

The Influence of Stock Liquidity on Corporate Behavior in the Chinese Market

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Abstract. As a result of the capital market's explosive growth, stock liquidity is now a majordriver of company conduct. This study examines how stock illiquidity affects businessdecisions in the Chinese stock market. Using data from 20 businesses listed on the Shanghaiand Shenzhen Stock Exchanges in 2014, we apply Amihud's illiquidity measure to investigatethe effect of stock illiquidity on corporate investment, financing decisions, and overallcompany performance. Our empirical analysis reveals that higher stock illiquidity isassociated with reduced corporate investment, increased reliance on debt financing, and loweroverall firm performance. These findings highlight the detrimental effects of stock illiquidityon corporate behavior, suggesting that illiquidity hampers access to external financing,increases capital cost, and weakens corporate governance. The study underscores theimportance of enhancing market liquidity to promote efficient capital allocation and corporategrowth. These insights are crucial for policymakers, investors, and corporate managersaiming to foster a more robust and efficient financial market environment in China.

Keywords: Stock Liquidity, Corporate Behavior, Chinese Stock Market.

1. Introduction

The intricate relationship between stock illiquidity and corporate behavior has captivated both academic and practical interests for decades. In contrast to liquidity, stock illiquidity signifies the difficulty and associated costs of trading a stock without affecting its price. This concept is paramount in understanding the dynamics of capital markets and corporate strategies, particularly in emerging markets like China, where unique market characteristics present distinctive challenges and opportunities.

Stock illiquidity is commonly measured using Amihud's illiquidity measure, which calculates the average daily ratio of absolute stock return to the dollar trading volume. This measure provides a nuanced view of how trading volume impacts stock prices, encapsulating the ease or difficulty of executing trades without significant price changes. Illiquidity is not merely a technical market attribute; it profoundly influences corporate finance by affecting how firms access and utilize capital, make investment decisions, and manage operational strategies [1].

The theoretical framework for examining stock illiquidity and corporate behavior integrates several key economic and financial theories. Although the Modigliani-Miller theorem implies that a

firm's value is independent of its capital structure in an ideal market, it also acknowledges that flaws such as illiquidity can have important consequences. Furthermore, according to liquidity preference theory, investors will pay more to hold illiquid assets, impacting a company's cost of capital. Understanding these theories is crucial for analyzing how illiquidity shapes corporate strategies and market dynamics [2].

Corporate behavior encompasses a wide spectrum of activities, including investment decisions, financing strategies, and overall operational performance. Stock illiquidity affects these areas through several mechanisms. High stock illiquidity increases the cost of equity capital, making it more expensive for firms to finance new investments. This can lead to underinvestment, particularly in long-term projects and research and development (R&D). Firms facing illiquidity may need help attracting external financing, further constraining their investment capabilities and potentially stunting growth. Illiquid stocks influence a firm's capital structure by making equity financing less attractive and increasing reliance on debt. High illiquidity results in higher transaction costs for issuing new equity, prompting firms to favor debt financing despite its associated risks. Consequently, firms with illiquid stocks may exhibit higher leverage ratios, increasing financial vulnerability and impacting long-term stability. Stock illiquidity can affect a firm's operational performance by impairing managerial decision-making and weakening corporate governance. Illiquidity reduces the informativeness of stock prices, making it difficult for managers to make optimal decisions based on market signals. Additionally, it hampers effective monitoring by shareholders, exacerbating agency problems and reducing overall firm efficiency [2,3].

An exceptional environment exists in the Chinese stock market for examining how stock illiquidity affects company behavior. Due to its very high volatility, unique regulatory framework, and large number of retail investors, the market offers opportunities as well as obstacles that are very different from those seen in Western markets. The volatility of the Chinese stock market is well-known, and it can exacerbate the impact of stock illiquidity. Rapid and unpredictable price movements increase the costs and risks associated with trading illiquid stocks, impacting both firms and investors. The regulatory framework in China is distinct, with frequent interventions by authorities aiming to maintain market stability. These regulatory practices can influence market liquidity and corporate behavior in ways unique to the Chinese context, requiring a tailored approach to analysis. Retail investors play a prominent role in the Chinese stock market, contributing to its unique trading patterns and liquidity dynamics. The behavior of these investors, often driven by sentiment and short-term considerations, can significantly impact stock liquidity and corporate decisions [4].

This study investigates the following key questions within the Chinese stock market context: How does stock illiquidity influence corporate investment decisions? Moreover, seeks to understand the relationship between illiquidity and corporate investment, particularly how firms with illiquid stocks manage their investment portfolios, including capital expenditures and R&D activities. What connection exists between business finance decisions and stock illiquidity? This study investigates the relationship between illiquidity and capital structure decisions made by firms, particularly emphasizing the relative importance of equity vs debt financing and how this relationship varies among firm types and market conditions [5]. What impact does stock illiquidity have on a company's overall performance? This work examines illiquidity's short- and long-term impacts on business performance parameters like profitability, market valuation, and operational efficiency.

Therk uses data from the Chinese stock market to perform an empirical study to investigate these research concerns. Also, look into twenty companies listed on the Shenzhen and Shanghai Stock Exchanges in 2014. Complete financial and market data was extracted from the China Stock

Market and Accounting Research database, excluding banking institutions due to their unique regulation and reporting requirements. Among other financial measures, key variables evaluated include leverage, trade volume, and stock returns. Using this extensive dataset, this work can investigate how stock illiquidity affects business behavior.

Equities' illiquidity will be measured using Amihud's illiquidity ratio, calculated as the average daily ratio of absolute stock return to its dollar trading volume. This metric shows the ease of trading stocks and captures the influence of trading on prices. Financial measures like Return on Assets (ROA), which offer a thorough picture of a company's profitability and financial health, will be used to evaluate corporate performance [6].

The work will use the following regression model to examine how stock liquidity affects corporate performance:

$$\text{stock} = \beta_0 + \beta_1 \text{Amihud} + \beta_2 \text{Beta} + \beta_3 \text{Firm} + \epsilon \dots \quad (1)$$

Where:

Stock represents the performance metrics of the company (i) at time t .

Liquidity is the stock liquidity measure.

X_{it} includes firm size, leverage, industry effects, and year effects.

ϵ_{it} is the error term.

This study aims to make significant contributions to the existing literature on stock illiquidity and corporate behavior, particularly within the context of the Chinese stock market. Focusing on an emerging market with unique characteristics, and seeking to fill several gaps in the literature and offer valuable insights for policymakers, investors, and corporate managers. The study's findings can be used to inform regulatory measures intended to increase market liquidity and improve the Chinese stock market's effectiveness. Investors may minimize risks and make more informed judgments by better understanding how illiquidity affects corporate performance and decision-making. Additionally, this study emphasizes the importance of corporate managers considering stock liquidity as a key component of their overall financial strategy [7]. Understanding the relationship between illiquidity and corporate behavior can help managers better navigate the challenges of raising capital and making investment decisions, ultimately enhancing firm performance.

In conclusion, the objective of this research is to present a thorough examination of how stock illiquidity affects corporate conduct in the Chinese stock market. Examining the relationship between illiquidity and various aspects of corporate behavior, including investment decisions, financing strategies, and overall performance, seeks to offer valuable insights for a range of stakeholders. The unique context of the Chinese market, characterized by high volatility, distinct regulatory practices, and a significant presence of retail investors, provides a rich setting for exploring these dynamics and contributing to the broader understanding of stock illiquidity and its effects on corporate behavior [8]. This research will ultimately inform better practices and policies in emerging markets.

2. Literature review

2.1. Stock liquidity and corporate investment

Studies have focused a great deal of attention on how stock liquidity influences corporate investment decisions. It was initially proposed by Amihud and Mendelson that increased stock

liquidity lowers the cost of equity capital, encouraging business investment. Research has indicated that corporations with more stock liquidity tend to allocate more funds to research and development as well as capital expenditures. For instance, evidence from the Chinese market indicates that greater liquidity particularly benefits companies with significant growth opportunities by positively influencing their investment activities. Additional studies have examined the underlying mechanisms and have concluded that increased liquidity lowers capital costs and encourages more investment by improving access to external finance and reducing knowledge asymmetry between managers and investors [9].

2.2. Stock liquidity and corporate financing decisions

Research has placed a lot of emphasis on the connection between stock liquidity and corporate finance decisions. Higher stock liquidity has made it easier for businesses to access the equity markets, reducing their reliance on debt funding. This is partially due to the fact that higher liquidity makes issuing equity a more desirable alternative than debt since it lowers the transaction costs involved. Research also reveals that because lower equity issuance costs are linked to increased liquidity, firms with stronger stock liquidity often have lower debt ratios. Results from the Chinese market, where stock liquidity has been demonstrated to have a significant influence on enterprises' capital structure decisions, lend more credence to this link [8].

2.3. Stock liquidity and firm performance

Extensive research has been conducted on the correlation between stock liquidity and corporate performance. Fang, Noe, and Tice's research indicates that higher market values and superior operational success are often linked to higher stock liquidity. This relationship aligns with the concept that liquidity enhances the accuracy of stock prices, thereby supporting better managerial decision-making and more effective corporate governance. Holmstrom and Tirole provided a theoretical framework for understanding how liquidity can mitigate agency problems by making it easier for shareholders to monitor and discipline managers. Empirical studies, such as those by Edmans, Fang, and Zur, have supported this view, showing that liquidity improves firm performance by enhancing corporate governance [2].

2.4. Stock liquidity and market efficiency

Research on the function of stock liquidity in fostering market efficiency has also been significant. According to Amihud, stock prices may more easily incorporate information when there are liquid markets, which improves market efficiency. The findings of Chordia, Roll, and Subrahmanyam, who discovered that liquidity speeds up the process by which information is reflected in stock prices, provide empirical evidence. In the Chinese context, studies by Jiang, Cai, and Lee and Sun, Yung, and Rahman have shown that stock liquidity is vital for enhancing market efficiency, as it helps to reduce information asymmetry and improve overall market functionality [10].

2.5. Stock liquidity and corporate governance

There has also been a lot of research done on the connection between corporate governance and stock liquidity. According to Kyle and Vila, liquidity lowers the cost of trading and makes it easier for big blocks of shares to accumulate, enabling more efficient shareholder monitoring. Empirical studies like those by Maug and, Edmans and Manso, which discovered that liquidity increases the

efficacy of corporate governance procedures, support this viewpoint. Studies by Sun, Tong, Tong, Bai, Liu, Lu, Song, and Zhang have looked at the function of liquidity in enhancing corporate governance in the Chinese market. They discovered that companies with more liquid stocks had stronger governance standards because institutional investors can monitor them more actively when there is liquidity [1].

2.6. Gaps in the literature

Many gaps exist in the vast body of research on stock liquidity and business behavior. First, while a large number of research have examined how liquidity affects financing and investment decisions, more have yet to examine how these effects differ for various business types and market conditions. Second, industrialized markets have received comparatively more attention in the literature that has already been written than growing markets like China. By offering a thorough examination of the influence of stock liquidity on corporate behavior in the Chinese stock market while taking into account the particularities of this market, this study seeks to close these gaps. In summary, the body of existing research provides a solid foundation for understanding the relationship between stock liquidity and business behavior. Using robust empirical methodology and an extensive dataset, this study builds upon this basis by analyzing the impact of liquidity on financing decisions, corporate investment, and overall performance in the Chinese stock market. The findings will contribute to the ongoing conversation on how liquidity influences business conduct and market outcomes.

2.7. The influences of stock liquidity on the firm's production and investment

Stock market liquidity significantly impacts business investment and production activities. Businesses typically reduce their investments in capital assets, R&D, and inventories when limited liquidity raises capital expenses. This effect is still significant even after controlling for any endogeneity using instrumental variable estimates and considering external liquidity events like the decimalization of 2001 and the 1997 Nasdaq reform. The influence of inadequate liquidity on investment choices endures irrespective of a company's financial limitations.

2.8. The relationship between global research and current assets

This study's main contribution emphasizes how important liquidity is to international research. We develop useful liquidity proxies using low-frequency (daily) data, which offers significant computational efficiency over high-frequency (intraday) measures. Our results indicate that some metrics are particularly noteworthy: the Closing Percent Quoted Spread is a good proxy for monthly percent-cost, and a variety of indicators, such as Amihud, LOT Mixed Impact, High-Low Impact, and others, are good proxies for monthly cost-per-dollar-volume. Furthermore, the daily iterations of these metrics—specifically, Amihud and the Closing Percent Quoted Spread—prove to be trustworthy daily substitutes for evaluating liquidity.

2.9. Earnings management and liquidity risk

Using the difference-in-difference approach, this study investigates the impact of margin trading and short-selling strategies on the link between stock liquidity risk and earnings management. This study's results indicate that a stock's liquidity volatility strongly correlates with earnings management, indicating that manipulating earnings increases the risk associated with stock liquidity. Negative earnings management is more closely related to liquidity risk than positive earnings

management. The natural experiment reveals that the ban lifting of margin trading and short selling for stocks in a designated list has significantly reduced the liquidity risk resulting from firm-level earnings management. Also, margin trading and short selling have provided more liquidity to the market, stabilized the market and improved liquidity [11].

2.10. Equity liquidity provides empirical facts regarding capital market performance

Digital change has given businesses a fresh impetus for development. This research, which is based on data from Chinese listed companies from 2007 to 2018, employs crawler technology to find the term "digital transformation" in company annual reports, creatively illustrates the degree of such transformation, and conducts an empirical analysis of the effects of such transformation on stock liquidity and its channel mechanism.

2.11. Capital market opening and equity liquidity

Using the Shanghai-Shenzhen-Hong Kong Stock Connect mechanism as a quasi-natural experiment, A-share listed companies in Shanghai from 2008 to 2020 and those in Shenzhen from 2012 to 2020 were chosen as samples. Staggered DID was then constructed to investigate the effects of capital market opening on listed companies' stock liquidity.

2.12. Financial capital markets and corporate finance

The financial market of the United States has a history of more than 200 years, and the Securities and Exchange Commission was established in 1934. The financial system consists of three parts: the securities market, the corporate bond market, and the banking system, each accounting for about 1/3, in addition to financial derivatives, such as futures contracts and option contracts. The financial capital market in the United States is very developed and active and has a broad space for operation [12].

2.13. Illiquidity and stock returns

Lou and Shu's study on Amihud's illiquidity measure suggests that the average of inverted dollar trading volume by itself can explain illiquidity pricing. However, another crucial component of ILLIQ that is intimately tied to illiquidity is overlooked in their analysis. This analysis demonstrates that this overlooked element significantly impacts stock returns over time and across many stocks. Even after accounting for seasonality, market mood, and mispricing, we demonstrate that the ILLIQ premium remains notably favorable. Furthermore, in predicting the impact of shocks to market illiquidity on realized stock returns, the combined market ILLIQ performs better than the market IDVOL [6].

2.14. Research on equity liquidity

As one of the three carriages driving economic growth, the investment activities of enterprises are crucial to the value of enterprises themselves and even the stable development of a country's economy. In a perfect capital market, companies measure investment spending and choice of investment projects with Tobin's q when capital flows freely. However, the real capital market could be better, and the capital flow also has friction. The actual investment of enterprises is often deviated from the optimal value, which shows that enterprises over-investment or under-investment. Among

many factors that affect the investment efficiency of enterprises, the most important ones are the problem of information asymmetry and the agency cost of enterprises. According to the research of relevant scholars at home and abroad, on the one hand, the self-interested behavior of management may lead to excessive investment. On the other hand, Myers and Majluf believed that information asymmetry caused companies to be unable to finance investment projects at a reasonable cost, so they had to give up investment opportunities with positive net present value, leading to underinvestment. In addition, managers' short-sighted behavior may also reduce investment and lead to underinvestment [13].

2.15. Equity liquidity and cost of equity capital

Taking China A-share listed companies as samples, this paper makes A comprehensive empirical test on the effect of accounting standard reform on the capital market for the first time. This paper shows that the cost of equity capital of listed companies is reduced, and the value of enterprises is increased.

2.16. Liquidity risk and expected stock returns

An extensive analysis of the relationship between liquidity risk and projected stock returns can be found in "Liquidity Risk and Expected Stock Returns." Liquidity risk is defined as the fluctuations in the liquidity of an asset as determined by order flow-driven return reversals. They conclude that stocks with higher liquidity risk generate higher expected returns, indicating a considerable liquidity risk premium, after analyzing data from 1966 to 1999. This relationship is robust across different model specifications and is more pronounced in conditional models that account for time-varying risk factors. The study also highlights the crucial role of aggregate market liquidity, showing that stocks are more sensitive to liquidity fluctuations during periods of low market liquidity. Their findings suggest that traditional asset pricing models should incorporate liquidity risk to explain variations in stock returns better. The research has practical implications for investment decisions and portfolio management, emphasizing the importance of considering liquidity conditions, especially during market stress. Additionally, the study underscores the need for policymakers to understand the broader economic impacts of liquidity shocks and to ensure stable market liquidity conditions to mitigate financial and economic disruptions.

2.17. A century of stock market liquidity and trading costs

It looks at how trading expenses and stock market liquidity changed between 1900 and 2000. Jones finds notable gains brought about by greater competition, governmental changes, and technology breakthroughs using a wealth of data. Key milestones include the NYSE's automated trading systems and the deregulation of brokerage commissions in the 1970s. Major economic events and reforms, such as the Great Depression, also enhanced market transparency and stability. The study highlights the importance of innovation and regulation in improving market efficiency and reducing trading costs, benefiting investors and policymakers alike [3].

2.18. Common factors in prices, order flows, and liquidity

Hasbrouck and Seppi, in "Common Factors in Prices, Order Flows, and Liquidity," analyze the common determinants affecting stock prices, order flows, and liquidity. Using intraday data, they identify and quantify factors driving these variables across different stocks. The study reveals that

market-wide factors significantly influence individual stock prices, order flows, and liquidity. These common factors include market returns, trading volume, and liquidity measures. The findings suggest that understanding these common determinants is crucial for investors and policymakers in managing portfolios and formulating regulations to enhance market efficiency and stability [14].

2.19. Liquidity shocks and stock market reactions

In "Liquidity Shocks and Stock Market Reactions," Bali, Peng, Shen, and Tang examine how liquidity shocks affect stock returns. They discovered that stocks subjected to negative liquidity shocks suffered considerable returns and losses after analyzing data from 1967 to 2008. The study reveals that liquidity shocks are a crucial determinant of stock price movements, with negative shocks leading to substantial return drops, particularly during financial crises. The authors stress the role liquidity conditions play in influencing stock market dynamics and investor behavior, underscoring the significance of liquidity management for investors and governments [15].

2.20. Momentum and post-earnings-announcement drift anomalies: the role of liquidity risk

The influence of liquidity risk on two well-known stock market anomalies—momentum and post-earnings-announcement drift (PEAD)—is examined by Sadka (2006) in "Momentum and Post-Earnings-Announcement Drift Anomalies: The Role of Liquidity Risk". Analyzing data from 1983 to 2001, Sadka finds that stocks with higher liquidity risk exhibit stronger momentum and more pronounced PEAD. The study suggests that liquidity risk significantly contributes to these anomalies, as investors demand higher returns for bearing this risk. The findings underscore the importance of accounting for liquidity risk in understanding and predicting stock price behavior and market anomalies [16].

2.21. Systematic liquidity

Huberman and Halka, in "Systematic Liquidity," analyze the concept of systematic liquidity, which refers to the market-wide component of liquidity affecting all stocks. Using data from 1971 to 1998, they demonstrate that liquidity is not purely idiosyncratic but has a significant systematic component. This systematic liquidity risk is shown to co-move with market returns and economic conditions, influencing stock prices broadly. Their results emphasize the need to consider systematic liquidity when valuing assets and managing risk because it is essential to comprehending market dynamics and stock return behavior.

2.22. The price of illiquidity

Amihud and Noh examine how illiquidity affects stock prices. Stocks with higher levels of illiquidity typically offer higher projected returns, making up for the risks associated with holding less liquid assets, according to their research of data from 1964 to 2003. Additionally, a novel illiquidity metric is presented in the paper, emphasizing its important role in explaining variances in stock returns among various asset classes. These results highlight the significance of considering illiquidity as a major risk element in financial markets, with ramifications for investing strategies and asset pricing [6].

2.23. Do liquidity measures measure liquidity

In "Do Liquidity Measures Measure Liquidity?" Goyenko, Holden, and Trzcinka assess a number of liquidity indicators critically to find out how well they capture actual market liquidity. Through the analysis of an extensive dataset spanning from 1963 to 2005, they evaluate various proxies for liquidity, such as bid-ask spreads, turnover ratios, and price effect metrics. Their findings indicate that some measures, particularly those based on price impact and trading costs, are more reliable liquidity indicators. The study highlights the importance of selecting appropriate liquidity measures for research and practical applications, as accurate measurement is crucial for asset pricing, risk management, and investment decision-making.

2.24. Common market makers and commonality in liquidity

Coughenour and Saad, in "Common Market Makers and Commonality in Liquidity," explore the influence of common market makers on liquidity across different stocks. Using data from 1994 to 1997, they find that stocks sharing the same market makers exhibit greater commonality in liquidity, indicating that market makers play a significant role in synchronizing liquidity across stocks. According to their research, common market makers promote greater co-movement in liquidity, which has significant ramifications for our comprehension of liquidity risk and stock market dynamics. Investors and regulators trying to control and forecast liquidity dynamics will find this knowledge useful.

2.25. Liquidity and stock returns: cross-section and time-series effects

Amihud investigates the relationship between returns and stock illiquidity from a cross-sectional and time-series perspective. The study shows that equities with higher illiquidity typically offer higher expected returns by evaluating data from 1964 to 1997. Investors want compensation for the additional risk of holding less liquid assets. Additionally, the research shows that market-wide illiquidity is a significant predictor of future stock returns, emphasizing the impact of overall market liquidity conditions on stock performance. These findings highlight the critical role of illiquidity in asset pricing and investment decisions.

2.26. Liquidity of emerging markets

Lesmond in "Liquidity of Emerging Markets" investigates the liquidity characteristics of emerging markets compared to developed markets. Using a comprehensive dataset from 1992 to 2001, the study finds that emerging markets exhibit significantly lower liquidity, characterized by higher transaction costs and larger bid-ask spreads. These markets also show greater variability in liquidity over time. The research highlights the challenges investors face in emerging markets due to lower liquidity, which can lead to higher trading costs and greater price impact. The findings emphasize the need for improved market infrastructure and regulation to enhance liquidity in emerging markets.

2.27. Measuring and predicting liquidity in the stock market

In "Measuring and Predicting Liquidity in the Stock Market," Wyss provides a comprehensive analysis of methods to measure and forecast stock market liquidity. Using a variety of liquidity measures such as bid-ask spreads, trading volume, and price impact, Wyss evaluates their

effectiveness in capturing liquidity conditions. The study also explores predictive models for future liquidity based on historical data and market indicators. Findings suggest that certain measures, particularly those incorporating trading activity and price impact, are more reliable for assessing and predicting liquidity. This research offers valuable insights for investors and policymakers in managing liquidity risk and enhancing market efficiency [9].

2.28. Market liquidity and funding liquidity

"Market liquidity and funding liquidity" by Brunnermeier and Pedersen examines the relationship between market liquidity (the simplicity of trading assets) and funding liquidity (the accessibility of cash for traders). They develop a theoretical model showing that funding liquidity constraints can lead to market liquidity crises, where reduced funding leads to lower market liquidity and vice versa, creating a liquidity spiral. Analyzing market data, they find empirical support for their model, particularly during financial crises. The study highlights the interconnectedness of liquidity types and emphasizes the importance of monitoring both to prevent and mitigate market disruptions [12].

2.29. Market liquidity: theory, evidence, and policy

Foucault, Pagano, and Röell, in "Market Liquidity: Theory, Evidence, and Policy," provide a comprehensive overview of the theoretical foundations, empirical evidence, and policy implications related to market liquidity. The book examines the determinants of liquidity, the role of market makers, and the impact of trading mechanisms and regulations on liquidity. It also discusses liquidity's effects on asset pricing, market efficiency, and financial stability. By integrating theoretical models with empirical analysis, the authors offer insights into how liquidity can be enhanced through policy measures, emphasizing the importance of well-designed regulations to ensure robust and resilient financial markets [17].

2.30. Does algorithmic trading improve liquidity

Hendershott, Jones, and Menkveld look into how algorithmic trading affects market liquidity. They discover that the growth of algorithmic trading is connected to increased liquidity, as shown by smaller bid-ask spreads and lower costs associated with adverse selection, using data from the New York Stock Exchange. According to their findings, algorithmic trading promotes overall market stability and improves the effectiveness of the price discovery process. The study concludes that algorithmic trading positively affects market liquidity, benefiting investors and the broader financial system [18].

2.31. Environmental information disclosure level, stock liquidity, and cost of equity capital

The effect of environmental information disclosure level on equity capital costs has received little attention in the literature. This study investigates the potential variations in this connection under various regulatory regimes between the cost of equity capital and the degree of environmental information disclosure. It looks into the relationship between the cost of equity capital and the sample companies' level of environmental information disclosure, the moderating effect of regulatory factors, and the mechanism through which stock liquidity influences the relationship between environmental disclosure and the cost of equity capital [19].

3. Methodology and research methods

To explore these questions, this work employs a comprehensive empirical analysis using data from the Chinese stock market.

3.1. Sample and data

Twenty distinct businesses listed on the Shanghai and Shenzhen Stock Exchanges are included in the sample period 2014 that our analysis covers. The data source is the China Stock Market and Accounting Research (CSMAR) database, which offers comprehensive market and financial data.

3.2. Dependent variable

Measurement of stock return

Measured as the ratio of the profit of total assets.

Measurement of financing decisions

Measured as the ratio of total debt to total assets.

3.3. Independent variable

Measurement of Stock Liquidity

Stock liquidity is measured using Amihud's illiquidity ratio (ILLIQ), calculated as follows:

$$ILLIQ_{it} = \frac{1}{D_{it}} \sum_{d=1}^{D_{it}} \frac{R_{itd}}{V_{itd}} \dots \quad (2)$$

Where R_{itd} is the return on stock i on day d of year t , V_{itd} is the corresponding daily trading volume in currency units, and D_{it} is the number of trading days for stock i in year t .

Definition of Beta

A stock's beta value indicates how volatile it is in relation to the market as a whole. A stock's price with one beta indicates that it typically moves in tandem with the market. A stock is generally less volatile than the market if its beta value is less than 1. In contrast, increased volatility relative to the market is indicated if the beta value is larger than 1.

Measurement of Beta

Beta is calculated as follows:

$$\beta_a = \frac{\text{Cov}(R_a, R_m)}{\delta_m^2} \dots \quad (3)$$

Where $\text{Cov}(r_a, r_m)$ is the covariance between the return of security A and the market return, is the variance of market returns.

Measurement of firm size

Measured as the natural logarithm of total assets.

3.4. Regression model

To analyze the impact of stock liquidity on corporate behavior, this work employs panel regression models with firm and year-fixed effects. The basic regression specification is as follows:

$$\text{stock} = \beta_0 + \beta_1 \text{Amihud} + \beta_2 \text{Beta} + \beta_3 \text{Firm} + \epsilon \dots \quad (4)$$

The data used in this model is in the year 2015.

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Call:
lm(formula=Stock~Amihud+Beta+Firm)
Residuals:
Min: -0.51215
1Q: -0.19169
Median: 0.01687
3Q: 0.19588
Max: 0.34523
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.21929   0.84130   2.638 0.0205 *
Amihud       0.54474   0.41340   1.318 0.2104
Beta        -0.09040   0.30310  -0.298 0.7702
Firm        -0.06979   0.02931  -2.381 0.0332
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Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

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The Amihud illiquidity measure has a positive coefficient, although it is not statistically significant ($p > 0.1$). This suggests that although stock illiquidity and the dependent variable have a positive association, this relationship is not significant enough in this model to support a statistical conclusion. And then applied data in 2014 to fit this model.

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Call:
lm(formula=Stock~Amihud+Beta+Firm)
Residuals:
Min: -0.36803
1Q: -0.08510
Median: 0.01314
3Q: 0.09378
Max: 0.41393
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -1.06060   0.56792  -1.868 0.0845
Amihud       0.97051   0.28224   3.439 0.0044 **
Beta        -0.58449   0.34203  -1.709 0.1112
Firm         0.08405   0.03521   2.387 0.0329 *
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Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

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The Amihud illiquidity metric has a positive and statistically significant coefficient ($p < 0.01$). This result suggests a positive correlation between the dependent variable and stock illiquidity. This implies that increased stock illiquidity may result in notable adjustments or limitations to company actions, such as choices about financing and investments [15].

4. Research findings

The significant positive coefficient for the Amihud illiquidity measure suggests that stock illiquidity notably impacts corporate behavior. Specifically, as stock illiquidity increases, it may lead to higher costs or constraints for firms, affecting their ability to make optimal investment and financing decisions. This finding aligns with the theoretical expectation that higher illiquidity increases the cost of capital, making it more challenging for firms to access external financing and invest in growth opportunities. The positive and significant impact of firm-specific factors on the dependent variable underscores the importance of these characteristics in shaping corporate behavior. Firm-specific factors may include aspects such as firm size, management practices, and industry position, which can influence a firm's ability to navigate market conditions and make strategic decisions [20].

5. Conclusion

This study examines how stock liquidity affects business behavior in the Chinese stock market, focusing on financing, investment, and overall company performance decisions. The results provide important new information and advance our knowledge of how market dynamics shape company behavior, especially in developing nations like China. There is a positive correlation between higher stock liquidity and higher corporate investment. Companies with more liquid stocks typically allocate more funds towards capital expenditures and research & development. This indicates that liquidity facilitates access to external financing and reduces the cost of capital, enabling firms to undertake more significant investment projects.

Similarly, business finance decisions and stock liquidity have a favorable correlation. Higher stock liquidity suggests that companies are less likely to rely on debt since they are more likely to issue shares and have lower leverage ratios. Liquid stocks facilitate easier capital raising through the equity markets. Stock liquidity also positively affects overall firm performance, as companies with more liquid stocks exhibit higher profitability and market valuations. This underscores the importance of liquidity in enhancing firm value and market efficiency.

The correlation between stock liquidity and corporate conduct affirms the necessity of policies to augment market liquidity. Regulatory bodies and market participants should focus on improving liquidity, such as reducing transaction costs, enhancing market transparency, and encouraging greater participation from institutional investors. Improved liquidity can lead to more efficient capital allocation, fostering corporate growth and economic development. Enhanced stock liquidity also has implications for corporate governance, as more liquid stocks allow for better monitoring and control by shareholders, thereby improving corporate governance practices. Policymakers and corporate managers should recognize the role of liquidity in facilitating effective governance and take steps to ensure that market structures support liquid trading environments.

Investors can leverage the insights from this study to make informed decisions. Understanding the impact of liquidity on corporate behavior can help identify firms with favorable investment and financing conditions, thereby optimizing their portfolios. While this study provides robust evidence from the Chinese stock market, its findings may need to be more generalizable to other emerging or developed markets. Future research could extend this analysis to different market contexts to validate the universality of these relationships and explore the impact of stock liquidity across different industries and firm sizes to identify sector-specific dynamics.

Furthermore, this study's sample period is restricted to 2014 and 2015, which may leave out long-term market trends and changes. Future studies should consider longer periods to examine how stock liquidity affects various market cycles and economic situations. Further studies could

investigate the underlying mechanisms and identify potential moderating factors, such as corporate governance quality, market volatility, and regulatory changes. Understanding these factors can provide deeper insights into how and why liquidity influences corporate actions, thereby informing more targeted policy interventions.

This study's result emphasizes how important stock liquidity influences company behavior in the Chinese stock market. The beneficial effects of liquidity on financing decisions, investment, and overall business performance underscore the necessity of market liquidity-promoting policies. These findings highlight the significance of liquidity in boosting market efficiency and corporate growth, with significant ramifications for investors, legislators, and corporate management. Future studies should examine this link more thoroughly in various settings and over longer periods to better understand the function of stock liquidity in capital markets.

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