

The Transaction-Driven Performance of SSE Composite Index from year 2022 to 2024

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Abstract. This paper explores the dynamic linkage between the China's stock market and some major economic indicators from May 2022 to December 2024. The results show that stock trading turnover significantly and positively affects SSE Composite Index prices, M1 has no effect on SSE, while the industrial value-added growth is negatively correlated with SSE. The findings reveal that during the volatile post-COVID period, China's stock market performance has been dominated by the market transaction activities, with a weakened monetary policy transmission linkage and a temporary reverse connection with the real economy. This study could provide empirical references for policy makers and investors.

Keywords: SSE Composite Index, post-COVID period, China's stock market.

1. Introduction

During the 2022 to 2024 post-COVID period, affected by the structural economic transformation and monetary policy shifts, China's stock market has shown unprecedented sophistication. Traditional market logic has been challenged, with prominent structural divergence and shifting investor behaviors. Existing literature has examined how stock prices interact with trading activity, liquidity, money supply, and the real economy: High turnover is significantly associated with price reversals, where short-term price changes are likely to reverse subsequently (Lehmann, 1990). As a proxy for liquidity, turnover shows a negative correlation with expected returns (Brennan, Chordia, & Subrahmanyam, 1998). In the A-share market, turnover primarily reflects the degree of investor opinion divergence (Zhang & Liu, 2006) and exhibits a convex, piecewise-linear decreasing relationship with expected returns, consistent with the transaction cost hypothesis (Su & Mai, 2004). Money supply M1 shows a positive but statistically insignificant correlation with stock prices (Humpe & Macmillan, 2007), positively correlates with multiple stock indices, and the M1–M2 gap helps predict market trends (Parhizgari & Nguyen, 2014). M1 influences the stock market indirectly through its impact on output and inflation (Zhang & Su, 2010). Money supply shocks exert a long-term negative effect on stock prices, strongest in

2007 and briefly positive in 2015 (Ji et al., 2025). U.S. stock prices correlate positively with industrial production and negatively with CPI and long-term interest rates (Humpe & Macmillan, 2009). Changes in industrial production positively affect stock prices, especially during recessions (Amundsen & Koppang, 2017). In China, the Shanghai market shows a significant positive correlation with industrial value-added, whereas the Shenzhen market shows a negative correlation, with no cointegration between the two markets (Li & Song, 2007). Although stock prices and industrial value-added exhibit long-run cointegration and a positive short-term response to industrial production shocks (Zhang, 2010), this study suggests a temporary inverse relationship between stock prices and the real economy. In a summary, this paper is interested in investigating China's stock market performance during the post-COVID period, by utilizing the SSE Composite Index as the proxy, with effects from the market sentiment, money supply, and industrial value added being applied.

2. Variable and Data Source

From May 2022 to December 2024, the SSE Composite Index moved through three distinct phases: a prolonged weak consolidation, a sharp policy-driven recovery, and a late-year stabilization.

Between May 2022 and early 2024, the market remained subdued, weighed by lingering macro pressures and uneven economic recovery, with the index fluctuating mostly between 2,800 and 3,400 points before hitting a low of 2,789 in January 2024. From September 2024 onward, a strong policy-driven rebound took hold, lifting the index from near 2,800 to over 3,300 by year-end. In the final months of 2024, the index stabilized around the 3,300 level, closing at 3,351.76 in December — marking a significant recovery from its early-2024 lows and a notable uptick from the prior year's close. The monthly data from the period of May 2022 to December 2024 are utilized in the following econometric modeling procedure.

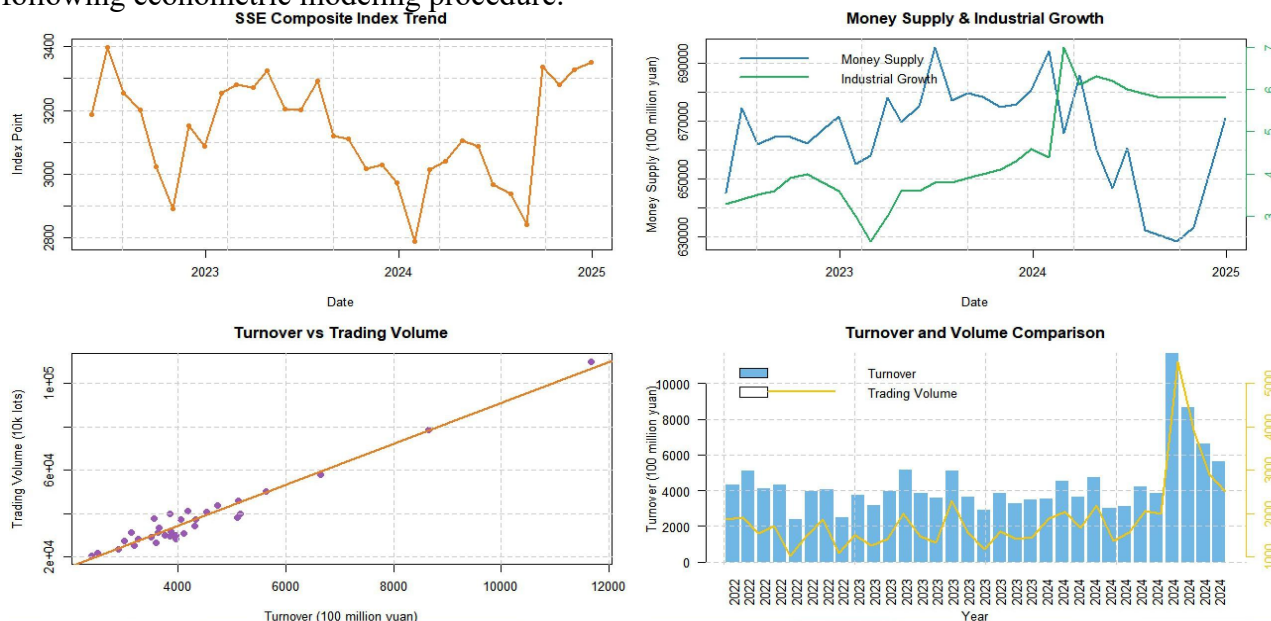


Fig.1 SSE Composite Index, M1, Turnover, Volume & Industrial Growth²

²Data source: China Securities Index and the National Bureau of Statistics. (January 2024's data of the industrial value added is missing, and so has been replaced with the average values from other months.)

3. Results and Discussion

3.1 The Lag Effect of Turnover on Stock Prices

From year 2022 to 2024, SSE Composite Index prices have been positively correlated to the concurrent turnover, whereas negatively correlated to the turnover happened three, four and five months ago, roughly a quarter prior's influence. This is because during the post-COVID period, the stock market was highly possible a liquidity-driven and speculative market, where the concurrent trading activity directly reflects the inflow of market funds and investor sentiment - higher turnover means more capital participation and active buying, driving up stock prices immediately. The significantly negative coefficient for the 4-period lag of turnover suggests a short-term market memory and the potential for post-COVID investor sentiment to amplify price volatility, leading to subsequent corrections. It may also have been related to the "profit-taking correction effect", where a surge in trading volume a quarter ago often accompanied a short-term market rally, and after three months, investors tend to sell stocks to lock in profits, leading to a decline in stock prices; meanwhile, the previous large trading volume may have exhausted market liquidity, resulting in insufficient follow-up funds and a pullback. In addition, the A-share market's weak information transmission lag and retail-dominated characteristics also exacerbate this reverse price correlation.

Table 1. The Lag Effect Test of Turnover on SSE

	Estimate	Std.Error	t-value	Prob.
X2 (-1)	0.0064	0.0075	0.857	0.430
X2 (-2)	0.0127	0.0220	0.578	0.588
X2 (-3)	-0.0549	0.0195	-2.822	0.037
X2 (-4)	-0.0718	0.0169	-4.239	0.008
X2 (-5)	-0.0916	0.0244	-3.755	0.013
X2 (-6)	-0.0318	0.0157	-2.031	0.098
X2 (-7)	-0.0194	0.0158	-1.228	0.274

3.2 The Optimal Model and Key Findings

Through a comprehensive econometric selection procedure, the optimal model is as below:

$$\hat{Y} = 3524.256 + 0.044X_2 - 76.485X_4 - 0.057X_2(-4),$$

where Y is SSE Composite Index's closing price, X_2 is turnover, X_4 is the growth rate of industrial value added, and -4 represents a lag of four months. Key conclusions have been drawn from this optimal model:

3.2.1 Market Activity Dominance

The coefficient for turnover is positive (0.044) and highly significant (p-value 0.001). This indicates that a one-unit increase in trading turnover (100 million yuan) leads to a 0.044-point increase in the SSE Composite.

Index. This highlights the dominant role of market micro-trading behaviors in driving price movements, reflecting a "transaction-driven" market.

3.2.2 Weak Monetary Policy Transmission

Money supply (M1) is found to be statistically insignificant in the final model, contradicting the traditional "loose money, rising stocks" logic. This suggests a structural obstruction in the monetary policy transmission mechanism, where increased liquidity cannot effectively flow into the stock market. This may be due to that the specialty of the post-COVID period and M1 is usually deemed as the shadow of the real estate cycle, i.e. when the real estate sector stalls, M1 becomes ineffective. Also driven by residents' post-COVID defensive saving and the conservative investment willingness of enterprises, the transmission mechanism from M1 to the stock market may have been temporally blocked.

3.2.3 Temporary Disconnect with Real Economy

The coefficient for industrial value-added growth is negative (-76.485) and relatively significant (p-value 0.044). This counter-intuitive result indicates a temporary disconnection between the stock market and real economic fundamentals. This may be due to that the recovery in real economy returns brought by the industrial strength may take capital flows back from the stock market (liquidity withdrawal effect). Another explanation is that the industrial structure still shows strong traditional industries' patterns, while could not demonstrate the emerging industries' growths, mismatched with the stock market structure.

4. Conclusion and Policy Recommendations

This research examines the dynamic linkage between China's stock market and several key economic variables from year 2022 to 2024. The results show a stock market featuring dominant trading activity, weakened monetary policy transmission, and temporary separation from real economic operations. For the purpose of cultivating a more effective market, policy implications are put forward here: Firstly, control on sale leverage level and short-term speculative behavior. The post-COVID market has been dominated by stock capital games; increase the allocation of

long-term funds to reduce the market's dependence on short-term volatile funds and speculative capital. Secondly, abandon the traditional linkage that "the stock market is a barometer of the economy" and acknowledge the temporary disconnection. Finally, improve corporate expectations and restore credit transmission. The ineffectiveness of M1 and insufficient corporate vitality are rooted in weak expectations for the real economy; it may be necessary to guide the capital to shift from pure speculative transactions to a more healthy "true economy + equity" circulation.

Acknowledgements

This work was funded by the Xiamen Natural Science Foundation (Grant No. 3502Z202573316).

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