

Stock Market's Behavior of Trading Orders

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Description

The synchronization of total volume and orders was investigated using multiscale composite complexity synchronization (MCCS) approach. It was discovered that selling-out transactions were driven by small orders in the CSI300 market and by large orders in the CSI500 market. Understanding the microstructure of trading volume in the Chinese market can benefit from our findings. Daily fluctuations in the stock market are the result of a large number of transactions. Financial anomalies, such as momentum and reversal effects in the stock market, demonstrate that price does not fully reflect market information. The Chinese stock market has many characteristics that deviate from an efficient market. As a direct description of stock trading, the trading volume contains a lot of complex information that the price cannot reflect. There is a lot of information in the stock trading volume, including data on fundamental stock trading and long-term stock market performance [1].

The trading volume of a stock's price and earnings can provide information on the stock's volatility as well as international earnings spillover for technical indicators. Volume has been linked to expected returns in numerous volume studies. In the stock market, the relationship between price and volume is crucial; The degree to which they are related shifts over time. Because it has an impact on the stock market, the money market and the foreign exchange market, the connection between volume and price volatility has also been investigated. Risk exposure and household belief dispersion have been linked by some researchers to stock trading volume. Numerous investigators have been concerned about the problem that drives the trading volume. The types of investors who drive trading volume are the focus of the investor-focused studies that are carried out. Both buying-out volume and trading volume have been examined separately in relation to trading volume. We sought to investigate the volume microstructure's information in this study. Numerous economists have utilized physical methods to investigate the financial market's complexity because it resembles a physical system with numerous agents that interact with one another. We used entropy and multifractal techniques to examine the intricate data in trading volume data.

The Peter fractal market hypothesis challenges the strict assumption of an efficient market by asserting that the stock price follows fractional Brownian motion. The exchange-traded fund is an ETF. ETFs can be bought and sold at trading time or traded in the market like stocks to track the sector or market index. ETFs can be used as arbitrage by investors; ETFs cannot be short-sold on the Chinese market. From January 1, 2018, through May 30, 2022, data from the CSI300, SSE50 and CSI500 exchange-traded funds are used in this study. The most accurate indicator of the Chinese stock market and of the state of China's A-share market is the CSI300. The performance of leading Chinese businesses is reflected in the SSE50, which is made up of 50 stocks with the highest cash dividend and highest dividend yield. The stock performance of Chinese market-growth businesses is reflected in the CSI500. The largest of

the three index ETFs was chosen by us: The daily trading order volume and daily total volume are included in the data; We choose the volume of buying and selling out for the initiative [2].

The buying initiative is to agree on the selling orders lowest price; The selling-out initiative is to agree on the highest buying order price. We use the total trading shares of the buying-out and selling-in for the total volume. We distinguish between small orders and big orders for trading orders. Small orders are those with a turnover of less than 40,000 yuan, while big orders are those with a turnover of more than 1 million yuan. The Wind financial terminal provided the data. We get four different kinds of orders when we divide big and small orders into buying-out trades and selling-in trades. The generalized Hurst index curve is plotted; The transaction shows persistence and the persistence of minor fluctuations is especially significant because all three markets have Hurst curves above 0.5. The selling-out transaction for large orders has greater persistence in the CSI300 market. When there are only minor fluctuations, the buying transactions for big orders last longer, whereas when there are significant fluctuations, the buying transactions for small orders last longer. The persistence of the various orders in the CSI500 market is similar, but it varies, with both small and large fluctuations.

Small orders buying transactions on the SSE50 market are more persistent than big orders, but big orders buying transactions are less persistent. When q is greater than 10, the Hurst index for significant buying transactions is close to 0.5, indicating that the market volume is random and there is no obvious persistence or anti-persistence when significant fluctuations occur. Depicts the Hurst curve following the original sequence's shuffle. The three markets Hurst indexes decrease significantly, indicating that the time series correlation is responsible for the transaction's persistence. After the shuffle, the CSI300 market's small orders seem to stay the same even when there are small fluctuations. When q is close to 0, the transaction of big orders is close to 0.5, indicating that big orders buying transactions exhibit no prominent memory characteristics even in the face of minor fluctuations. The SSE50 market exhibits persistence during small fluctuations and anti-persistence during large ones; for small orders, the buying transactions are extremely persistent. Small orders are the driving force behind selling-out transactions in the CSI500 market, as evidenced by the persistent selling-out transaction of small orders [3].

In order to investigate the complexity behavior of small and large orders on the Chinese stock market, we employed the MFDFA and MCCS techniques and discovered that the driving forces of various markets varied. Participants in the market can learn a lot from our findings. Market investors can learn more about the buying and selling that takes place in the stock market, as well as the intentions of the various trading forces that operate in the market and the trading volume in the investment. The results of CSI300 are more informative for emerging markets like China, whereas the results of SSE50 can be used as a reference for developed markets. Due to the diverse drivers of various markets, policymakers must develop distinct policies for each market. Policies can be fairly permissive for the SSE50 market, whereas targeted policies can help improve market efficiency for the CSI500 market, which is driven by large orders. Our research has some limitations [4].

The fractal analysis reveals that the correlation of time is responsible for the substantial persistence of the Chinese stock market's trading volume. The Chinese stock market exhibits persistence of small fluctuations and anti-persistence of big fluctuations when the time correlation is removed by shuffle, indicating that the persistence of small orders is stronger than that of big orders. We discovered that small order transactions, which are unaffected by the time correlation, drive selling trades. However, buying trades do not

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seem to have a clear motivation. Big orders drive selling transactions in the CSI500 market. This may be due to the fact that the majority of retail investors are in the CSI500 market, in our opinion. Small orders account for the majority of transactions, but big orders, which carry more weight, dominate the CSI500 market [5].

Conclusion

We have only taken into account the volume's absolute value and have not examined the volatility of various orders in depth; this may be a topic of future research. Additionally, our findings may have been influenced by the global health crisis and it is sensible to acknowledge that this time period was distinct from other times without the crisis. Lastly, other financial markets can be studied using the complexity analysis method. This could include the complexity behavior of stock and futures markets as well as the complexity synchronization between various futures markets.

References

1. Angelis-Dimakis, Athanasios. "Value chain upgrading in a textile dyeing industry." *J Cleaner Prod* 138 (2016): 237-247.
2. Bening, Catharina R. "Towards a circular plastics economy: Interacting barriers and contested solutions for flexible packaging recycling." *J Cleaner Prod* 302 (2021): 126966.
3. Alkaya, Emrah. "Sustainable textile production: A case study from a woven fabric manufacturing mill in Turkey." *J Cleaner Prod* 65 (2014): 595-603.
4. Abdulrahman, Muhammad D. "Critical barriers in implementing reverse logistics in the Chinese manufacturing sectors." *Inter J Prod Eco* 147 (2014):460-471.
5. Albrecht, Johan. "The use of consumption taxes to re-launch green tax reforms." *Interl Rev Law Eco* 26 (2006): 88-103.

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