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# The impact of fragmentation, exchange fees and liquidity provision on market quality

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## Abstract

We analyse the impact of two major financial frictions on market quality in a high-frequency environment: market fragmentation and exchange fees. We find fragmentation significantly improves market quality, with benefits increasing with greater fragmentation. Fragmentation significantly reduces spreads for stocks that are least constrained by the minimum tick size, whilst constrained stocks experience significant increases in depth. Using high-frequency data we document cross-market liquidity dynamics, demonstrating that entrant markets need to trade (not only quote) in order to improve liquidity, and that endogenous liquidity suppliers increase their usage of the alternate market when queues on the incumbent exchange are long and quoted spreads are constrained by the minimum tick size, consistent with queue-jumping order duplication.

*JEL classification:* G14

*Keywords:* Competition, Fragmentation, Queue Jumping, Trading Fees

## 1. Introduction

Explicit and implicit costs are two of the major financial frictions facing traders today. The proliferation of alternative trading venues has led to a global fragmentation of order flow, bringing competition to bear on both of these financial frictions. While equity market competition can drive explicit trading fees down, the positive network externalities of trading liquidity suggest a consolidated venue may be the optimal structure for liquidity. We examine the impact of the reduction in these frictions due to the introduction of competition for equity trading in the Australian market.

We examine the separate impact of two mechanisms which Foucault and Menkveld (2008) argue may result in lower spreads when additional trading venues are present. Specifically, these two mechanisms are: competition between market makers duplicating their limit order schedules across market places; and reduced

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