THE IMPACT OF CAPITAL STRUCTURE ON THE FIRM'S PROFITABILITY: AN EMPIRICAL STUDY ON INVESTMENT FIRMS IN THE HOUSING SECTOR IN IRAQ KURDISTAN REGION FOR THE PERIOD (2007-2016)

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Abstract

The main objective of this study was to determine the impact of the capital structure in the firm profitability and identify the combination of company's capital structure. For the purpose of the study, a descriptive methodology was adopted. The study included a sample of 81 invested companies in the housing sector in the Kurdistan Region for the period 2007-2016. Data was subject to Descriptive Statistics, correlations, simple regression, multiple regression and backward regression analysis, The key results of the study show that there is a non-significant negative relationship between the dependent variable (ROA) with the Independent variable Financial Leverage(F.L) and a significant positive relationship with the Independent variables viz. Tangible Asset(T.A), Firm Size(F.S), and Duration(D). Also, the study confirmed the importance of the capital structure while making investment decisions for the purpose of financing projects and the organization should pay attention to the variety of funding sources, which achieve a greater return.

Keywords: Capital Structure, firm's profitability, financial Leverage, tangible Asset, firm's size, housing sector

INTRODUCTION

Maximize firms profits is one of the strategic objectives of economic business firm's The belief has long prevailed and this is still the target represents the first target of corporate economic business with all sense of the word Indeed, the reader microeconomics concludes that the main objective of the economic enterprise is to achieve maximize profit.That is why this goal has been associated with the angel carefully which helped in this goal considering the focus of the objectives of financial management or funding decisions which always endeavor to adapt those decisions to suit the desire to maximize profits within the business firms, This on the other hand, the financial administration's ability to maximize profit and a clearly defined in terms of meaning and measurement, and all the factors contributing to the well-known and must be taken into account the importance of this objective arise from the fact that profit is the economic justification for the continuation of any firms in the economic life, It also represents an important indicator for assessing economic performance in addition to being an important source of internal funding or so-called self-financing and thus the achievement of this objective and regulatory advocacy reflected the effectiveness of the financial decisions. One of the important decisions that concern themselves with financial management and it is taking the decision on the selection of financing structure in the right mix of issuers to borrow funds and property funds to determine which combination of capital, this means that there is a capital combination that will lead to increased profitability so it can measure this effect structure on the profitability of the company. The funding decision activities of the companies is one of the most important topics that have been taken up by researchers since Modigliani and Miller study in 1958Which concluded that the lack of influence of the capital structure of a company's value. It began theories about capital structure and the factors influencing the decision to finance the company to emerge, such as the theory of the (TOT) Trade-off Theory that depends essentially on factors such as bankruptcy costs, agency and tax shield. While other theories like the theory (POT) Pecking-Order Theory which is based on the contrast or the heterogeneity of information Asymmetric information between the company and investors, and the theory of the (MTT) Market Timing Theory that depend on the timing of the company is in need of funding, and the conditions prevailing at the time. These theories have been tested in several studies in an attempt to explain the funding decision, and the results were different resulting in a consensus of a few big differences on how to choose a company to its capital structure, and still there are many between theory and practice, we need to be better understood.

Berk (2005) in their study concluded that many of the factors that affect the capital structure in the developed countries were not statistically significant in explaining the funding decision for the least advanced countries, This situation has created a kind of multi-resolution

funding interpretations, a multiplicity of factors, which (that) affect the company and its directors, making it difficult to identify a single factor is responsible for the interpretation of the funding decision, which makes interpretation more difficult. The role played by the heterogeneity of information between managers and investors in effect the funding decision. As it is seen to this gap in financial literature as the full truth behind the difference in the funding decision.

Research Problem

The economic situation experienced in the Kurdistan Region need to exploit and manage money as efficiently as possible, but notes the absence of a clear strategy for local businesses and vision, especially with regard to the structure of financing projects.

Since the financial decision and finding the appropriate funding sources for the project is one of the most important issues facing the investors' projects in light of the limited alternatives available and this decision would ultimately be successful on the project in the future and the continuity of the project.

Since all companies seeking to improve their financial performance, but the problem faced by companies with the difficulty of determining the optimal capital structure that leads to maximum profitability and minimum risk, and that the investment in the housing sector is one of the long-term investments so it is necessary to focus on making decisions relating to the financing or determine the optimal capital structure so that a positive impact on the profitability and continuity of the project.

Research Questions

The problem of the research can be summarized through answer the following questions:

What is the impact of capital structure on Firm's profitability in the housing sector in Kurdistan Region during the time period between (2007-2016)?

In the light of this problem the study ask some of the following sub-questions:

✓ What is the impact of the Independent variable financial leverage on the firm's profitability?

✓ What is the impact of the Independent variable tangible asset on the firm's profitability?

✓ What is the impact of the Independent variable firm size on the firm's profitability?

✓ What is the impact of the Independent variable (duration =the time period that it takes the project) on the firm's profitability?

✓ What is the impact of the all Independent variables (financial leverage, tangible asset, firm's size, and duration on the dependent variable (ROA= return on asset) which represented firm's profitability?

The importance of the study

Several studies and research have been conducted focusing on the study and analysis of financial decisions involving investment decisions by examining the impact of capital structure on profitability and value of companies.

This study derives its importance that it could be considered as the first scientific study and attempt that have been conducted on the impact of capital structure on the profitability of companies investing in the Kurdistan region of Iraq in order to release the rules and the basis of the financial decisions concerning investment and financing decisions relating to the structure of capital for these projects. Investment in the housing sector is one of the long-term investments that require substantial funding from the start of the project to the end of the project.

This was done through the study of studying the Independent variables that included a combination of capital structure, which represents leverage tangible assets and the size of the company and the period that it takes the project versus the dependent variable the return on assets, which represents profitability. In general, the importance of this research can appear clearly as follows**:**

1-The importance acquired by the theme because of the current situation, which is going through the economy in the Kurdistan and the region, and which call for interest in funding projects and investments, whether small or large.

2-used as a source to evaluate and demonstrate the importance and role of the capital structure in the institution's factor.

3-This research is a catalyst for further studies in this area.

4-The importance of the study of the role of financial decisions while choosing the capital structure and to identify sources of funding for the project to ensure the continuity and success of the project.

The research aims

1- To identify the combination of the capital structure of the companies in the sample study.

2- To determine the relationship between capital structure and profitability of the companies in the sample study.

3- To determine the impact of the independent variables (Leverage, tangible assets, firm size, and duration) which represents the capital structure with the dependent variable Return on assets (ROA) which represents the firm profitability.

4-Achieving practical results and scientific that help financial decision-maker in the Kurdistan region, making the trade-off between funding decisions, and therefore choose the optimal financing structure.

The limitations of the study

Lack of cooperation between the owners of companies in providing accurate information and financial data and the possibility of providing incorrect or misleading data away from the reality of projects because of the confidentiality of data and corporate accounts that highlight the secrets of the profession, As well as the absence of previous studies on capital structure in the housing sector.

LITERATURE REVIEW

This section discusses some of the scientific studies that examined the impact of capital structure on firm performance, some of the studies indicate that there is a positive relationship between capital structure and performance of the firm's, but some of the studies indicate that there is a negative relationship between capital structure and performance of the firm's. For example, Sayeh Osman (2016):Taking 10 industrial companies in Oman for the period 2010-2012. To learn how to make financial decisions by the company's managers, to study the results in an inverse relationship between the two variables, and that the increase in the debt ratio has led to a decline in the profitability of the company, companies used debt only to raise the value and not for the purpose of increasing profits. See also, Hussein Mohammed Hussein Samhan (2015):Taking 6 Jordanians companies invested in the education sector for the period (2006-2011). The aim of this study was to determine the impact of the financial structure in the profitability and value of the companies, the study found that companies have increased their market value by choosing the capital structure approach.

Furthermore, Hadilahatamnasah & Aazmard Abdurazaq Badran (2014):Taking 14 companies in the industry sector in Iraq for Period (2004-2011), to know the relationship between the structure of the financing and profitability measured by return on assets, and the study concluded that there is a relationship between the Independent variable, which represents debt and the dependent variable which represents profitability and return on assets. Kalsoom (2014):Taking 155 shareholder companies in the textile sector in Pakistan for the period 2006-2011.The study aimed to know the effect of the capital structure on financial performance. The results of this study showed a positive relationship between the capital structure and the shareholder. Ebrati, et al., (2013): Study the effect of the capital structure on the financial performance of 85 companies in Tehran for a period (2006 - 2011). The study found that the capital structure has a positive effect on the financial performance as measured by return on equity while having a negative impact in return on assets and on the earnings per share in net profit. Goyal, A (2013): The researcher studied the impact of capital structure on profitability; take a sample of India banks for a period (2008-2012). Used the Regression analysis to study

the relationship between the variables, the results showed the existence of a positive relationship between short-term debts with profitability as measured by return on equity. MykhailoIavorskyi (2013): Take a sample of 16,500 Ukrainian firms for the period (2001-2010), the study aimed to know the effect of capital structure on firm performance, and the results of the statistical analysis in the study show a negative relationship between financial leverage and firm's performance. Babalola (2012): Taking a sample of 10 Nigerian companies for the period (2000-2009). The study aimed to rationalize institutional performance by choosing the best capital structure and under the same risk; the results showed when the company regulates the capital structure leads to rationalizing the performance and increase the return on equity. Muritala (2012): Examined the optimum level of the capital structure in Nigeria using annual data often firms spanning a five-year period. The results showed that asset turnover, size, firm's age and firm's asset tangibility are positively related to the firm's performance (ROA) while a negative significant relationship between tangible asset and ROA as a measure of performance. Al-Mwalla (2012): Focused on Jordan Company to analyzing the Impact of Working Capital Management Policies on firm's Profitability and Value and found a positive relation between growing economic and company size and growing sales with a measure of value (Tobin's Q) and profitability, The outcome explains that a company's value and profitability have a positive impact on conservative investment policy. Gill, et al., (2011):Take a sample of 272 manufacturing companies in the United States for a period (2005-2007). For the purpose of measuring the relationship between capital structure and profitability, and found a direct correlation between the short-term debt to total assets and profitability, as well as long-term debt to total assets and profitability. Ong and Tia (2011)**:**Investigation of the capital structure and the performance in Malaysia construction companies for the period (2005-2008). And the results of the statistical analysis of the variables in the studies show that there is a relationship between capital structure and performance of companies. Karaduman et al. (2010):Take a sample at the Istanbul Stock Exchange for the period (2005-2009). To study the effectiveness of working capital management on firm profitability, the results of the study confirm that the capital management is one of the most fundamental determinants of the market value of the companies because it has a direct impact on the profitability of the company and the precise balance between profitability and risk. Margarits and Psillaki (2010):studied the relationship between capital structure, ownership and performance of French companies for a period (2002-2003). The results showed that the use of debt in the capital structure leads to increase in stock price and indicated that the impact, efficiency of leverage is positive, but companies are using more debt in the financial structures. Nimalathasan & Brabete (2010): take a sample of listed company in Sri Lanka, for the purpose of studying the capital structure and its impact on

profitability and the results show that the ratio of debt to equity associated positively and strongly with both profitability ratios gross profit and operating profit and net profit ratios. Dănule_iu (2010):Take a sample of 20 companies for a period (2004-2008). The aim of the study, analyzing the efficiency working capital management and profitability of Alba country. The conclusion of the research confirmed that there are weaknesses Negative linear correlation between the indicators working capital management and profitability ratios. Arbiyan& Safari (2009):Take a sample of 100 companies in Iranian for Stock Exchange for the period (2001 - 2007), to study the impact of capital structure on profitability, and the results showed a positive relationship between the total short-term debt and profitability, but a negative relationship between the long-term debt and profitability or return on shareholder equity. Ebaid (2009): Take a sample of Egyptian company, and for measuring the Performance was used return on equity, return on assets and gross profit margin. And capital structure measured through short-term debt to assets ratio and long-term debt to assets ratio and total debt to total assets. The study concluded that the capital structure does not have a significant effect on performance. Ibrahim (2009):Examined the impact of capital structure choice on firm performance in Egypt, a period (1997-2005).Tracking (return on equity, return on assets and gross profit margin) as accounting measures for financial performance. The result revealed that the decision to choose the capital structure, in general, does not have a weak impact on the firm's performance. Nobanee and AlHajjar (2009b): take a sample of 2123 Japanese companies for the period (1990-2004) and achieved that the financial manager in the company can grow profitability by lessening the cash conversion cycle, the result found that prolongation the payables postponement period could grow profitability. Also, financial managers in the company should be accurate because prolongation the payables retard period could harm the firm entrusting repute and damage its profitability forever. Mohammadi (2009): Take a sample of 92 firms in the Tehran stock exchange period (1996 – 2005). And found a negative relationship between numbers of day's accounts of day's accounts receivable, Number of day's inventories, the number of day's accounts payable, Cash conversion cycle and profitability. Ahumit, Ghassan (2006)**:**Take a sample on the Amman industrial companies' period (1995-2003), to study the impact of the company's profitability size and the expected growth rate of ownership the study found that the debts of the Jordanian industrial companies are not at high rates. There are significant differences in the structure of ownership of the invested capital. Abor (2005): Take a sample listed on the Ghana Stock Exchange companies to Studied the relationship between capital structure and profitability. And found a positive relationship between short-debt ratio-term to total assets and return on equity, as well as there is a negative relationship between long debt ratio-term Total assets and return on equity. Mesquita and Lara, (2003): It used a sample

of the Brazilian companies to study the relationship between capital structure and partnerships profitability. Found a positive relationship between the short-term debts and profitability, but a negative relationship between the long-term debt and profitability, Because of the high-interest rate in Brazil has become more expensive debt for long-term, compared to shareholders' equity. Ebaid (2003):take 25 companies participated in the industrial sector in Amman 1991-2000. To find out why the company used the debt, the study found a negative relationship between the capital structure and profitability, but there is a positive relationship between capital structure and the value of the company and this indicates that the assets have been used to increase the company's profits.

RESEARCH METHODOLOGY

Descriptive research design was adopted the purpose of conducting the analysis of financial statements for periods of the study sample (2007-2016). That including all investment firms in the housing sector.

Research population

Consists of investment in the housing sector projects inthe Kurdistan region.

Scope of the research

A-Area space: Projects implemented in the provinces of (Erbil, Sulaymaniyah, and Duhok) in the Kurdistan region.

B-Time space: The practical side is limited to the study of the impact of capital structure on corporate profitability during the period (2007-2016) in the Kurdistan region.

Research sample

Sample Consists of (81) investment company in the housing sector of the total of the (84) company that was implemented in (2007- 2016), For the purpose of study and knowledge of the impact of capital structure on the profitability of the companies invested in the housing sector.

The data

Data sources included relying on the accounting data provided in the financial statements of the companies in the sample study, which includes the balance sheet statement, income statement, and cash flow statement. As well as making sure the type of capital structure of the sample companies.

The method of data analysis and indicators

A-Financial analysis: Indicators and analysis models included in the financial analysis relating to operations and profitability expected a return and the yield to maturity.

B-Statistical analysis: The use of Descriptive Statistics, Pearson correlation, simple regression analysis, multiple regression analysis, and Backward regression method using the statistical package (SPSS version 24).

Research Model

The following model was suggested to analyze the relationship between the return on assets as the dependent variable, and the variables; Financial Leverage, Tangible Assets, Firm Size, and Duration were used as independent variables, through a statistical modeling called the regression analysis as follows:

Return on Assets = Leverage + tangible assets + Firm Size +Duration

Variables of the research Model

We can summarize the variables as follows:

- Return on Asset which is a measure of profitability of the firm is used as the dependent variable.

- Financial Leverage, Tangible Asset, Firm Size, and Duration were used as Independent variables.

-Tangible Assets, Firm Size, and Duration are used as control variables in the regression analysis.

All variables were calculated as follows:

- (ROA) return on asset = net income/ total asset.

- (F.L) Financial leverage = total debts / total assets.

- (T.A) Tangible asset = net fixed assets / total assets.

- (F.S) Firm size in order to account for firms size and the other variables that may influence profits, Sales a proxy for size (the natural logarithm of the total assets).

- (D) Duration is representing the period of time of the project implementation. It is calculated by the years of the project implementation.

ANALYSIS

Descriptive Statistics

Descriptive statistics of the Capital, ROA, Financial Leverage, Tangible Assets, Firm Size, and Duration are shown in the table 1.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Capital $	193	2543973	500000000	51912416.47	75569554.144
ROA	193	.0481	7.4522	.506668	.6471447
Financial Leverage	193	.0230	.9750	.504741	.2120675
Tangible Assets	193	.5949	14.4928	.940389	1.1666557
Firm Size	193	4.6246	8.9895	6.657158	.5377669
Duration	193	1	4	1.78	.793
Valid N (listwise)	193				

Correlation

Since there was clear existence of multicollinearity, the study calculates the correlation matrix to see where the correlation is strong as shown in the table 2.

Table 2. Correlation Coefficients[a]

		ROA	Leverage	Tangible Assets	Firm Size	Duration
ROA	Pearson Correlation	1	-.309[**]	.599[**]	-.529[**]	.439[**]
	P-Value		.000	.000	.000	.000
	N	193	193	193	193	193
Financial Leverage	Pearson Correlation	-.309[**]	1	.027	.419[**]	-.651[**]
	P-Value	.000		.706	.000	.000
	N	193	193	193	193	193
Tangible Assets	Pearson Correlation	.599[**]	.027	1	-.322[**]	-.030
	P-Value	.000	.706		.000	.680
	N	193	193	193	193	193
Firm Size	Pearson Correlation	-.529[**]	.419[**]	-.322[**]	1	-.438[**]
	P-Value	.000	.000	.000		.000
	N	193	193	193	193	193
Duration	Pearson Correlation	.439[**]	-.651[**]	-.030	-.438[**]	1
	P-Value	.000	.000	.680	.000	
	N	193	193	193	193	193

-It notes that all the Independent variables were significant on the dependent variable return on asset (ROA).

-It notes that the Independent variable financial leverage (F.L) was significant with all the variables except with tangible assets (T.A) it was not significant.

-It notes that the Independent variable tangible assets (T.A) were significant on (ROA) and (firm size) but it was not significant with (F.L) and duration (D).

- It notes that the Independent variable Firm size (F.S) was significant with all the Independent variables and the dependent variable (ROA).

- It notes that the Independent variable duration (D) was significant with all the variables only with tangible assets (T.A) it was not significant.

-It shows that the dependent variable (ROA), Has the following correlation relationship with the Independent variables:

-Negative Correlation with Financial Leverage (-.309[**]).

-Positive Correlation with Tangible Asset (.599[**])

-Negative Correlation with Firm Size (-.529**).

-Positive Correlation with Duration (.439**)**.**

Simple regression

To test the hypothesis, one below, the study uses a simple regression to study the relationship as follows:

Hypothesis 1:

H_0: there is no relationship between F.L (financial leverage) and profitability.

H_1: there is a relationship between F.L (financial leverage) and profitability.

To test the above hypothesis, we have to check the following model:

ROA=β_0+β_1 F. L+ $\mathcal{E}_i$ with β_0

Where $\mathcal{E}_i$ is the disturbance term of the model.

The following are the summary of the results:

ROA= 0.983 - 0.944 F.L.

With t- test (*P<0.000*) for both parameters estimation significancy, it can be noted that it is very highly significant, i.e. the parameter estimations are good, as shown in the table 3.

Table 3. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.983	.115		8.553	.000
	Financial Leverage	-.944	.210	-.309	-4.493	.000

Their fore's (F-test *P<0.000*) stating a very highly significant model describing ROA, and the coefficient of determination value R^2 equal = 0.096. The following table 4 shows the model significancy.

Table 4. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.688	1	7.688	20.191	.000 [b]
	Residual	72.721	191	.381		
	Total	80.409	192			

The study concludes that the hypothesis, one H_0 is rejected and H_1 is accepted (failed to be rejected)accordingly, this means that there is a significant relation between ROA and financial leverage (F.L).

Hypothesis 2:

H_0: there is no relationship between T.A (the tangible asset) and profitability.

H_1: there is a relationship between T.A (the tangible asset) and profitability.

To test the above hypothesis, we have to check the following model:

ROA=β_0+β_2 T. A+ $\mathcal{E}_i$ with β_0

The following are summary the result:

ROA= 0.194+0.332 T.A

With t-test (*P<0.000*) for parameter estimation indicating a very highly significant estimation, in other words, the parameter estimations are reliable, as shown in the table 5.

Table 5. Coefficients[a]

Model		Unstandardized Coefficients		S standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.194	.048		4.038	.000
	Tangible Assets	.332	.032	.599	10.341	.000
A Response Variable: ROA						

For the (F-test *P<0.000*) stating a very highly significant model, this indicates also that the chosen model is good, and the coefficient of determination value R^2 is equal 0.359. The following table shows the model test using an F-test, as shown in the table 6.

Table 6. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.860	1	28.860	106.933	.000 [b]
	Residual	51.549	191	.270		
	Total	80.409	192			

This leads us to reject the hypothesis two H_0 is rejected and H_1 is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and Tangible Assets (T.A).

Hypothesis 3:

H_0: there is no relationship between F.S (firm size) and profitability.

H_1: there is the relationship between F.S (firm size) and profitability.

To test the above hypothesis, we have to check the following model:

ROA=$\beta 0$+$\beta 3$ F. S+ ε_i with β_0.

The following are summary the result:

ROA= 4.745-0.637 Firm size

With t- test (*P<0.000*) for parameters estimation significancy, the study noted that it is very highly significant, i.e. the parameter estimations are good, as shown in the table 7.

Table 7. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.745	.494		9.615	.000
	Firm Size	-.637	.074	-.529	-8.616	.000

For the (F-test *P<0.000*) stating a very highly significant model describing ROA, and the coefficient of determination value R^2 equal = 0.280. The following table (3-6) shows the model significancy.

Table 8. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.505	1	22.505	74.233	.000 [b]
	Residual	57.904	191	.303		
	Total	80.409	192			

This implies that the hypothesis three H_0 is rejected and H_1 is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and Firm Size (F.S).

Hypothesis 4:

H_0: there is no relationship between D (Duration) and profitability.

H_1: there is the relationship between D (Duration) and profitability.

To test the above hypothesis, we have to check the following model:

$ROA = \beta_0 + \beta_4 D + \varepsilon_i$ with β_0.

The following are summary the result:

$ROA = -0.131 + 0.358 D$.

With t. test (*P≤0.207*) for β_0 and (*P<0.000*) for β_4 parameter estimation, indicating that the intercept is non-significant and the slope β_4 is very highly significant, as shown in the table 9.

Table 9. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.131	.103		-1.266	.207
	Duration	.358	.053	.439	6.745	.000

For the (F-test *P≤0.000*) stating a very highly significant model, the coefficient of determination R^2 is equal0.192. The following table shows the model test, as shown in the table 10.

Table 10. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.469	1	15.469	45.496	.000 [b]
	Residual	64.940	191	.340		
	Total	80.409	192			

This implies that the hypothesis four H_0 is rejected and H_1 is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and Duration (D).

Multiple regressions

From the previous section, we found out that the entire variables relationship separately with ROA, were significant. Therefore, we suggest finding the relationship between ROA which represented firm profitability on one side and the other Independent variable (financial leverage, tangible asset, firm size, and duration) on the other side, as follows with β_0 constant:

$ROA = \beta_0 + \beta_1\ F.L + \beta_2\ T.A + \beta_3\ FS + \beta_4\ D + \varepsilon_i.$

Where ε_i is the disturbance term of the model that is distributed normally with mean 0 and variance σ^2.

The estimated model was as follows:

$ROA = 1.196 - 0.16 F.L + 0.305\ T.A + 0.226\ F.S + 0.301\ D.$

With t- test ($P \leq 0.018$) significant for β_0, ($P \leq 0.932$) non-significant for β_1, ($P \leq 0.000$) very highly significant for β_2, ($P \leq 0.001$) very highly significant for β_3, and ($P \leq 0.000$) very highly significant for β_4. Table 11 shows the parameter estimation.

Table 11. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 1	(Constant)	1.196	.502		2.383	.018		
	Financial Leverage	-.016	.192	-.005	-.085	.932	.550	1.818
	Tangible Assets	.305	.028	.550	10.903	.000	.853	1.173
	Firm Size	-.226	.069	-.188	-3.286	.001	.663	1.508
	Duration	.301	.052	.369	5.805	.000	.536	1.865

Since it was non-significant parameter estimation for β_1 for FL, then we remove it from the model as follows: $ROA = 1.196 + 0.305\ T.A + 0.226\ F.S + 0.301\ D.$

To check the model significancy, we used an F- test in the table 12. It can be noticed that the F-test ($P \leq 0.000$) was very highly significant; this gives the indication that the model was good. Still, there is the other important index to check is adjusted R^2 for the extent of the interpretation of the suggested model to ROA. As shown in the table 12.

Table 12. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.630	4	11.907	68.293	.000 [b]
	Residual	32.779	188	.174		
	Total	80.409	192			

a. Response Variable: ROA

The value of $R^2 = 0.584$

BACKWARD Regression

As stated previously there was multicollinearity among the explanatory variables, and then it strongly advised to use the BACKWARD regression method to estimate the model and get rid of the multicollinearity in the model and remove the non-significant variables from the model, first time with β_0 as follows:

ROA = β_0 + β_2 T.A – β_3 F.S + β_4 D + $\mathcal{E}_i$.

ROA = 1.192 + 0.305 T.A – 0.227 F.S + 0.304 D.

The following table shows the significance of the parameter estimation of the above model.

Table 13. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.196	.502		2.383	.018		
	Financial Leverage	-.016	.192	-.005	-.085	.932	.550	1.1.818
	Tangible Assets	.305	.028	.550	10.903	.000	.853	1.1.173
	Firm Size	-.226	.069	-.188	-3.286	.001	.663	1.1.508
	Duration	.301	.052	.369	5.805	.000	.536	1.1.865
2	(Constant)	1.192	.498		2.392	.018		
	Tangible Assets	.305	.028	.549	10.970	.000	.860	1.1.163
	Firm Size	-.227	.067	-.189	-3.392	.001	.695	1.1.438
	Duration	.304	.043	.372	7.056	.000	.775	1.1.290

It can be noticed that F.L was removed from the model due to two reasons, the first reasons to get rid of multicollinearity, the second reason, because the parameter estimation was non-significant.

The following table 14 shows the ANOVA of the above model, it is clear that the model is very highly significant and the value of R^2= 0.586.

Table 14. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.630	4	11.907	68.293	.000[b]
	Residual	32.779	188	.174		
	Total	80.409	192			
2	Regression	47.628	3	15.876	91.536	.000[c]
	Residual	32.780	189	.173		
	Total	80.409	192			

The value of VIF was calculated to check the removal of multicollinearity. From the VIF values in the table 14 above, it can be noticed that it was less than 10, indicating that the model is not having multicollinearity with R^2= 0.586, this means that this is the best model fitting ROA, since the F-test ($P \leq 0.000$).

SUMMARY OF FINDINGS

Descriptive Statistics

The average capital for the sample companies was (51912416.47$) The Average arithmetic of the Independent variable, which represents a combination of capital structure, which comes Overall average of leverage (.504741),Overall average tangible assets (.940389),Overall average size of the company(6.657158),The overall average for the duration(1.78)As well as the overall average of the dependent variable is return on assets, which represents the firm's profitability (.506668).

Results of Pearson correlation

It shows that the response variable (ROA), Has the following correlation relationship with the explanatory variables:

Negative Correlation with Financial Leverage (-.309 **)**.When measuring the relationship between financial leverage (F.L) with return on assets (ROA) Reached the correlation coefficient (-.309 **) When a level significant (.000) this indicates the presence of a strong negative correlation between the two variables Independent variable Leverage (F.L) with the dependent variable (ROA).

Positive Correlation with Tangible Asset (0.599 **)**.When measuring the relationship between tangible assets (T.A) with return on assets (ROA) Reached the correlation coefficient (0.599 **) When a level significant (.000) this indicates the presence of a strong positive relationship between the two variables Independent variable intangible assets (T.A) with the dependent variable (ROA).

Negative Correlation with Firm Size (-.529**)**.When measuring the relationship between firms size (F.S) with return on assets (ROA) Reached the correlation coefficient (-.529**) When a level significant (.000) this indicates the presence of a strong negative correlation between the two Independent variables firms size (F.S) with the dependent variable (ROA).

Positive Correlation with Duration (.439**)**.When measuring the relationship between Duration (D) with return on assets (ROA) Reached the correlation coefficient (.439**)When a level significant (.000) this indicates the presence of a strong positive relationship between the two variables Independent variable Duration (D) with the dependent variable (ROA).

Sample Regression

Test of Hypothesis one : When measuring the effect of the Independent variable (F.L) with the dependent variable (ROA) by simple regression coefficient is rejected the null hypothesis H0 Which refers to the absence of a relationship between (F.L) with (ROA) and accept the alternative hypothesis H1, which indicate the existence of a relationship between (F.L) with (ROA) because of the statistically significant relationship between the Independent variable with the dependent variable with R^2 =0.096.

-We can conclude that the hypothesis, one H_0 is rejected and $H_1$is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and financial leverage (F.L).

Test of Hypothesis Two : When measuring the effect of the Independent variable (T.A) with the dependent variable (ROA) by simple regression coefficient is rejected the null hypothesis H0 Which refers to the absence of a relationship between (T.A) with (ROA) and accept the alternative hypothesis H1, which indicate the existence of a relationship between (T.A) with (ROA) because of the a statistically significant relationship between the Independent variable with the dependent variable with $R^2 = 0.359$.

-This leads us to reject the hypothesis two H_0 is rejected and H_1 is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and Tangible Assets (T.A).

Test of Hypothesis three: When measuring the effect of the Independent variable (F.S) with the dependent variable (ROA) by simple regression coefficient is rejected the null hypothesis H0 Which refers to the absence of a relationship between (F.S) with (ROA) and accept the alternative hypothesis H1, which indicate the existence of a relationship between (F.S) with (ROA) Because of the a statistically significant relationship Between the Independent variable with the dependent variable with $R^2 = 0.280$.

-This implies that the hypothesis three H_0 is rejected and H_1 is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and Firm Size (F.S).

Test of Hypothesis four:

When measuring the effect of the Independent variable (D) with the dependent variable(ROA) by simple regression coefficient is rejected the null hypothesis H0 Which refers to the absence of a relationship between (D) with (ROA) and accept the alternative hypothesis H1, which indicate the existence of a relationship between (D) with (ROA) Because of the a significant statistically relationship Between the Independent variable with the dependent variable with $R^2 = 0.192$.

-This implies that the hypothesis four H_0 is rejected and H_1 is accepted (failed to be rejected) accordingly, this means that there is a significant relation between ROA and Duration (D).

Multiple regressions

From above we found out that the entire variable's relationship separately with ROA, were significant. Therefore, we suggest finding the relationship between the dependent variables ROA which represented firm profitability in one side and the other Independent variables (financial leverage, tangible asset, firm size, and duration) in the other side, as follows with β_0 constant: $ROA = \beta_0 + \beta_1 F.L + \beta_2 T.A + \beta_3 FS + \beta_4 D + \varepsilon_i$.

With t- test ($P \leq 0.018$) significant for β_0, ($P \leq 0.932$) non-significant for β_1, ($P \leq 0.000$) very highly significant for β_2, ($P \leq 0.001$) very highly significant for β_3, and ($P \leq 0.000$) very highly significant, with$R^2 = 0.584$.

-$P \leq 0.932$ for β_1 (F.L) it means the non-significant relationship between (F.L) with (ROA) as an increase in the debt reduces the profitability of the firm's, and this result was consistent with the (Nikolas -2002) study.

-$P \leq 0.000$ for β_2 (T.A) it means a very highly significant relationship between (T.A)with (ROA),this means that by increasing the tangible assets the company's profitability was increasing.

- $P \leq 0.001$ for β_3 (F.S)it means a very highly significant relationship between (F.S) with (ROA),This means that by increasing the size of the company the profitability of the company increases and that the assets are used effectively to increase the profit of companies and this result is compatible with (Nikolaos.2002).

Therefore the final model will be as follows:

ROA=1.196 + 0.305 T.A+0.226 F.S + 0.301 D

This model was a very highly significant model (F- test P-Value ≤ 0.000), this gives the indication that the chosen model was excellent. Still, there is the other important index to check is adjusted R^2 for the extent of the interpretation of the suggested model to ROA.

Backward multiple regression

To avoid any sort of multicollinearity (if any), the backward multiple regression was used. In this process, the non-significant variables were removed and there were no regression problems in the model. The estimated model was as follows: ROA = 1.192 + 0.305 T.A – 0.227 F.S + 0.304 D. With $R^2 = 0.586$.

Again the F.L was removed from the model due to two reasons, the first reasons to get rid of multicollinearity, the second reason, because the parameter estimation was non-significant. The

other important result was that the VIF was less than 10, indicating that the model is not having multicollinearity; this means that this is the best model fitting ROA since the F-test ($P \leq 0.000$).

CONCLUSION

This study examines the impact of capital structure on the firm's profitability in invested firms in the housing sector in the Kurdistan Region for the period (2007-2016).The total number of the companies under the target of the study was 84 and 81 companies were taken so this means that the sample is almost the whole population, the three remaining firms did not respond to the study, in other words, the sample is representing the population and a researcher can claim that the results and the findings can be generalized.

Financial leverage (F.L), tangible assets (T.A), firm size (F.S), and duration (D) was used as explanatory variables in the capital structure, and return on assets as a response variable which represents the profitability of the firm. Through the use of multiple regression analysis, the model was reached that shows the relationship between capital structures Composition and corporate profitability.

Access to a non-significant negative relationship between financial leverage (F.L) with a return on assets (ROA), which represents the company's profitability, this means as an increase in the debt reduces the profitability of the firms, and This result was consistent with the (Nikolas -2002) study This means that the cost of borrowing money higher than the profits that will be achieved by this debt So it is best that the company uses a self-funding, and a positive significant statistical relationship between Tangible Asset (T.A) with a Return on assets (ROA). Also, the positive significant statistical relationship between Firm Size (F.S) With a Return on assets (ROA) which indicates that the company's assets are used effectively to increase the company's profits and this result was consistent with the (Nikolas -2002) study.

This model was a very highly significant model (F- test P-Value ≤ 0.000), this gives the indication that the chosen model was excellent. Still, there is the other important index to check is adjusted R^2 for the extent of the interpretation of the suggested model to (ROA), with $R^2 =$ 0.584.Also, the backward multiple regression was used. In this process the non-significant variables F.L was removed from the model due to two reasons, the first reasons to get rid of multicollinearity, the second reason, because the parameter estimation was non-significant. The other important result was that the VIF was less than 10, indicating that the model is not having multicollinearity; this means that this is the best model fitting ROA since the F-test ($P \leq 0.000$). ROA = 1.192 + 0.305 T.A – 0.227 F.S + 0.304 D.WithR^2= 0.586.

Therefore, this study concludes as follows:

1-That there is no significant relationship between the dependent variable (ROA) with the Independent variable Financial Leverage (F.L) in invested firms in the housing sector in the Kurdistan Region for the period (2007-2016).

2-That there is a significant relationship between the dependent variable (ROA) with the other Independent variables (Tangible Asset, Firm Size, Duration) in invested firms in the housing sector in the Kurdistan Region for the period (2007-2016).

RECOMMENDATIONS

In light of the empirical findings, study suggested the following:

1-Choose funding sources so that it provides a more income for the project and at the lowest cost.

2-Attention to the diversity of funding sources and increases the capital of the project and reduces dependence on loans with high- interest rates, which is accompanied by risks to ensure financial independence and the survival of the institution.

3-The investment companies in the housing sector in the Kurdistan Region should work on developing new strategies to determine the capital structure for the purpose of developing and increasing the profitability of the company.

4-Development of financial managers' skills in investment companies in Kurdistan's region, by participating in training courses in the field of preparation of economic feasibility and financial management.

5-Make other studies about capital structure by using the variables that have not been taken in this study, which have an impact on corporate profitability.

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