

# The Effect of Stock Liquidity on Firm Value – Evidence from Iraqi Stock Exchange –

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## Abstract

Liquidity play an important role on values of firms listed in stock exchange, therefore, The idea of this study is to explore the effect of the stocks liquidity on the firm value; By using a sample data of ٦٥ companies listed in Iraqi stock exchange (ISE) during ٢٠٠٨, ٢٠٠٩, ٢٠١٠, ٢٠١١, and ٢٠١٢, I find that firms with liquid stocks have better firm value as measured by Tobin's Q as a function of firm value. This result holds even when I include firm fixed effects, control for idiosyncratic risk, and control for endogenous liquidity with instrumental variables. Result using panel data regression shows, also, that high liquid firm tends to have more equity in their capital structure and more operating profitability in their statement of account.

**Key words: Stock Liquidity, Firm Value**

## ١. Introduction

The marketability of the stocks in financial markets plays a central role in the valuation of the firms. On the one hand because liquidity is the life-force of security markets from the stand point of an investors, traders and other parties, a company's securities that is more liquid attracts more investors who trade with an aim to profit from the price appreciation caused by low cost, on other hand, the lower the liquidity, mean the higher the required rate of returns this higher return is to compensate investors for bearing the illiquid risk. This higher required rate of returns implies a lower market value for illiquid companies. The primary purpose of this study is to examine the relation between stock liquidity and firm value. An interesting question that arises is whether  $\gamma$  variables are related, in the full sense of the word, is whether and how the development of stock markets can translate into firm value. Using a sample of firm level data listed in ISE over the period ٢٠٠٨-٢٠١٢, this study concentrates on stock liquidity to evaluate their direct effects on firm value. I hypothesize a positive relationship between stock liquidity and firm value because there are strong theoretical reasons to support that market liquidity will positively affect firm value, this study included  $\rho$  sections, the first of which was devoted to introduction while the second section to review the literature, the third section has included the definition previous studies and methodology. Section  $\epsilon$  contains my empirical tests while section  $\phi$  concludes.

## ٢. LITERATURE REVIEW

### ٢.١ Liquidity

Liquidity appears to have a lot in common, because this thesis will focus on stock liquidity, the concept of this term will only be discussed in relation to stocks and stock

markets. Liquidity refers to the ease by which an asset can be sold immediately after purchase without lowering the price and without incurring transaction cost<sup>(١)</sup> (Dalgaard, ٢٠٠٩:٩), in the same sense, (Gopalan et al, ٢٠١٢:٣٣٣) define the liquid assets (An asset is liquid if it can be converted into cash quickly and at a low cost). The liquidity of a stock is a measure of the ease with which cash can convert to an investment in the stock or vice versa. Illiquidity is driven by the explicit and implicit costs of buying or selling the stock. It is convenient to represent the cost of liquidity as the sum of three components: adverse selection cost, opportunity cost, and direct costs (commissions and fees) (Amihud & Mendelson, ٢٠٠٠:١١)

### ٢.١.١ The Importance of Liquidity

Mang (١٩٩٨) and Khan and Winton (١٩٩٨) suggest that greater liquidity can be an opportunity for large shareholders to increase their profit by monitoring the firm's management. The greater the liquidity, the more shares can be bought in the market due to lower transaction costs. Thus, a higher concentration of ownership on a firm's market

Liquidity and value (Uno and Kamiyama, ٢٠١٠:٣), furthermore,

Liquidity has wide ranging effects on financial markets; liquidity can explain the time series relationship between liquidity and securities returns (Amihud et al, ٢٠٠٦:٢٧٢).

Liquidity can help explain a number of

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(١) Damodaran (٢٠٠٥) describes the cost of illiquidity as the cost of buyer's remorse, where you want to reverse your decision and sell what you just bought (Damodaran ٢٠٠٥: ٢٠).

puzzles, such as why small stocks that are typically illiquid earn high returns (the small firm effect), liquidity improves operating performance or valuation based (Taimur, ١٩٩٨:١٥٥) liquidity is also an important consideration in trading. A liquid position in an asset is one that can be unwound at short notice. As the market for an asset became less liquid, traders are more likely to take losses because they face bigger bid-offer spread (Hull, ٢٠١٠:٣٨٥) Ultimately, a company intent on increasing the liquidity of its stock should

consider attempts to increase its investor base. (Amihud et al, ٢٠٠٨:٢٤-٢٦).

### ٢.١.٢ Measuring Liquidity.

There is no unanimity in the literature on how to empirically measure stock liquidity because stock liquidity is difficult to measure by its very nature (lesmond, ٢٠٠٥;Korajczykand sadka, ٢٠٠٨), due to define and measure the transaction costs, Bernstein, ١٩٨٧:٥٤-٦٢, verify that "no signal measure tells the whole story a bout liquidity and that perhaps liquidity is in the eye of the beholder" (amihud, ٢٠٠٢:٣١-٥٦) concludes that calculations of more fine measures of illiquidity require microstructure of data on transactions, which has no been available so far. In view of the Iraqi stock exchange (ISEs) is different from that in the most other markets because not only has small transactions, but there is also a low frequency daily stock trading, and, in order to properly capture stock liquidity, in this study, according to the rules of scientific research, I will review the most popular measures of stock liquidity. The first is the illiquidity measure proposed by Amihud (٢٠٠٢) (so named illiquidity ratio, illiq), \* illiq shows the relation between price change and volume (Rubin, ٢٠٠٧:٢٢٠-٢٤٠). Amihud measure is the average ratio of the daily absolute return divided by the daily dinnar volume. I eliminate stock traded less than ١٥ days per month and use the average relative illiquidity as flow:-

(Dass et al, ٢٠١١:٧) (Lilian, ٢٠١١:q) (Liang &Wei, ٢٠١٢:٣٢٧٨).

$$\text{Avg ILLIQiy} = 1/\text{Diy} \sum_{t=1}^{\text{Diy}} \frac{\text{Riyd}}{\text{VolEiyd}} \quad (1)$$

Where Diy is the number of trading days for stock<sub>i</sub> during year<sub>y</sub>, Riyd is the return on stock<sub>i</sub> on day<sub>d</sub> of year<sub>y</sub> and VolEiyd is the respective daily volume in the Iraqi dinnar.

The second measure of stock liquidity is the turnover ratio, defined as the number of shares traded divided by the number of shares outstanding for each stock, Its often used to compare liquidity across markets. At that, datar, Naik and Radcliff(١٩٩٨) state that the use of trading volume as a proxy for liquidity is not adequate, since it dose not consider the differences in the number of shares outstanding, Moreover, the measure content with ex post liquidity and this is not necessarily a good indication of what will be traded in the future.

(Hedander, ٢٠٠٥:٣٠). The turnover is calculated as:- (Dass et al, ٢٠١١:٧)

$$\text{Turnover}_{i,t} = \frac{1}{12} \sum_{n=1}^{12} \frac{\text{Vol}_{i,tm}}{\text{shoruti}_{i,tm}} \quad (2)$$

Where  $\text{Vol}_{i,tm}$  &  $\text{shoruti}_{i,t}$  are the shares traded and number of shares

outstanding of firm (or sector<sub>i</sub>) in month of fiscal year<sub>t</sub>. As the proxy for the above

formula, he Jia and Kong Xiang (٢٠٠٣) modify the liquidity indicator for Chinese security market. The new definition eliminates the influence caused by equity scale differences, covers both price and volume

\* I use this tool in my analysis as a measure of liquidity because the data can be obtained easily from daily stock data for long periods of time in ISE, in one hand, and the intuition behind this measure as follows:- a stock is liquid if it has a low value of Amihud illiquidity and illiquid if it has a high value of the equation when the stock's prices move a lot in response to little volume, in the other hand.

Information has attainable data and adapts to the characteristics of Chinese market, the liquidity is calculated as:-

(chen et al, ٢٠١١:٧-١١)

$$\text{Liq} = \frac{\ln P_n / P_{n-1}}{NT_n / n} \quad (3)$$

Where  $P_n$  is the closing price on the nth day,  $P_{n-1}$  is the closing price on the (n-1) the day,  $NT_n$  is the trading volume on the nth day and  $N$  is the total outstanding shares. In the other words, denominator of this liquidity indicator (Liq) is turnover while number of Liq is the natural logarithm of expected returns during this period. The less the indicator is, the more unit changes in turnover, meaning the stock is more liquid, after the fashion of he dander and Chen et al, cooper, Growth, and a Vera ranked the stocks by the market value of their outstanding common stock and grouped them into deciles of market value. In order to measure the ability to absorb large transactions, cooper et al, calculated the following liquidity ratio:

(Cooper et al, ١٩٨٥:٢١-٣٣)

$$\frac{\text{Total dollar volume of the stock traded in the last } \epsilon \text{ weeks}}{\text{Absolute value of daily \%price change of the stock in the last } \epsilon \text{ weeks}}$$

The final measure of stock liquidity is: proportion of zero daily stock returns, I follow Lesmond, Ogden, and Trzcinka (١٩٩٩), construct the proportion of zero stock returns

which is equal to the proportion of days with zero stock returns divided by the total number of non missing trading days in a given year (Hhuaang et al, ٢٠١٢:٧) for each stock year, ZR is calculated as the number of trading days with zero daily return and positive trading volume divided by the number of annual trading days over the firms fiscal year, if the number of missing daily returns in a firm– year exceeds ٨٠٪ of the annual trading years for a firms fiscal year, the firms year is dropped from the sample.

## ٢.٢ Firm Value

It is important to know that when we refer to value, we mean the worth of the expected future cash flows stated in a given currency– that is, a firm value is a function of the cash flows it is expected to generate in the future and the rate of return at which investors are willing to provide funds to the firm for the purpose of financing and growth (Besley & Brigham, ٢٠٠٨:١٥), at least up until now the traditional theory of finance has been based on the idea that a company's market value is determined by just two variables: the company's expected cash after tax operating cash flows and the risk associated with producing them, in this research, I argue that there is another important factor affecting a firms value: the liquidity. In studying the association between liquidity and firm's value, I rely on a proxy for Tobin's Q as the most popular tool to measure value. The founder of theory is James Tobin in ١٩٦٩ (Miller, ٢٠٠٠:٣٣). Tobin's Q is a ratio between the market value and replacement value of the same physical asset. The ratio tells the nexus between financial markets and markets for goods and services. If the market value reflected solely the recorded assets of a company, Tobin Q would be ١.٠. If Tobin's Q is greater than ١.٠, then the market value is greater than the value of company's recorded assets. High Tobin Q values encourage companies to invest more in capital because they are "worth" more than the price they paid for them. On the other hand, if Tobin's Q is less than ١, the market value is less than the recorded. Value of the assets of the company (Tieting et al, ٢٠١١:٢). To calculate numerical of Q, the market value of the firm, I first sum the book value of firm's assets and the market value of firm's common equity, which is equal to the number common shares

outstanding times the price of the end of the duration. I then subtract the sum of the book value of firm's common equity and the balance sheet deferred taxes from this estimate. The ratio is calculated as follows :-

(Fang et al, ٢٠٠٨:٩)(Fang et al, ٢٠٠٩:١٥٥)

$$\text{Tobins } Q_{it} = \frac{\text{Market value of assets}}{\text{Book value of assets}} \quad (٤)$$

Here the  $Q_{it}$  is depending variable; another formula can used is approximate Q which is introduced by (Chang and Pruitt, ١٩٩٤:٧٠-٧٤). As follows:-

$$\text{Approximate } Q = \frac{MVE+PS+DEBT}{TA} \quad (٥)$$

Where:-

MVE: The product of firm's share price and the number of common stock shares outstanding.

PS: The Liquidity value of firm's outstanding preferred stock.

DEBT: The value of firm's short-term liabilities net of its short-term assets, plus the book value of the firm's long-term debt.

TA: The book value of the total assets of the firm.

I contemplate use market to book ratio to clarify the relation between stocks liquidity and firm value, the market / book ratio split into three components: price-to-operating earning, financial leverage, and operating profitability. The operating earning-to-price ratio, OIP, is equal to operating income after depreciation divided by market value of common equity. The financial leverage ratio, LEVERAGE. Is the fraction of the value of firm's assets coming from common equity, operating income on assets, OIOA, is equal to operating income after depreciation divided by book value of assets. Q and its ٣ companies are all measured at a firm's fiscal year end. Other things held constant, the higher M/B ratio means the stocks of firm's earn high rates of return on their assets and sell for prices well in excess of their book values. For every successful firm's, the M/B ratio can be as high as ١٠-١٥ (Besley & Brigham, ٢٠٠٨:٦١).

### ٣. Previous Studies and Methodology

#### ٣.١ Previous Studies

Few empirical studies in some markets around the world examined the relationship between liquidity and firm's valuation, among which, Amihud and Mendelson (١٩٨٦), (Fang et al, ٢٠٠٩:١٥٠-١٦٩), (Lins, ٢٠٠٣:١٥٩-١٨٤), (Tao et al, ٢٠٠١:١-٣٨) and (Shilvia & Kim, ٢٠١٣:١-١١). While another studies such as Dater, Naik and Radcliffe (١٩٩٨), Chan and Faff (٢٠٠٥) and Archarya and Pedersen (٢٠٠٥), examined the relation between liquidity and stock pricing as the proxy for the firm's value (١). All these studies, no matter what is used to measure the stocks liquidity, found a statistically and economically significant relationship between stock's liquidity and firm value. The same conclusion follows when they used quoted spread (or the difference between lowest ask price and highest bid price divided by the mid-price of the quotes). Fang Neo and Tice (٢٠٠٩) also stated that liquidity affects a firm's value positively. There study showed that liquidity affects firm performance positively when performance is measured with a firm's Tobin's q ratio. These findings may be due to the fact that the large numbers of previous studies have been carried out in developed markets. Our paper differs from theirs in the following regards:-

**First:-** Iraq stock exchange (ISE) is different from that in most other markets because not only has a limited transaction, but there is also

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(١) No matter what method is used, firm's value is necessarily the market price of the firm's stock multiple by the number of outstanding stocks.

relatively small. Listed companies are few and most stocks are infrequently traded and trading volume is low, furthermore, the ISE has been going through substantial changes started with the Iraqi invasion of Kuwait in ١٩٩٠ until the second gulf war in ٢٠٠٣, these conditions in itself, to justify the need for this research and this is just what I wanted.

**Second:-** Ceteris paribus, developed markets are characterized by high liquidity, few institutional hindrances, reliable information, and sophisticated investors. Under



developing markets are characterized by low liquidity, thin trading, and unreliable information and less informed investors. These factors form a significant difference than those in the developed markets and add another reason to take into account the impact of liquidity on the firm value, in emerging market.

### **٣.٢ Data Sources and Population of the Study.**

This study utilities data from two sources. The first sources are Iraqi Stock Exchange (ISE). The second source is the statistical& research department in the central bank of Iraq. Statistical society of the study include (٦٥) listed firms in ISE during ٢٠٠٨\_٢٠١٢ with some consideration is the firm that recorded at ISE at least ٢٠٠٦, its stocks must have at least ١٢٠ trading days in a fiscal year, and allow access to the final counts such as statement account and balance sheet.

### **٣.٣ Study Objectives**

The main objectives of current study as follows:

- Clarifying relationship of stock liquidity and the value of the firm.
- Partly, test the relationship between idiosyncratic risk and the required rate of return (RRR) because the decline RR demanded by investors necessarily indicates the high value of the firm.

### **٣.٤ The Problem of the Study.**

This study aims to fill the gap in the domestic literature by examining whether and why liquidity affects firm value. The assessment of the aim of determining the effect of liquidity on firm value raises a number of questions. These questions are stated below:–

- How should liquidity be valued?
- How can liquidity be measured?

- How can the value of the firm measured.
- What is liquidity in relation to firms value

The conclusion will sum up the answers and it will be explained what these answers imply regarding the relationship between stock liquidity and firm value in Iraq.

### ٣.٥ Hypotheses

H<sub>1</sub>: stock liquidity increase firm value.

H<sub>0</sub>: stock liquidity doesn't increase firm value.

### ٣.٦ Variables definitions

Table ١ shows variable definitions that use in this study :-

**Table ١ variable definitions**

١- Firm value measure:	
Tobin Q	The dependent variable for the firm proxy for firm value
Leverage (LEVs)	Market value of equity/ Market value of assets
Log BVTA	Natural logarithm of book value of asset measured at fiscal year end.
Log AGE	Natural logarithm of firm age which is approximated of the number of year listed to fiscal year.
OIP	Operation income after depreciation / market value of equity.
OIOA	Operation income on assets after depreciation / book value of assets.
DUMLQ <sub>٣</sub>	A dummy variable indicating inclusion LQ <sub>٣</sub> .

IDIORISK	Standard division of OIS OLS regression
<b>٢ – Liquidity Measures of Stock Markets Residuals:</b>	
(illiq)	Amihud's (٢٠٠٢) measure (The absolute value of stock return /Iraqi dinnar trading volume on a given day in a given year
Stock trading turnover (STT)	Log of total number of shares traded scaled by the number of shares outstanding in a given year
Proportion of zero stock returns (ZR)	The proportion of the number of days with zero stock returns to the total number of days with non-Missing stock return in a given year

In selection of control variables, this study pays close attention for the firm characteristics that may drive the relationship between firm value and stock liquidity, specifically, the study control profitability using the operation income on assets and, finally, it control for other unobservable firm characteristics using the firm age.

## ٤. Empirical Results

### ٤.١ Correlations

I began my empirical analysis by testing whether on average there are apposite or negative correlations among the key variables in my analysis. Table ٢ present Pearson and spearman rank correlations among ٣ liquidity measures, firm value measure, and all control variables used in my baseline specification. As expected, the ٣ measures of stock liquidity are positively correlated with each other. As shown in table٢, the ٣ liquidity measures has significantly positive person and spearman correlations with five firm value: Q, leverage OIP, and OIOA, Generically speaking, firm with liquid stocks tend to have better value. Many of control variables are also significantly correlated with the

stock liquidity measures albeit relatively weak coefficients as a STT with OIP (٠.٠٣), Log age with ILLQ (٠.٢٨) and Log BVTA with three measures each on secession.

**Table ٢ Correlations**

This table reports Pearson correlation coefficients of variables used in this study. All variables are defined in table ١. This sample includes all firms with financial data during the year ٢٠٠٨-٢٠١٢.

	ILLQ	STT	ZR	Q	LEV.	LOG BVIA	LOG AGE	OIP	OIOA	IDIO RISK	DUM Q٣٠
ILLQ	١										
STT	٠.٧١	١									
ZR	٠.٦٨	٠.٦٢	١								
Q	٠.٣١	٤٤	٠.٣٦	١							
LEV	٠.٨٧	٠.٢١	٠.٥٥	٠.٥٧	١						
LOGBVTA	٠.١١	٠.٢١	٠.٠٣	٠.١٧	٠.٢٨	١					
LOGAGE	٠.٢٨	-٠.٠٧	٠.٢٢	-٠.٠٦	٠.٠١	-٣٠	١				
OIP	٠.٠٢	٠.٠٣	٠.٢٨	٠.١٤	٠.١١	-٠.٠٠٨	٠.٠٧	١			
OIOA	٠.٢٢	٠.٠٢٨	٠.٣٣	٠.٣٦	٠.٣٠	٠.٤١	٠.٢١	٠.١٧	١		
IDioRisk	-٠.٢٢	٠.١٧	-٠.١٨	٠.٢٣	٠.١٦	-٠.٣١	٠.١٥	٠.٢٠	٠.٣٣	١	
DUMLQ٣٠	٠.٣١	٠.٠٨	٠.١٤	٠.٢٢	٠.٠٩	٠.١٦	٠.٠٨	٠.٢١	٠.١٨	٠.١٦	١

#### ٤.٢ Baseline Specification

To assess whether stock liquidity increase, or has no effect on firm value, leading to test my first hypothesis (H1) that stock liquidity increase firm value, I regress a proxy for Tobin's Q on my liquidity measure and several control variables. Formally, I specify the ordinary least squares (OLS) regression model as below:-

$$\text{Tobin'sQ} = \alpha + b \text{ stock liquidity}_{it} + c \text{ logBVTA}_{it} + d \text{ DUMLQ}_{٣٠, it} + E \text{ logAGE}_{it} + F \text{ logIDORISK}_{it} + \text{IND}_j + \text{YR}_t + \text{error}_{it} \quad (٦)$$

Definitions of all variables are listed in table ١, while IND<sub>j</sub> is an unobserved industry effect for industry; and YR<sub>t</sub> is an unobserved year effect for year<sub>t</sub>. Tobin Q, as a proxy for firm value, and stock liquidity alternatively represents several liquidity proxies including Amihud's illiquidity, stock trading turnover (STT) and proportion of zero stock returns (ZR). As the table ٣ indicates, the coefficient on the liquidity measure, Log ILLIQ, is negative and significantly affect Q. the marginal effects from the pooled

specification suggest that a decrease in illiquidity, illiQ, of .٠٥ leads to an increase in Q of  $(.٠٩٥)(-٠.٠٥ * -١.٩١)$  and lead to an increase in OIP of  $(.٠٥٤)(-٠.٠٥ * -١.٠٨)$

Also, a decrease in illiquidity of .٠٥ leads to decrease in leverage of  $(.٠٦)(.٠٥ * ١.٢٨)$ . This results support hypotheses H<sub>1</sub>, since higher stock liquidity (low value of Amihud illiquidity) leads to increase firm value.

All of the control variables in the regression are significant. LOGBVT has significant negative coefficients which imply that small companies have higher values. LOGAGE has significant positive coefficients. This suggests that older firms tend to have higher firms value, in other words, younger firms tend to have lower firms value. DUMLQ<sub>٣٠</sub> has significant positive coefficients. This mean that LG<sub>٣٠</sub> companies have higher values. IDIORISK has significant negative coefficients; it means that stocks with high idiosyncratic risk have higher required returns. To gain further insight into the source of higher firm value with high liquidity, I break the firm value measure, Q, into three components, operating income to price ratio (OIP). Operating income to assets ratio (OIOA), and financial leverage ratio (LEVERAGE). I use operating income instead of net income to eliminate the impact of financial leverage on the results. The coefficients estimates are shown in column ٢ shows the liquidity measure (LOGILLIQ) negative and significant affect operating income to price ratio (OIP) in column ٢ in table ٣ and it is also negative and significant affect (OIOA) in column ٣

Table ٣

Result of ordinary least squares regressions: Baseline specifications (Eq.٦)

Dependent Variables	Q ١	OIP ٢	OIOA ٣	LEVERAGE ٤
INTERCEPT		.٢٢		.٨٦
LOGILLIQ	-١.٩١	-١.٠٨	-١.١٥	١.٢٨
LOGBVT	.٠٤	.٠٧	.٠١١	-.٠٦
DUMLQ <sub>٣٠</sub>	.١١	.٠٧	.٠٢	-.٠٣
LOGAGE	.٠٦	.١٤	.١٠	.٢٦
LOGIDIORISK	.٠٠٣	.٠٠٢	.٠١٣	-.٠٩

Significant at level ٥%

Table ٣, this results indicate that stock with high liquidity tend to have higher operating profitability. The marginal effect from the pooled specification suggest that a decrease in illQ (LOGillIQ) of ٠.٠٥ leads to an increase in OIP by (٠.٠٥٤)(-٠.٥\*-١.٠٨) and decrease of ٠.٠٥ in this measure

(٩LogiLLiQ) leads to an increase in OIOA by (٠.٥٨) or (-٠.٥ \* - ١.١٥).

Of the four dependent variables in the regressions LEVERAGE in column ٤ has positive and significant affect with the liquidity measure; this means that stock with high stock liquidity (low illiquidity of Amihud) tend to have better firm value (higher firm Q), more equity in their capital structure (or low financial leverage). This finding shows that the cost of issuing equity is significantly lower for firms with more liquid stock. Thus, firms with liquid stocks may choose to issue equity as opposed to dept.

### ٤.٣ Influences on Valuation after Control Endogeneity

To add more reliability on the results and previous tests, in this section I will use an instrument variables procedure as an additional test control for the possibility that stock market liquidity is endogenous. One of the most important benefits of this test is that an unobservable dose not have to be constant across time. Two stag least squares is used to control endogenous. Two stages (LS) estimation is needed because the main liquidity measure (LOGILLIQ) is endogenous variables with the firm value measures, Q, OIP, OIOA, and Leverage. Using one lag of the above stock liquidity measure of two firms in firm i's industry that have the closest size (market value of equity) to firm i ( $Z_1$ ) as exogenous variables that are correlated with liquidity but uncorrelated with the error term. The first stage regression using pooled data is shown below as Eq. (٧) and the second stage regression is shown below as Eq. (٨)

$$\text{LOGILLIQ}_{it} = \alpha + b \text{LOGILLIQ}_{t-1} + c Z_1 + d \text{LOGBVTA}_{it} + e \text{DUMMLQ}_{r,it} + f \text{LOGAGE}_{it} + g \text{LOGIDIORISK}_{it} + \text{IND}_j + \text{YR}_t + \text{error}_{it} \quad (٧)$$

$$Q_{it} (\text{OIP}_{it} \text{ or } \text{OIOA}_{it} \text{ or } \text{LEVERAGE}_{it}) = \alpha + b \text{LOGILLIQ}_{it} + c \text{LOGBVTA}_{it} + d \text{DUMMLQ}_{r,it} + e \text{LOGAGE}_{it} + f \text{LOGIDIORISK}_{it} + \text{IND}_j + \text{YR}_t + \text{error}_{it} \quad (٨)$$

Table four presents the regression coefficients were obtained by using equations  $\gamma$  and  $\lambda$  above, where the first stage coefficients are shown in column ١ of table ٤. The coefficient on the second stage is shown in columns from ٢ to ٥. It appears from results that the coefficient on the liquidity measure, ILLIQ, is still negative and statistically significant at the ٥% level, similarly, the results using the components of Q as the dependent variable are also robust. These result confirm that the high liquidity stock have higher firm Q, less financial leverage and higher operating profitability after controlling endogeneity of a firm's stock liquidity, alone, LEVERAGE as the dependent variable, based on two stages least square estimation on table ٤ shows positive and significant influence with the liquidity variable, LOGILLIQ. This result confirms that high liquidity firms tend to give a greater weight of ownership in the structure of funding. Overall, these finding provide a logical base for acceptance of the hypothesis  $H_1$ , or the rejection of the null hypothesis  $H_0$ .

Table ٤

Two – stage least squares Regression

Results in table outcome of the use of equations  $\gamma$  and  $\lambda$ , taking into consideration that  $IND_j$  is an unobserved industry effect for industry  $j$  and  $YR_t$  is an unobserved year effect for year  $t$

Dependent Variables	LOGILLIQ ١	Q ٢	OIP ٣	OIOA ٤	LEVERAGE ٥
INTERCEPT	١.٢١	١.٧٤	.٣٣	.١١	-١.٠٩
LOGILLIQ		-٠.٦٣	-١.٠٩	-١.٢٤	٠.٠٦
LOGILLIQ <sub>t-١</sub>	.٧٣				
Zi	-٠.١٦				
LOGBVTA	.٠٠٤	.٠٩	.١٦	.٠٣	.٠٩
DUMLQ <sup>٣٠</sup>	.١٨	.٦١	.١١	.٢٢	.٢٣
LOGAGE	.٢٧	.١٥	.٠٨	-٠.٠٦	-٠.٤١
LOGIDIORISK	٠.٣١	٠.٠٣	٠.٠١	٠.٠٠١	-٠.٠٤

Significance at level  $\alpha$ %

## ٥. Summery and Conclusion

In this study I have presented an empirical study to investigate the relationship between Tobin's Q and stock liquidity in some selected firms in Iraqi stock exchange, The result of the study indicated that there is appositive relationship between Tobin's Q and liquidity, Furthermore,

positive affect with firm value. I find that higher stock liquidity have higher firm value. Liquidity also positively impacts operating profitability. This study shows that stock with high liquidity have more equity in their capital structure (Low Financial leverage). In each case, I also find evidence that liquidity decline the RR demanded by investors, thus, reflected positively of the firm value.

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