The impact of tick sizes on trader behavior Evidence from cryptocurrency exchanges Anne H. Dyhrberg Sean Foley Jiri Svec

> Discussion: Nidhi Aggarwal

> > IIM Udaipur

December 15, 2018

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# The paper

Examines the impact of increase in tick size on trading behavior and market quality.

Exploits a staggered increase in tick sizes at the cryptocurrency exchange, "Kraken".

# The paper

- Examines the impact of increase in tick size on trading behavior and market quality.
- Exploits a staggered increase in tick sizes at the cryptocurrency exchange, "Kraken".
- Findings:
  - Reduced undercutting
  - Restored the relevance of time priority
  - Reduced quoted spreads, improved depth, reduced volatility at best prices

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Large body of literature on equity markets. Fills the gap with analysis from an alternative asset class setting.

- ► Unique setting: extremely low relative tick sizes, unconstrained spreads, ≈ zero fundamental value, and limited participation.
- Provides a laboratory experiment setting to analyse trader behavior and, thus market outcomes.

- Large body of literature on equity markets. Fills the gap with analysis from an alternative asset class setting.
- Findings in line with the theoretical predictions, except for improvements in liquidity costs.

- What's the composition of traders on the exchange in terms of HFT vs not?
  - Did the tick size increase lead to higher liquidity provision by HFTs due to speed advantage?

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- What's the composition of traders on the exchange in terms of HFT vs not?
  - Did the tick size increase lead to higher liquidity provision by HFTs due to speed advantage?
- What was the tick size on competing exchanges, and market share of Kraken?
  - Did liquidity providers move from other exchanges to Kraken after the increment?

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- Was the tick size increase an exogenous shock? Or was it anticipated by traders?
  - If yes, then the analysis will require a longer event window.
  - Effects of tick size increase also likely to stabilize over a longer time period, than just a week.

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What prompted the exchange to increase the tick size within a week?

## Comments: Empirical strategy

Better identification using data from competing exchanges where tick size did not change.

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- Else, examine currency pairs with large relative tick size changes vs. low relative tick size changes
- Endogeneity issues with X's (volumes, volatility, number of trades). Include lagged returns?

### Minor comments

- Intraday dummy definition not clear in the paper?
- Post event dummy for both the events allotted 1?
- Clustered standard errors?
- Any peak trading time on which to concentrate on?

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Thank you

