

“Learning from DeFi: Would Automated Market Makers Improve Equity Trading?”

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This paper, however, examines a question of mainstream relevance:

“Would AMMs Improve Equity Trading?”

AMMs are an *existing* method of trading assets settled on a blockchain.

The hurdles to applying AMMs to equity trading are legal not technical...

This paper helps us determine if those hurdles are worth tackling.

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“Average benefits across all firms are around 30% of annual trading costs.”

This paper suggests that the hurdles might be worth tackling...

Blockchain technology facilitates commitment.

AMMs, in particular, entail **commitment to pricing schedules**, implying:

- ☺ *Regardless of market position*, the AMM could charge a user-optimal fee.
 - ▶ This lowers trading costs directly relative to a competitive market.
- ☹ *Regardless of market information*, the AMM prices as per its mechanical function.
 - ▶ Arbitrage losses arise, discouraging liquidity provision and raising trading costs.

Whether AMMs lower trading costs arises from a trade-off between ☺ and ☹.

This paper: it appears ☺ generally dominates ☹.

Comment #1: Endogenous Volume

The authors take trading volume as given.

Could lower trading costs generate higher volume?

Higher trading volumes would then increase liquidity provision.

Higher liquidity provision would *further* lower AMM trading costs (lower price impact).

Comment #2: Heterogeneous Trading Sizes

AMM pricing is convex in trade size.

In turn, AMM trading costs increase convexly with trading size.

Consequently, there is likely a separating equilibrium.

i.e., small trades at AMM; large trades at CEX (see, e.g., Hasbrouck et al. 2022)

How do heterogeneous trade sizes affect welfare calculations?

Conclusion

This paper examines if AMMs have benefits beyond the blockchain community.

The results indicate the possibility of meaningful welfare gains.

This suggests that we should consider AMM implementation more seriously.

Regulators/ Policy-Makers: Comments?