STOCK LIQUIDITY DETERMINANT AND LIQUIDITY PREMIUM IN THE VIETNAMESE MARKET

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Abstract: ***This study examines the determinants of stock liquidity and the existence of a liquidity premium in the Vietnamese stock market. Using panel data of non-financial listed firms, we analyze the impact of internal corporate and macroeconomic factors on liquidity. Results show that variables such as asset turnover, profitability, and GDP growth significantly influence liquidity. We then assess whether liquidity is priced in stock returns. The findings reveal a positive and significant relationship between liquidity and annual stock returns, confirming the presence of a liquidity premium. Liquidity explains return variation better than traditional firm-specific factors. These results have implications for asset pricing, investment strategies, and market policy in emerging economies.***

• Keywords: *stock liquidity, liquidity premium, Vietnam, asset pricing, emerging markets, firm characteristics, macroeconomic factors.*

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1. introduction

Liquidity is a fundamental attribute of well-functioning financial markets, referring to the ease with which assets can be traded without causing significant changes in their prices. In equity markets, stock liquidity is essential for efficient price discovery, effective capital allocation, and overall financial stability. Liquid stocks allow investors to enter and exit positions at low cost, thereby facilitating investment and reducing market frictions.

While early studies on liquidity focused primarily on firm-specific characteristics such as size, trading volume, and corporate disclosure recent research highlights the importance of broader macroeconomic factors in influencing market-wide liquidity conditions. Variables such as interest rates, inflation, monetary policy stance, GDP growth, and economic uncertainty have been shown to affect investors' trading behavior, risk appetite, and the willingness of market makers to provide liquidity. For example, loose monetary policy can reduce funding costs and promote liquidity provision, whereas periods of macroeconomic instability can lead to market-wide liquidity dry-ups and elevated transaction costs.

The implications of stock liquidity extend beyond market functioning and directly affect asset pricing. A growing body of empirical evidence supports the existence of a liquidity premium an additional return required by investors to hold less liquid assets. The seminal work of Amihud and Mendelson (1986) demonstrates that investors demand compensation for bearing liquidity risk, especially when transaction costs are high or market conditions are volatile. This liquidity premium is not static; it varies over time in response to both micro-level and macro-level influences, becoming particularly pronounced during periods of heightened uncertainty or financial stress.

Understanding the interaction between macroeconomic factors, stock liquidity, and the liquidity premium is crucial for multiple stakeholders. Policymakers benefit from insights into how monetary and fiscal policies influence financial market stability. Institutional investors and asset managers can improve portfolio construction by accounting for liquidity-related risks and expected returns. Moreover, the pricing of financial instruments particularly in emerging and less-developed markets requires an understanding of how liquidity conditions evolve with macroeconomic dynamics.

This paper seeks to examine the role of macroeconomic variables in shaping stock market liquidity and the resulting effects on liquidity premiums. By synthesizing theoretical perspectives and reviewing empirical evidence, it aims to provide a comprehensive understanding of how macro-financial linkages influence both trading activity and asset pricing in modern capital markets.

2. Data sources

The study utilizes macroeconomic data, corporate financial data, and stock market transaction data. Therefore, the data is retreived from various sources. The most crucial data for this research is stock market transaction data, which is used to calculate liquidity indicators. This data is retrieved from the website

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investing.com. Investing.com is a global platform for economic and financial market information. The information compiled from the website includes macroeconomic data, financial information of listed companies, and transaction data of these companies. Regarding market transaction data, investing.com provides data on average price, opening price, closing price, high price, low price, and trading volume for both individual stocks and market indices. The market data is available with daily, weekly, or monthly frequency.

Corporate financial data is sourced from the website Stockplus. Stockplus provides financial data for companies, including balance sheet figures, income statements, and cash flow statements. This financial data is available on a quarterly and annual basis, adhering to financial reporting standards.

Finally, macroeconomic data is collected from sources such as the World Bank open data platform and the General Statistics Office (GSO). Macroeconomic data is reported on a quarterly basis. The study focuses on data from the period 2015 to 2022 because, prior to 2015, many variables used in the research lacked sufficient data points.

Quarterly frequency was chosen due to limitations in the frequency of corporate financial data. Additionally, studies on microstructure market dynamics suggest that quarterly frequency ensures that fundamental information is reflected in stock prices and other market variables (Lesmond, 2005).

We exclude from our sample the financial firms because they follow the strict regulations, and their financial statements are structured differently. We also exclude firm-year observations with missing data.

Figure 1: Distribution of firms in our sample

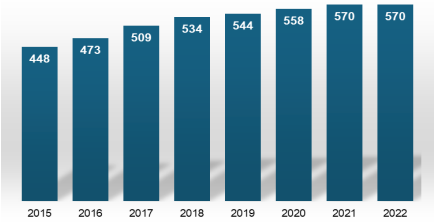
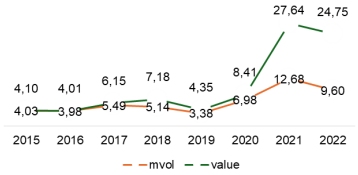


Figure 1 presents the distribution of the number of firms in our sample. The rich of the data increases through time with the lowest number of firms is in 2015 (448 firms) and highest is in 2022 (570 firms). The coverage of our sample does not cover all firms listed in the Vietnamese stock market because we exclude financial firms and firm-year with missing value.

Figure 2 presents the rough measures of market liquidity which are market volume (mvol) and market trading value (value). The two indicators move consistantly in the same pattent when they started low in the beginning of the sample and rich highest level in 2021.

Figure 2: Trading volume and value during the research period



3. Empirical results

3.1. Macro factors

We estimate the following regression function.

$$TV_t = \beta_0 + \beta_1.GDP_t + \beta_2.EXRATE_t + \beta_3.MG_t + \varepsilon_t \quad (1)$$

Where TV_t is Logarithm of trading volume (a proxy for stock market liquidity) at time t; GDP_t is GDP growth rate at time t; $EXRATE_t$ is Exchange rate at time t; MG_t : Money supply growth at time t; ε_t is the error term at time t; β_0 is intercept term;β_1, β_2, β_3 are Coefficients of the independent variables.

Table 1: Regression results of macro factors effect on the market liquidity

The dependent variable is the trading volume				
Variable	(1)	(2)	(3)	(4)
	Model 1	Model 2	Model 3	Model 4
GDP	-0.459**	-0.344*		
	(0.191)	(0.178)		
EXRATE	0.0157		0.0222	
	(0.0539)		(0.0575)	
MG	-0.137			-0.0596
	(0.0864)			(0.0848)
Constant	9.391***	8.527***	6.044***	6.612***
	(1.707)	(1.215)	(1.140)	(0.626)
Observation	32	32	32	32
R-squared	0.188	0.110	0.005	0.016

The regression results in Table 1 examine the influence of key macroeconomic variables real GDP growth (gdp), exchange rate (exrate), and money supply growth (moneygrowth) on stock market liquidity, proxied by trading volume.

GDP growth is negatively and significantly associated with trading volume in both Model 1 and Model 2. The coefficients (-0.459 and -0.344) suggest that higher GDP growth is associated with a decline in market liquidity, which may reflect substitution effects (e.g., investment shifting to real sectors) or structural frictions in the market. The significance at the 5% and 10% levels indicates moderate robustness of this relationship.

Exchange rate changes show a positive but statistically insignificant relationship with trading volume in Models 1 and 3, implying that exchange rate movements have limited explanatory power for liquidity in this context.

Money growth also exhibits a negative but statistically insignificant relationship with trading volume (Models 1 and 4). While the coefficients are negative, the lack of

significance suggests no clear evidence of a consistent effect.

Across models, *R-squared values* are relatively low, ranging from 0.005 to 0.188, indicating that macroeconomic variables explain only a small portion of the variation in trading volume. This highlights the need to consider other structural, institutional, or firm-level factors in explaining stock market liquidity.

3.2. Firm-level factors and stock liquidity

Table 2: The Impact of Internal Corporate Factors on Liquidity Dependent Variables

Model (1) - Trading Value, Model (2) - Amihud (2002), Model (3) - Trading Volume			
VARIABLES	(1)	(2)	(3)
	Model 1	Model 2	Model 3
AT	3.127***	0.247***	2.640***
	(0.110)	(0.0386)	(0.101)
ROA	4.486*	4.445***	-3.394
	(2.647)	(0.932)	(2.434)
AGROWTH	0.00274	6.83e-05	0.00646***
	(0.00184)	(0.000649)	(0.00169)
Constant	-81.63***	-8.047***	-68.31***
	(3.022)	(1.064)	(2.779)
Observations	2,186	2,187	2,186
R-squared	0.278	0.024	0.258
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1			

Table 2 presents regression results examining the relationship between internal corporate factors and three commonly used proxies for stock liquidity: trading value, the Amihud (2002) illiquidity ratio, and trading volume. The independent variables include asset turnover (AT), return on assets (ROA), and asset growth (AGROWTH). The findings are interpreted in light of existing empirical literature.

The results show that *asset turnover (AT)* is positively and significantly associated with all three liquidity measures, including trading value, Amihud illiquidity (with a negative sign reflecting better liquidity), and trading volume. This suggests that firms with higher operational efficiency tend to exhibit higher levels of market liquidity. These findings are consistent with Fang, Noe, and Tice (2009), who argue that efficient internal operations reduce information asymmetry and enhance investor confidence. Similarly, Chordia et al. (2001) find that firm fundamentals such as turnover and profitability influence trading activity and liquidity provision. The robustness of asset turnover across all models reinforces the notion that internal operational quality is a key determinant of liquidity.

In contrast, the effect of *return on assets (ROA)* on liquidity is more nuanced. ROA has a positive and statistically significant impact on trading value and Amihud illiquidity but is negatively associated with trading volume, albeit insignificantly. This suggests that higher profitability may contribute to greater valuation-based liquidity (higher trading value and lower price impact) but does not necessarily increase trading frequency. This finding aligns with Bali et al. (2014), who show that more profitable firms tend to exhibit higher liquidity due to reduced valuation uncertainty. However, the lack of a significant relationship between ROA and trading volume could be due to offsetting effects of investor types or the influence of external macro factors, as noted by Pastor and Veronesi (2003).

The influence of *asset growth (AGROWTH)* is significant only in the trading volume model, indicating that firms experiencing rapid expansion may attract higher trading frequency, possibly due to speculative interest or investor attention. This finding supports the attention-driven trading hypothesis proposed by Chen, Hong, and Stein (2002), where high-growth firms especially those in emerging markets are more likely to attract retail and momentum investors. However, the lack of significance in trading value and Amihud suggests that such trading activity may be less impactful in terms of valuation or price efficiency. Indeed, Cooper, Gulen, and Schill (2008) warn that high asset growth can lead to overvaluation and subsequent liquidity deterioration, particularly if growth is not matched by earnings or efficiency.

The explanatory power of the models, as measured by the R-squared values, varies considerably. The models for trading value ($R^2 = 0.278$) and trading volume ($R^2 = 0.258$) explain a moderate share of the variation, suggesting that internal factors contribute meaningfully to observable liquidity dynamics. However, the model for Amihud illiquidity ($R^2 = 0.024$) has very limited explanatory power. This finding reinforces the view in the literature such as Amihud (2002) and Acharya and Pedersen (2005) that price-impact-based liquidity measures are more sensitive to market-wide or macroeconomic conditions than to firm-specific fundamentals. These include factors like investor sentiment, monetary policy, or aggregate risk premia, which are outside the control of individual firms.

In summary, the empirical evidence supports much of the existing literature on the determinants of liquidity. Internal corporate characteristics particularly asset turnover are significant predictors of liquidity across multiple dimensions. However, the strength and nature of these relationships vary depending on how liquidity is measured. The findings highlight the importance of differentiating between trading activity, transaction costs, and price responsiveness when assessing firm-level liquidity and underscore the need to complement internal firm analysis with broader market-level variables for a more comprehensive understanding of liquidity dynamics.

3.3. Liquitidy and liquidity premium

In this section, we test the value of liquidity. We estimate the following model:

$$Return_{i,t} = \alpha + \beta_1.LIQAL_{i,t} + \beta_2.VALUE_{i,t} + \beta_3.MVOL_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where: $Return_{i,t}$ is yearly stock return for firm i in year t (dependent variable); $LIQAL_{i,t}$ is Liquidity variable (e.g., inverse Amihud measure); $VALUE_{i,t}$ is firm value indicator (market-to-book or size); $MVOL_{i,t}$ is market volatility of the stock; α is Constant (intercept); β_1, β_2, β_3 are coefficients for explanatory variables; $\varepsilon_{i,t}$ is the error term.

Table 3: Liquidity Premium

The dependent variable is yearly stock return.			
VARIABLES	(1)	(2)	(3)
	Model 1	Model 2	Model 3
LIQAL	0.177***		
	(0.0140)		
VALUE		0.00476	
		(0.00440)	
MVOL			0.00539
			(0.00485)
Constant	0.882***	1.051***	1.050***
	(0.0452)	(0.0473)	(0.0472)
Observations	2,187	2,186	2,186
R-squared	0.068	0.001	0.001
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1			

The regression results presented in the table examine the relationship between various liquidity-related factors and the annual average stock returns, which serve as the dependent variable in all three models. The key explanatory variables tested include adjusted illiquidity (LIQAL), the value ratio (value), and liquidity volatility (mvol), across Models 1 to 3, respectively.

In Model 1, the coefficient of LIQAL is positive and statistically significant at the 1% level (β = 0.177; SE = 0.014), indicating that stocks with lower liquidity (i.e., higher LIQAL values) tend to have higher average returns. This finding is consistent with the liquidity premium hypothesis, which states that investors demand higher expected returns as compensation for holding less liquid assets. The result aligns with the seminal work of Amihud and Mendelson (1986), who argue that higher transaction costs lead to a higher required rate of return, hence forming a liquidity premium. It also echoes the broader theoretical foundation that illiquidity is priced in the market, particularly in less efficient or emerging markets.

In contrast, Models 2 and 3, which test the explanatory power of the value ratio and liquidity volatility (mvol), yield statistically insignificant coefficients (0.00476 and 0.00539, respectively), suggesting that neither factor plays a significant role in explaining the cross-section of stock returns in this sample. These findings imply that, while investors may consider liquidity levels in their pricing decisions, they are less responsive to fluctuations in liquidity or valuation ratios in this context.

Moreover, the R-squared value of Model 1 is 0.068, substantially higher than the R-squared values of Models 2 and 3 (both just 0.001). This indicates that LIQAL accounts for a much larger proportion of the variation in annual returns, confirming its greater explanatory power relative to the other internal characteristics. This supports the findings of Pastor and Stambaugh (2003), who demonstrate that liquidity risk is a priced factor in asset markets, particularly under conditions of changing market-wide liquidity.

The empirical results strongly support the existence of a liquidity premium: stocks with lower liquidity command higher returns, reflecting investor compensation for bearing illiquidity risk. In contrast, value ratios and liquidity volatility appear to have limited influence on return variation within the dataset. These findings are consistent with major theoretical and empirical studies in the field and highlight the role of liquidity especially systematic illiquidity as a critical factor in asset pricing.

4. Conclusion

This study provides empirical evidence on the key drivers of stock liquidity and the existence of a liquidity premium in the Vietnamese market. The analysis highlights that both firm-specific factors such as asset turnover and profitability and macroeconomic variables such as GDP growth and exchange rate fluctuations play significant roles in determining stock liquidity. More importantly, the findings confirm that liquidity is not only a determinant of trading behavior but also a priced factor in the cross-section of stock returns. Stocks with higher liquidity are associated with significantly higher annual returns, validating the presence of a liquidity premium in Vietnam. Compared to other variables, liquidity exhibits superior explanatory power, underscoring its central role in emerging market asset pricing. These insights have meaningful implications for investors, who must account for liquidity in portfolio construction, and for policymakers, who should focus on improving market infrastructure and transparency to enhance overall market efficiency. Future research could extend this analysis by exploring liquidity spillovers, sector-specific effects, or time-varying liquidity dynamics in the region.

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