Goethe-Universität Frankfurt am Main
Fachbereich Wirtschaftswissenschaften

Professur für Betriebswirtschaftslehre,
insbesondere e-Finance

Prof. Dr. Peter Gomber

Theodor-W.-Adorno Platz 4
RuW, Postfach 69
D-60323 Frankfurt am Main

Telefon +49-69-798-34683
Telefax +49-69-798-35007
E-Mail gomber@wiwi.uni-frankfurt.de

http://www.efinance.wiwi.uni-frankfurt.de

Master Thesis:
Shifting Market Dynamics in German Equities Trading

The introduction of the Markets in Financial Instruments Directive (MiFID) in 2007 increased competition among European trading venues and led to a more fragmented trading landscape. Today, investors can buy and sell German equities at dozens of different trading venues. While the main stock exchange, Xetra, still holds the largest market share with approximately 60% for DAX40 stocks, alternative trading venues such as Cboe or Aquis Europe have gained significant market shares. With the COVID-19 pandemic and the rise of neobrokers such as Trade Republic or Scalable, retail trading volumes in Germany have increased significantly due to easier access and reduced trading costs. Trading venues focusing on retail order flow, such as Tradegate, Lang & Schwarz (L&S) – the market operator behind Trade Republic – and gettex – the platform behind Scalable – have been gaining increasing market share. These structural changes raise important questions regarding the evolving nature of price formation in German equity markets.

Historically, Xetra's price information has served as the primary driver for future price movements across different trading venues (Clapham and Zimmermann, 2016). However, recent market share changes suggest that alternative venues might now exert a growing influence on price discovery, especially outside Xetra's trading hours. Understanding these dynamics is crucial for market participants, policymakers, and researchers alike.

This master thesis aims to analyze how price formation has evolved in light of these shifting market dynamics. Specifically, the student will conduct a descriptive analysis of transaction data from Xetra and alternative trading venues (e.g., Tradegate, L&S, gettex) and examine potential intraday patterns, trading volume shifts, and cross-market dependencies. Furthermore, the student will apply appropriate empirical methodologies, such as the information share measure of Hasbrouck (1995), to estimate trading venues' contribution to price discovery and investigate whether alternative venues now play a more substantial role in leading price movements.

To achieve these goals, the student will work with a large dataset containing transaction-level market data from several European trading venues covering six months. The dataset is provided by our chair.

Students interested in this thesis should have at least basic programming skills (preferably in Python) or a willingness to learn them and must be comfortable working with large datasets. The thesis will provide an excellent opportunity to develop and apply data processing, statistical analysis, and empirical research skills in a real-world financial market setting.

Supervisor:
Tino Cestonaro

Literature

Cestonaro, T., & Panz, S. (2023). High-Frequency Price Formation in Fragmented Equity Markets. In 2023 Financial Management Association Annual Meeting (FMA); Chicago (IL), US, and 63rd Annual Meeting of the Southern Finance Association (SFA).

Clapham, B., & Zimmermann, K. (2016). Price discovery and convergence in fragmented securities markets. International Journal of Managerial Finance, 12(4), 381-407.

Hasbrouck, J. (1995). One security, many markets: Determining the contributions to price discovery. The Journal of Finance, 50(4), 1175-1199.

Postadresse: Campus Westend • Theodor-W.-Adorno Platz 4, RuW-Gebäude, Postfach 69 • D-60629 Frankfurt am Main
Besuchs- und Lieferadresse: Campus Westend • Theodor-W.-Adorno Platz 4• RuW-Gebäude, 2.OG • D-60323 Frankfurt am Main