ESG Investing

Can Machine Learning Help Manage Climate Risks?

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As climate change is becoming an increasingly observed phenomenon and understood to be caused by carbon and carbon-equivalent emissions, investors are adjusting their portfolios to prepare for a future regime shift to a lower-carbon economy. The primary approach taken to prepare for this change is to incorporate carbon emissions in investment selection. However, albeit a practical approach, carbon emissions can be a narrow measure of overall climate risk.

In this article we explore the insights of Engle, Giglio, Kelly, Lee, and Stroebel in "Hedging Climate Change News", 2020, where they use textual analysis and machine learning techniques to create a broad climate hedging portfolio based on stocks' sensitivity to climate news. We find that, subject to further research, these insights could be used as a complement to carbon-aware investing in defending against climate change.

About the Portfolio Solutions Group
The Portfolio Solutions Group (PSG) provides thought leadership to the broader investment community and custom analyses to help AQR clients achieve better portfolio outcomes.

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