

THE IMPLEMENTATION OF FULL CALL AUCTION ON TRADING VALUE AND PRICE MANIPULATION INDICATOR IN WATCHLIST STOCKS ON THE INDONESIA STOCK EXCHANGE



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Abstract

This research analyzes the impact of the Full Call Auction (FCA) policy on transaction values and indications of price manipulation in stocks listed on the Special Monitoring Board (PPK) of the Indonesia Stock Exchange (BEI). This policy was implemented to improve market orderliness and protect investors from the risk of manipulation, which commonly occurs in low-liquidity and high-risk stocks. The research questions include whether FCA causes a significant change in trading value and whether FCA can reduce indications of price manipulation as measured by liquidity, information asymmetry, and volatility. The study uses a comparative quantitative approach with an event study design, analyzing 171 PPK companies during the period of November 3, 2023 - August 26, 2025, using saturated sampling. Secondary data was obtained from BEI, including transaction values, bid-ask data, and stock prices, observed for 10 trading days before and after the implementation of FCA. Descriptive analysis results show that the average trading value increased by 24.46% after FCA, but this change was not statistically significant. Based on the Wilcoxon signed-rank test, liquidity and information asymmetry underwent significant changes after FCA, indicating an improvement in market quality and a reduction in information asymmetry among investors. However, volatility did not show a significant difference, meaning FCA has not yet fully stabilized price fluctuations. Overall, FCA is considered quite effective in reducing indications of price manipulation, especially through increased liquidity and decreased information asymmetry, although its impact on trading value and volatility remains limited in the short-term observation period.

Keywords: Full Call Auction (FCA), Special Monitoring Board (PPK), Transaction Value, Price Manipulation

INTRODUCTION

As technology advances and access to capital markets becomes easier, price manipulation poses a serious threat to market participants (Gagas Yoga Pratomo, 2025). Although law enforcement against manipulators has been regulated in Law No. 8 of 1995 concerning capital markets (Rusdinah et al., 2024), practices of stock price manipulation and fictitious transactions still occur, leading to increased price volatility (Pangestu et al., 2024), thereby increasing the risk of stock investment (Kosasih & Astawa, 2025)

Stock price manipulation generally occurs in low-liquidity stocks, characterized by small transaction volumes and low trading frequency (Nasih, 2014). This condition provides an opportunity for market participants to unfairly control prices, leading to fluctuations that often harm retail investors who lack information (Akbar, 2016). To mitigate this problem, various stock exchanges worldwide have adopted the call auction mechanism. Empirical evidence from several countries such as Singapore, India, South Korea, and the United States consistently shows that this mechanism is effective in increasing transaction volume, stabilizing prices, reducing volatility, and improving price discovery efficiency (Comerton-Forde et al., 2007; Ozenbas & A. Schwartz, 2022; Y. S. Park & Ahn, 2023; Rajesh & Gaikwad, 2014). Following this global trend, Indonesia then implemented a similar policy with modifications through the Full Call Auction (FCA) system, which is a full auction system specifically aimed at stocks with high risk of price manipulation (IDX, 2024).

The Indonesia Stock Exchange (IDX) implements the FCA policy for companies listed on the Special Monitoring Board (PPK) (Sunandar, 2024), as a form of supervision over stocks that have a high risk of price manipulation practices (Widiarma, 2025). In this system, all buy and sell orders are collected within a certain period and executed at a single price based on the largest volume intersection point (Susi Setiawati, 2025). During this process, bid-offer information is not displayed, making FCA a closed auction (Dinar Fitra Maghiszha, 2024) This policy aims to create fair prices, increase the liquidity of stocks in the PPK, and protect investors from potential price manipulation practices (Heriyanto, 2024).

Although intended to protect investors, the FCA policy has also drawn criticism among market participants for allegedly reducing the transparency of real-time bid-offer information (Achmad Dwi Afriyadi, 2024). From the perspective of Information Asymmetry Theory, this policy risks creating a new form of information asymmetry. Research by (Félez-Viñas & Hagströmer, 2021) on closing call auctions in Europe confirms that although auctions suppress volatility, the lack of order book transparency can reduce market depth and increase uncertainty for participants who do not have complete information. (S. G. Park et al., 2022b) and (Yamamoto et al., 2025) show that call auction mechanisms with limited order information can be exploited by experienced players to manipulate and disrupt the price discovery process. Thus, the closed FCA mechanism potentially not only reduces transparency but also opens up space for new forms of manipulation due to unequal access to information.

Previous research shows mixed results regarding the effectiveness of FCA. Penelitian Widiarma, (2025) found that although trading frequency decreased, transaction volume and value increased for stocks below Rp50 after the implementation of FCA, thus being considered effective in improving market liquidity and orderliness. Jena & Dash (2015) research in India also supports the effectiveness of call auctions in suppressing transitory volatility and improving price discovery efficiency. Gao et al., (2019) at the Prague Stock

Exchange, confirmed that call auctions are effective in handling illiquid stocks. Huang & Tsai, (2014) showed that this mechanism reduces closing price volatility and improves price discovery efficiency, although it does not significantly impact market liquidity. Conversely, Perdana et al., (2024) showed that the implementation of FCA on PT Barito Renewables Energy Tbk. (BREN) shares led to a significant price decrease and negatively impacted the IHSG, reflecting the market's psychological impact. S. G. Park et al., (2022a) call auction at the Hong Kong Stock Exchange found that the implementation of closing call auctions has the potential to be manipulated by market participants through sniping and overnight price reversal practices. This research emphasizes the importance of technical design in auction systems, such as time and price limits, to prevent closing price manipulation.

Based on the findings from various previous studies, the Full Call Auction (FCA) policy still elicits differing views among market participants, especially on the Indonesia Stock Exchange (IDX), where it is still very new. Some studies indicate that this policy impacts stock prices and trading activity, but these are generally limited to one or two companies, and not many have directly discussed whether the FCA policy is truly effective in reducing stock price manipulation practices. Furthermore, there are few studies that compare the overall stock transaction conditions before and after this policy was implemented. Therefore, this study will specifically examine the differences in stock transaction activity in companies listed on the Special Monitoring Board (PPK) before and after the Full Call Auction policy was enforced, and assess whether this policy is effective in reducing indications of stock price manipulation practices. The findings are expected to provide comprehensive empirical evidence for regulators, market participants, and academics in evaluating the effectiveness of FCA as an instrument for investor protection and risk control in the Indonesian capital market.

REVIEW OF LITERATURE

Market Microstructure Theory

Market Microstructure Theory provides an analytical framework for evaluating how changes in market design, such as the implementation of Full Call Auction (FCA), affect transaction patterns and price dynamics (Madhavan, 2000a). This theory explains that different trading mechanisms will influence market participant behavior, information flow, and price formation (Peng et al., 2024; Said et al., 2024). In the context of this research, the shift from continuous trading to FCA is a fundamental change in market design, where order execution concentrated at a single price point can alter liquidity structure and volatility patterns (Pasaribu & Wibowo, 2025a). The implementation of call auction has the potential to reduce noise trading and short-term price fluctuations, but it can also create information uncertainty due to the unavailability of a real-time order book (Li et al., 2021a). Thus, this theory serves as the main foundation for analyzing the impact of FCA on stock transaction activity and indications of price manipulation as measured through volatility, liquidity, and information asymmetry.

Information Asymmetry Theory

Information Asymmetry Theory explains that uneven information in the market can lead to price distortions, higher transaction costs, and opportunities for manipulation Chen et al., (2025). Transparency is an important factor in reducing information asymmetry so that prices can reflect actual market conditions (O'Hara, 1995). The implementation of Full Call

Auction (FCA), which closes bid-offer data in real time, can increase information asymmetry, even though it is intended to reduce price manipulation practices.

Efficient Market Hypothesis Theory

The Efficient Market Hypothesis (EMH) asserts that a market is considered efficient if security prices fully reflect all available information Fama, (1970). Consequently, no investor can consistently earn abnormal profits. In the context of FCA, the effectiveness of this policy can be assessed by its ability to suppress manipulation and abnormal volatility, or conversely, by whether it hinders efficiency due to limited information access for investors.

RESEARCH METHOD

This research uses a comparative quantitative approach with an event study method to examine the impact of the Full Call Auction (FCA) policy on trading activity and potential stock price manipulation. The object of research is companies listed on the Special Monitoring Board (PPK) of the Indonesia Stock Exchange (BEI). The population consists of 171 companies listed on the PPK for the period of November 3, 2023 - August 26, 2025, and uses a saturated sample. The sample distribution based on PPK criteria can be seen in Table 1 below:

Table 1.
Sample Distribution

PPK Criteria	1	2	3	4	5	6	7	8	9	10	11
Number Of Samples	104	7	8	0	46	45	40	10	3	8	1

Source: Processed Data, Idx

Based on Table 1, it is known that out of 171 sample companies, they are distributed across various PPK criteria, with some companies even falling into multiple criteria simultaneously. This distribution is important to consider in further analysis, as a high concentration of samples in certain criteria, especially criteria 1, 5, 6, and 7, could potentially affect the analysis results regarding the impact of FCA implementation on stock liquidity, information asymmetry, and stock price volatility.

The data used is secondary data sourced from the IDX and official publications related to FCA policy. The data includes transaction value, trading volume, bid, offer, and stock prices (opening, high, low, and close) 10 days before and after the FCA policy. Research variables are measured through several indicators, and operational definitions can be seen in Table 2 below.

Table 2.
Operational Definition of Variables

Variable		Operational Definition	Indicator / Measurement
Transaction Value		Total value of stock trading	Transaction value
Manipulation Indication	Liquidity	Ease of trading	$Liquidity = Average \left(\frac{volume_t}{ r_t } \right)$
	Information Asymmetry	Stock price fluctuation	Ask – Bid

	Volatility	Difference between bid and offer prices	$\sigma^2 \equiv 0.5(u - d)^2 - (2 \log_e 2 - 1)c^2$
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Source : Idx,(Abednazari, 2013; Garman & Klass, 1980)

Data Analysis

To compare the conditions before and after the implementation of FCA, descriptive analysis was used to observe changes in the average variable, thus showing the tendency of increase or decrease before further testing. Subsequently, a paired sample t-test was used if the data was normally distributed, while a Wilcoxon signed-rank test was used if the data was not normally distributed. Through this approach, the research is expected to be able to answer whether the FCA policy is effective in suppressing indications of price manipulation and improving the quality of stock trading in Indonesia.

Research Hypothesis

The Relationship Between the Implementation of Full Call Auction (FCA) and Stock Trading Activity.

Full Call Auction (FCA) is a mechanism implemented by the Indonesia Stock Exchange for stocks on the Special Monitoring Board (PPK), with the aim of improving transaction regularity and protecting investors (IDX, 2024). This system requires all buy and sell orders to be collected within a certain period and then executed at a single price based on the largest volume meeting point, which is expected to create fair prices and a more orderly market (Stenfors et al., 2024). changes in trading mechanisms will affect transaction behavior and price formation in the market. The transition from a continuous auction system to a call auction can change the volume, value, and frequency of transactions because the execution process is no longer real-time but scheduled. In line with the findings of Likitapiwat et al., (2025) n the Thai Stock Exchange, morning and afternoon auction sessions contribute differently to price formation and market liquidity, indicating that the auction time structure directly affects trading activity. Meanwhile, Eom et al., (2021) found that the reform of the call auction mechanism in South Korea succeeded in strengthening price efficiency and increasing trading transparency for high-risk stocks. These research results reinforce the view that changes in the trading system will cause differences in transaction activity in the periods before and after the policy is implemented. Therefore, this study proposes the following first hypothesis:

H1 : There are differences in stock transaction activity in companies in the PPK before and after the implementation of the FCA.

The Relationship Between the Implementation of Full Call Auction (FCA) and Stock Price Manipulation.

In addition to affecting transaction activity, the Full Call Auction (FCA) policy also aims to suppress indications of stock price manipulation, particularly in high-risk stocks on the Special Monitoring Board (PPK). In current capital market literature, price manipulation practices cannot be observed directly, so they are identified through market behavior indicators that reflect price formation distortions, such as market liquidity, information asymmetry, and price volatility (Z. Li et al., 2025).

Empirical research shows that stocks with low liquidity are more susceptible to manipulation because transactions in relatively small volumes can cause significant price

changes that do not reflect fundamental value (Goyenko et al., 2009a; Liu et al., 2021). Information asymmetry, which is generally proxied by the bid-ask spread, reflects information inequality among market participants and has been shown to increase the likelihood of price manipulation by informed traders (Abednazari, 2013a; Z. Li et al., 2025b). Meanwhile, high and abnormal price volatility is often used in recent studies as an indicator of manipulative trading activity because it reflects price instability due to non-fundamental trading pressures (Abednazari, 2013a; Liu et al., 2021)

The implementation of Full Call Auction (FCA), through an order collection mechanism and real-time bid-offer transparency restrictions, is believed to reduce opportunities for short-term information exploitation and improve the quality of price discovery. Recent studies show that the call auction mechanism can increase liquidity and reduce price distortions associated with manipulation practices (Comerton-Forde et al., n.d.; S. G. Park et al., 2022a). Based on this theoretical foundation and empirical findings, the Full Call Auction (FCA) policy is thought to play a role in reducing indications of stock price manipulation as reflected in market behavior. Therefore, the second hypothesis is formulated as follows:

H2 : The implementation of the Full Call Auction (FCA) policy has played a role in reducing indications of stock price manipulation, as reflected in increased market liquidity, reduced information asymmetry, and reduced stock price volatility in companies listed on the Special Monitoring Board (PPK).

RESULTS AND DISCUSSION

Descriptive Statistics Test

Descriptive statistical tests were used to provide an initial overview of changes in transaction values and indications of stock price manipulation, including liquidity, information asymmetry, and volatility before and after the implementation of the Full Call Auction mechanism. This analysis compares the mean and standard deviation of each variable in both observation periods. A summary of changes in the mean values of the research variables is presented in Table 3.

Table 3.
Descriptive Statistics

Variable	N	Before		After		Change
		Mean	Std Dev	Mean	Std Dev	
Transaction Value	171	1.286.783.630	8.491.553.052	1.601.520.017	8.584.715.402	24,46%
Liquidity	171	414.591.825	1.200.304.588	1.004.923.309	2.249.071.902	142%
Information Asymmetry	171	24.323	300.613	22.071	304.772	-9,26%
Volatility	171	568.367.499	1.982.949.469	378.208.723	1.166.933.471	-33%

Based on Table 3, several key findings can be explained:

1. Transaction Value

The average number of transactions before the implementation of FCA was 1.286.783.630 with a standard deviation of 8.491.553.052. After the implementation of FCA, the average increased to 1.601.520.017 with a standard deviation of 8.584.715.402. Descriptively, there was an increase in transaction value of 24,46%.

2. Indications of Manipulation

Indications of manipulation are measured using several indicators, namely liquidity, information asymmetry, and volatility. Descriptive results show:

a. Liquidity

The average information asymmetry before FCA was 24.323 with a standard deviation of 300.613. After FCA, the average decreased to 2.071 with a standard deviation of 304.772. The decrease of -9,26% reflects a reduction in the level of information asymmetry in the market.

b. Information Asymmetry

The average information asymmetry before FCA was 24.323 with a standard deviation of 300.613. After FCA, the average decreased to 2.071 with a standard deviation of 304.772. The decrease of -9,26% reflects a reduction in the level of information asymmetry in the market.

c. Volatility

The average volatility before the FCA was 568.367.499 with a standard deviation of 1.982.949.469. After the FCA, the average decreased to 378.208.723 with a standard deviation of 1.166.933. 471. There was a change of -33%, indicating a decrease in stock price volatility.

Normality Test and Difference Test

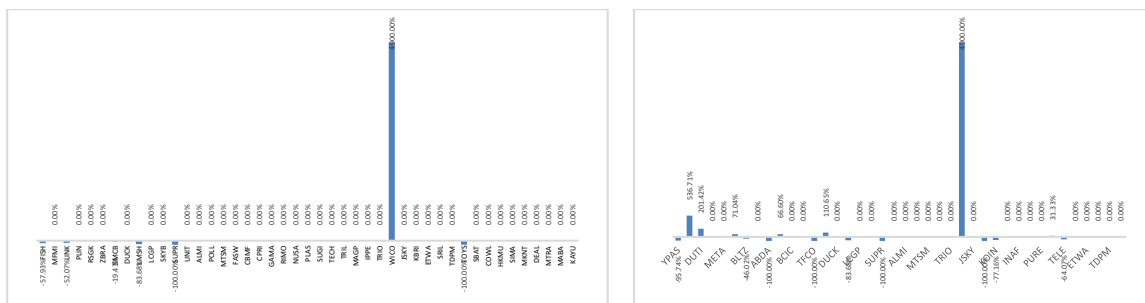
After conducting a normality test, the results showed that all indicators were not normally distributed, so the Wilcoxon signed-rank test was used. This study used a significance level of 5% ($\alpha = 0.05$). A significance value of $p < 0.05$ indicates a statistically significant difference before and after the implementation of Full Call Auction (FCA), while $P > 0.05$ indicates no significant difference.

Table 4.
Wilcoxon Signed-Rank Test Results

NO	Variable	Indicator	Sig. Value	Conclusion
1	Transaction Value	Total Transaction Value	0.178	Not Significant
2	Manipulation Indication	Liquidity	0.002	Significant
		Information Asymmetry	0.025	Significant
		Volatility	0.521	Not Significant

Source: Processed Data, SPSS

Based on Table 3, the test results show that transaction values did not experience significant changes after the implementation of FCA ($p = 0.178$). Indicators related to manipulation showed different results, with significant changes in liquidity ($p < 0.002$) and asymmetry ($p = 0.025$). Meanwhile, volatility did not show any significant changes ($p = 0.521$).



Based on the graphs in Figures 5, 6, 7, and 8, it can be seen that changes in liquidity after the implementation of FCA differ for each criterion, and most do not experience any change at all. Under criteria 1 and 5, most companies experienced an increase in liquidity. Under criteria 6 and 7, most experienced a decrease in liquidity; in fact, under criterion 6, only one company experienced an increase. Overall, these results indicate that FCA is most effective in increasing liquidity in low-priced stocks, but does not have a significant effect on high-risk or infrequently traded stocks, such as those under criterion 6.

The results of this study are in line with Market Microstructure Theory, which explains that changes in trading mechanisms will affect market activity, including liquidity. With the implementation of FCA, stock trading has become more orderly because orders are collected first and then executed at a single price, so that stocks that were previously rarely traded can become more active.

The results of this study are in line with (Comerton-Forde et al., 2007) on the Singapore Exchange, which shows that call auctions can improve market liquidity. In addition, these results are also consistent with (Jena & Dash, 2015) in India, which found that the implementation of pre-open call auctions can reduce temporary volatility and increase the efficiency of price discovery, thereby having a positive impact on market liquidity. However, these research results are not in line with Pasaribu & Wibowo (2025) which shows that after the implementation of FCA, most stocks on the PPK actually experienced a decline in liquidity because they became more difficult to trade, transaction activity decreased, and investor interest declined. The difference in the results of this study occurred because (Pasaribu & Wibowo, 2025b) examined the impact of the policy in the medium term, namely 6 months before and after the implementation of the FCA, and used 40 stock samples which found that the FCA tended to weaken liquidity. In contrast, this study focuses on the short term, namely 10 days before and after the implementation of the FCA, with a sample size of 171 stocks, and shows an increase in liquidity.

2. Information Asymmetry

Based on the test results, information asymmetry showed a significant difference with a sig value of 0.025, thus accepting hypothesis H2. Descriptively, the average information asymmetry decreased by -9.49% after the implementation of FCA. This finding indicates that FCA is capable of reducing information gaps in the market, as the full auction mechanism closes opportunities for short-term manipulation and provides greater protection for investors.

These results are in line with the theory of Information Asymmetry, whereby an imbalance of information between traders who have information and those who do not can increase transaction costs and open up opportunities for manipulation. With Full Call Auction, real-time transparency of the order book is closed, thereby reducing opportunities to exploit short-term information and reducing information asymmetry in the market.

3. Volatility

Based on the results of the tests conducted, there was no significant difference in stock price volatility before and after the company entered the PPK, so hypothesis H2 was rejected. Descriptively, there was a decline of -33%, but this result is not strong enough to be considered a real impact of FCA implementation. This condition shows that FCA has not been able to consistently reduce price fluctuations, because volatility movements are more influenced by external factors such as market sentiment, macroeconomic conditions, and the characteristics of high-risk stocks that dominate the PPK.

These results are in line with the Efficient Market Hypothesis, which states that stock prices reflect all available information, so that price fluctuations are not only determined by changes in trading mechanisms such as FCA, but are also influenced by external factors such as market sentiment and macroeconomic conditions.

The results of this study are in line with Han et al., (2022) at the Prague Stock Exchange, who found that the implementation of call auctions can increase trading activity in illiquid stocks, but its effect on reducing price volatility is limited and not statistically significant. Furthermore, these findings are supported by Fález-Viñas & Hagströmer (2021) who found that the implementation of volatility extensions in closing call auctions can reduce temporary volatility and improve the efficiency of closing price formation. Conversely, these results are not in line with Li et al. (2021) at the Shanghai Stock Exchange, who found that after the implementation of closing call auctions, volatility actually increased in the trading session before closing due to the concentration of transactions ahead of the auction, even though the closing price became more efficient and stable.

CONCLUSION

The research results indicate that the implementation of the Full Call Auction (FCA) policy for stocks listed on the Special Monitoring Board (PPK) did not lead to a significant difference in stock transaction value activity during the short-term observation period. Descriptively, the average transaction value increased after the FCA policy was implemented, but this increase was not statistically strong enough and did not occur uniformly across all sample stocks.

The implementation of FCA shows a partial effect on indications of stock price manipulation, reflected by significant changes in liquidity indicators and information asymmetry after the policy was applied, thus indicating an improvement in market regularity and a reduction in information gaps among market participants. Stock price volatility did not undergo significant changes, meaning the FCA policy has not been fully effective in

suppressing all aspects of stock price manipulation indications, especially those related to price fluctuations. These findings suggest that FCA plays a role in improving trading quality in certain aspects, but its effectiveness is still limited and depends on the characteristics of the stocks subject to the policy.

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