



# Stock Liquidity and Share Returns: Evidence from Mining Companies Listed on Johannesburg Stock Exchange

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## ABSTRACT

The study was aimed at examining the relationship between stock liquidity and share returns within mining sector companies listed on the Johannesburg Stock Exchange (JSE). The study was pursued after realising a failure by the mining sector to reach its full potential, regardless of the presence of vast deposits of mineral resources. A need therefore is required to ensure that the various stakeholders gain trust within the sector for the purposes of enhancing investment. The study was undertaken using a quantitative methodology and panel data analysis technique through generalised methods of moments (GMM). A sample of 15 listed companies on the JSE was selected based on data availability, with 14-year data spanning from 2011 to 2024. The independent variable was stock liquidity, while stock returns represented the dependent variable and various control variables. The results from the study showed that there is a positive relationship between stock returns (SR) and price to earnings ratio, return on market, Amihud illiquidity measure (ILLIQ), while SR had a negative relationship with volume of trade and size. The results from the study pose a positive effect towards existing and potential investors in their assessment when making investment decisions.

**Keywords:** Stock Liquidity, Share Returns, Mining Companies, Johannesburg Stock Exchange, Volume of Trade

**JEL Classifications:** F21, G11, G32

## 1. INTRODUCTION

The mining sector forms one of the main driving forces behind the growth and development of the global economy (Hidayatullah and Manda, 2021). This assertion owes to the notion that Africa at large has a huge endowment of mineral resources, which the rest of the world needs for the well-functioning of the individual economies dotted across the globe. In global terms, South Africa in 2024 was at the helm globally with reference to production and supply of minerals such as manganese, platinum and chromium, and this only shows how important the mining sector is to the global economy (World Bank, 2024).

As such, the mining sector has been the main source of employment as a poverty alleviation tool in the case of African societies, equity, foreign currency, value addition, government

funding through tax, and a global investment avenue, to mention a few (Hakim and Nugroho, 2023; Setiawan and Sumantri, 2020). As a result of the positive contributions made by the mining industry, there is a need to support its operations through the creation of a sustainable environment so that both global and local investment can be attracted to the sector. The needed support comes in various forms, and this can be through research and development, which is why this study is pursued.

According to Gakhar and Kundlia (2021), the main driver which attracts investors into the mining sector is return on investment, and this comes in the form of dividends, interest and capital gains. The return on investment is a measure of organisational performance, which evaluates the efficiency of a given investment (Nafisah and Daryanto, 2020; Qiu and To, 2025). As such, this has led to the need for an investigation to see the various components that affect

or influence mining companies' stock returns, as well as stock return volatility. Such factors, if found to have a positive effect on stock returns, will be useful to mining sector investors when undertaking their investment decisions. Also, the management of mining companies will pay more attention to the identified factors to enhance organisational efficiency and growth.

Stock prices are bound to be affected by different variables, and these may include GDP, exchange rates, money supply, unemployment, enterprise performance, stock prices of other companies of the same class, as well as dividends (Hajilee and Al Nasser, 2014; Qiao, 2025). One of the other major variables that impacts share returns from an emerging market perspective can directly be linked to liquidity (Setiawan and Sumantri, 2020), concerning both the stock market and the individual company's liquidity. The ease of converting the stocks into liquid cash without loss of value within the shortest time has been influential in determining share returns (Ruslan and Mokhtar, 2021). Illiquid stock markets have negatively affected the performance of companies within Africa, and it has been one of the reasons why investors have not been active in local investment, which is detrimental to mining sector companies (Luo, 2022). The same applies to a company's liquidity, in that investors judge the performance of stocks within a company by looking at the level of the company's liquidity. Mainly, illiquid companies fail to attract huge stock investments, which negatively affects stock prices due to market forces. It is therefore important to investigate the effect of liquidity on share returns within the corporate sector. The outcome of the study and recommendations help in growing the mining sector through local and global investment.

One of the core characteristics of a well-functioning stock market is liquidity (Kahuthu, 2017; Zhang and Sok, 2025). The liquidity factor has notable importance to listed firms, current and potential investors, and financial markets. The term liquidity is known as the capability of a financial asset to trade fast in high volumes and at the least cost, and that must take place without an increase in the security's price (Marozva and Makoni, 2021; Violita and Soeharto, 2019). In a liquid market, it is possible to trade many shares at very low cost with minimum price effect (Marozva, 2019). This is one of the reasons why short-term investors acquire liquid stocks most of the time.

However, since liquid stocks are characterised by less spread, bulk trading and low-price effect, the returns on such stocks are very low in comparison with illiquid stocks (Dang and Nguyen, 2020). On the contrary, long-term investors require high returns, and as such, they are attracted to illiquid stocks. Financial market controllers are very interested in long-run liquidity (Huang and Ho, 2020). Stock markets with low volatility levels possess the ability to lure a huge volume of market participants who have a low risk level in terms of traded volume, price effect, and trading cost (Marozva, 2020; Zhang et al., 2025). The appropriate functioning of the stock market is necessitated by the presence of long-run liquidity.

The return earned by stock investors is a summation of risk compensation and the transaction cost one earns through the trading of financial assets (Kristianti and Foeh, 2020). The

evaluation of the financial market performance revolves around liquidity (Marozva and Magwedere, 2021) and the decision about the issuance of new stocks by the listed companies is centred on liquidity, and that is why liquidity is a major concern for companies (Hidayatullah and Manda, 2021).

There has been disinvestment within the mining sector of South Africa, as shown by the number of companies that have been delisted on the JSE in the past 5 years (JSE, 2024). As such, it has become a cause of concern to investigate why the sector has experienced such a huge setback in terms of investment in comparison with the notable contribution the sector makes to the economy. The mining sector has the potential to make South Africa's economy one of the best economies globally, only if there is maximum investment in stock, which leads to its growth. The main variable, which this study focused on, is aligned with liquidity.

Liquidity is dependent on various macroeconomic factors as well as market fundamentals in the case of South Africa, and these aspects can impede or enhance liquidity from both the market and individual company's perspective (Marozva and Magwedere, 2021; Cui et al., 2025). The examples include the exchange rate strategy in use within the economy, the overall environmental rules and regulations, and the nation's fiscal policy. Additionally, other key factors that enhance liquidity conditions include investor confidence and market sentiment (Marozva, 2020). The study, therefore, intends to examine the effect of liquidity on stock returns by focusing on mining listed companies.

Stock liquidity is widely recognised as a critical determinant of asset pricing and market efficiency (Li et al., 2025). Highly liquid stocks generally attract greater investor participation, reduce transaction costs, and facilitate efficient price discovery. Consequently, the relationship between stock liquidity and share returns has become a central issue in financial economics. Despite extensive global research on liquidity–return dynamics, empirical evidence from emerging markets remains relatively limited. Emerging stock markets often exhibit structural characteristics such as lower trading volumes, higher transaction costs, and information asymmetries, which may alter the traditional relationship between liquidity and expected returns.

South Africa provides an interesting context for examining this relationship due to the prominence of the mining sector in the national economy and financial markets. Mining companies constitute a significant share of market capitalisation and trading activity on the Johannesburg Stock Exchange. However, mining stocks are also characterised by high exposure to commodity price volatility, macroeconomic shocks, and global demand fluctuations, which may influence both liquidity conditions and stock returns.

The study provides new empirical evidence on the relationship between stock liquidity and share returns within the mining sector of an emerging market. While previous studies largely focus on broad market indices or developed markets, this research offers sector-specific insights within the South African context. By concentrating on mining companies, the study enhances

understanding of how liquidity behaves in resource-based industries, which are often influenced by commodity cycles, capital intensity, and global economic conditions. The findings will assist investors, portfolio managers, and financial analysts in evaluating the importance of liquidity risk when investing in mining stocks. Understanding liquidity effects can improve asset allocation strategies and risk management practices. The study provides insights that may assist regulators and policymakers in improving market liquidity and strengthening the efficiency of equity markets in emerging economies.

Therefore, given the strategic importance of the mining sector in South Africa and the limited empirical research focusing specifically on liquidity–return dynamics within this sector, this study seeks to examine how stock liquidity influences share returns of mining companies listed on the Johannesburg Stock Exchange. The paper will be structured as follows, literature review stipulating the conceptual and theoretical framework, as well as the empirical review, a methodology which outlines data and sample as well as the model specification, followed by results and discussion, and the overall conclusion to the study.

## 2. LITERATURE REVIEW

### 2.1. Conceptual Framework

The conceptual framework shows the relationship between the variables within the study, that is, the independent variables and the dependent variable, as outlined in Figure 1.

The conceptual framework, as highlighted in Figure 1, shows the relationship between the independent variables, which include liquidity and control variables and the dependent variable as represented by the share returns. The relationship between the set variables is empirically examined using the selected econometric model to deduce the conclusions of the study and be able to provide recommendations from an informed point of view.

### 2.2. Theoretical Framework

Liquidity Capital Asset Pricing Model (LCAPM) was developed by Acharya and Pedersen (2005) as a strategy to address weaknesses of the traditional capital asset pricing model (CAPM) by incorporating the liquidity risk aspect into the model. The Liquidity Capital Asset Pricing Model (LCAPM) is a model established to measure liquidity when pricing stocks, and it also links the liquidity factor to the anomalies found in the pricing of financial assets (Luo, 2022). The turnover factor is also considered under LCAPM, and this helps to explain why financial securities that a large turnover tend to be more liquid than those with low

turnover. The trading cost dimension is another factor that is considered as part of the liquidity measure (Ahmadi, 2021). There is enough evidence showing that the characteristic features of the least liquid stocks are “huge total return to volume ratio, low turnover, small size, huge bid ask spreads, and value oriented” under LCAPM (Cao and Zeng, 2025; Kewal, 2021).

The LCAPM formula is given as follows:

$$R_{it} - RF_t = \alpha_i + \beta_1 (RM_t - RF_t) + \beta_2 LIQ_t + \varepsilon_{it} \quad (1)$$

Where:

$R_{it}$  shows the portfolio return  $i$  in time  $t$

$RF_t$  shows the risk-free asset's return in time  $t$

$RM_t$  shows the market portfolio's return in time  $t$

$LIQ_t$  shows the liquidity of portfolio  $i$  in time  $t$

$\beta_1$  and  $\beta_2$  show the coefficients.

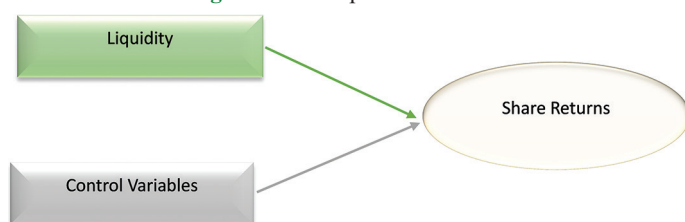
According to Marozva and Magwedere (2021), liquidity poses a huge impact on stock returns in that, at one point in time, an investor is bound to sell the stocks at hand, and the exercise exposes the stockholder to transaction costs. The conversion process tends to make investors who have stocks with a high transaction cost discount more than their low transaction cost stockholders. Hakim and Nugroho (2023) posit an inverse correlation between stock market returns and illiquidity. The liquidity risk assumes different characteristics depending on the prevailing market conditions in which it operates. The real data align better with the LCAPM than it does with the CAPM, despite the period under study (Almumani, 2023). The liquid aspect has been proven to be one of the crucial factors after size in the determination of stock prices, and this was examined using the Chinese stock market (Luo, 2022; Nguyen et al., 2025).

### 2.3. Empirical Review

The interaction between liquidity and stock returns is a complex topic in the field of finance and investments. This is because of the mixed outcomes from the available empirical evidence on the connection between the variables, hence, the reason behind the genesis of this study. There is an existence of a huge body of research that supports the notion that the financial asset's liquidity affects the asset's expected returns. Datar et al. (1998) examined the effect of the trading costs on the expected return of financial assets, and the outcome exhibits that there is evidence of an existence of a direct connection between liquidity and the company's cost of capital, which represents the return. It is imperative to know that liquidity and transaction costs have a huge influence towards investors' portfolio decisions (Deng et al., 2026; Olugbenga, 2012). It is worth knowing that rational investors call for high-risk premiums for possessing illiquid financial assets, and this implies that the cross-sectional risk-adjusted returns on liquid assets are low. The sentiment has had notable support empirically by different scholars on mature capital markets (Hidayat and Rikumahu, 2025; Jawid and Haq, 2020; Kewal, 2021; Rai and Garg, 2021).

Jun et al. (2003) had a cross-sectional analysis on the US stock prices, and the results show a decline in the risk-adjusted returns

Figure 1: Conceptual framework



Source: Author's compilation

concerning liquidity, which was measured by the bid-ask spread. In another study, Chang et al. (2010) examined the connection between various company characteristics, which included the market liquidity measured by the trading volume and expected stock returns. It was found that there is a noticeable negative interaction between NYSE and NASDAQ stock returns and the trading volume, thereby connecting stock returns and liquidity.

Kahuthu (2017) found the connection between return and turnover rate to be negative and statistically significant. This means that the less liquid stocks were found to possess higher returns than the liquid ones. Another study by Kling (2019), where liquidity was used with the help of trading volume as the proxy, shows inverse interaction for both NASDAQ and NYSE stocks. Contrary to the assertions of Kling (2019), there are scholars such as Adeniyi and Kumeka (2020), Mohamed and Elmahgop (2020) and Rai and Garg (2021) who reported a positive connection between liquidity and stock returns in the case of developing markets.

According to Marozva and Makoni (2021), the available literature shows mixed outcomes on the connection between liquidity and stock returns. The inverse relationship existing between liquidity and stock returns was proved by Chiang and Zheng (2015), Dang and Nguyen (2020), and Hidayatullah and Manda (2021). Ahmed et al. (2023) and Hacini et al. (2021), and Hu and Sun (2025) proved empirically that the successive price fluctuations found on liquid stock are lower than the volume change. As a result of these findings, it is imperative to know that the investors would not require a liquidity premium and would expect to receive lower returns on liquid stocks in comparison to illiquid ones.

As a result, the available literature denotes some evidence of a positive and negative connection between liquidity and stock returns, thereby leaving a vacuum on the actual relationship between the variables, hence the need to pursue this study.

### 3. METHODOLOGY

#### 3.1. Data and Sample

A positivist research paradigm was adopted in this study because of its distinct characteristic features, which are objective and quantifiable. The study was centred on the quantitative method in that a relationship between variables had to be established, that is, between the constructs and the outcome. The main aim was centred on examining the relationship between liquidity and stock returns through a scientific inquiry. The inquiry led to the derivation of the research hypothesis, which outlines the presumed association between the dependent and independent variables in the study. In this case, the hypothesis entails that there

is no significant relationship between stock liquidity and mining companies' share returns. In addition, the analysis of the panel data, which was gathered from the listed mining companies on the JSE between the period 2011 and 2024, supports the positivist paradigm in research.

A quantitative research approach was adopted in this study to address the objectives set for the study. A quantitative research approach entails the collection of primary data for the study, which follows a systematic way in obtaining data from a large population and extracting meaningful information from the collected data, which is to be generalised on a larger population (Dimitrov, 2008; Leedy and Ormrod, 2014; Yin, 2002). The numerical data is presented, and the outcomes are interpreted to obtain as much information from the data as possible, which is shown in the observed numerical values. The selection of the quantitative research approach is centred on the notion that since the study is meant to test the variables' relationships, it allows for some statistical analysis, which makes the approach a suitable option. Moreover, a quantitative research approach derives its basis from theory testing, determining facts from the data, establishing associations between or amongst the set variables within a study, as well as the prediction of the envisioned outcome from the study (Kumatongo and Muzata, 2021).

A sample of 15 listed mining companies on the JSE was selected out of the 16 listed companies. The one company that was eliminated had insufficient data to fulfil the requirements and objectives of the study. The independent variables considered within the study include current ratio, return on market, size of the company, Amihud illiquidity measure, volume of trade, and Covid-19. Table 1 provides an outline of the summary of the independent variables in the study.

Table 1 shows the independent variable to the study and how they are measured, which include current ratio, volume of trade and Amihud illiquidity measure. The control variables are also considered, which include price to earnings ratio (PE), the company's size, and return on market (RM).

##### 3.1.1. Liquidity

When viewing liquidity factor from the perspective of the stocks, it points out that liquidity is one of the main factors responsible for the determination of the price at which the share is trading at any given time on the stock market (Kumar, 2019). A highly liquid stock means that the share can be converted into cash within the shortest period and without the loss of value (Mohamed and Elmahgop, 2020; Wahyudi et al., 2025). As such, being highly liquid shows that there is less risk involved since one can sell the

**Table 1: Independent variables**

Type	Variable	Proxy	Expected sign	Data source
Independent variables	Liquidity	Current ratio	Negative	IRESS research domain
		Amihud illiquidity measure	Positive	IRESS research domain
		Volume of trade	Positive	IRESS research domain
Control variables	Price to earnings ratio	Market ratio	Positive	IRESS research domain
	Size of company	Market capitalisation	Positive/negative	IRESS research domain
	Return on market	Total returns	Positive	IRESS research domain

Source: Author's compilation

share and get money in the least time (Rai and Garg, 2021). As a result, such stocks usually obtain lower returns because of their highly liquid attribute. The law of return specifies that the higher the risk, the higher the return and vice versa (Marozva, 2019).

3.1.2. Price to earnings

The P/E ratio is a market ratio that provides a comparison to information users, such as shareholders and potential investors, between the market price per share and the earnings per share on a given stock (Bobi, 2022). A comparison is also made between P/E and price per share, and the association is presented through the earnings per share (Rahman and Uddin, 2019). The P/E ratio is an important device for the company in that it offers a foresight to the management in relation to what the investors look at when assessing a potential investment avenue. Potential investors investigate the company’s previous performance to predict its prospects, and this is all done with the help of the P/E ratio (Kumar, 2019; Qiu and To, 2025). Therefore, a positive association between P/E and share returns should be anticipated by the investor under the condition that the P/E ratio is interpreted from the view of earnings growth rate (Jawaid and Haq, 2020).

3.1.3. Size

Ahmadi (2021) observed a link between the size effect and liquidity risk, which is measured through the bid-ask spread, and the study confirmed through the tests that the size effect is mainly a result of the liquidity effect. In a study undertaken by Jorion (2021), it was concluded from the findings that higher returns associated with small firms come from the lower liquidity, which is exposed, and this is a cause for concern for investors to demand a high return. The higher returns are compensation for the acceptance of liquidity risk, which is associated with small firms (Qiao, 2025). Therefore, this study assumes that there is either a positive or a negative association between size and stock returns. The size of a company in this study is measured by the total assets within a given financial year.

3.2. Model Specification

The study aimed to establish an empirical analysis of the effects of liquidity and exchange rate volatility on mining companies’ stock returns and volatility. As a result, an empirical analysis was conducted to determine the association between the core variables within the study, and this was done with the help of panel data from JSE on mining companies during the period spanning from 2011 to 2024. The method of analysis adopted in this study was panel data, while primarily focusing on the GMM approach. Panel data estimation approaches were employed in the study as a result of their characteristic features, which permit the consideration of

both cross-sectional and time series features of data. The GMM estimation method leads to the derivation of strong associations between variables with high significance levels. The study adopted the GMM as the main method of estimation. The mathematical expression towards the empirical association amongst the study’s variables, which include share price, stock returns, total returns, liquidity, and other control variables, is given as follows:

$$\Delta SP_{it} = (1 - \alpha)\Delta SP_{it-1} + \beta_1 \Delta LQ_{j,it} + \beta_2 \sum_{j=1}^n \Delta CV_{j,it} + \mu_i + \Delta e_{it} \quad (2)$$

$$\Delta SR_{it} = (1 - \alpha)\Delta SR_{it-1} + \beta_1 \Delta LQ_{j,it} + \beta_2 \sum_{j=1}^n \Delta CV_{j,it} + \mu_i + \Delta e_{it} \quad (3)$$

$$\Delta TR_{it} = (1 - \alpha)\Delta TR_{it-1} + \beta_1 \Delta LQ_{j,it} + \beta_2 \sum_{j=1}^n \Delta CV_{j,it} + \mu_i + \Delta e_{it} \quad (4)$$

Where:

- $SP_{it}$  represents the mining company’s share price at time t,
- $SR_{it}$  represents the mining company’s share returns at time t,
- $TR_{it}$  represents the mining company’s total returns at time t,
- $SP_{it-1}$  represents the mining company’s share price measure in time t-1,
- $SR_{it-1}$  represents the mining company’s share returns measure in time t-1,
- $TR_{it-1}$  represents the mining company’s total returns measure in time t-1,
- $LQ_{it}$  represents liquidity for the mining company at time t,
- $CV_{j,it}$  represents a vector of control variable j of company i at time t. These variables include PE, RM, and Size as shown in Table 1,
- $\alpha$  represents the auto regression coefficient;
- $\beta$  represents the coefficient for the sensitivity of the independent variables;
- $\varepsilon_{i,t}$  represents the error term;
- $\mu_i$  represents the dummy for the COVID-19 period.

4. RESULTS AND DISCUSSION

The correlation and empirical results are presented and discussed.

The results in Table 2 show the correlation matrix between the variables within the study by clearly stating how the variables are related to each other. The results show that there is a positive and significant correlation between stock returns (SR) and total returns (TR) (0.99) at 1% significance level. This implies that as stock returns increase, the total returns also increase significantly.

Table 2: Correlation matrix

Variables	SP	SR	TR	RM	P/E	CR	TA
SP	1.0000						
SR	(0.0152)	1.0000					
TR	(0.0045)	0.9995***	1.0000				
RM	0.0129	0.0779	0.0781	1.0000			
P/E	0.0995	0.0310	0.0330	0.0241	1.0000		
CR	0.0267	0.0034	0.0075	0.0422	(0.0668)	1.0000	
TA	0.3976***	(0.0122)	(0.0109)	0.0192	0.1325*	(0.1110)	1.0000

\*P<0.05, \*\*P<0.01, \*\*\*P<0.001 level of significance. Source: Author’s computation

The correlation results between share price (SP) and total assets (TA) show that there is a positive and significant correlation of 0.39 at 1% significance level. The results show that an increase in total assets leads to an increase in share price. The total assets represent the size of the company, and as the company increases in assets, it lures investors to increase demand in the company's shares, thereby pushing the share price up (Gakhar and Kundlia, 2021; Zhang and Sok, 2025). Moreover, a positive and significant correlation was found between TA and price to earnings (PE) (0.13). This entails that as total assets increases so does the price to earnings ratio.

#### 4.1. Empirical Results

The empirical results on the connection between stock liquidity and share returns are discussed hereunder:

The results in Table 3 show the effect of the outlined variables on returns and the dependent variables, which include SR, TR and SP. It can be noted that there is a negative and significant relationship between SR and L.SR, with a coefficient of  $-0.114$ ; that is, the connection between current stock returns and previous stock returns is inverse, even though it is weak. The previous stock returns can influence the current stock returns negatively, and this implies that if the previous stock returns were low, the current stock returns will be high and vice versa. The association is best described by the reversal or momentum effect within the stock market, where previously underperforming stocks are expected to regain momentum (Almumani, 2022; Zhang et al., 2025).

**Table 3: Link between stock liquidity and share returns**

Variables	System GMM	System GMM	System GMM
	SR	TR	SP
L.SR	$-0.114^*$ (0.0531)		
L.TR		$-0.144$ (0.382)	
L.SP			$0.545^{***}$ (0.0495)
CR	$102.7^*$ (44.00)	$-216.4$ (248.5)	$-1142.1$ (1313.3)
PE	$1.164^*$ (0.522)	$-47.04$ (49.33)	$199.7^*$ (85.20)
RM	$18.58^*$ (6.789)	$153.5^*$ (54.10)	$-461.7^*$ (202.5)
SIZE	$-242.2^{**}$ (65.91)	$-1076.9^{***}$ (176.1)	$13182.2^{***}$ (2656.3)
ILLIQ	$301050.9^{***}$ (12396.5)	$275630.5^{***}$ (22227.4)	$27675154.4$ (14960241.2)
LVolume	$-254.1^{**}$ (81.91)	$-295.8$ (247.6)	$-4097.6$ (2265.3)
COVID_19	$271.6^{***}$ (63.45)	$863.5$ (464.7)	$-972.7$ (2234.4)
n	180	180	180
Groups	15	15	15
Instruments	8	8	8
AR (1)	$-1.23$	$-0.63$	$-0.91$
AR (2)	$-0.99$	$-0.44$	$-0.88$
Sargan test	141.52	0.09	73.44
Hansen Test	1.88	2.26	1.23

Robust Standard errors in parentheses, \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ .

Source: Author's compilation

In addition, the results from the system GMM show that there is a positive and significant relationship between lagged share price (L.SP) and share price (SP), as shown by a coefficient of 0.545. This means that the historical share price influences the current share prices, and stock prices are persistent over time. Stock prices follow momentum, and that is why it is advisable to buy positive-performing stocks since the prior performance of a given share reflects its future performance capacity (Al Hamdooni, 2023; Cui et al., 2025). However, the result is contrary to the assertions of the EMH, which implies that one cannot use the historical information to predict the future stock prices and benefit from it through speculative activities.

The current ratio (CR), as a measure of liquidity, was also used as a control variable in the study to see its effect towards mining companies' stock returns. The results from the panel data show a positive and significant relationship between CR and SR (102.7), and this implies that as the current ratio increases, so do stock returns. The current ratio is an influential factor towards stock returns in that companies with a strong current ratio can provide a leading signal to investors of stability, thereby increasing their attractiveness levels to investors (Luo, 2022; Li et al., 2025). The positive association is supported by the notion that a higher current ratio signals the company's ability to attain its non-long-term debts, which enhances the investors' appetite to make additional investments within the company (Shaik and Rehman, 2023).

Furthermore, the other control variable that was taken into consideration within the study relates to the price-to-earnings (PE) ratio, which is a tool used to measure the value of a company in relation to its earnings. The results from the study show that P/E has a positive and significant relationship with SR (1.164) and SP (199.7), and this implies that an increase in P/E results in an increase in SR as well as SP. The companies with a high P/E ratio are regarded as growth stocks, and this is an indication of a positive performance ahead, which makes investors have an anticipation that there is growth in the future earnings (Cao and Zeng, 2025; Kewal, 2021). As a result, the investors will develop a larger appetite to pay more for the stocks, which leads to an increase in both share price and stock returns.

Moreover, there is a positive and significant relationship between return on market (RM) and SR (18.58) and TR (153.5). However, a negative and significant relationship was noted between RM and SP with a coefficient of  $-461.7$ , therefore reflecting that an increase in RM would result in a decline in SP and vice versa. The relationship between RM and SR is measured by Beta, which is a measure of volatility of stock returns in comparison to the market returns and the two models are connected by CAPM. The SR moves in the same direction as RM in that if RM falls, SR will follow suit, and vice versa; however, only the magnitude of volatility differs, which is measured by Beta. The overall performance of the market has a direct effect on the TR, and that is why there is a positive relationship between the two variables. The positive correlation between RM and TR is supported by various studies' results, which include those by Chen (2021), Kling (2019), and Sadorsky (2021), who deduced the same outcome. The

relationship between RM and SP tends to be complex because the association is influenced by various factors, including economic factors, investor views, industry dynamics, and interest rate movements (Hakim and Nugroho, 2023; Nguyen et al., 2025).

It can be noted that the results report a negative and significant relationship between SIZE and SR (-242.2) and TR (-1076.9), and this means that as the company size increases, both SR and TR will decrease and vice versa. The negative correlation between SIZE and SR and TR is supported by two theories, CAPM and FF3FM, which confirm the hypothesis that size has a negative correlation with return (Kewal, 2021). The CAPM approach maintains that small companies, in comparison with big companies, can make exceptionally high returns as they are riskier than large companies (Kewal, 2021; Wahyudi et al., 2025). Also, it was noted that there is a positive and significant relationship between SIZE and SP with a coefficient of 13,182.2, thereby showing that as the market capitalisation increases, so does the share price. This owes to the notion that large companies are more likely to attain a higher investor confidence as they are perceived by investors as stable and less risky in comparison with small companies (Cakici and Zaremba, 2022; Hu and Sun, 2025).

The effect of COVID-19 was examined in this study, and it can be noted from the results that COVID-19 has a positive and significant relationship with SR, with a coefficient of 271.6, meaning that an increase in the infection rate led to an increase in SR. However, the findings from this study are not in line with the existing results from various studies. According to Almunani (2022) and Bobi (2022), the global supply chain was disrupted by the emergence of COVID-19, and this led to a decrease in production, thereby causing a surge in business costs and thus negatively affecting stock returns.

The Amihud illiquidity measure was also considered to determine its effect on returns, and the results show that there is a positive and significant relationship between ILLIQ and SR with a coefficient of 301,050.9. An increase in ILLIQ would lead to an increase in SR; this is due to the proclamation that holders of highly illiquid stocks are exposed to illiquidity risk as well as high transaction costs, and they are prone to losing value upon the need to resell the financial asset (Deng et al., 2026; Shaik and Rehman, 2023). As a result, there is a need to compensate for the loss through an increase in SR, and this is why there is a positive and significant correlation between the variables. The results further show that there is a positive and significant relationship between ILLIQ and TR, with a coefficient of 275,630.5, implying that an increase in ILLIQ can lead to an increase as well. A well-established association between ILLIQ and TR exists in finance literature, where highly illiquid financial securities obtain higher returns, which is a liquidity premium (Febrianti and Saadah, 2023).

The findings show that there is a negative and significant relationship between the volume of trade (LVolume) and SR, with a coefficient of -254.1, and the connection implies that an increase in LVolume leads to a decrease in SR. An increase in volume of trade of any given financial asset depicts that a huge quantity of that asset is being traded in each period, and this shows enhanced

market activity and high liquidity (Cakici and Zaremba, 2022; Hidayat and Rikumahu, 2025).

## 5. CONCLUSION

The study was aimed at investigating the relationship between stock liquidity and share returns by looking at the mining companies within South Africa that are listed on the JSE. South Africa has the capacity to become a first-world country through minerals, since there is a huge deposit of a wide range of mineral resources. However, underinvestment in the mining sector has prevented the nation from reaching its full potential. A need to investigate the effect of stock liquidity on stock returns was found necessary as a step to enhance investment by addressing some of the obstacles experienced by both current and potential investors. The results from the study showed that there is a negative and significant relationship between SR and L.SR. In addition, the results from the system GMM show a positive and significant relationship between L.SP and SP. The results depicted a positive and significant relationship between CR and SR. The outcome from the study shows that P/E has a positive and significant relationship with SR. Moreover, there is a positive and significant relationship between RM, SR and TR. However, a negative and significant relationship was noted between RM and SP. It can be noted that the results report a negative and significant relationship between SIZE and SR and TR. Also, it was noted that there is a positive and significant relationship between SIZE and SP. It can be noted from the results that COVID-19 has a positive and significant relationship with SR.

The results show that there is a positive and significant relationship between ILLIQ and SR. The outcome from the study further shows the existence of a positive and significant relationship between ILLIQ and TR. The findings show that there is a negative and significant relationship between LVolume and SR. The results from the study are important to investment managers, corporate managers, potential and existing investors, government, mainly the Department of Industry and Commerce. The corporate managers will use the results from the study to appreciate the notion that liquidity indeed influences stock returns, and strategies to enhance stock liquidity will be put in place. Also, the government will be able to see the effect of liquidity on stock returns, and strategies will be put in place to enhance investment by influencing liquidity. Regulators should implement policies aimed at improving market liquidity, such as enhancing trading infrastructure, promoting market transparency, and encouraging broader investor participation. Improving liquidity in the equity market can enhance capital formation and attract both domestic and international investors, thereby strengthening the competitiveness of South Africa's financial markets. Improved disclosure requirements and market transparency can reduce information asymmetry and help investors better assess liquidity risks associated with mining stocks. Given the importance of the mining sector to South Africa's economy, policies that promote stable financial markets and efficient trading conditions can support broader economic growth and investment.

The study was limited to mining sector companies that are listed on the JSE. Despite its contributions, the study may face limitations.

The analysis focuses exclusively on mining companies listed on the JSE, which may limit the generalisability of the findings to other sectors or markets. Liquidity is a multidimensional concept and may be measured using various proxies such as bid–ask spreads, turnover ratios, or Amihud illiquidity measures. The choice of specific liquidity proxies may influence the empirical results. Data limitations and missing observations for certain firms or trading periods may reduce the sample size or affect statistical robustness. The study may not fully capture behavioural factors such as investor sentiment, which may also influence stock liquidity and return dynamics. The future studies could incorporate macroeconomic variables, such as commodity price indices, exchange rate volatility, and global economic indicators, to examine how external shocks influence the liquidity–return relationship.

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