

## Market Competition and the Adoption of Clean Technology: Evidence from the Taxi Industry

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**Abstract :** This paper studies the impact of the intensity of market competition on firms' willingness to adopt green technologies —which has become particularly relevant in the light of the debate on whether competition policies should be relaxed to achieve certain environmental targets. We exploit the staggered rollout of different rail-hailing platforms (most notably, Uber) across different metropolitan areas in Spain as a natural experiment that provides time and city-specific exogenous variation in the intensity of competition to study the impact on taxi drivers' decisions to purchase “green” or “dirty” vehicles. It was shown that the entry of these platforms significantly increased the takeout of green vehicles among professional drivers in incumbent (dominant) conventional taxi companies and decreased that of dirty vehicles. The exact opposite effect is observed in the cities where these platforms were extremely unlikely to enter. Back of the envelope calculations suggest that the entry of Uber is associated with an extra green vehicle purchase in every four among taxi drivers, resulting in a substantial drop in the level of emissions from the taxi fleet —still mostly dominated diesel vehicles.

**Keywords :** technological change, green technology adoption, market competition, diffusion of technology, environmental externalities

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