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Determinants of the Capital Structure: Empirical Evidence from Iraq

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Abstract

This study aimed to examine capital structure determinants of the private Iraqi banks listed on the Iraq "Stock Exchange" for the period 2014-2018. This study reviewed various models of capital structure in order to form proposals regarding the capital structure determinants of the Iraqi private commercial bank. This study used the combined ordinary least squares and econometric techniques; random effects and fixed effects so as to explore the important aspects affecting the selection of the bank's capital structure. The results of the study indicated that size, profitability, and investment opportunities available to the bank are positively related to the debt ratio (financial leverage). Conversely, liquidity proportion is negatively associated to the debt ratio. The study revealed that assets tangibility and assets growth did not show any relationship with the bank debt ratios. This study laid a basic foundation of exploring the determinants of the capital structure of private Iraqi banks on which a more detailed evaluation can be based. Moreover, the empirical results of the current study will help the bodies responsible for managing banks take optimal capital structure decisions.

Key words: Iraqi Private Banks, Capital Structure, Iraq Stock Exchange

Introduction

Among the difficult defiances that economic entities encounter is choosing the capital structure. The capital structure choice is vital as it influences the financial execution of economic entities. A company's capital structure is known "as a mix of different securities" (Abor, 2005, 438). Economic entities may select from several alternate capital structures. Thus, the entity's management must attempt to determine the optimum capital structure, which will maximize its value. The idea that financial uplift and entity value are positively related was consolidated in the results of many studies, including Chowdhury (2010) and Chowdhury and Ghosh et al. (2000). The strategy of capital structure is significant as well; this means that the risk level and the entity's profit are often affected by them.

To date, no rigorous theory has been developed to define precisely the "Optimal Capital Structure". Consequently, managers' job is to identify the elements that are involved in the nature of choices taken in relation to capital structure. Managers can then make use of an ideal combination of equity and debt to make the most of the value of the entity. Furthermore, these influencing elements differ from one country and another (De Jong et al., 2008) and entity characteristics such as company size, agency costs, bankruptcy costs, profitability, growth opportunities, profit change, liquidity, asset structure, ownership structure, etc.

The determinants of the capital structure have been discussed for many years and it are still among the major unresolved issues in the corporate finance literature. Numerous theoretical studies and many empirical researches have addressed these issues, but there is still no supported and unanimously accepted theory (Morri, 2008). In fact, what makes the discussion of the capital structure controversial is that only a few advanced theories have been experimental tested in this respect. Moreover, these theories offered different and sometimes conflicting results and conclusions.

Since the 2003, the Iraqi economy has been directed towards market economies, there is a growing recognition of the importance of private economic entities. However, there is a scarcity in studies that deal with the capital structure in those entities (including private banks). This scarcity is ascribed to factors related to the decline of the Iraqi economy as a whole in addition to restrictions imposed on data of these entities. Accordingly, studies on financing Iraqi private entities in various Sectors have been neglected.

This study aims to identify the factors affecting the capital structure of the Iraqi private banks for the period 2014-2018 in a systematic manner. The study also aims to offer a practical guide for those who wish to know about this topic. Therefore, it provides evidence for the theories of capital structure in developing countries such as Iraq.

The rest of this work is arranged as in the following. The second section reviews the works related to our topics. The third section presents the experimental determinants and hypotheses of the study. The study methodology is illustrated in Section 4. An analysis and discussion of the results of the study are presented in Section (5), while Section (6) summarizes the study most important conclusions.

Literature Review

The study of the literature related to different theories provides a basic blueprint that enables the researcher to form basic knowledge on the topic, and also to find the gap in literature that researchers can bridge to help others obtain a deeper insight regarding the topic under investigation. Research conducted by various economists and financial experts to investigate the capital structure and its determinants is not a new endeavor, as the interest in the theory of capital structure dated back to 1958, when a basic paper by Modigliani and Miller was published.

Modigliani and Miller (1958) first proposed the theory of irrelevance based on ideal market conditions (i.e., no transaction costs, consistency of market information for all participants, no bankruptcy costs, the investor and companies could borrow money at an equal interest rate, tax and return on investment are not affected by uncertainty in the sector). The entity value is not affected by the capital structure. It does not make any difference whether the economic entity uses borrowed or owned funds in financing its processes. Modigliani and Miller also highlight the statement that the effective revenue and the underlying asset risk are the primary sources of an entity's value.

Although Modigliani and Miller's theory can work in the hypothetical domain as it offers impractical suppositions, the theory is a principal one as it has inspired numerous scholars to improve original models about the structure of capital. Once again, Miller (1977) admitted that the value of an economic entity would increase and the total estimated charge of capital might decline with the utilization of debt due to interest rate reduction for tax purposes.

At a later stage, several conflicting theories about the capital structure were suggested by different professionals such as "Static Trade-off Theory (STO), Pecking Order Theory (POT), Agency Cost Theory (ACT) Agency, and Cost Theory". These theories are discussed in the following sections.

Static Trade-off Theory

The Modigliani and Miller's model (1958) has been critiqued largely due to the fact it postulates impractical prospects and did not succeed to introduce "taxes, bankruptcy cost, or asymmetric information". Subsequently, Modigliani and Miller (1963) inserted taxes into the extended theory they proposed. They found that the value of the entity is associated in a positive way to the sum of debit taken. This theory assumes a lack of the cost of bankruptcy cost. Nonetheless, a balance between cost and debt that evades this risky selection should be available. The pressure exerted by bankruptcy increases due to the increase in debt; thus, bust is the balance element for the risky condition demonstrated by Modigliani and Miller (1963).

Myers (1984) modified the static trade-off theory proposed by MM (1963). According to the modified model, there is a trade-off between the benefits of using debt and the financial distress that occurs due to the increased likelihood of bankruptcy occurring with the rise in debt use. According to Myers's (1984) trade off theory, companies have their target debt levels and form their capital structure accordingly.

Pecking-Order Theory

In (1984), Myers and Majluf initiated the theory of funding priorities (POT). According to this theory, the company does not follow the desired volume of maximum advantage. All firms select their leverage ratio depending on funding requirements. Firstly, firms finance projects from reserved incomes. If these incomes do not suffice, firms resort to debit. Yet, in case more funding is needed, the firms go to issuing equity. Using preserved incomes is more preferable compared to debt use or equity issuing as it is practically cost-free choice, but when exterior incomes are required to fund such as issuing extra stocks, a greater cost may be required. Funding Priority Theory is based on the difficulties of obtaining affordable financing, where investors believe that the stock is overvalued if managers try to issue more of it, and thus the share price is expected to decline. Moneymaking firms make money internally and ultimately they do not often rely on debt.

Agency Theory

Agency theory proposed by Jensen and Meckling (1976) is based on information asymmetry between managers and investors. Several authors have claimed that dependence on outside financing in case information are asymmetric and contracting is imperfect may lead to possible struggles of interest among between managers, shareholders as well as bondholders (Fama & Miller, 1972; Jensen & Meckling, 1976; and Stulz 1990).

Agency Theory assumes two types of interest conflict. The first type of conflict is expected to take place between stockholders and managers. The second type of conflict could be bondholders and stockholders. Agency theory argues that directors are proxies to shareholders and should act in light of their interests. However, this is not always the case; thus, conflict of interests happens. One way to eliminate this conflict is to increase the

indebtedness of the economic entity (Rehman & Rehman, 2011), as capital structure leverage may urge managers to produce currency to meet debt requirements and also to lessen the predictable rate of bankruptcy. Hence, free currency at managers' disposal to capitalize in suboptimal projects will be reduced.

These managers will consume cash according to their own requirements. Therefore, managers and the shareholders' interests will be allied. Nevertheless, greater indebtedness often results in an increase in potential struggles or interests clash among stockholders as they are long-standing destined and forego immediate revenue for long-standing wealth gains, and short-term debt owners. To alleviate creditors' fear, creditors usually rely on the tangible assets of the economic entity as collateral. This implies that the company takes on additional debt to decrease conflicts of interest among various stakeholders.

Further Theories of Capital Structure

Further models and theories were and are being proposed and extended by scholars in response to Modigliani and Miller's (1958 and 1963) theories. Among them is the "Signaling Theory" proposed by (Ross, 1977), the "Trade Theory of Dynamic Timing" offered by Fischer et al., 1989), and "Market Timing" (Baker & Wurgler, 2000). Yet, experimental studies devoted to the investigation of capital structure determinants have typically been designed corresponding to the "Pecking Order Theory" or "Trade of Trade Theory" with several pieces of evidence that have been found to support Agency Theory (Nguyen and Nguyen 2012).

Empirical Evidences and Hypotheses of the study

Leverage Ratio

The capital structure of any company is a mixture of debt and equity. In present work, the capital structure represents the dependent variable that is measured via debt ratio calculated from the division of the total debts (total debits / total assets) of the bank.

Entity Size

Several studies indicated that financial leverage and entity size are positively associated (Suntarto & Rely, 2017; Adesinael et al., 2015; Githira et al., 2015; Lim, 2012).

It has been found that big companies frequently prefer long-standing debts, whereas minor companies prefer immediate debts (Marsh, 1982). Big businesses might have the ability to make use of economies of scale in delivering long-standing debts. They might be also able to bargain with creditors. So the cost of issuing debt and equity is negatively related to the size of the company. In addition, large firms are often diversified and have more stable cash flows, and thus larger firms are less likely to fail in comparison to minor businesses. Hence, a positive link between size and leverage can be made. This link can be seen as a backup for information asymmetry (Myers & Majluf 1984). In small and medium entities, severe information asymmetries between small and medium firms' owners and potential lenders may lead to difficulties in financing, as it is unlikely that these firms will have access to sufficient and consistent financial data (Doanh & Pentley, 1999). It can be understood here that these firms encounter extra more problems in obtaining lends from commercial organizations as projected by several philosophies.

We can assume H1: entity size positively correlates with indebtedness ratio.

Liquidity

Ratio of liquidity refers to the company's capability of paying off its instant liabilities. The high ratio of liquidity indicates that the economic entity (the bank) has sufficient existing properties to pay off its present commercial obligations for everyday actions of the entity. Most of the earlier works such as Ab Wahab and Romli (2014), Sbeiti (2010) and Icke and Ivgen (2011) enhance the reality that companies with great liquidity are unlikely to borrow much. Pecking Order Theory proposes that liquidity and financial leverage are negatively associated since economic entities have the capability to make use of their existing properties to fund their operations. Accordingly, it is not urgent that the firm goes to external funding. Therefore, a negative relationship between the financial leverage and liquidity is expected for the banks under study. Liquidity is measured in cash assets as divided by deposits and current accounts of the bank. In reference to the liquidity variable, the following can be assumed:

H2: Bank liquidity is negatively related to debt ratio.

Profitability

A great number of experimental researches deny the existence of reliable theoretic estimates about profitability effect on financial leverage. According to the "Trade-off Theory", firms with higher profitability would exert more influence and power, because they have more income to be protected from taxes. Alternatively, the "Pecking-Order Theory" postulates that the most profitable entities do not need exterior funding, and consequently can use low financial leverage (Buer, 2004). Some experiential works (cf, Githira & Nasieku., 2015; Akinyomi & Olagunju, 2013), Juniart & Utami, 2017; Fattouh et al.; 2002, and Doug, 2014) revealed that financial leverage and profitability are positively related. However, other studies have found the opposite (Naeem & Baloach, 2017, Arsov & Naumoski, 2016, Adesina.et al. 2015; Nilssen, 2014; Jensen, 2013; Lim, 2012). To conclude, these studies offered mixed results. In light of the theory of funding priorities, the following hypothesis can be formulated:

H3: The bank profitability correlates negatively with the debt ratio.

Assets Growth

The results of previous empirical research in regard to the association that links asset growth to capital structure indicate an ambivalent one. (Nguyen & Nguyen, 2012) According to the Pecking-Order Theory, an economic entity turns to debt for financing when retained earnings are insufficient to finance growth opportunities. Economic entities with high growth opportunities usually ask for a lot of money, and in most cases the retained earnings may not be sufficient cash flows to finance their operations; and thus, the relationship will be positive. This result is in agreement with many previous studies such as Cakova (2011); Jenseu (2013); Akinyomi and Olagunju (2013), and Githira et al. (2015).

In contrast, "Agency Theory" indicates that capital structure and entity growth are negatively associated. Myers (1977) argues that firms with high growth may have additional investing choices in the future compared to firms with low growth. Consequently, firms with high debts tend to lose their gainful investment prospects, as these investments lead to wealth transfer from owners of the entity to owners of debt (Nguyen, 2006). Consequently, entities that possess chances of high growth might not be able to originally issue debt, and leverage is anticipated to be in negative correlation with growth chances. Myers (1977) elaborates that the agency issue can alleviate the problem if long-standing debt is substituted with immediate debts. Hence, it is suggested that the immediate debt proportion may really be positive in relation to asset growth.

H4: There is a positive relationship between the growth of the bank's assets and the debt ratio.

Tangibility of Assets

The type of assets owned by an economic entity can have an impact on its financing behavior. Perceptible properties are supposed to influence an entity's borrowing choices as these properties rather not prone to the issue of information asymmetries. Moreover, these assets are of grander value compared to imperceptible properties in insolvency. The higher the proportion of tangible assets in the balance sheet, the more lenders should be willing to provide loans, and the higher the leverage should be (Rajan & Azaingales 1995). This has been supported by several empirical studies, such as Juniarti and Utami (2017); Naeem and Baloach (2017); Nilssen (2014), and Doug (2014). Therefore, the following assumption can be made.

H5: There is a positive relationship between the tangibility of the assets and the debt ratio

Investment Opportunities

Corporate Finance Theory states that improving investment opportunities is one of the three drivers of optimal financial leverage (together with reducing distress costs or tax expenditures). The optimal capital structure should include the entity's competitive position as well as the availability of investment opportunities (Lupi et al. 2017). In our country, according to what the Central Bank of Iraq indicated in its Annual Financial Stability Report (2016: 31), the levels of liquidity are very high, exceeding the percentages specified by the Central Bank with (30%). This takes the investments of Iraqi private commercial banks towards treasury transfers with a low yield. It also actually affected the profitability rates of these banks. It is also expected that this will also negatively affect the debt ratio of the banks under study. There are three measures of investment opportunities: the market value/book value, the growth rate of constant properties, and the ratio of cash flows from constant properties. The current study adopts the third ratio. Hence, it can be assumed that:

H6: There is a positive relationship between the available investment opportunities and the indebtedness ratio

Study Methodology

Data Sources

The data used in the experimental analysis of the present study were extracted from yearly released accounts of the Iraqi private banks listed on the Iraq Stock Exchange, and published on the Iraq Stock Exchange website (www.isx-iq.net) as well as the Iraqi Securities Commission website (www.isc.gov.iq). The actual and historical financial data obtained are related to (28) private Iraqi banks out of (64) banks, including (12) representing branches of private foreign banks in Iraq for the period 2014-2018. The study was limited to private banks because their financial statements have greater credibility compared to other economic entities operating in other economic sectors, as a result of direct supervision by the Central Bank of Iraq and their application of international financial reporting standards since 2015.

Study Model

This work attempts to investigate the determinants of the capital structure through investigating the impact of (6) explanatory variables on the bank's capital structure. The variables used in this study were determined according to the findings of previous studies and

the range data available for measurement purposes. The current study examines whether bank size, liquidity, profitability, assets growth, assets tangibility, and available investment opportunities represent important determinants of the capital structure of private commercial banks in Iraq.

The bank's capital structure represents the dependent variable measured in the ratio of debt or (financial leverage), and is represented via overall debt ratio to the entire properties (LEVR). The assumed independent variables include: bank size (SIZE) measured in the natural logarithm of total assets, liquidity (LIQD) measured in the ratio of cash assets to total deposits, profitability (PROF) measured in the proportion of net income before interest and tax to overall properties, total asset growth (GRTA) measured as the ratio of change between the following year and the previous year, tangibility of assets (TANG) measured by dividing fixed assets into overall assets, and bank investment opportunities (CFA) measured by operating cash flows to fixed assets.

The following is the multiple regression model conducted to test the above-mentioned hypotheses of the study:

LEVR **i**, **t** = β0 + β1 SIZE **i**, **t** + β2 LIQD **i**, **t** + β3 PROF **i**, **t** + GRTA **i**, **t** + β5 TANG **i**, **t** + β6 CFA+ ε
LEVR **i**, **t** = leverage or debt ratio of Bank **i** in time **t**
B0: the intercept or constant amount,
B 1- β6 = coefficients of the explanatory variables.
SIZE **i**, **t** = size of bank **i** in time **t**
LIQD **i**, **t** = asset liquidity of bank **i** in time **t**
PROF **i**, **t** = profitability of bank **i** in time **t**
GRTA **i**, **t** = Growth total assets for bank **i** in time **t**
TANG **i**, **t** = Tangibility of assets for bank **i** in time **t**
CFA **i**, **t** = Investment opportunities of bank **i** in time **t**
ε: the error term

In most of the previous studies, the regression model (OLS) depended on ordinary least squares, while in this study we use one of the modern econometric methods known as Panel Data models. To estimate the model parameters and demonstrate the nature of the influence of independent variables on the current study dependent variable, three methodologies are used to estimate, and then compare between the results of these methodologies will be made. The study adopts a pool regression model assuming that the observations are a single unit without considering the temporal effect on the sectional units, which may give misleading results. On the other hand, the second model (FEM) (Fixed effects model) assumes that the temporal effects are on (β_0), while the value of (_1) remains constant for all sections i.e. it is not affected by the change in time for all banks included in our study. As for the last model, the Random Effects Model (REM), it assumes that the value of (_0) is constant for all sections over time, and that the time effect occurs only on the value (β_1). In order to make a comparison between the aggregate paradigm and the fixed effects paradigm, the Chow test is used, while the Hausman Test is intended for the comparison between the fixed effects and the random effects models. For the purposes of describing the relationship between the dependent variable and the independent variables, three models are used and as follows

$$\mathbf{Y_{it} = \beta_0 + \beta X_{it} + \varepsilon_{it}\ (pool\ model)}$$
$$\mathbf{Y_{it} = \beta_{0i} + \beta X_{it} + \mu_{it}\ (fixed\ effect\ model)}$$
$$\mathbf{Y_{it} = \beta_0 + \beta X_{it} + \varepsilon_{it} + \mu_{it}\ (random\ effect\ model)}$$

Where $\mathbf{Y_{it}}$ represents the dependent variable, which is financial leverage (gearing ratio), **i** denotes the bank while **t** represents the time dimension adopted in the study. $\boldsymbol{\beta_0}$ represents the secant, while $\mathbf{X_{it}}$ is a vertical vector of the variables that will affect the leverage. $\boldsymbol{\varepsilon_{it}}$ denotes the random error of bank **i** at time **t**, while $\boldsymbol{\mu_{it}}$ represents the error term in time **t** for the bank. In order to observe the unobserved effects of the companies or production units in our study of banks, the fixed and random effects models are adopted for the panel data.

Results discussion and Analysis

Descriptive Statistics and Correlation Analysis

The descriptive analysis of the data collected in the present study is tabulated in table (1), which shows the dependent variable (DR) and the independent variables of the study in relation to data obtained from (28) private Iraqi commercial banks for the period 2014-2018. Table (1) indicates the mean, upper limits, minimum limits, and standard deviation for (140) observations. The results showed that the averages for all variables were distributed around their arithmetic mean, and the value of the arithmetic mean is (0.472476). The value of the standard deviation of the variable was (0.172), the upper and lower values ranged between (1.048) and (0.004) respectively, while the variable representing the available investment opportunities (CFA) had an average of (4.48733) and a high standard deviation (33.32159). This is due to the discrepancy between the values of observations of different banks.

Table (1) *Descriptive Statistics*

	DR	CFA	GRTA	LASSETS	LIQUID	PROFIT	TANG
Mean	0.472476	4.48733	0.1121	11.69223	1.370023	0.00565	0.070783
Median	0.487	0.303	0.0054	11.7299	1.117	0.0133	0.04035
Maximum	1.048	297.35	6.008	12.26186	5.981	0.157	0.339
Minimum	0.004	-49.108	-0.995	10.18592	0.064	-1.22	0.001
Std. Dev.	0.172146	33.32159	0.656527	0.296029	1.095758	0.108653	0.074705
Skewness	-0.074196	7.069286	6.426396	-2.314288	1.913282	-10.4106	1.59657
Observations	140	140	140	140	140	140	140

As for the correlation analysis, the correlation coefficient is used to explore the primary correlation relationship between the variables adopted in the study, on the one hand, and to explore the existence of the problem of linear multiplicity on the other hand. It is noticed that the values of the correlation coefficients between the study variables are weak, which indicates the absence of the problem of linear multiplicity and therefore all variables will be preserved. In the table (2) below, that the characteristic correlation coefficient noticed between the dependent variable and assets (LASSETS) was with the value (0.667526), while the value of the coefficient of correlation for the dependent variable with the volume of liquidity in Iraqi banks (LIQUID) was negative and with a value of (- 0.53593).

Table (2) *Correlation Analysis*

	DR	CFA	GRTA	LASSETS	LIQUID	PROFIT	TANG
DR	1	-0.09526	-0.11651	0.667526	-0.53593	0.112384	0.012882
CFA	-0.09526	1	0.619826	-0.3814	0.03478	0.002512	-0.12158
GRTA	-0.11651	0.619826	1	-0.2651	0.182699	0.082799	-0.12838
LASSETS	0.667526	-0.3814	-0.2651	1	-0.22843	0.225435	-0.11365
LIQUID	-0.53593	0.03478	0.182699	-0.22843	1	0.120632	-0.15925
PROFIT	0.112384	0.002512	0.082799	0.225435	0.120632	1	-0.27225
TANG	0.012882	-0.12158	-0.12838	-0.11365	-0.15925	-0.27225	1

Regression Results

This part includes the results of the analysis for the utilized models, which includes the pooled model, the panel models, the fixed effect model, and the random effect model. It is worth noting that the use of the Panel Data Set has an advantage, which is that the sample size is expanded as it takes into account the temporal and sectional dimensions, accordingly, df values are maximized, the collinearity between the explanatory variables is lessened, and ultimately, the effectiveness of economic estimations is thus enhanced. (Gathogo & Ragui, 2014). Hsiao (1986) has indicated the SLS estimate of the data related to "clustered cross-section" and "time-series" can be highly biased.

In Table (3) presented below, the results of the regression model by means of the Pooled Model and the Panel Models are provided. The tests conducted adopt a critical level with 0.05. The Chow Test is adopted for comparing aggregate model and the fixed effects model. The results show a <0.05 **P** value, and this indicates that the fixed effects model is the preferred one among the three. The second stage includes the comparison between the fixed effects model and the random effects model conducted by means of the Hausman Test. Based on the results of the Hausman Test, the preferred model is the fixed effects model with a **P** <0.05.

Table (3) *Multiple regression Results*

pool model			**fixed**	**effect**	**random effect**	
Variable	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
CFA	0.000747	0.0472	0.000859	0.0167	0.000799	(0.01)***
GRTA	0.010884	0.5498	0.01617	0.2728	0.008669	0.513
LASSETS	0.3741	(0.00)	0.302569	(0.00)***	0.360871	(0.00)***
LIQUID	-0.062257	(0.00)	-0.034327	0.0058	-0.055674	(0.00)***
PROFIT	0.040774	0.6529	0.306626	(0.00)***	0.205394	(0.0026**)
TANG	0.121653	0.3533	0.097775	0.4969	0.127086	0.2805
C	-3.829699	(0.00)***	-3.032524	(0.00)***	-3.685345	(0.00)***
R-square	0.626781		0.858099		0.53907	
Adjusted R-square	0.609944		0.813923		0.518276	
F-statistic (p-value)	37.22655,P(0.00)***		19.42429, p(0.00)***		25.9245 ,p(0.00)***	
Durbin–Watson	0.99321		1.495217			
CHOW TEST	6.399815 , P(0.00)***					
Hausman test,df(6)					38.740739 , p (0.00)***	

Discussion of Results

The current study shows very important results with regard to the determinants of the capital structure of the Iraqi private banks for the period 2014-2018. The results of the three models adopted in the study indicate the existence of a positive significant relationship between

the variable assets (LASSETS), bank size (SIZE), and debt ratio (DR) in the three models. Thus, hypothesis H1 is accepted. These results support the theory of Myers and Majluf (1984) about information asymmetry. In small-sized economic entities, there is likely to be a sharp disparity in information between owners and potential lenders. The results also confirm the ability of large banks to bargain with lenders and have more stable cash flows compared to smaller banks. These results are consistent with the results of many previous studies such as Suntarto and Rely (2017); Adesinael et al. (2015); Githira et al. (2015); Arsov and Naumoski (2016); and Khaki and Akin (2020).

As illustrated in Table (3), the relationship between the variable of liquidity volume (LIQUID) in accredited banks and the debt ratio (DR) is significantly opposite. Therefore, hypothesis H2 can be also accepted. This result is compatible with the pecking-order theory of financing priorities, because private Iraqi banks will be able to make use of their properties to fund the intended operations without the need for external financing. This result is consistent with the results of many previous studies such as Myers and Rajan (1988); Eriotis et al. (2007); Ab Wahab and Romli (2014); Sbeiti (2010); Icke and Icke (2011); and Khaki and Akin (2020).

When looking at the effect of the profitability variable (PROFIT) on the debt ratio (DR) as shown in Table No. (3), it can observed that the fixed effects and random effects models show a positive and statistically significant relationship at a significance level of 0.01, while the results of the aggregate model do not show the existence of this relationship. This indicates the importance of the temporal effects of the profitability variable on the indebtedness ratio of the bank, and it also indicates the reliance on the fixed and random effects models in this study. Hence, hypothesis H3 can be rejected. This result is consistent with the results of many previous studies that found that profitability variable and the debt ratio are positively related to each other (Juniart & U TAMI, 2017; Doung, 2014; A kinomi & Olagunju, 2013).

Returning to Table (3), it can be concluded that both the asset tangibility variable (TANG) and the bank's asset growth variable (GRTA) have no significant impact on the debt ratio (DR). No statistically significant relationship between the two variables and the dependent variable in the three models adopted in the study was reported. This can be explained by identifying the reasons that worked on the increase in the total assets of the banks under study. These assets have increased in specific rates as a result of the instructions recommended by the Central Bank of Iraq to be implemented regarding increasing the capital without considering the economic and financial considerations of some banks. This caused the increase in the total assets and with larger ratios regarding liquid assets, which are reflected in the large liquidity ratios.

As for the sixth variable (CFA), the regression results show that there is a statistically positive significant relationship at 0.05 level in the aggregate model, and at the level of significance 0.01 in the models of fixed and random effects between this variable (CFA) and the debt ratio (DR). Thus hypothesis H6 can be accepted. This result coincides with studies such as Lupi et al. (2017) and several previous studies such as Kariuki and Kamau (2014) and Nguyen and Ramachandran (2006).

Conclusions

The results of this study have empirically demonstrated the impact of the Iraqi economic, social and legal environment in which private Iraqi banks operate, and the effect of this environment on these banks' performance and methods of financing. This current work

studied determinants of the capital structure of private Iraqi banks throughout the period 2014 to 2018. It was essential to identify the chief aspects, which may influence the bank's financial choices based on property rights or debts.

It is first concluded that the average debt/total asset ratio is (0.47), this means that Iraqi private banks tend to rely more on property rights in financing their operations compared to the average debt ratios of commercial banks operating in the regional area of Iraq. Second, the positive association between bank size and capital structure informs that size is a very important indicator in the bank's access to financial debts. Third, the noticeable negative relationship between liquidity and the debt ratio of the bank refers to the reality of the role that liquidity plays in influencing the ratio of financial debts (that banks with high liquidity will show the lowest debt ratios), and therefore the study provided empirical evidence confirming what was mentioned in the financial report of the Iraqi Central Bank for the year 2016 concerning the increasing liquidity ratios at private Iraqi banks and its impact on the bank's capital structure. Fourth, the results of the study indicate that banks, which enjoy available investment opportunities, have higher debt ratios. This conclusion is consistent with the theory of corporate finance.

The contribution of this study is supported by the results reported in previous studies conducted in different parts of the world, which reported results that are so close to the ones reported in the current study. This also enhances the validity of the current study results at the external level. In addition, reviewing the prevailing theories of capital structure and testing whether Trade off Theory, Funding Priorities Theory, and Agency Theory can explain the capital structure allocated to Iraqi banks. Furthermore, it will offer a basis for perceiving the bank's capital structure and inevitably has significant theoretical and practical implications.

A major limitation of this study is the limited availability of financial data. Actually, Iraqi private banks have started applying "International Financial Reporting Standards (IFRS)" since 2015 according to the directives of the Central Bank of Iraq. However, some banks started the process in 2016 as they were granted an additional year to provide the requirements for the application. This required making some necessary adjustments for some years when calculating the financial ratios in the current study. When data for a longer time series is easily accessed, future research might have attained better results.

Finally, the study recommends conducting further research on a larger sample of Iraqi commercial banks. In addition, future research should focus on other issues that might have an impact on the capital structure, regardless of company-specific factors, such as economic and regulatory factors.

References

Ab Wahab, S. A. and Ramli, N. A., 2014, The Determinants of Capital Structure: An Empirical Investigation of Malaysian Listed Government Linked Companies,
International Journal of Economics and Financial Issues, Vol. 4, No. 4, pp.930-945.
Abor J. 2005, the effect of capital structure on profitability: empirical analysis of listed firms in Ghana. J Risk Finance; 6: 438-45.
Adesina,J., Nwidobie, B. , 2015 , Capital Structure and Financial Performance in Nigeria. International Journal of Business and Social Research, 5 (2), 21-31.

Akinyomi Oladele John and Adebayo Olagunju , 2013, Determinants of Capital Structure in Nigeria, International Journal of Innovation and Applied Studies,Vol. 3, issue: 4, pp: 999-1005.

Anwar, W. (2012) 'Cross-Industry Determinants of Capital Structure: Evidence from Pakistani Data International Journal of Management & Innovation 4 (1), 79-86.

Arsov,S. and Naumoski,A, 2016 , Determinants of Capital Structure: An empirical study of companies from selected post transition economies ,Zb.radEkon. Fak.2016, col.34.No 1.119-146.

Baker, M. and Wurgler, J. 2000 'The Equity Share in New Issues and Aggregate Stock Returns'. Journal of Finance (55), 2219-2257.

Bauer, P. (2004), Determinants of Capital Structure: Empirical Evidence from the Czech Republic Czech Journal of Economics and Finance, 54, 2-21.

Cakova,Ugur, 2011, Capital Structure Determinants of Turkish Smes in Manufacturing Industry, Đhsan Doğramacı Bilkent University, Ankara.

Chowdhury and A. Chowdhury, 2010 "Impact of Capital Structure on Firm's Value: Evidence from Bangladesh", Business and Economic Horizons, Vol. 3, No. 3, pp.111-122.

De Jong, A., Kabir, R., & Nguyen, T. T. , 2008 . Capital structure around the world: The roles of firm and country-specific determinants. Journal of Banking & Finance, 32(9), 1954-1969.

Doanh, L. D., and J. Pentley. 1999, Improving macroeconomic policy and reforming administrative procedures to promote development of small and medium enterprises in Vietnam . Publication of the project US/VIE/95/004.

Doug S. Choi (2014), Determinants of the capital structure - empirical study from the Korean market, International Journal of Science Commerce and Humanities, vol.2, issue: 7, pp: 116-128.

Eriotis, N., Vasiliou, D. and Ventoura-Neokosmidi, Z. (2007), "How firm characteristics affect capital structure: an empirical study", Managerial Finance,Vol. 33 No. 5, pp. 321-331.

Fama, E. F., and Miller, M. (1972) The Theory of Finance. New York: Holt, Rinehart & Winston.

Fattouh, B., Harris, L., Scaramozzino, P. (2002), Capital Structure in South Korea: A Quantile Regression Approach, Royal Economic Society Annual Conference, 70,1-34.

Fischer, E. O., Heinkel, R., and Zechner, J. (1989) 'Dynamic Capital Structure Choice: Theory and Tests, Journal of Finance 44 (1), 19-40.

Gathogo, George and Ragui, Mary (2014), Capital Structure of Kenyan Firms: What determines it? Research Journal of Finance and Accounting, Vol.5, issue: 5, pp: 118-125.

Ghosh, R. Nag and C. Sirmans, 2000 "The pricing of seasoned equity offerings: evidence from REITs", Real Estate Economics, Vol. 28, pp. 363-84.

Gill, A. et al (2009) 'The Determinants of Capital Structure in the Service Industry: Evidence from United States, The Open Business journal (2), 48-53.

Githira, Wanyoike Charles dan Tabitha Nasieku. 2015, Capital Structure Determinants among Companies Quoted in Securities Exchange in East Africa. International Journal of Education and Research. Vol.3,No.5, May 2015. Hlm. 483-496. ISSN: 2411-5681.

Hsiao, C. (1986), Analysis of Panel Data, Cambridge University Press, Cambridge.

Icke, B.T. & Ivgen H. , 2011, "How Firm Specific Factors Affect Capital Structure: An Emerging Market Practice – Istanbul Stock Exchange (ISE)", Middle Eastern Finance and Economics, Vol. 13, pp. 90-102.

Jensen, A.W.H. (2013), Determinants of Capital Structure: An Empirical Study of Danish Listed Companies, Mater Thesis, Aarhus University, Business and Social Sciences.

Jensen, Michael C. and Meckling, William H, 1976, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, Journal of Financial Economics October, vol. 3, issue: 4, pp: 305-360.

Kariuki S. Nduati and Kamau c. Guandaru, 2014, Determinants of corporate capital structure among private manufacturing firms in Kenya: A Survey of food and beverage manufacturing firms, International Journal of Academic Research in Accounting , Finance and Management Sciences, Vol.4, No.3,pp.49-62.

Khaki, A. Rashid and Akin Ahmet, 2020, Factors affecting the capital structure: New evidence from GCC Countries, Journal of international Studies, 13,(1),9-27.

Lim, T. C. 2012, Determinants of Capital Structure Empirical Evidence from Financial Services Listed Firms in China. International Journal of Economics and Finance 4 (3), 191-203.

Lupi, Antonio, Myint, Stanley and Tomocos, Dimitrios, 2017, How investment opportunities impact optima capital structure, Research papers, Said Business School.

Marsh, P., 1982. The choice between equity and debt: an empirical study. Journal of Finance, 37(1),121-144.

Miller M., 1977. Debt and Taxes. Journal of Finance, 32(2), 261-275.

Modigliani F, Miller M. , 1958, The cost of capital, corporation finance and the theory of investment. American Economic Review; 48: 261-97.

Modigliani, F., and M. H. Miller. 1963. "Corporation Income Taxes and the Cost of Capital: A Correction." American Economic Review 53, 433–443.

Morri G, Beretta C.,2008, The capital structure determinants of REITs. Is it a peculiar industry? J Eur Real Estate Res ; 1: 6-57.

Myers SC.,1977, Determinants of corporate borrowing. J Finance Economec,9, pp.147-176.

Myers, S. C.. 1984. "The Capital Structure Puzzle." Journal of Finance 39(3), 575-592.

Myers, S., and N. Majluf (1984) 'Corporate Financing and Investment Decisions When Firms Have Information Investors Do not Have'. Journal of Financial Economics (13), 187-222.

Myers, SC and Rajan, R.G. (1998), "The paradox of liquidity", The Quarterly Journal of Economics Vol. 113 No. 3, pp. 733-771.

Naeem, M and Baloch, Q, 2017, Determinants of Capital Structure of Cement industry in Pakistan, International Journal of Business Studies Review,vol.2,No. 2.

Nguyen TD, Neelakantan R.,2006, Capital structure in small and medium sized enterprises: the case of Vietnam. ASEAN Econ Bull, 23: 192-211.

Nguyen, T. C. and Nguyen, T. C., 2012, The Factors Affecting Capital Structure for each Group of Enterprises in each Debt Ratio Threshold: Evidence from Vietnam's Seafood Processing Enterprises. International Research Journal of Finance & Economics (94), 23-37.

Nguyen, Tran D. K. 2006, Capital Structure in Small and Medium-sized Enterprises: The Case of Vietnam, ASEAN Economic Bulletin, Volume 23, Number 2, pp.192-211.

Nilessen,G. M., 2014, Determinants of Capital Structure in Listed Norwegian Firms,NHH & Lancaster University.

Rajan R., & Zingales L., 1995. What do we know about capital structure?—Some evidence from international data. Journal of Finance and Economics; 50:1421–60.

Rehman, S. u. and Rehman, M. U., 2011 'Revisiting Determinants of Capital Structure: Evidence and Arguments'. Interdisciplinary Journal of Contemporary Research in Business 3 (7), 741-747.

Ross, S.A., Wester field, R.A., Jaffe, J.F. and Jordan, B.D. 2008. Modern Financial Management.8th ed Berkshire: McGraw-Hill Higher Education.

Sbeiti, W., 2010, "The Determinants of Capital Structure: Evidence from the GCC Countries International Research Journal of Finance and Economics, Vol. 47, pp. 55-81

Stulz, R. M. (1990). Managerial Discretion and Optimal Financing Policies. Journal of Financial Economics, (26), 3-27.

Sunarto,H. and Rely,G., 2017, The Determinants of Capital Structure (Evidence from Indonesia Manufacturing Companies listed in Indonesia Stock Exchange for Period 2010-2014.