Prices and Concentration: A U-shape? Theory and Evidence from Renewables

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Abstract :
We study competition and concentration with technology-diversified firms. Theoretically, when some high-cost capacity is transferred to the largest, most efficient firm from rivals, the leader's supply expands to undercut competitors, whose supplies expand to defend market shares. Prices drop as diversification offsets concentration. However, undercutting is unprofitable with substantial capacity differences, making large transfers anticompetitive. Exploiting renewable intermittencies in the Colombian electricity market, which features technology-diversified firms, we find a U-shape between prices and concentration. Counterfactuals doubling the leader's high-cost capacity lowers prices by 10\%, while larger transfers raise them, revealing how firms' capacities and technologies' efficiencies shape market power.