportunities in the coming decades.

For more on this topic, see our 2023 journal article: "Climate Solutions Investments" by Alexander Cheema-Fox, George Serafeim, and Hui (Stacie) Wang, The Journal of Portfolio Management, Vol. 49, No. 3, February 2023

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State Street Associates

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