

Navigating Climate Risks: Investor Perceptions and Green Innovation

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Abstract

This study investigates on how Climate Change influences company innovation strategy, with particular attention to the role of process innovation. While existing literature links environmental pressure to firms' innovation capacity, less is known about how climate risk shapes the direction of innovation and what are the dynamics that bring companies to change their strategies. We use climate exposure measures provided by [Sautner et al. \(2023\)](#) to proxy climate pressure, patent data as a measure of innovation and the vertical integration scores from the Fresard-Hoberg-Phillips data library ([Hoberg and Phillips, 2016](#)) to investigate how climate risk perception propagates through corporate networks. We find that companies, in response to climate risk pressure, decrease the overall production of new technologies, but increase the production of green ones and, more importantly, tend to adapt their production methods with process-related innovations, especially when the risk come from the upstream side of the value chain.

Keywords: climate change exposure; green innovation; process patents; value chains

JEL codes: O30; D22; Q55

References

- Hoberg, G. and Phillips, G. M. (2016). Text-Based Network Industries and Endogenous Product Differentiation. *Journal of Political Economy*, 124(5):1423–1465.
- Sautner, Z., Lent, L. V., Vilkov, G., and Zhang, R. (2023). Firm-level climate change exposure. *Journal of Financial Economics*, 78:1449–1498.