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I. Introduction

a) Introduction

In an era of globalization of economic policies and financial markets, investment opportunities and financing options have increased, causing a significant increase on the dependence of capital markets. A new business requires capital and further capital is needed if the firm is to expand. The required funds can come from various sources, which can be categorized into two major proportions comprising of debt and equity capital. The relative proportion of these two major sources in the total capital of a firm is a measure of capital structure. One of the most important reference theories in companies financing policy is the theory of capital structure.

Capital structure is the combination of debt and equity capital that composite a firm's financing its assets. Financing is referred to as a process of generating cash which can be used for acquisition of assets, current operations or any expected growth. Firms can use either debt or equity capital to finance their assets. Therefore, capital structure can be written as the sum of net worth plus preferred stock plus long-term debts. Besides these sources of finance, enterprises may issue hybrid securities such as income bonds. These hybrid securities possess the features of both equity and debt securities.

The capital structure decision is an important decision as it influences the investors' return on their investment. It is therefore obligatory on the management of company to make appropriate capital structure so to maintain the interest of its investors.

b) Objectives of the Study

The study is intended to undertake the following objectives:

- To identify the nature of relationship between capital structure and firm performance.
- To explore the impact of capital structure on firm performance.

Considering the dependent variables (return on equity, return on assets and return on invested capital) and independent variables (debt to equity and interest coverage), the objective of the study has been divided into models as under:

Model 1: UK firms and Return on Asset (ROA): To investigate the effect of independent variables on return on asset.

Model 2: UK firms and Return on Equity (ROE): To investigate the effect of independent variables on return on equity.

Model 3: UK firms and Return on Invested Capital (ROIC): To investigate the effect of independent variables on return on invested capital.

c) Significance of the study

The relationship between capital structure and profitability cannot be ignored because the long-term survivability of firm depends upon the improvement in the profitability of the firm. The interest paid on debt is tax deductible payments, so the addition of debt in the capital structure will improve the profitability of the firm. It is important to know the relationship between capital structure and the profitability of the firm in order to make sound decision on capital structure.

Findings of the study are useful for the investors as well as companies who wants to invest in FTSE-100 index. Findings are also useful for the Government sectors for collecting more taxes and boost that particular sectors.

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II. Literature Review

a) Literature View

Based on literature review there is a plenty of research which intends to enlighten the relationship between capital structure and performance of listed firms.

Determining the ideal capital structure and value of firms can be traced back to *Modigliani and Miller (1958)* who in their research concluded that the value of the firm is self-determining of capital structure and that the value of an unlevered firm is equal to that of a levered firm. The research was based on the assumption of absence of taxes. This assumption was considered unrealistic and in their subsequent research *Modigliani and Miller (1963)* took tax into consideration and concluded that because of tax shield on debt as a factor, the value of a levered firm was more than the value of an unlevered firm and that this value was equal to the value of the tax shield. *Modigliani and Miller (1977)* later modified their earlier research of 1963 and incorporated the effect of personal taxes. Personal taxes were classified into two categories, tax on income from holdings shares and tax on income from debt securities. In this research (1977), Modigliani and Miller identified certain special cases where gain from leverage became zero, giving the original (1958) result. Thus their results signify the existence of an optimal capital structure at the macro level but not at the micro level.

Deesomsak et al. (2004) examining the effect of capital structure's effect on firm performance, reported a negative relationship between capital structure and firms performance measured by gross profit margin in the Malaysian firms. The study indicated that in Singapore, Taiwan and Australian the relation of leverage with firm's performance is negative but statistically insignificant. Moreover, the effect of firm size on leverage is significant and positive for all the countries except Singapore, because in Singapore firms have government support and are less exposed to financial distress costs.

Nimalathasan & Brabete (2010) examined methodically the relationship between capital structure and financial performance of firms listed on Columbia Stock Exchange, Sri Lanka. The study guides the entrepreneurs and policy planners to formulate better policy decisions regarding the mix of debt and equity capital to control over capital structure planning.

Abor (2005) investigate the relationship between capital structure and profitability of listed firms on Ghana Stock Exchange. He reveals a positive relationship between short term debt to total assets and return on equity due to low interest rates. Further, he suggests that in Ghanaian firm's short term financing shows 85 percent of total debt and is considered a main element of financing for them. Moreover, a negative relationship find between long term financing and equity returns, and a positive relation exists between total debt and profitability. He also suggests that debt is considered as a major source of financing for high profitable firms.

b) Hypothesis of the Study

Based on above literature review, the researcher formulates the following hypothesis.

Model 1

H_0: There is no significant impact of Independent Variables[1] on Return on Asset.

H_1: There is significant impact of Independent Variables on Return on Asset.

Model 2

H_0: There is no significant impact of Independent Variables on Return on Equity.

H_1: There is significant impact of Independent Variables on Return on Equity.

Model 3

H_0: There is no significant impact of Independent Variables on Return on Invested Capital.

H_1: There is significant impact of Independent Variables on Return on Invested Capital.

The hypothesis for each model has been described in Table 1 as shown in appendix.

III. Research Methodology

a) Population and Sample Set of the study

The population for this study is all top 100 companies listed in FTSE-100 index. The researcher has selected the sample for the research from this population to check the effect of capital structure on firm performance.

In this study, a sample of 30 firms has been selected from the FTSE-100 index of London Stock Exchange for the purpose of investigating the effect of capital structure on firm performance. This panel data has been collected for the period of 10 years i.e. from 2005 to 2014 from the financial statements of the firms in order to empirically investigate the relationship between capital structure and firm performance.

b) Theoretical Framework/ Conceptual Framework

The study uses following variables to investigate the effect of capital structure on firm performance.

[1] Independent Variables include Debt to Equity and Interest Coverage

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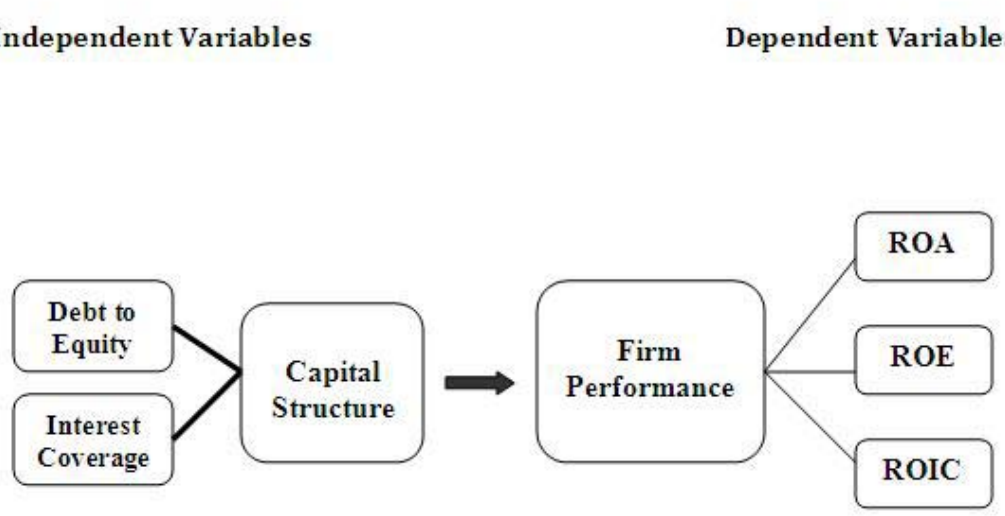

Figure 1 : Conceptual Framework

The selected variables of the study are followed by the existing literatures [Muhammad, Shah & Islam (2014), {14}]; [Nimalathasan & Brabete (2010), {12}].

i. *Independent Variables*

In this study, the capital structure being measured by interest coverage and debt to equity ratios are taken as independent variables.

a. Interest Coverage

The interest coverage ratio (ICR) is measure of company's ability to meet its interest payments. It is a financial ratio that measures company's ability to make interest payments on its debt in a timely manner.

Interest Coverage = EBIT / Interest Expense

[Nimalathasan & Brabete (2010), {12}]

b. Debt to Equity

Debt/Equity Ratio is used to measure a company's financial leverage, calculated by dividing a company's total liabilities by its shareholders' equity. The D/E ratio indicates how much debt a company is using to finance its assets relative to the amount of value represented in shareholders' equity.

Debt to Equity = Total Liabilities / Total Shareholder's Equity

[Muhammad, Shah, & Islam (2014), {14}]

ii. *Dependent Variables*

Financial performance is considered to be a major standard to measure firms' operational and financial efficiency. The current study uses three measures of firm performance including return on assets, return on equity and return on invested capital.

a. Return on Assets

Return on Assets or Investment is the raise in the cash flows produced by the operating cycle as a result of asset or investment outlays. It is the return for forsaking immediate spending (Vernimmen et al., 2005).

Return on Assets = Net Income / Total Assets

[Muhammad, Shah, & Islam (2014), {14}]

b. Return on Equity

Return on Equity is the measure of the amount of net income returned as a percentage of shareholders equity. Return on equity measures a firm's profitability by revealing how much profit a company generates with the money shareholders have invested.

Return on Equity = Net Income / Shareholder's Equity

[Muhammad, Shah & Islam (2014), {14}]

iii. *Return on Invested Capital*

Return on Invested Capital is used to assess a company's efficiency at allocating the capital under its control to profitable investments. Return on invested capital gives a sense of how well a company is using its money to generate returns.

ROIC = Net Income – Dividends/ Total Capital

c) Regression Analysis

Regression analysis is used to investigate the effect of capital structure on firm performance. More precisely, it helps to understand how the value of the dependent variable changes when independent variable is varied. This study uses the following regression models:

$$ROA = \beta_0 + \beta_1 DE + \beta_2 IC + \varepsilon \quad (1)$$

$$ROE = \beta_0 + \beta_1 DE + \beta_2 IC + \varepsilon \quad (2)$$

$$ROIC = \beta_0 + \beta_1 DE + \beta_2 IC + \varepsilon \quad (3)$$

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Where:
β_0= Coefficient of Intercept
$\beta_1 - \beta_2$ = Slope of Intercept
DE = Debt to Equity
IC = Interest Coverage
ROA = Return on assets
ROE = Return on Equity
ROIC = Return on invested Capital
ε = error term.

IV. Results and Discussions

a) Descriptive Statistics

The descriptive statistics is used as a measure for the analysis of mean, median, maximum, minimum, standard deviation, skewness and kurtosis of the study sample in order to explore the data variation in the firm's listed on the FTSE – 100. The below

Table 2 : Shows the descriptive statistics of variables of the current study

Sample: 2005 2014
Table 2 – Descriptive Statistics

	DE	IC	ROA	ROE	ROIC
Mean	0.846667	18.15027	0.075340	0.311095	0.148971
Median	0.605000	8.030000	0.067000	0.200250	0.126550
Maximum	5.970000	423.0000	0.671100	9.850200	1.215300
Minimum	0.010000	-39.54000	-0.535400	-2.623200	-0.965800
Std. Dev.	0.855844	41.02593	0.089427	0.774534	0.161158
Skewness	2.531492	6.420749	0.010960	8.065354	0.494186
Kurtosis	11.01491	55.10743	19.98988	91.87858	17.97986
Jarque-Bera	1123.408	36001.11	3608.207	101995.0	2817.163
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	254.0000	5445.080	22.60200	93.32850	44.69140
Sum Sq. Dev.	219.0085	503254.9	2.391137	179.3709	7.765562
Observations	300	300	300	300	300

The highest value of mean is 18.15027 of IC, where ROA has the lowest mean of 0.075340. IC has the highest value of standard deviation being 41.02593 and the lowest value is 0.089427 relating to ROA. In respect of Kurtosis, IC has the highest value of kurtosis where ROIC has the lowest value 17.97986.

b) Correlation Analysis

Correlation means the relationship between two variables. The correlation shows two things, first it shows the direction between two variables and secondly it shows the strength of associations between two variables. The below **Table 3** shows the correlation between dependent (ROA, ROE and ROIC) and independent (DE and IC) variables.

Sample: 2005 2014

Table 3 : Correlation Analysis

	DE	IC	ROA	ROE	ROIC
DE	1.000000				
IC	-0.192475	1.000000			
ROA	-0.016145	0.307764	1.000000		
ROE	0.404273	0.081229	0.494161	1.000000	
ROIC	0.047440	0.334291	0.937808	0.573084	1.000000

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The results revealed that DE is positively correlated with ROE and ROIC while negatively correlated with ROA, whereas IC is positively correlated with ROA, ROE and ROIC. DE is negatively correlated with IC. A positive correlation is revealed among all dependent variables.

c) *Regression Analysis*

Panel regression consists of Common Effect, Fixed Effect and Random Effect in order to test the hypothesis of the study. Likelihood and Hausman tests have been considered for the appropriate selection of panel regression.

i. *Model 1 – UK firms and ROA*

The result of Hausman Test (cross section random with Prob. 0.0103) shows that Fixed Effect is the appropriate test.

Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.151944	2	0.0103

Table 4 in the appendix shows the results of regression analysis for model 1. The results shows all the 30 firms have a common co-efficient of 0.083955.

The coefficient value of interest coverage is 0.000532, which means that 0.0532 percent variation of return on asset has been explain by the variation of interest coverage. The t-statistics of interest coverage is 4.012955 with a p- value is < 0.05 shows that interest coverage has got significant positive impact on return on asset. If one unit increases in interest coverage then return on asset will increase at 0.000532 units. The coefficient value of debt to equity is -0.021581, which means that 2.1581 percent negative variation of return on asset has been explain by the variation of debt to equity. The t-statistics of debt to equity is -2.475469 with a p- value is < 0.05 shows that debt to equity has got significant negative impact on return on asset. If one unit increases in debt to equity then return on asset will decrease at 0.021581units.

The values of determination of coefficient R^2 is 0.347279, which means that 34.7279 percent variation of return on asset has been explain by the variations of independent variables, which are debt to equity and interest coverage.

The value of AdjR^2 is 0.271778, shows that if the researcher incorporate more relevant variables than it will adjust R^2 at the rate of 27.1778 percent.

Model is found statistically significant ($F = 4.599651$, $p < 0.01$); the value of F-statistics is 4.599651 and p-value is <0.05 shows that the model is good fit for the study.

ii. *Model 2 – UK firms and ROE*

The result of Hausman test (cross section random with Prob. 0.0876) shows that Random Effect is the appropriate test for the study.

Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.869432	2	0.0876

Table 5 in the appendix shows the results of regression analysis for model 2. The result shows that all 30 firms have a common coefficient of 0.040741.

The coefficient value of interest coverage is 0.001930, which means that 0.1930 percent variation of return on equity has been explain by the variation of interest coverage. The t-statistics of interest coverage is 2.051486 with a p- value is < 0.05 shows that interest coverage has got significant positive impact on return on equity. If one unit increases in interest coverage then return on equity will increase at 0.001930 units. The coefficient value of debt to equity is 0.277936, which means that 27.7936 percent variation of return on equity has been explain by the variation of debt to equity. The t-statistics of debt to equity is 4.893138 with a p- value is < 0.05 shows that debt to equity has got significant positive impact on return on equity. If one unit increases in debt to equity then return on equity will increase at 0.277936 units.

The values of determination of coefficient R^2 is 0.079153, which means that 7.9153 percent variation of return on equity has been explain by the variations of independent variables, which are debt to equity and interest coverage.

The value of AdjR^2 is 0.072952, shows that if the researcher incorporate more relevant variables than it will adjust R^2 at the rate of 7.2952 percent.

Model is found statistically significant ($F = 12.76463$, $p < 0.01$); the value of F-statistics is 12.76463 and p-value is <0.05 shows that the model is good fit for the study.

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iii. *Model 3 – UK firms and ROIC*

The result of Hausman test (cross section random with Prob.0.0038) shows that Fixed Effect is the appropriate test for the study.

Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.147838	2	0.0038

Table 6 in the appendix shows the results of regression analysis for model 3. The results revealed that all 30 firms have a common coefficient of 0.15742.

The coefficient value of interest coverage is 0.001028, which means that 0.1028 percent variation of return on invested capital has been explain by the variation of interest coverage. The t-statistics of interest coverage is 4.651186 with a p- value is < 0.05 shows that interest coverage has got significant positive impact on return on invested capital. If one unit increases in interest coverage then return on invested capital will increase at 0.001028 units. The coefficient value of debt to equity is -0.032028, which means that 3.2028 percent negative variation of return on invested capital has been explain by the variation of debt to equity. The t-statistics of debt to equity is -2.203081 with a p- value is < 0.05 shows that debt to equity has got significant negative impact on return on invested capital. If one unit increases in debt to equity then return on invested capital will decrease at 0.032028 units.

The values of determination of coefficient R^2 is 0.441113, which means that 44.1113 percent variation of return on invested capital has been explain by the variations of independent variables, which are debt to equity and interest coverage.

The value of AdjR^2 is 0.376466, shows that if the researcher incorporate more relevant variables than it will adjust R^2 at the rate of 37.6466 percent.

Model is found statistically significant ($F = 6.823382$, $p < 0.01$); the value of F-statistics is 6.823382 and p-value is <0.05 shows that the model is good fit for the study.

V. Conclusion and Recommendation

a) Conclusion

The main objective of the study is to empirically investigate the effect of capital structure on firm performance of 30 companies listed on FTSE-100, London Stock Exchange, United Kingdom. For the purpose of exploring the effect, the study consists of three models including two independent variables and three dependents.

Based on the correlation analysis of the study, DE is positively correlated with ROE and ROIC while negatively correlated with ROA, whereas IC is positively correlated with ROA, ROE and ROIC. There is negative correlation between DE an IC. A positive correlation is revealed among all independent variables.

Besides, the regression results of first model reveals that DE and IC have p-value of 0.0139 and 0.0001 respectively showing significant impact on Return on Asset and the value of R-squared is 0.347279 which denotes that 34.7279% of variation in ROA is due to debt to equity and interest coverage. This shows that IC has positive significant impact on return on asset while DE has negative significant impact on return on asset.

The regression result of the second model reveals that variables DE and IC have p-value of 0.0000 and 0.0411 respectively showing significant impact on Return on Equity. The value of R-squared is 0.079153 which denotes that 7.9153% of variation in ROE is due to independent variables debt to equity and interest coverage. This shows that DE and IC have positive significant impact on return on equity.

The regression result of third model reveals that DE and IC shows p-value of 0.0284 and 0.0000 respectively meaning that independent variables have significant impact on Return on Invested Capital Both independent variables (DE and IC) showing significant value 0.0284 and 0.0000 respectively showing significant impact on return on invested capital. The value of R-squared is 0.441113 which denotes that 44.1113% of variation in ROIC is due to independent variables debt to equity and interest coverage. This shows that IC has positive significant impact on return on invested capital where DE has negative significant impact.

Based on the empirical finds the study concludes that there is significant effect of capital structure on firm performance.

The study concludes that there is significant effect of capital structure on firm performance. The results of the study determines that the higher the value of debt, higher will be the tax benefits (tax shield) received by firms. Therefore, the firms' executives and managers shall maintain optimum level of capital structure in order to achieve the targeted level of efficiency in business.

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b) Recommendation

The researcher has conducted the research on effect of capital structure on firm performance evidence from FTSE-100 index over the period of 2005-2014 by using two independent and three dependent variables. If anyone else wants to conduct the research on the same topic:

- The researcher must incorporate more independent variables
- The period of the study should be more than 20 years for better results
- The researcher must collect the data more the 50 companies for better results

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Appendices

Table 1: Hypothesis

Model 1

$H_{0\,11}$: There is no significant impact of Debt to Equity ratio on Return on Asset.

$H_{1\,11}$: There is significant impact of Debt to Equity on Return on Asset.

$H_{0\,12}$: There is no significant impact of Interest Coverage on Return on Asset.

$H_{1\,12}$: There is significant impact of Interest Coverage on Return on Asset

Model 2

$H_{0\,21}$: There is no significant impact of Debt to Equity ratio on Return on Equity.

$H_{1\,21}$: There is significant impact of Debt to Equity on Return on Equity.

$H_{0\,22}$: There is no significant impact of Interest Coverage on Return on Equity.

$H_{1\,22}$: There is significant impact of Interest Coverage on Return on Equity.

Model 3

$H_{0\,31}$: There is no significant impact of Debt to Equity ratio on Return on Invested Capital.

$H_{1\,31}$: There is significant impact of Debt to Equity on Return on Invested Capital.

$H_{0\,32}$: There is no significant impact of Interest Coverage on Return on Invested Capital.

$H_{1\,32}$: There is significant impact of Interest Coverage on Return on Invested Capital.

Table 4 : Regression Result for Model 1 – UK firms and ROA

Fixed Effects

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.083955	0.009182	9.143380	0.0000
DE_?	-0.021581	0.008718	-2.475469	0.0139
IC_?	0.000532	0.000133	4.012955	0.0001
Fixed Effects (Cross)				
AAL--C	-0.019375			
ABDNF--C	-0.066916			
ANFGY--C	0.008207			
ARGKF--C	0.044487			
ASBFY--C	-0.029815			
AZN--C	0.051874			
BAESY--C	-0.031637			
BRGYY--C	-0.005128			
BTI--C	0.047545			
BTLCY--C	-0.032653			
BZLFY--C	-0.001997			
CMPGY--C	-0.007974			
COIHY--C	0.019579			
CPYYY--C	-0.023621			
EVRZF--C	-0.009078			
GKN--C	-0.034399			
HMSNF--C	-0.038829			

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ITYBY--C	0.024969
MGGT--C	-0.026288
NXT--C	0.201381
PFC--C	-0.009925
REL--C	0.024137
REXMY--C	-0.029355
RYCEY--C	-0.031547
SECCY--C	-0.072257
SGPYY--C	-0.009866
SMGKF--C	0.049948
TUWOY--C	-0.044454
UUGRY--C	0.012527
WG--C	0.040460

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.347279	Mean dependent var	0.075340
Adjusted R-squared	0.271778	S.D. dependent var	0.089427
S.E. of regression	0.076313	Akaike info criterion	-2.207409
Sum squared resid	1.560744	Schwarz criterion	-1.812339
Log likelihood	363.1114	Hannan-Quinn criter.	-2.049302
F-statistic	4.599651	Durbin-Watson stat	1.812590
Prob(F-statistic)	0.000000		

Table 5 : Regression Result for Model 2 – UK firms and ROE

Random Effects

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.040741	0.098586	0.413255	0.6797
DE_?	0.277936	0.056801	4.893138	0.0000
IC_?	0.001930	0.000941	2.051486	0.0411
Random Effects (Cross)				
AAL--C	-0.029177			
ABDNF--C	-0.047389			
ANFGY--C	-0.045634			
ARGKF--C	0.058032			
ASBFY--C	-0.001291			
AZN--C	0.133399			
BAESY--C	-0.043541			
BRGYY--C	-0.019481			
BTI--C	-0.003306			
BTLCY--C	-0.133704			
BZLFY--C	-0.082136			
CMPGY--C	-0.043696			
COIHY--C	-0.056627			
CPYYY--C	-0.135063			
EVRZF--C	-0.228111			
GKN--C	-0.061691			
HMSNF--C	-0.143834			
ITYBY--C	-0.109032			

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MGGT--C	-0.083286
NXT--C	1.992695
PFC--C	0.138318
REL--C	-0.186068
REXMY--C	-0.133018
RYCEY--C	0.024978
SECCY--C	-0.337284
SGPYY--C	-0.024445
SMGKF--C	0.083380
TUWOY--C	-0.095970
UUGRY--C	-0.498114
WG--C	0.111097

Effects Specification	S.D.	Rho
Cross-section random	0.418185	0.3577
Idiosyncratic random	0.560326	0.6423

Weighted Statistics

R-squared	0.079153	Mean dependent var	0.121370
Adjusted R-squared	0.072952	S.D. dependent var	0.584760
S.E. of regression	0.563026	Sum squared resid	94.14844
F-statistic	12.76463	Durbin-Watson stat	1.419889
Prob(F-statistic)	0.000005		

Unweighted Statistics

R-squared	0.172241	Mean dependent var	0.311095
Sum squared resid	148.4759	Durbin-Watson stat	0.900350

Table 6 : Regression Result for Model 3 – UK firms and ROIC

Fixed Effects

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.157423	0.015312	10.28129	0.0000
DE_?	-0.032028	0.014538	-2.203081	0.0284
IC_?	0.001028	0.000221	4.651186	0.0000
Fixed Effects (Cross)				
AAL--C	-0.060364			
ABDNF--C	-0.081484			
ANFGY--C	-0.057580			
ARGKF--C	0.028649			
ASBFY--C	-0.076158			
AZN--C	0.087408			
BAESY--C	-0.013653			
BRGYY--C	-0.046143			
BTI--C	0.044175			
BTLCY--C	-0.082528			
BZLFY--C	-0.006245			
CMPGY--C	-0.011159			
COIHY--C	0.032534			
CPYYY--C	-0.022619			
EVRZF--C	-0.023171			
GKN--C	-0.030655			
HMSNF--C	-0.087763			

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ITYBY--C	0.044140
MGGT--C	-0.062851
NXT--C	0.441973
PFC--C	0.121937
REL--C	0.048011
REXMY--C	-0.056897
RYCEY--C	-0.011594
SECCY--C	-0.129125
SGPYY--C	-0.048259
SMGKF--C	0.075485
TUWOY--C	-0.085777
UUGRY--C	0.002941
WG--C	0.066772

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.441113	Mean dependent var	0.148971
Adjusted R-squared	0.376466	S.D. dependent var	0.161158
S.E. of regression	0.127257	Akaike info criterion	-1.184682
Sum squared resid	4.340068	Schwarz criterion	-0.789612
Log likelihood	209.7023	Hannan-Quinn criter.	-1.026574
F-statistic	6.823382	Durbin-Watson stat	1.941166
Prob(F-statistic)	0.000000		

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