Full Length Research Paper

THE IMPACT OF CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE ON STOCK RETURNS OF THE FIRMS IN HOSE

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Abstract

Stock return is a measure to judge the overall returns of the firms. Financial managers and investors are keen on the stock return and they hope to maximine it that they are holding. However, stock return is sensitive with a lot of impact of factors. The authors limit and measures levels of stock returns' impact based on two aspects: capital structure and financial performance of 175 firms in HOSE between 2010 and 2013.By using the approach of OLS (Ordinary Least Squares) to estimate these levels of impact, the authors used independent variables of capital structure (D/E) and financial performance, then dependent variables of stock returns. The results showed that there is an existence of the relationship between stock returns and financial performance as well as capital structure. Capital structure changes and financial performance have an influence on stock returns of the firms in HOSE. Capital structure (D/E) has a negative impact on stock returns. Financial performance (ROE, EPS) has a positive impact on stock returns while time interest earned (TIE) and cash flow ratios (CFR) are not any significant statistics.

Keywords: Capital structure, Financial performance, Stock returns, HOSE: Ho Chi Minh Stock Exchange.

INTRODUCTION

Stock return is a crucial issue as well as the strategical target to achieve by shareholders who wish to maximine it. Therefore, this issue has had lots of different results of experimental researches in the world. Siti Komariah (2011) researched capital structure and financial performance such as growth total assets (INV), dividend per share ratio (DPR), profitability on total assets (PRO), ability of liquidity short debts (LIQ) have an influence on stock return of manufacture firms in Indonesia. The findings presented only INV and PRO to get a positive impact on stock returns. Other factors are not any significant stastistics. Anisa Ika Hanani (2011) studied impact of factors on stock returns of 17 firms in Jakarta Islamic Index (JII) from 2005 to 2007. The findings stated return on equity (ROE), Earning per share (EPS), dividend earning ratios (DER) have a positive influence on stock returns. Ramzi E.N. Tarazi và Cristina Gallato (2012) studied factors such as the book on the market value (B/M), the price of stock market on earning per share ratios (P/E), return on total assets (ROA), inflation changes (ΔIN), interest market changes (ΔIR), exchange ratio changes (ΔEXR) influenced on stock returns of 1176 firms on the Stock Exchange in Malaysia and Thailand. The results showed that ΔEXR have a positive impact on stock returns of these nations. Both B/M and P/E and ROA are not

any significant statistics. Amir Haghiri, Soleyman Haghiri (2012) measured to impact levels of ROA, ROE and degree financial leverage (DFL) on stock returns of 120 manufacture firms in Stock Exchange Tehran from 2003 to 2008. The findings showed that return on equity (ROE), return on asset (ROA) have a positive impact on stock returns. DFL is not any significant statistics. Safdar Hussain Tahir and *et al*. (2013) researched factors such as growth sales (SG), earning per share (EPS), the book on the market value (BMV) and market capitalization (MC) impact to stock returns of 307 manufacture firms in Stock Exchange in Pakistan between 2000 and 2012. The results presented that SG does not impact to stock returns. EPS, BMV and MC have a positive influence on stock returns of firms in Pakistan. MACN. Shafana, AL. Fathima Rimziya and AM.Inun Jariya (2013) examined the relationship between stock returns and size firms, the book equity to the market equity value (BE/ME) of 12 firms listed on Colombo Stock Exchange. The findings showed there is an existence of the positive relationship between the book equity to the market equity value (BE/ME) and stock returns. While firm size is not any significant statistics to stock returns. Nurgül Chambers và Funda H. Sezgin (2013) analyzed factors such as coefficient beta (β), the book total debts to the market total debts value (TD/MV), the book total debts to total assets (TD/TA), return on equity (ROE), earning per share (EPS), degree financial

leverage (DFL) on stock returns of manufacture firms on Istanbul Stock Exchange in Turkey from 1994 to 2010. The findings presented that coefficient beta (β), EPS and TD/MV have a positive influence, TD/TA has a negative influence while ROE and DFL have not any significant statistics. Waij Khan and *et al*. (2013) investigated impact levels of capital structure (DER) and financial performance such as return on equity (ROE), ability to liquidity short debts (TIE), ability to pay short debts from business cash flow ratios (CFR) and earning per share (EPS) on stock returns. The results showed that both of capital structure and financial performance have a positive influence on stock return of Pakistan Textile Industry. The impact of capital structure and financial performance has been examined lots of markets in the world. However, the Stock Exchange in Vietnam has not been examined these impact levels, so the findings of this paper are really necessary for financial managers and to provide useful information for investors.

MATERIALS AND METHODS

Research questions

- Is there any existence of the relationship between capital structure and financial performance, stock returns of the firms in HOSE?
- When capital structure is changed, how will stock returns of the firms be changed in HOSE?
- When financial performance of the firms is changed, how will their stock returns be changed in HOSE?

The aims of study

1. Investigate the relationship between capital structure, financial performance and stock returns in HOSE.
2. Investigate the impact levels of capital structure on stock returns of the firms in HOSE.
3. Investigate the impact levels of financial performance on stock returns of the firms in HOSE.

Research hypotheses

Hypothese 1: Capital structure (DE) has a positive impact on stock returns of the firms in HOSE.
Hypothese 2: Return on equity *(ROE)* has a positive impact on stock returns of the firms in HOSE.
Hypothese 3: Earning per share *(EPS)* has a positive impact on stock returns of the firms in HOSE.
Hypothese 4: Time interest earned (TIE) has a positive impact on stock returns.
Hypothese 5: Cash flow ratios *(CFR)* have a positive impact on stock returns.

Research methodology

The study uses the quantitative research to measure impact levels of capital structure, financial performance on stock returns of the firms in HOSE.

The followings are research tools and methodology used:

-We conduct an observation to collect data below:

+ Primary data is the price stock of 175 firms in HOSE on yearly closing price at website: www.cophieu68.com

Hypothezing method: Based on experimental researches in the world, we set up hypothese researches about impacts of capital structure and financial performance on stock returns of the firms in HOSE.

Statistical method: The paper uses indicators of descriptive statistics such as mean, median, standard deviation, variance, kurtosis, skewness, etc., to investigate and comment an annual and average annual volatility of capiatal structure, fianancial performance and stock returns. The authors use the model of multiple regression to estimate impact levels of capital structure, financial performance on stock returns. The authors set up the relationship between capital structure, financial performance and stock returns of the firms in HOSE. Both capital structure and financial performance are independent variables, and stock return is dependent variable. The authors use the method OLS and the results will be found by these variables. Based on the experimental research, capital structure and financial performance changes have influence on stock returns of the firms in HOSE.

Research model

The experimental research model is adapted for the firms in HOSE from 2010 to 2013:

$$SR_{it} = \beta_0 + \beta_1 DE_{it} + \beta_2 ROE_{it} + \beta_3 CFR_{it} + \beta_4 EPS_{it} + \beta_5 TIE_{it} + \varepsilon_{it}$$

In the bove equation:

β_0 stand for the intercept term

β_i stand for slope coefficients where i = 1……5; " it" = = th cross section = time period.

SR_{it} stands for Stock returns of the i firm for the t time period

$DTER_{it}$ stand for Debt to equity ratio of the i firm for the t time period

ROE_{it} stand for Return on equity of the i firm for the t time period

CFR_{it} stand for Cash flow ratio of the i firm for the t time period

EPS_{it} stands for Earning per share of the i firm for the t time period

TIE_{it} stand or time interest earned of the i firm for the t time period

ε_{it} is the error term the i firm for the t time period.

The Results

Average stock return a period of 4 years is 3.02%, it is very low profitability that shareholders get. The lowest average loss of shareholder is -68.72 % and the highest profitability is 192.28%. The high range is 261%. Standard deviation of stock returns is 39.80% so the volatility based on the principle ±1σ from -36.78% to 42.82%. The median of stock return is 9.21% lower than mean, skewness is higher than 0 (S = 0.946 > 0), so

the average density distribution is skewed to the right, the kurtosis is 4.47 higher than 3, so the kurtosis of density distribution function is large. Therefore, the risk stock return of shareholders is high loss.

Table 1. Descriptive statistics

Indicators	SR	DE	ROE	EPS	CFR	TIE
Mean	0.0302	1.1425	0.1266	2840.0430	0.2557	223.8952
Median	-0.0053	0.9378	0.1222	2314.0000	0.1225	4.2400
Minimize	-0.6872	0.0026	-0.9697	-30842	-57.1900	-14567.230
maximine	1.9228	3.9871	0.9276	23243	41.0200	77002.6700
Range	2.6100	3.9845	1.8973	54085	98.2100	91569.900
Standard Deviation	0.3980	0.9002	0.1578	3568.285	2.9429	3346.9780
Variance	0.1584	0.8104	0.0249	12700000	8.6609	11200000
Coefficient variation	13.1622	0.7880	1.2463	1.2564	11.5075	14.9489
Knewness	0.9459	1.0668	-0.9072	-0.3479	-6.9092	19.8709
Kurtosis	4.4677	3.6312	12.2191	17.1156	265.9104	441.4355

Average debt to equity a period of 4 years is 1.143. It means that if the firms spend 1VND equity, they will fund 1.143 VND of external financing. This implies capital structure of the firms in HOSE has a tendency use external financing than internal financing and this difference has a relatively signifiacant. Standard deviation of debt to equity is 0.9 and it showes that the volatility levels based on the principle $\pm 1\sigma$ from 0.243 to 2.042. The median of debt to equity is 0.9378 lower than mean, so density distribution of DE is skewed to the right compared with mean. Therefore, the kurtosis of DE is large. This implies that the funding of the firms in Hose would like to use only debt financing rather than share issue. Return on equity is 12.66%. The lowest loss of shareholder is -96.97% and the highest profitability of shareholder is 92.78%. The standard deviation of ROE is 15.77%, so the volatility of ROE based on the principle standard distribution $\pm 1\sigma$ is from -3.11% to 28.43%. The distribution of ROE is skewed to the left, so the probability of ROE is positive. This implies that the use of equity financing is effective. Ability to pay average short debts is 223.90 times so the firms ensure ability of expensive interest liquidity from external financing. Average earning per share (EPS) annual is 2840 VND. The value maximum is 23243 VND, the lowest loss shareholder is -30842 VND. Cash flow ratios show that the ability to pay short debt is 2.9429 times. This implies that net cash flow from businesses ensures liquidity short debts

Correlation matrix

The correlation between stock returns and capital structure is -0.1488. Because p-value is 0.0001 lower than 0.05 so there is an existence negative relationship but it is not too closely. Financial performance has a positive relationship with stock returns:

The correlation between return on equity and stock returns is 0.4007, so there is a positive relationship but unclose. Because p-value equals zero, lower than 0.05 so between return on equity and stock return has a positive relationship. The result of relationship between SR and ROE of the firms in HOSE is similar with the findings of Waij Khan and *et al*. (2013) in case of Pakistan Textile Industry. The correlation between EPS and SR are an equal 0.4079 and p-value is lower than 0.05. Therefore, they have a positive relationship but unclose.

Between TIE and CFR have a positive relationship but unclose and they are not significant statistics because p-value of TIE and CFR are greater than 0.05. The relationship of TIE, CFR and SR of the firms in HOSE are not any existence, the result opposites to the findings of Waij Khan and *et at*. (2013). In the couple correlations show that EPS and ROE have the largest relationship, r = 0.7818 but it is still lower than 0.8, so there are not any multicollinearity among them because p-value is lower than 0.05, so they have a positive existence relationship and close together.

Table 3.2 Correlation matrix

	sr	de	roe	eps	cfr	tie
sr	1					
de	-0.1488 (0.0001)	1				
roe	0.4007 (0.0000)	-0.1527 (0.0001)	1			
eps	0.4079 (0.0000)	-0.1527 (0.0000)	0.7818 (0.0000)	1		
cfr	0.055 (0.1550)	-0.0272 (0.4740)	0.0589 (0.1217)	0.0610 (0.1086)	1	
tie	0.0668 (0.0945)	-0.0613 (0.1191)	0.1165 (0.0030)	0.1002 (0.0106)	0.0240 (0.5423)	1

RESULTS AND DISCUSSION

Regression result based on OLS methods and test model, the paper "The impact of capital structure and stock returns of the firms in HOSE" has some achievement as followed:

Firstly, the paper answers research question 1, both stock returns and capital structure, financial performance have a positive relationship. The p-value is lower than 0.05, so both of capital structure and stock return have a negative relationship. When the firms increase debt to equity ratios, stock returns will tend to decrease. The p-value of correlation between ROE and EPS with stock return are lower than 0.05, so they have a positive relationship. Correlation between capital structure and financial performance are lower than 0.8, so the model has not any multicollinearity. Secondly, the paper answers research question 2. The coefficient of determination of model is 2.21%, it shows that the explaination of capital structure on stock return is very low. When capital structure (D/E) increases 1%, stock returns will decrease in the range of 8.03% to 14.88%. Capital structure has a negative impact on stock returns. The findings have an opposite to the findings of Bhandari (1998), Anisa Ika Hanani (2011), and Waij Khan and *et al*. (2013). Thirdly, the paper answers research question 3. The changes of financial performance explain 18.73% on stock returns. ROE has a positive impact on stock returns. When ROE increases 1%, SR will increase in the range of 20.38% to 20.53%. The findings are similar with the findings of Dwi

Martani and *et al*. (2009), Anisa Ika Hanani (2011), Amir Haghiri and Soleyman Haghiri (2012), Waij Khan and *et al*. (2013). EPS has a positively impact on stock returns.

Dependent variable: Stock return

Models	(1)	(2)	(3)
cons	0.10462***	-0.10717***	-0.06130
	(0.02449)	(0.01837)	(0.02783)
de	-0.06550***		-0.08031
	(0.01681)		(0.01602)
roe		0.20527***	0.20376
		(0.14484)	(0.14440)
eps		0.24740***	0.23546
		(0.0000)	(0.0000)
cfr	0.02597	0.02465	
	(0.0048)	(0.0047)	
tie	0.01616	0.01264	
	(0.0000)	(0.0000)	
Observations	673	624	624
F	15.19	35.65	29.66
Prov > F	0.0001	0.0000	0.0000
R-squared	0.0221	0.1873	0.1935

Notes: Standard errors in parentheses
* significant at 10%
** significant at 5%
*** significant at 1%

When EPS increases 1 VND, average sotck returns will increase in the range of 23.55% to 24.74% of the firms in HOSE. The results are similar with the findings of Anisa Ika Hanani (2011), Safdar Hussain Tahir and *et al*. (2013), Nurgül Chambers and Funda H. Sezgin (2013), Waij Khan and *et al*. (2013). Besides both capital structure and financial performance, there are factors that impact to stock returns of the firms in HOSE. Through test Reset of Ramsey indicates that the model is omitted variables.

Based on the regression result and test the significance of coefficient compared with 0.05. The authors give conclusions by following hypotheses:

The paper rejects hypothese H_1 that implies capital structure has a negative impact on stock returns.

The paper accepts hypothese H_2 that presents return on equity has a positive impact on stock returns.

The paper accepts hypothese H_3 that implies EPS has a positive influence on stock returns.

The paper rejects hypothese H_4, H_5 that show TIE and CFR are not any significant statistics.

Sum up, based on the findings, the authors see factors to impact on stock returns of the firms in Hose from 2010 to 2013. Capital structure and financial performance have influence on stock returns. The strong impacts are earning per share, return on equity and capital structure. The findings applies to the firms in HOSE are quite similar with the results of experimental research of (Waij Khan and *et al*. 2013). The only difference is the opposite of capital structure to stock returns. Both of TIE and CFR are not any significant statistics with stock returns.

REFERENCES

Bevan and Danbolt, J. 2002. Capital structure and its determinants in the United Kingdom – a decompositional analysis. *Applied Financial Economics,*

Eugene F. Fama and Kenneth R. French, 1993. Common risk factors in the returns on stocks and bonds, *Journal of Financial Economics,* 33 (1993) 3-56 North Holland.

Rataporn. D, Krishna. P, and Gioia, P. 2004. The Determinants of Capital Structure: Evidence from the Asia Pacific Region, *Journal of Multinational financial management,* 14(4-5). P (387-405)

Safdar Hussain Tahir and *et al*. 2013. impact of firm's characteristics on stock return: a case of non-financial listed companies in Pakistan, Asian Economic and Financial Review, 2013, 3(1):51-61.

Wajid Khan, 2013. The Impact of Capital Structure and Financial Performance on Stock Return "A case of Pakistan Textile Industry" *Middle-East Journal of Scientific Research*, 16 (2): 289-295.

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