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Is designing environmental markets as financial markets a good thing?

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ABSTRACT

In all cap-and-trade schemes worldwide opening up the market to financial actors is a key concern for their functioning. While financials can increase market liquidity and enhance price discovery, excessive speculation may destabilize the market and undermine trust in its functioning more broadly. Whether this is just a worry or a serious concern is unclear though, as a suitable diagnostic toolbox to actually measure and understand the effects and pervasiveness of speculation is still lacking. In this work we employ rarely used market data and novel financial regulation reports from the EU-ETS, where excess speculation is deemed particularly imminent, to fill this gap. Our contribution is threefold. First, we delineate a typology of market participants and quantitatively characterize their activities and trading behaviors. Second, we show that speculation is concentrated in front-year futures contracts and propose different measures pointing towards increased speculation levels over the last couple of years, especially in 2018 the year of the ETS reform. Third, we decompose the market-wide surplus (bank) into intertemporally active and dormant components, which confirms current concerns that the EU-ETS is to become more susceptible to speculation in the coming years. We conclude that implementing speculation curbs and warning systems should be a priority for upcoming reforms, and we outline general requirements and ways forward for regulation and related research.