International Journal of Innovative Research and Scientific Studies, 9(11) 2026, pages: 30-38

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com



The impact of liquidity on value of listed companies in Tunisia

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Abstract

Firm value is the total economic worth of a business; representing the sum of the market value of all its outstanding capital claims; including common shares; preferred shares and debt. Also liquidity refers to the ability of a company or an individual to settle short-term liabilities easily and on time. It reflects how quickly and efficiently assets can be converted into cash without losing significant value. In this article we aim to study the impact of liquidity on firm value in Tunisia. we used a sample of 15 listed firms in Tunisian stock exchange over the period (2012…2025). By applying a model of panel static we found that liquidity have a negative impact on firm value.

Keywords: Firm value, Liquidity, Panel, Tunisian stock exchange.

DOI: 10.53894/ijirss.v9i11.11983
Funding: This study received no specific financial support.
History: Received: 26 August 2026 / **Revised:** 7 October 2026 / **Accepted:** 12 October 2026 / **Published:** 16 November 2026
Copyright: © 2026 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).
Competing Interests: The author declare that they have no competing interests.
Transparency: The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Publisher: Innovative Research Publishing

1. Introduction

Firm value is the current and potential benefits generated by the company during the company's operations [1]. The firm value represented the publications in the company future profitability and low risk [2, 3]. On the other hand liquidity is the company's ability to meet its short term obligations as they are due [4]. Also liquidity management needs to be properly handled because its inefficient management is harmful to firm.

Liquidity management involves the firm strategic plan and controls ; which are crucial for ensuring the firm has sufficient liquid assets [5].

The significance effective of liquidity management for firms lies in potential financial stability and success thereby preventing insolvency [6].

This does not only reduce the firm's value and disrupts normal operations of the business , but can ultimately lead to varying degree of financial crisis ; excessive and inadequate liquidity ; business failure and bankruptcy if unchecked [7].

Besides the main objective of the firm is increasing the prosperity of the shareholders through increased firm value [8].

In this article we aimed to studied the impact of liquidity on firm value in Tunisian context. We used a methodology of 3 sections. The first section is devoted to literature review. In the second section we make an empirical study. We finished by conclusion.

2. Literature Review

Akbar, et al. [9] used a sample of 35 nonfinancial in Indonesia Stock exchange in Indonesia for the period (2017….2020) . They found that liquidity does not affect firm value.

Ekundayo, et al. [10] examined the impact of liquidity management in the value of listed consumer goods firms in Nigeria. They used a sample of 31 consumer firms listed on the Nigerian stock exchange for the period (2009…2018). They showed that current ratio have significantly positive impact on market price share.

Alshakhanbeh, et al. [11] investigated the impact of liquidity and leverage on the firm value of publicly listed service firms in Jordan. Using secondary data from 38 service firms listed on the Amman stock exchange between (2011…2021).

They found that quick ratio positively influence Tobin's Q suggesting that higher liquidity enhances market valuation (Pecking order theory) . The cash ratio negatively affect firm value.

Sari, et al. [12] used a food and leverage sector companies listed on the Indonesian stock exchange during (2016…2021) . The findings show that liquidity have a positive effect on firm value.

Ishak and Selamat [13] investigated the impact of liquidity ratio on firm market value; with particular emphasis on the moderating role of firm size in this relationship. Utilizing a sample of non-financial firms listed on the Indonesian stock exchange for (2016…2022). The findings reveal that liquidity ratios specifically (current ratio; quick ratio; cash ratio) negatively affect firm value.

Musyimi, et al. [14] used a sample of 39 non-financial companies registered in the Nairobi stock exchange. Panel regression results indicated that both leverage and liquidity had a statistically significant positive effect on firm value.

ur Rehman and Khan [15] used a sample of 70 firms listed in Pakistan stock exchange for the period (2009….2023). The findings demonstrated that liquidity have positive and significant relationship with firm value while cash holding has direct and significant relationship on firm value.

Ghani, et al. [16] used a sample of 30 companies listed under the plantation sector in Malaysia for the period (2005…2019). They found that liquidity has significant relationship with firm value.

Company value is very important for companies as an indicator used by investors to see the development of company perform for year to year [17]. Firm value is an illustration of shareholder trust in the company since the company was founded until now [18].

When a firm maintains a high market value ; it signals strong prospects ; attracting capital investment as investors anticipate favorable returns [19].

Firm value is very important because firms with high value have high shareholders prosperity and this can be achieved when there is an efficient and effective liquidity management [20].

On the other hand liquidity is concerned with business enterprise capability of setting up its current liabilities. It may be employed to measure whether a business is financially doing well or not. Liquidity is the characteristics of an item that can be easily convertible to cash. Its management is a very topical issues in measuring firm's ability to settle current obligations without any disruptions in its daily operations.

Liquidity means a company's ability to meet its short-term obligations; which can affect investor perceptions when making decisions to invest in the company.

If liquidity is low ; it can be concluded that the company lacks capital to pays debts ; in other words ; the company does not have the ability to pay short term or liquid debts.

Marceline and Harsono [21] stated that the liquidity ratio increased to measure the extent to which short term debts are financed with current assets; where the higher the current assets; the greater the guarantee that current liabilities can be paid.

This shows the better value of the company because the company can cover its short-term debts with the company current assets.

Shaheen and Malik [22] and Lartey, et al. [23] underline the importance of liquid efficiently to withstand external shocks sustain a firm's financial wellbeing .

The efficient liquidity administration a part form procuring the firms existence aids a firm in maximizing its value through decreasing its input requirements [24]. Thus adequate liquidity can lead to a positive perception of the company for investors thereby increasing the value of the company [25].

Liquidity plays a role in the company success and can convince investors regarding the continuity of the company's operations ; including the availability of dividends [26]. Liquid companies used internal sources of funds rather than debt ; reducing liquidity [27].

From the perspective of trade off theory; firms with high liquidity are perceived as less risky; given their capacity to meet immediate obligations. This tend to signal positive signals to investors ; enhancing their confidence and potentially increasing the firm's market value [28, 29]. Firms with high liquidity are generally better positioned to navigate economic downturns ; as they have the resources to cover liabilities without the need to liquidate long term assets or take on additional debt [30].

However excessive liquidity can also signal inefficiencies. Firms that hold too many current assets may face reduced profitability due to the opportunity cost of not deploying those assets in to productive investments [31].

Moreover excessive liquidity may indicate poor asset management by the firm's leadership ; raising concerns among investors reproducing the company's operational efficiency [32, 33].

3. Empirical Study

We used a sample a 30 companies listed in Tunisian stock exchange during the period (2012…2025)

3.1. Model Specification

FVi,t = a0+ b1 Sizei,t +b2 CAPi,t +b3 Leverage i,t +b4 Liquidity i,t +b5 ROAi,t +b6 TPIBi,t+b7TINFi,t +Ei,t

FV= Firm value = Tobin's Q

Tobin's Q = total market value of firm / total assets value of firm

=Equity market value + liabilities market value / Equity book value + liabilities book value

A low Q ratio between 0 and 1 means replacing a firm's assets cost more than its stock value. This implies that the stock is undervalued. A high Q superior to 1 implies that firm's stock is more expensive than the replacement cost of its assets such implies that the stock is overvalued.

Size = log of total assets

CAP= capital / total assets

Leverage = total liabilities / total assets

Liquidity = current ratio = Current assets / Current liabilities

ROA = Net return / total assets

TPIB = economic growth

TINF = rate of inflation

Ei,t = Error term

We test the following hypothesis:

H0: Liquidity has a positive effect on firm value

H1: Liquidity has a negative effect on firm value

3.2. Analysis of Descriptive Statistics

Table 1.
Descriptive statistics.

Variable	Observations	Mean	Standard deviation	Maximum	Minimum
Q Tobbin	420	1.74	0.092	1.156	1.13
Size	420	13	0.034	16	10
CAP	420	0.63	0.017	0.73	0.53
Leverage	420	0.76	0.081	0.84	0.68
Liquidity	420	1.25	0.063	1.76	0.74
ROA	420	0.32	0.91	0.082	0.558
TPIB	420	0.032	0.1217	0.046	0.018
TINF	420	0.074	0.1431	0.089	0.59

- Q Tobbin (Mean = 0.74).
- Size (Mean = 13). The mean of bank size is 13. The standard deviation is high. There is a big difference between firms in term of size
- CAP (Mean = 0.63). The mean of bank capital is 0.63. The capital is 63% of total assets in average. There is low standard deviation. There is a small difference between firms in term of capital
- Leverage (Mean = 0.76). Total debt represent 76% of total assets an average. The standard deviation is high. There is a big difference between firms in term of leverage
- Liquidity (Mean = 1.25). Current assets represent 1.25 of current liabilities an average. The standard deviation is high. There is a big difference between firms in term of liquidity
- ROA (Mean = 0.32) The net return represent an average of 32% of total assets. The stand deviation is high. There is a big difference between firms in term of return of assets
- TPIB (Mean = 0.032). The economic growth an average is 3.2% for the period between (2012…2025). The standard deviation is high. There is a big difference between firms in term of economic growth
- TINF (mean = 0.074). The inflation an average is 7.4% for the period between (2012…2025). The standard deviation is high. There is a big difference between firms in term of inflation.

3.3. Multicolinearty Test Between Variables

Table 2.
Multicolinearity test between variables.

-	Q Tobbin	Size	CAP	Leverage	Liquidity	ROA	TPIB	TINF
Q Tobbin	1.000							
Size	0.036	1.000						
CAP	0.043	0.24	1.000					
Leverage	0.051	0.26	0.015	1.000				
Liquidity	0.076	0.32	0.024	0.52	1.000			
ROA	0.082	0.36	0.039	0.61	0.092	1.000		
TPIB	0 .093	0.39	0.046	0.63	0.1015	0.2376	1.000	
TINF	0.1015	0.43	0.051	0.59	0.1426	0.3218	0.35	1.000

There is no problem of multicollinearity
Test of VIF

The variance inflation factor quantifies is the degree to which the variation of independent variables increases the standard error in multiple regression models; helping in identify multicollinearity issues.
A variance inflation factor (VIF) measures overlap in regression models

- High VIF inflation errors; complicating models interpretation

A VIF of 1 indicate no multicollinearity model interpretation
VIF value of 3 or below usually current a consideration
Multicollinearity impact regression model reliability

Table 3.
VIF of variables.

	VIF	1/ VIF
Q Tobbin	3.65	0.27
Size	2.25	0.44
CAP	1.14	0.87
Leverage	2.67	0.37
Liquidity	3.06	0.32
ROA	1.28	0.78125
TPIB	2.15	0.46
TINF	2.39	0.41

3.4. Hausman Test

The Hausman test (also called the Durbin-Wu-Hausman test) is an econometric test used to evaluate model consistency. Its most common application is in panel data analysis to choose between Fixed Effects (FE) and Random Effects (RE) models. It helps determine if unique, time-invariant variables correlate with your independent variables.

- If the p-value < 0.05: You reject the null hypothesis. Systematic differences exist between the es-timators, so you should use a Fixed Effects model.
- If the p-value ≥ 0.05: You fail to reject the null hypothesis. There is no statistically significant difference between the two, so you should use the more efficient Random Effects model.

In our model pv = 0.0769 we choose a random effect

3.5. Estimation Results and Interpretations of Models

Table 4.
Estimation results of model.

Q Tobbin	Coefficient	T statistic
Size	0.536***	0.0112
CAP	0.019	0.36
Leverage	-0.023**	0.053
Liquidity	-0.1628***	0.0114
ROA	0.3618**	0.0119
TPIB	0.6419	0.5173
TINF	-0.092***	0.01138

- There is a positive relationship between QTobbin and Size (if size increase by 1% : Q Tobbin will increase by 0.536%) . The increase of size has a positive impact on Q Tobbin . This relationship is statistically significant at 1% .

- Economies of Scale: Larger companies produce higher output at lower average per-unit costs, which typically boosts long-term profitability and market valuation.
- Easier Access to Capital: Big firms enjoy lower borrowing costs, deeper credit lines, and smoother access to equity or debt markets compared to smaller competitors.
- Signaling Theory: Substantial total assets and high sales volume send a positive market signal to investors, indicating stability, lower default risk, and long-term growth potential.
- Enhanced Disclosure and Reputation: Larger businesses generally provide more transparent financial reporting and build stronger corporate reputations, which directly
- There is a positive relationship between Q Tobbin and CAP (if CAP increase by 1% ; Q Tobbin will increase by 0.019%) . The increase of capital has a positive impact on Q Tobbin . This relationship is not statistically significant .
- There is a negative relationship between leverage and Q Tobbin (if Leverage increase by 1% ; Q Tobbin will decrease by 0.023%) . The increase of leverage has a negative impact of Q Tobbin
- Trade-Off Theory & U-Shaped Relationship: More debt increases firm value. This happens because interest payments are tax-deductible (providing a tax shield), which lowers the cost of capital and raises overall value. However, once leverage passes an optimal threshold, the rising risks of financial distress and bankruptcy outweigh the tax benefits, driving firm value down.
- Pecking Order Theory: Companies prefer internal financing (retained earnings) first, followed by debt, and equity as a last resort. Relying on internal funds or low-cost debt minimizes asymmetric information costs and avoids equity dilution.
- Agency Theory: Debt acts as a "disciplinary mechanism". It forces managers to use free cash flow efficiently to service debt payments rather than wasting it on unprofitable
    - There is a negative relationship between liquidity and firm value (if liquidity increase by 1% ; firm value will decrease by 0.1628%) . The increase of liquidity has a negative impact on firm value . This relationship is statistically significant at 1% . This result is similar to result found by Damayanti and Suryandani [34], Just and Echaust [35], Sugosha and Artini [36] but contrary to result found by Bencheikh and Taktak [37]; Chatterjee, et al. [38]; Jiang, et al. [39] and Musyimi, et al. [14].

Liquidity has a complex and mixed impact on firm value, functioning either positively, negatively, or neutrally depending on the market context, the liquidity metric used, and the level of company profitability. High liquidity levels lead to increased trading activity and higher demand for a company's shares resulting in a higher valuation for the company as ventures are ready to remit a premium for stocks which are easily tradable. Companies with high liquidity levels are often less risky investments by investors which lead to a lesser cost of capital for the firm as they are able to attract capital at lower interest rates.

3.6. Positive Effects of Liquidity on Firm Value

- Signaling Theory :Maintaining a healthy liquidity position (such as a strong Current Ratio (sends a reassuring signal to investors and creditors that the company can meet its short-term obligations and avoid bankruptcy[2 ,1] .
- Lower Agency Costs :Higher stock liquidity makes share prices more informative, aligns managerial incentives, and reduces monitoring costs for large institutional shareholders[.
- Operational Flexibility :Adequate cash and liquid assets allow a firm to seize valuable investment opportunities quickly without being forced to borrow at high costs.

3.7. Negative or Neutral Effects of Liquidity on Firm Value

- Opportunity Cost of Idle Cash :Holding excessive cash reserves or working capital can lead to inefficiency, as noted in studies showing a negative link between high cash ratios and market valuation (such as Tobin's Q[2 ,1] .(
- Investor Preference for Profitability :In many empirical studies (such as those on manufacturing and consumer goods sectors), liquidity metrics show a statistically insignificant or neutral direct impact on firm value, with investors prioritizing Return on Assets (ROA) and profit margins over high cash or current asset buffers.

At critical low liquidity levels ; a company’s market value tends to diminish as investor perceive this as a red flag ; indicating a heightened risk of insolvency .

Conversely an excessively high liquid level also undermines market value ; as its signals inefficiencies in the firm’s asset management [38]. Consequently a firm’s market value can only be maximized at an optimal liquidity threshold [40].

Insufficient liquidity places business at risk of failing to meet their short term obligations [41]. Should a company be unable to settle its current liabilities such as accounts payable ; thus or maturing assets it may face a liquidity crisis – potentially leading to bankruptcy . This elevated bankruptcy risk sends negative signals to investors ; promoting them to devalue the firms ; which in term diminish its market value [42].

There is a positive relationship between ROA and firm value (if ROA increase by 1% ; firm value will increase by 0.3618%) . The increase of return on assets has a positive impact on Q Tobbin of firm . This result is similar to result found by Hindasah and Akmalia [43] and Rosikah, et al. [44]. ROA is a degree of the overall effectiveness of management in supplying returns to shareholders for all current property [45].

Direct Positive Impact:

- When a company focuses on increasing ROA (i.e., improving asset utilization efficiency to maximize profits), it sends a strong signal to investors in the financial market that the company is achieving excellent operational performance and sustainable growth.
- Higher profitability and cash flow lead to increased demand for the company's shares, raising its market value and consequently increasing its Tobin's Q.

4. Theoretical Explanation

- Market Signaling Theory: A higher ROA acts as a positive signal, reducing information asymmetry between management and investors. This fosters investor confidence in the quality of asset management, leading them to value the company at a price higher than its book value.
- Management Efficiency: High-yielding assets indicate that management is utilizing available resources efficiently, which is directly reflected in valuation multiples such as Tobin's Q.
- There is a positive relationship between TPIB and Q Tobbin (if TPIB increase by 1% ; Q Tobbin will increase by 0.6419%) . The increase of economic growth has a positive impact on Q Tobbin.

value to the replacement cost of its assets. When the broader economy expands, it alters both components of this ratio, usually driving the overall value upward. [1, 2]

The relationship between economic growth and a firm's Tobin's Q operates through several distinct microeconomic and macroeconomic channels:

4.1. Expansion of Growth Options and Market Value

Tobin's Q is highly sensitive to investor expectations regarding a company's future investment opportunities. During periods of robust GDP growth: [

- Higher Present Value of Growth Options: Consumer demand and corporate spending rise, creating new profitable avenues for expansion.
- Stock Market Appreciation: Optimistic investor sentiment pushes stock prices up, driving up the numerator (Market Value of Equity) of the Tobin's Q formula. Because market values react immediately to economic optimism while the physical replacement cost of assets changes much more slowly, Tobin's Q expands.

4.2. Reduced Capital Constraints & Operational Scale

Economic growth strengthens the financial ecosystem, which directly shifts firm-level variables that influence Tobin's Q:

- Financing and Leverage Elasticity: High GDP growth improves a firm's cash flows, allowing them to rely more on internal funds rather than costly debt. A healthier balance sheet and increased efficiency reduce financial distress, raising the firm's valuation in the eyes of investors [1, 2, 3].
- Disproportionate Benefit to Young/Small Firms: Empirical corporate finance research shows that macro-economic expansion has a more pronounced positive impact on small and young firms. These firms are typically capital-constrained; economic growth opens up credit and market demand, unlocking their growth options faster than mature, rigid corporations.

4.3. The Reinvestment and Equilibrating Effect (The Long-Term Catch)

While economic growth initially drives Tobin's Q above 1 (signifying that the firm's market value exceeds its physical asset costs, making investment highly profitable), macro growth also triggers a long-term self-correcting mechanism:

- According to neoclassical investment theory, when a booming economy creates a high Tobin's Q, firms respond by aggressively purchasing new equipment, expanding facilities, or conducting mergers and acquisitions.
- Over time, this massive influx of corporate investment increases the replacement cost of assets (the denominator). Eventually, capital stock accumulation catches up to the market valuation, nudging Tobin's Q back down toward a long-term equilibrium.
- There is a negative relationship between inflation and Q Tobbin (if inflation increase by 1% ; Q Tobbin will decrease by 0.092%) . The inflation have negative impact on Q Tobbin .

of capital, and financial statement accuracy.

Key Channels of Impact on Firm Value:

- Increased Production and Operating Costs: Inflation drives up the price of raw materials, energy, utilities, and employee wage demands, squeezing gross and operating profit margins if selling prices do not keep pace.
- Pricing Power and Revenue Adjustments: Companies with strong market power can pass higher costs onto customers through price adjustments, which can stabilize or even increase nominal revenues. Businesses selling non-essential goods often suffer from falling demand and lower consumer confidence. [
- Higher Cost of Capital and Interest Rates: As central banks raise interest rates to combat inflation, the cost of borrowing increases, raising the real discount rate applied to future cash flows and lowering present firm value

- Distortion of Accounting Numbers: Inflation alters historical cost accounting (such as inventory and depreciation), making balance sheets and income statements less reflective of economic reality and reducing the value relevance of financial reports for investors.
- Reduction in Real Debt Burden: For firms with high fixed-rate or long-term financial leverage, inflation can decrease the real value of debt liabilities, which can positively influence stock returns under specific conditions.

5. Conclusion

Liquidity plays a role in the company success and can convince investors regarding the continuity of the company's operations ; including the availability of dividends [26]. The adequate liquidity can lead to a positive perception of the company for investors thereby increasing the value of the company [25].

Firms that have high level of liquidity will increase firm value and will be able to meet short term obligations and the firm will generate higher profits .

Signaling theory explains that good liquidity can be a positive signal for investors to invest because the company is considered capable of paying its obligations . The positive influence of liquidity on firm value [46, 47]. Other authors found influence negative of liquidity on firm value [48, 49].

From the perspective of tradeoff theory ; firms with high liquidity are perceived as less risky ; given their capacity to meet immediate obligations . This tend to send positive signals to investors ; enhancing their confidence and potentially increasing the firm's market value [29, 50].

In this article we used a sample of 15 firms listed in Tunisian stock exchange over the period (2012…2025) . By applying a model of panel statistic we found that liquidity have negative impact on firm value.

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