

Informed Trader's Knowledge about Noise Trades and Its Impact on Oligopolistic Market Equilibrium

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ABSTRACT

We study oligopolistic market making in discrete and continuous time frameworks, taking into account the informed trader's awareness of noise trades. Our analysis reveals that market makers tend to execute buy (sell) orders at prices higher (lower) than the fair value, indicating an overreaction to market orders. In the continuous time model where the informed trader lacks the ability to observe noise orders, we demonstrate that the oligopolistic equilibrium is the same as the competitive equilibrium in [1]. However, when the informed trader gains the capability to observe noise orders, disparities in equilibria emerge between the oligopolistic and competitive markets. This observation, in contrast to the findings in [2] about the competitive market, emphasizes a distinctive feature of the oligopolistic market: the presence or absence of informed trader's knowledge concerning noise orders influences the equilibrium structure.

REFERENCES

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- [2] Back, K., "Insider Trading in Continuous Time," *The Review of Financial Studies*, Vol. 5, 1992, pp. 387-409.