SEC Rulings on Dark Pool Transparency: A Case Study to Understand Its Effects on Price Discovery

Srivats Narasimhan and Eric Zhang Research Mentor: Mark Flood

Srivats Narasimhan is a SURE Fellow in the Department of Computer Science and Robert H. Smith School of Business at the University of Maryland, College Park, MD. Their email address is: snarasim@terpmail.umd.edu.

Eric Zhang is a SURE Fellow in the Department of Computer Science and Robert H. Smith School of Business at the University of Maryland, College Park, MD. Their email address is: ericzhang98@gmail.com.

Abstract

This paper examines recent SEC rulings that demand increased transparency in Dark Pools and their effects on price discovery, using Cisco as a case study. A two-week and a four-week sample of two different liquidity measurements, Amihud's measurement and Turnover ratio, were taken a month before the SEC rulings and a month after the implementation of the SEC rulings. These samples were converted to time-series, and a Granger Causality test was then performed on each separate group of time-series. Four of the five Causality tests yield the same result of not causal. The fifth result yielded a causal relationship; however, this anomaly could possibly be attributed to exogenous variables in the market. Because there is no causal relationship present on a general level, based on the results of this study, it can be theorized that the SEC rulings did not affect price discovery. Yet, due to limitations of the case study itself, its results may not entirely indicate the implications of the SEC rulings on price discovery at a larger, more generalized level.

Keywords: Dark Pools, Granger Causality, Time series, Amihud's Measure, Turnover Ratio, Down sampling, Java, R