The returns, risk and liquidity relationship in high frequency trading: evidence from the Oslo stock market

Minh Thi Hong Dinh [1]
The Business and Economics School, The Arctic University of Norway[2]

Abstract

The main purpose of this research is to investigate the relationship between returns, risk, and liquidity in high frequency trading. Panel analysis for single stocks is employed to investigate this relationship. The empirical results imply that in high frequency trading idiosyncratic risk plays a more pronounced role than systematic risk in asset pricing. First, idiosyncratic risk and liquidity have a highly significant impact on returns. Second, no evidence has been found for a significant relationship between systematic risk and returns. Finally, liquidity has a higher significant effect on idiosyncratic risk than systematic risk. The empirical results of the paper contribute to the previous literature in the high frequency context. Some previous literature suggests that idiosyncratic risk has a matter on low frequency trading, but has not yet investigated its effects on high frequency trading.

Keywords: CAPM, systematic risk, idiosyncratic risk, cross-sectional returns, intraday sample, panel analysis.
JEJ codes: G12

[1]E-mail address: minh.t.dinh@uit.no

[2]I would like to thank conference participants at the Doctoral Colloquium in Business AdministrationFIBE 2015 in Trondheim, especially Francisco Santos for several helpful discussions. Many thanks to Professor Oystein Myrland and Associate Professor Espen Sirnes at the Business and Economics School of the Arctic University of Norway for very helpful discussions and suggestions. I am also very grateful to Professor Andrew Mullineux and Dr Hisham Farag in the Department of Finance at Birmingham Business School for extremely useful comments and suggestions. All omissions and errors are the responsibility of the author.

Preprint submitted to Elsevier *July 13, 2016*