

Sustainable finance through factor models: The Greenium matters^{*}

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Abstract

This study provides evidence on the existence of a negative Greenium, i.e. a green risk premium, based on European individual stock returns. By defining a green factor which is priced by the market, we offer a tool to assess the exposure of a portfolio to climate risk and hedge against it. We estimate that in a stressed scenario where green stocks very much outperform brown stocks, there would be losses at the global level, including for European large banks, should they fail to price the Greenium. These results call for the introduction of carbon stress tests for systemically important institutions.

Keywords: Climate risk, environmental disclosure, factor models, asset pricing, stress test.

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