

# **The Impact of Capital Structure on Corporate Performance**

**Abolfazl Ghadiri Moghaddam**

Accounting Associated Professor, Accounting Department, Mashhad Branch, Islamic Azad University, Mashhad, Iran

**Mahdi Sadeghi Kashkoueyeh**

Accounting Department, Mashhad Branch, Islamic Azad University, Mashhad, Iran  
*Corresponding Author/Email:mahdi.sadeqi66@gmail.com*

**Mohammadmahdi Talezadeh**

Accounting Department, Mashhad Branch, Islamic Azad University, Mashhad, Iran

**Mohammadreza Aala**

Accounting Department, Mashhad Branch, Islamic Azad University, Mashhad, Iran

**Mahdi Ebrahimpour**

Accounting Department, Mashhad Branch, Islamic Azad University, Mashhad, Iran

**Mina Tehranypour**

Accounting Department, Mashhad Branch, Islamic Azad University, Mashhad, Iran

DOI: 10.6007/IJARBSS/v5-i3/1528 URL: <http://dx.doi.org/10.6007/IJARBSS/v5-i3/1528>

## **Abstract**

The present study was designed to gather evidence about the relationship between short-term debt, long-term debt with variables such as EPS, return on equity, return on assets and the ratio Q / B. This research was conducted in companies listed in Tehran Stock Exchange. Multiple linear regressions were used to test the hypothesis. In this study, 3 dependent variables, 4 control variables and 3 independent variables are used. Also, 12 hypotheses were provided for this study. The sample of the study consisted of 50 participate in a 5-year period of 2008 to 2012. The findings suggest that there is negative relationship between short-term debt, long-term debt and total debt with returns on equity. Also about four to six hypothesis it became clear that short-term debt and total debt to equity returns are negatively related. In testing hypotheses 7 and 9 showed that short-term debt, long-term debt and total debt is negatively

associated with ROA. Also worth noting that in 10 to 12 hypothesis it is showed that there is negative relationship between short-term debt and total debt by Tobin's q.

**Key words:** Capital structure, Corporate Performance and Debts

### **Introduction**

By referring to researches and literature of financial management it can be seen that the most common reasons for failure of companies is the absence and inadequacy of investment and their financing inadequate. For example, the owners of these companies may have the wrong of mix in resources (debt versus equity), or obtain the resources that have high liquidity commitments and restrictions or have agreements and obligations that have high cost on them. It is even possible to see the sources of financing to suppliers that work with them is problematic. Therefore, it is possible weaknesses lead to bad investments that threat to the survival and persistence of firms (Cassar, 2004). In addition to inadequate capital structure of each company affects all aspects of a company's activities and can cause problems such as inefficiency in the marketing of products, the lack of effective and appropriate in use of human resources and some others (Hashemi & Akhlaghi, 2010). Decisions relating to the capital structure of the company have two aspects: 1. the amount of required capital, (2) the composition of the funding sources. It is assumed that firm itself is aware of the amount of required capital. In such cases the issue is that which resources should be used to fund. In other words, how many bonds should be issued or how much of capital should be from the supply (Van auken, 2005). With attention to situation of capital structure and its effect on the value, profitability and economic performance of firms determining the optimal capital structure is very important.

### **Theoretical issues**

Different definitions of capital structure is presented that each of these definitions expressed the financing methods as capital structure. According to Cooper (1983), capital structure is older securities (rated) to total investment. Belkooei (1999) defines capital structure as general claim on the firm assets. He knows that capital structure consists of issued securities to public, private investment, bank debt, and business debt, Leases that usually measured through ratios such as debt to total assets ratio, the ratio of equity to total assets and the ratio of debt to equity. The subject of capital structure was presented by Miller and Modigliani for the first time in 1960. Research conducted by various researchers showed that under certain conditions which is called the efficient market, capital structure is a key factor in determining the value of the firms and can affect the performance of the enterprise and just in this time, capital structure and its influencing factors were interest by researchers (Sajjad et al., 2011). Nowadays managers as representatives of the shareholders set capital structure that have a positive impact on increasing of the value of the company which increase shareholder wealth (Noroozi, 2010).

## **Background**

Nikbakht & Peikani (2009) studied the relationship between capital structure and market criteria of performance evaluation in listed company in Tehran Stock Exchange. They found that there is a correlation between the capital structure and the ratio of Tobin's q multiple correlations (0/379) and between capital structure and P / E ratio (0/224).

Abbaszadeh et al (2013) examined the relationship between capital structure and performance of the listed companies in Tehran Stock Exchange using the technique of DEA. The results showed a significant correlation between the efficiency and debt ratio.

Khodami Pour et al (2013) examined the effect of capital structure on future abnormal returns of shares with respect to the level of industry concentration. The results of their study showed there is negative and significant relationship between capital structure and future stock abnormal returns. On the other hand, the share of industry concentration has a significant negative effect on the relationship between capital structure and future abnormal stock returns. Zeraatgari & Dehghanzadeh (2012) investigate the relationship between capital structure and return on assets and return on equity. The result showed that return on assets has a negative significant relationship with capital structure (ratio of short-term debt to total assets, the ratio of long-term debt to total assets and total liabilities to total assets ratio as independent variables).

The research conducted by Muir and Krishnan (1977), and Machur & Gelisen (2000) and Anderson (2005) show that there is a significant relationship between measures of capital (leverage) and performance measures (return on assets), respectively.

Kapobeyankou (2004) used DEA models to determine the optimal capital structure for international airline companies. Their research results showed that the optimal capital structure includes a lever 60 percent for all companies.

Mok et al (2007) examined the impact of financial leverage on efficiency and relationship between efficiency and profitability. The results showed that the financial leverage have a positive impact on efficiency of these firms and efficiency and profitability positively correlated with each other.

Margaritiz et al (2009) investigate the relationship between capital structure, ownership rights, and efficiency in the French manufacturing firms. Testing of their hypothesis showed that firms with greater efficiency tend to have higher financial leverage.

Otamy and Inanga (2012) tested the relationship between capital structure and life cycle. The results of their study showed that both companies including: growing and mature companies follow the hierarchical theory.

Park and Jang (2013) tested the relationship between capital structure, free cash flow and performance. They follow a linear relationship between variables. They found that debt leverage is an effective way to reduce free cash flow and strengthen the company's performance.

Brian et al (2013) studied the effect of capital structure on the performance of Japanese firms. The result showed that firms with higher returns compared to the cost of debt leverage, managed to improve their performance by issuing bonds and entering new markets. Also, the

results of Berayan et al's research represent direct linear relationship between the amount debt and performance.

### **Research hypotheses**

1. There is significant relationship between short-term debts to total assets with EPS.
2. There is significant relationship between long-term debts to total assets with EPS.
3. There is significant relationship between total debts to total assets with EPS.
4. There is significant relationship between short-term debts to total assets with return on equity.
5. There is significant relationship between long-term debts to total assets with return on equity.
6. There is significant relationship between total debts to total assets with return on equity.
7. There is significant relationship between short-term debts to total assets with return on assets.
8. There is significant relationship between long-term debts to total assets with return on equity.
9. There is significant relationship between total debts to total assets with return on equity.
10. There is significant relationship between short-term debts to total assets with Tobin's q.
11. There is significant relationship between long-term debts to total assets with Tobin's q.
12. There is significant relationship between total debts to total assets with Tobin's q.

### **The research population and sample**

The population of the study is all listed companies in Tehran Stock Exchange. The sample consisted of those companies listed in Tehran Stock Exchange whose shares are actively traded in the period 2009 to 2013 the method of sampling is elimination according to the following priorities:

1. Only firms whose shares are traded on the Tehran Stock Exchange during the years of 2009 to 2012 and is also a member of the Stock Exchange.
2. Because of comparability of the results, the fiscal year of companies must be ended March each year and during the period under review does not change the fiscal year.
3. Information is available for the company.
4. Companies should be manufacturing and are not component of investment firms; financial intermediation, insurance industry, holding and banks are not accepted in Tehran Stock Exchange.

### **Research variables**

#### **Dependent variables:**

Performance Measurement,

EPS: Net income after tax divided by the number of issued shares

ROE: Net income after tax divided by equity

ROA: Net income after tax divided by total assets

Tobin's Q: This was introduced in 1969 by James Tobin: the total market value divided by the book value of total assets

**Independent Variables:**

Capital Market, short-term debt to total assets ratio, long-term debt to total assets ratio, ratio of total liabilities to total assets represents the capital structure of the company. Variable is the logarithm of the total assets of the company comes as the control variable.

**Research model**

We use cumulative panel data regression model to evaluate the effect of capital structure on firm performance that is as follows:

$$Y_{it} = \alpha + X_{it}\beta + \epsilon_{it}$$

Here,  $i = 1, 2, \dots, N$ ; and  $t = 1, 2, \dots, T$

$Y_{it}$  is dependent variable (performance)  $i$  in year  $t$ .

$X_{it}$  is capital structure of firm  $i$  in year  $t$ .

$\beta$  is regression coefficient and  $\epsilon_{it}$  is the error. In this study we have used three cumulative models: Cumulative model of least squares (OLS), the fixed effects model and random effects model.

To facilitate the selection of appropriate integrated model we have used the F test and Hausman test. First to select between fixed and cumulative models we use the F test. Then we use Hausman test to choose between a fixed or random effects, durbin-Watson statistic model is used to determine the correlation. In addition to test the stability of all the variables, the test Levin, Lin and Chu (2002) were used. However, using the regression model, the effect of selected capital structure on firm performance is examined:

$$EPS_{it} = \alpha_{it} + STDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (1)$$

$$EPS_{it} = \alpha_{it} + LTDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (2)$$

$$EPS_{it} = \alpha_{it} + TDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (3)$$

$$ROE_{it} = \alpha_{it} + STDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (4)$$

$$ROE_{it} = \alpha_{it} + LTDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (5)$$

$$ROE_{it} = \alpha_{it} + TDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (6)$$

$$ROA_{it} = \alpha_{it} + STDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (7)$$

$$ROA_{it} = \alpha_{it} + LTDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (8)$$

$$ROA_{it} = \alpha_{it} + TDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (9)$$

$$Tobin's Q_{it} = \alpha_{it} + STDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (10)$$

$$Tobin's Q_{it} = \alpha_{it} + LTDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (11)$$

$$Tobin's Q_{it} = \alpha_{it} + TDTA_{it}\beta_0 + Size_{it}\beta_1 + \epsilon_{it} \quad (12)$$

$STDTA_{it}$ ,  $LTDTA_{it}$  and  $TDTA_{it}$  represents short-term debt, long-term debt and total debt of firm  $i$  in year  $t$ . also,  $Size_{it}$  is natural logarithm of firm assets  $i$  in year  $t$  is the. All other variables are as previously defined.  $\alpha$ ,  $0\beta$  and  $1\beta$  are the regression coefficients, and  $\epsilon_{it}$  is the error.

Dependent Variable: EP

Method: Panel Least Squares

Date: 01/25/15 Time: 19:35

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-8.027883	0.110633	-0.888145	STDTA
0.3336	0.969280	0.059310	0.057488	SIZE
0.8723	-0.160961	0.831383	-0.133820	C

Effects Specification

Cross-section fixed (dummy variables)

0.122600	Mean dependent var	0.664741	R-squared
0.364256	S.D. dependent var	0.578387	Adjusted R-squared
0.137222	Akaike info criterion	0.236518	S.E. of regression
0.869686	Schwarz criterion	11.07628	Sum squared resid
0.432017	Hannan-Quinn criter.	34.84725	Log likelihood
1.595276	Durbin-Watson stat	7.697819	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the model is significant. The significant amount in the level of variable implies that the ratio of short-term debt to total assets has a significant negative correlation with the ratio of earnings per share.

Dependent Variable: EP

Method: Panel Least Squares

Date: 01/25/15 Time: 19:36

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-4.936711	0.186253	-0.919479	LTDTA
0.4352	0.781932	0.064494	0.050430	SIZE
0.5729	-0.564741	0.900629	-0.508622	C

Effects Specification

Cross-section fixed (dummy variables)

0.122600	Mean dependent var	0.604321	R-squared
0.364256	S.D. dependent var	0.502404	Adjusted R-squared
0.302923	Akaike info criterion	0.256948	S.E. of regression
1.035387	Schwarz criterion	13.07245	Sum squared resid
0.597718	Hannan-Quinn criter.	14.13461	Log likelihood
1.633344	Durbin-Watson stat	5.929520	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of short-term debt to total assets has a significant negative correlation with the ratio of earnings per share like the first hypothesis.

Dependent Variable: EP  
 Method: Panel Least Squares  
 Date: 01/25/15 Time: 19:37  
 Sample: 1387 1391  
 Periods included: 5  
 Cross-sections included: 50  
 Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-11.17128	0.087485	-0.977318	TDTA
0.4404	0.773031	0.053514	0.041368	SIZE
0.7673	0.296259	0.751503	0.222639	C

Effects Specification

Cross-section fixed (dummy variables)

0.122600	Mean dependent var	0.727422	R-squared
0.364256	S.D. dependent var	0.657212	Adjusted R-squared
-0.069755	Akaike info criterion	0.213265	S.E. of regression
0.662709	Schwarz criterion	9.005443	Sum squared resid
0.225041	Hannan-Quinn criter.	60.71934	Log likelihood
1.988484	Durbin-Watson stat	10.36072	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of total debt to total assets has a significant negative correlation with the ratio of earnings per share.

Dependent Variable: ROE

Method: Panel Least Squares

Date: 01/25/15 Time: 19:38

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-4.883392	0.437478	-2.136376	STDTA
0.3396	-0.957189	0.234530	-0.224490	SIZE
0.1149	1.583422	3.287565	5.205603	C

Effects Specification

Cross-section fixed (dummy variables)

0.761720	Mean dependent var	0.633674	R-squared
1.377960	S.D. dependent var	0.539318	Adjusted R-squared
2.886846	Akaike info criterion	0.935271	S.E. of regression
3.619309	Schwarz criterion	173.1969	Sum squared resid
3.181641	Hannan-Quinn criter.	-308.8557	Log likelihood
2.233851	Durbin-Watson stat	6.715738	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of short-term debt to total assets has a significant negative correlation with return on equity.

Dependent Variable: ROE

Method: Panel Least Squares

Date: 01/25/15 Time: 19:39

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0765	-1.780908	0.711934	-1.267889	LTDTA
0.3597	-0.918148	0.246520	-0.226342	SIZE
0.2445	1.167401	3.442560	4.018846	C

Effects Specification



Cross-section fixed (dummy variables)

0.761720	Mean dependent var	0.596024	R-squared
1.377960	S.D. dependent var	0.491970	Adjusted R-squared
2.984677	Akaike info criterion	0.982158	S.E. of regression
3.717141	Schwarz criterion	190.9977	Sum squared resid
3.279473	Hannan-Quinn criter.	-321.0847	Log likelihood
2.230965	Durbin-Watson stat	5.728010	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that H0 is rejected and also total of model is significant. In the level of variable implies that the ratio of long-term debt to total assets has a significant negative correlation with return on equity.

Dependent Variable: ROE

Method: Panel Least Squares

Date: 01/25/15 Time: 19:40

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-5.434281	0.378841	-2.058729	TDTA
0.2703	-1.105357	0.231736	-0.256151	SIZE
0.0782	1.770407	3.254279	5.761398	C

Effects Specification

Cross-section fixed (dummy variables)

0.761720	Mean dependent var	0.642825	R-squared
1.377960	S.D. dependent var	0.550826	Adjusted R-squared
2.861548	Akaike info criterion	0.923515	S.E. of regression
3.594011	Schwarz criterion	168.8704	Sum squared resid
3.156343	Hannan-Quinn criter.	-305.6934	Log likelihood
2.276870	Durbin-Watson stat	6.987268	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of total debt to total assets has a significant negative correlation with return on equity.

Dependent Variable: ROA

Method: Panel Least Squares

Date: 01/25/15 Time: 19:40

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-8.110135	0.051306	-0.416095	STDTA
0.0391	-2.076602	0.027505	-0.057116	SIZE
0.0033	2.974221	0.385552	1.146716	C

Effects Specification

Cross-section fixed (dummy variables)

0.094360	Mean dependent var	0.668692	R-squared
0.169927	S.D. dependent var	0.583356	Adjusted R-squared
-1.399608	Akaike info criterion	0.109685	S.E. of regression
-0.667144	Schwarz criterion	2.382084	Sum squared resid
-1.104813	Hannan-Quinn criter.	226.9510	Log likelihood
2.619532	Durbin-Watson stat	7.835922	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of short-term debt to total assets has a significant negative correlation with return on equity.

Dependent Variable: ROA

Method: Panel Least Squares

Date: 01/25/15 Time: 19:41

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0311	-2.171651	0.090694	-0.196955	LTDTA
0.0726	-1.804722	0.031404	-0.056676	SIZE
0.0414	2.053296	0.438549	0.900471	C

Effects Specification

Cross-section fixed (dummy variables)

0.094360	Mean dependent var	0.568902	R-squared
0.169927	S.D. dependent var	0.457862	Adjusted R-squared
-1.136321	Akaike info criterion	0.125118	S.E. of regression
-0.403857	Schwarz criterion	3.099569	Sum squared resid
-0.841525	Hannan-Quinn criter.	194.0401	Log likelihood
2.436112	Durbin-Watson stat	5.123386	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of long-term debt to total assets has a significant negative correlation with return on equity.

Dependent Variable: ROA

Method: Panel Least Squares

Date: 01/25/15 Time: 19:42

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0000	-8.701101	0.044170	-0.384330	TDTA
0.0210	-2.327179	0.027019	-0.062878	SIZE
0.0013	3.262246	0.379427	1.237784	C

Effects Specification

Cross-section fixed (dummy variables)

0.094360	Mean dependent var	0.680718	R-squared
0.169927	S.D. dependent var	0.598479	Adjusted R-squared
-1.436580	Akaike info criterion	0.107676	S.E. of regression
-0.704117	Schwarz criterion	2.295621	Sum squared resid
-1.141785	Hannan-Quinn criter.	231.5726	Log likelihood
2.719193	Durbin-Watson stat	8.277282	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of total debt to total assets has a significant negative correlation with return on equity.

Dependent Variable: TOBINQ

Method: Panel Least Squares

Date: 01/25/15 Time: 19:43

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0001	-3.946055	0.117381	-0.463193	STDTA
0.3853	-0.870065	0.062928	-0.054751	SIZE
0.0623	1.874453	0.882098	1.653450	C

Effects Specification

Cross-section fixed (dummy variables)

0.605160	Mean dependent var	0.822739	R-squared
0.531504	S.D. dependent var	0.777081	Adjusted R-squared
0.255646	Akaike info criterion	0.250946	S.E. of regression
0.988110	Schwarz criterion	12.46881	Sum squared resid
0.550442	Hannan-Quinn criter.	20.04421	Log likelihood
1.704331	Durbin-Watson stat	18.01959	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of total debt to total assets has a significant negative correlation with Tobin's Q.

Dependent Variable: TOBINQ

Method: Panel Least Squares

Date: 01/25/15 Time: 19:43

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.3536	-0.929894	0.188508	-0.175293	LTDTA
0.4129	-0.820482	0.065274	-0.053557	SIZE
0.1356	1.498630	0.911533	1.366051	C

Effects Specification

Cross-section fixed (dummy variables)

0.605160	Mean dependent var	0.809630	R-squared
0.531504	S.D. dependent var	0.760596	Adjusted R-squared
0.326993	Akaike info criterion	0.260059	S.E. of regression
1.059456	Schwarz criterion	13.39091	Sum squared resid
0.621788	Hannan-Quinn criter.	11.12593	Log likelihood
1.671518	Durbin-Watson stat	16.51141	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant. The significant amount in the level of variable implies that the ratio of total debt to total assets has not a significant negative correlation with Tobin's Q.

Dependent Variable: TOBINQ

Method: Panel Least Squares

Date: 01/25/15 Time: 19:44

Sample: 1387 1391

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0001	-4.015405	0.102809	-0.412821	TDTA
0.3348	-0.966781	0.062888	-0.060799	SIZE
0.0503	1.969478	0.883141	1.739326	C

Effects Specification

Cross-section fixed (dummy variables)

0.605160	Mean dependent var	0.823196	R-squared
0.531504	S.D. dependent var	0.777656	Adjusted R-squared
0.253064	Akaike info criterion	0.250622	S.E. of regression
0.985528	Schwarz criterion	12.43666	Sum squared resid
0.547860	Hannan-Quinn criter.	20.36694	Log likelihood
1.715064	Durbin-Watson stat	18.07621	F-statistic
		0.000000	Prob(F-statistic)

According to statistics of f and obtained P-Value, we can conclude that the total model is significant.

The significant values in significant variable level indicate that there is significant negative correlation between the ratio of total debt and with Tobin's q.

### **Limitations**

Since the financial statements report historical value, and generally these values have not major differences with the current values, so this research has limitations.

### **Recommendations**

In Future research you can separate accruals variable to voluntary and involuntary separation or short term and long term and examine the impact of each them separately.

Also in future research additional control variables can be used to increase the explanatory power of the dependent variable.

### **References**

- Abaszadeh, M., Kazemi, M., Kardan, B., Hghighattalab, B., (2012), "Examining the relationship between capital structure and performance of the listed companies in Tehran Stock Exchange using data envelopment analysis", *Journal of Stock securities*, sixth year,12(24), pp. 79-137.
- Andersen, T.J., (2005), "Risk Management, Capital Structure and Performance", *Global Business & Economics Anthology*.10 (3), pp. 37-52.
- Asadi, GH; Jalalian, R., (2012), "The effect of capital structure, shareholders and the size of the Company on exercise of conservatism in corporate", *accounting and audit review*, 19(67), pp. 1-14.
- Brien, J.; Parthiban, D.; Yoshikawa, T.; and A. Delios (2013). "How Capital Structure Influences Diversification Performance: A Transaction Cost Perspective". *Strategic Management Journal*, 34(6), pp. 138-152.
- Capobianco, H.M.P.; Fernandes, E., (2004), "Capital structure in the world airline industry", *Transportation Research Part A*. 38(5), pp. 421-434.
- Dadashi, Iman, Asghari, M., agricultural, Samira, parsley Bae, M., (2012)," The effect of capital structure and financing of the technical efficiency of pharmaceutical companies listed in Tehran Stock Exchange", *accounting Health Journal*, II(1), pp. 1-19.
- Dehghanzadeh, H, Zeraatgari, R, (2012), "Accounting Research", III (11), pp. 67-82.
- Gleason, K.S., Mathur, L.K.; Mathur, I, (2000), "The Interrelationship between culture, Capital Structure, and Performance: Evidence from European Retailers", *Journal of Business Research*, 15(3), pp.185-191.
- Hashemi, Seyed Abbas, Akhlaghi, H., (2009),"The impact of financial leverage, dividend policy and the future profitability of the company's quarterly financial accounting", 2(6),pp.15-26.
- Krishnan, V.S.; Moyer, R.C., (1997), "Performance Capital Structure and home country: An Analysis of Asian Corporation", *Global Finance Journal*, 8(2), pp. 129-143.
- Margaritis, D., Psillaki, M. (2009). "Capital structure, equity ownership & firm performance", *Journal of Banking & Finance*, 34 (3): 621-632.

- Mok, V. Yeung, G. Han, Z. Li, Z. (2007), "Leverage, Technical Efficiency and Profitability: an application of DEA to foreign-invested toy manufacturing firms in China", *Journal of Contemporary China*. 16(2), 259 - 274.
- Nikbakht, MR, Peykani, M., (2010), "The relationship between capital structure and market criteria for performance evaluation of listed companies in Tehran Stock Exchange", *Management Studies*, III (9), pp. 57-76.
- Park, K. and S. Jang (2013). "Capital Structure, Free Cash Flow, Diversification and Firm Performance: A Holistic Analysis". *International Journal of Hospitality Management*, 33(4), pp. 51-63.
- Pour Khodami, A., Hoshmand Zaferaniyeh, Rahmat Ali, Mohammad reza Khani, V., (2013), "The effect of capital structure on abnormal returns following stock given the level of concentration in the industry, strategy, financial management", 1(3), pp. 131 -146.
- Riahi, belkai Ahmad, (1999), "Capital Structure", first edition.
- Sajjadi, Seyed-Hosseini, Mohammadi, Kamran, Abbasi, Shoaib, (2011), "The effect of capital structure on firm performance stock selection", *Journal of Accounting Malysal*, III (9), pp. 19-38.
- Utami, S. and Inanga, E. (2012). "The relationship between capital structure and the life cycle of firms in the manufacturing sector of Indonesia", *International Research Journal of Finance and Economics*, 11(8), pp. 69-91.