

The declining price anomaly in sequential auctions with asymmetric bidders

Evidence from the *Nephrops norvegicus* market in France

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Abstract

The declining price anomaly for sequential sales of identical commodities challenges auction theory which predicts constant prices within a day. Among hypotheses explaining the phenomenon stands the dual value of goods including a risk premium in early transactions. We consider that asymmetric bidder groups and shortage periods may also affect the daily price pattern. This hypothesis is tested through various econometric models (OLS, MG, FE, LSDVC) on a fish market (*Nephrops norvegicus* sold alive in Lorient, France). The overall risk attitude is doubled in our case study with the presence of asymmetric buyer groups in the bidding process and their distinct marketing strategies. Our results show that one of the groups (supermarkets) bid more aggressively for a longer period of daily sales when they decide to target this species for discount selling campaigns. This strategy pushes them to outbid other competitors until they can obtain the required tonnage for their own retail shops, and such a strategy delays the time of price decline compared to other buyer groups.

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Highlights:

- We study the presence of declining price anomaly for sequential sales of identical commodities
- We include the presence of asymmetry between buyer groups in the analysis
- Our results show a steeper decline on shortage periods
- Our results show that Heterogeneous buyers show distinct preferences

Keyword: auction, declining price anomaly, asymmetric buyers, fish market

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