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What Explains the Bid-Ask Spread Decline after Nasdaq Reforms?

BY YAN HE AND CHUNCHI WU

This paper examines whether the decrease in bid-ask spreads on Nasdaq after the 1997 reforms is due to a decrease in market-making costs and/or an increase in market competition for order flows. Unlike previous studies, we jointly examine how competition and trading costs affect bid-ask spreads. In addition, we separate the effects of informed trading and liquidity costs on bid-ask spreads. Informed trading cost is directly estimated for each Nasdaq stock using a Bayesian theoretic model. Empirical results show that market-making costs and competition significantly affect bid-ask spreads. The post-reform decrease in bid-ask spreads is largely due to both an increase in competition and a decrease in informed trading and liquidity costs on Nasdaq.

I. INTRODUCTION

Despite Nasdaq's high growth in recent years, there remains a concern over whether its bid-ask spreads truly reflect market-making costs. According to Christie and Schultz (1994), Nasdaq dealers often avoid odd-eighth quotes, which has contributed to high bid-ask spreads. Huang and Stoll (1996), Barclay (1997), and Bessembinder and Kaufman (1997) document that bid-ask spreads are significantly higher on Nasdaq than on the NYSE. George, Kaul, and Nimalendran (1991), Affleck-Graves, Hegde, and Miller (1994), Huang and Stoll (1994, 1996), Lin, Sanger, and Booth (1995), and Bessembinder and Kaufman (1997) argue that higher bid-ask spreads on Nasdaq cannot simply be attributed to informed trading costs.

The Nasdaq market has recently gone through landmark reforms to improve efficiency, with new trading rules implemented in 1997. Barclay, Christie, Harris, Kandel, and Schultz (1999) and NASD staff papers (1998a, 1998b) are the first to report that the new trading rules have significantly reduced bid-ask spreads on Nasdaq with virtually no effect on price volatility and market depth. Bessembinder (1999) finds that trading costs still remain higher on Nasdaq than on the NYSE, despite the reduced Nasdaq spreads. Recently, Weston (2000) finds that changes in informed trading and inventory costs cannot explain the post-reform decrease in bid-ask spreads. Instead, the decrease in spreads is likely due to a decline in order processing costs and dealers' economic rents. All the above studies have provided important findings

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