

The Relationship between EPS and CFO with Return on Shares in Companies Listed in Tehran Stock Exchange

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Abstract

The present study was designed to gather evidence about the relationship between earnings per share and cash flow from operating activities and current return on shares in listed companies in Tehran. A multiple linear regression was used to test the relation between earnings per share and operating cash flow and the rate of return on equity. Also four hypotheses for this study were provided. Statistical sample of study consists of 50 participates in a period of time 5 years from 2010 to 2013. The findings indicated that the first hypothesis is confirmed. It means there is a positive significant relationship between earnings per share and return on equity. Also about third hypothesis that examines the relationship between earnings per share and current return on equity, the result showed there is significant positive relationship between these two variables. But the results of research showed that there is not

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significant relationship between operational cash flow for each share and the current return and total shares.

Key words: Earnings Per Share, Cash Flow From Operating Activities, Return On Shares

Introduction

Investors' objective in the investment is to maximize profits and ultimately the wealth. The investment under uncertainty is the most important components of financial management professionals that have long attracted the attention. Investors consider many factors when decide to invest. But according to many financial management experts, risk and efficiency are two important factors that affect the investment decision. On the other hand, all investment decisions are made based on the relationship between risk and return. Therefore, understanding the factors that increase efficiency and reduce their risk has very great importance. Always one of the concerns in financial markets such as stocks was stock returns and this subject that the efficiency with which data elements is related. Some of the variables affecting the stock return due to the financial information prepared by the accounting system. The most important measures in the field of investment are the best resource allocation. Investors are always seeking maximum efficiency. On the other hand, the investors are tended to the maximum return using financial resources at their disposal. Due to this subject that predicting stock returns is one of the most important issues for investors in capital markets, the varieties that can assist investors in this area, were important and can provide useful and relevant information for investors (Foroghi & Hamidian, 2011).

Theoretical Issues

Stock returns are the most important measures of financial performance and evaluating the performance of business units, which alone would have been content to investors and significantly influence their decisions.

Per share dividend that is total revenues from investment, is major component of stock returns and highly regarded by investors, financial analysts and other users and represents the amount of cash or non-cash distribution of company between the shareholders. Dividend per share including factors affecting investment operational practice which investors doing their investment based on forecast it during the next period. Furthermore, earnings related to dividend between the investors and shareholders can have implications in determining the value of the company (Kanseler et al., 2012). Since these criteria used for evaluating the firm performance and directly involved in investment operations, Identification of the variables affecting these variable in order to predict future dividend per share is very important. In this study we compare the relative strength of the operating cash flow and earnings per share for dividend forecasting in firms listed in Tehran Stock Exchange.

Kanseler et al (2012) argue that it is expected that cash flows of the company can better measure Earnings per share than the dividend per share. Because cash flow is less susceptible to changes in accounting and has less ability to false and unrealistic change. But earnings per share which calculated by the sum of net income, is more in subject to accounting changes and management trends, that could provide misleading information for investors and users of

financial statements. Therefore, it may be sufficient reason that using the operating cash flow is a better measure for predicting per share earnings. Therefore, the users of financial statements can examine and evaluate the company's financial flexibility and liquidity based on information about assets in cash and can use this information in their decisions.

Research Background

Chan et al. (2004) investigated the relationship between accruals (the difference between earnings and cash flow) and future stock returns and showed stock returns are reduced in firms with high accruals in the period after reporting the financial information. One interpretation of these results is that companies with low earnings quality (ie companies that have high accruals) in the period after reporting earnings, loss of efficiency. Because the investors realize the company has low earnings quality and adjust the stock price accordingly.

Mei (2008) review the abnormal operating cash flow and return on equity. The results showed that the unique unusual cash flow items cause a significant increase in the ability of predict future cash flows.

David et al. (2009) examined the relationship between accruals, cash flow and the return on equity. Accruals are positively related to stock returns and negatively related to predictions cash flows. Furthermore, innovations in accruals are negatively associated with efficiency and innovation in the cash flows has a significant positive correlation with efficiency. These findings suggest that innovation in accruals and cash flows includes information on changes in the discount rate, or earnings management in response to widespread market value of money.

Yoriosis et al. (2011) study the relationship between accruals and stock return performance looking for financing activities. In this paper, they investigate the relationship between abnormal accruals with anomaly external finance, separately on working capital accruals and long term accruals. They found that yields of external finance and securities financing are extraordinary. In the analysis of the portfolio in cross-sectional regression in the level firm indicates that the ability to external financing in predicting future returns remain after controlling working capital accruals and becomes ineffective. However, this ability substantially reduced after controlling long-term accruals.

Khajavi and Nazemi (2006) examined the relationship between earnings quality and stock returns with emphasis on the role of accruals. Based on the research findings, the average stock returns are not affected by accruals and related components.

Babajani and Azimiyan Cheshmeh (2012) examined the effect of accrual reliability on stock returns. The study consists of companies listed in Tehran Stock Exchange in the period 2002 to 2009 that it has been selected sample of 141 companies. The findings show there is no strongly negative relationship between those of the current period income accruals which have lower reliability and return on equity in future.

Dastgir and Rastegar (2012) examined the relationship between earnings quality (stable income), the size of accruals and stock returns with accruals quality. In this study, the relationship between earnings quality (stability of earnings) and stock return with accrual quality is investigated. Thus, 95 companies between listed firms in Tehran Stock Exchange during the period of 2000-2008 were examined. The results show that the quality of earnings

(income stability) is directly related to the quality of accruals; while the return on stock increases with reducing the quality of accruals and increasing in the size of accruals.

Research Hypotheses

The following hypotheses were formulated based on the theoretical basic and background of the study:

1. There is a significant relationship between earnings per share and return on the stock.
2. There is a significant relationship between cash flow from operating activities of earnings per share and return on the stock.
3. There is a significant relationship between earnings per share with stock's current income.
4. There is a significant relationship between cash flow from operating activities of earnings per share and the current return on the stock.

Population and Sampling Method

The population used in this study is all of the companies listed in Tehran Stock Exchange. 50 companies during the years 2010 to 2014 are selected using random sampling.

Method of Research

This study is part of Applied Research. The needed information are collected using Rahavard Novin database, CDs published by the Tehran Stock Exchange and review of financial statements and accompanying notes, which are available on the site www.rdis.ir during the years of 2010 to 2014 and have been collected Using Excel software in the form of data files. Then variables were calculated to test the research hypotheses using the model.

The Research Model

1. $R_{it} = \alpha + \beta E_i + Sg_{it} + Size_{it} + Lev_{it} + CEV_{it}$
2. $R_{it} = \alpha + \beta CFO_{it} + SG_{it} + Size_{it} + Lev_{it} + CEV_{it}$
3. $RC_{it} = \alpha + \beta E_{it} + SG_{it} + Size_{it} + Lev_{it} + CEV_{it}$
4. $RC_{it} = \alpha + \beta CFO_{it} + SG_{it} + Size_{it} + Lev_{it} + CEV_{it}$

Research Variables

Independent Variables

R_{it}: total return that is net income divided by the total number of shareholders

Rc_{it}: the current total return that is net income divided by (total number of shareholders - the number of major shareholders).

Dependent Variables

EPS: Earnings per share = $\frac{\{(Earnings\ before\ interest\ and\ taxes - interest) (1-t) - Preferred\ shareholders\ dividends\}}{Number\ of\ shareholders}$

CFO: Cash flow from operating activities for earnings per share that is calculated by net cash flows from operating activities reported in the statement of cash flows divided by weighted average of number ordinary shares during the period.

Control Variables

SG: Sale grow $\{(Current\ sale -\ sale\ of\ before\ year) / sale\ of\ before\ year\} * 100$

Size: Natural logarithm of assets

Lev: Corporate debt divided by total assets

CEV: Change in capital spending

$CEV_t = (CE_t / VALUE_t) * 100$

CE_t: Capital expenditures in year t that is obtained from changes in fixed assets between year t and t-1

VALUE_t: The market value of equity plus the book value of long-term debt in year t

The Result of Hypotheses Testing

The First Hypothesis

As we see in Table A. The results of the first hypothesis states there is important and significant relationship between earnings per share and return on equity. According to the coefficient of determination, 96% of the variability in the dependent variable is coated by independent variable. Since the return on stock is caused by two factors: prices and dividends, such results are expected ago. On the other hand company's sales growth is also considered one of the factors affecting stock returns which is a significant positive relationship. No significant association was found for the other variables.

Table A:

Dependent Variable: RI
 Method: Panel Least Squares
 Date: 02/27/15 Time: 13:21
 Sample: 1388 1392
 Periods included: 5
 Cross-sections included: 50
 Total panel (balanced) observations: 250

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EI	0.862770	0.029261	29.48552	0.0000
SG	1.306570	0.635275	2.056699	0.0411
SIZE	147.4741	80.58700	1.829998	0.0688
LEV	63.64300	139.5066	0.456201	0.6488
CEV	-0.750841	0.985424	-0.761947	0.4470
C	-2019.038	1121.321	-1.800590	0.0733

Effects Specification

Cross-section fixed (dummy variables)
 Period fixed (dummy variables)

R-squared	0.969429	Mean dependent var	815.8400
Adjusted R-squared	0.960145	S.D. dependent var	1061.915
S.E. of regression	211.9972	Akaike info criterion	13.75384
Sum squared resid	8584077.	Schwarz criterion	14.58490
Log likelihood	-1660.229	Hannan-Quinn criter.	14.08831
F-statistic	104.4254	Durbin-Watson stat	1.493554
Prob(F-statistic)	0.000000		

The Second Hypothesis

As we see in Table B, in the second hypothesis the results show a significant relationship between operating cash flow and return on equity. In this hypothesis also a positive and significant relationship was achieved between sales growth and return on equity. So, with the increase in sales growth, the stock returns increase and a negative significant relationship exists between financial leverage and stock returns. Other variables have no relationship.

Table B:

Dependent Variable: RI
Method: Panel Least Squares
Date: 02/27/15 Time: 13:21
Sample: 1388 1392
Periods included: 5
Cross-sections included: 50
Total panel (balanced) observations: 250

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CFO	102.6575	363.3597	0.282523	0.7778
SG	9.558810	1.343788	7.113329	0.0000
SIZE	203.3181	195.9016	1.037858	0.3006
LEV	-661.3626	323.8295	-2.042317	0.0425
CEV	-1.155617	2.322557	-0.497562	0.6194
C	-1735.410	2740.614	-0.633219	0.5273

Effects Specification

Cross-section fixed (dummy variables)			
Period fixed (dummy variables)			
R-squared	0.830344	Mean dependent var	815.8400
Adjusted R-squared	0.778826	S.D. dependent var	1061.915
S.E. of regression	499.4094	Akaike info criterion	15.46754
Sum squared resid	47637267	Schwarz criterion	16.29861
Log likelihood	-1874.443	Hannan-Quinn criter.	15.80202

F-statistic	16.11741	Durbin-Watson stat	1.581564
Prob(F-statistic)	0.000000		

The Third Hypothesis

As we see in Table C. the results of the third hypothesis suggests that there is the importance relationship between earnings per share and current return on equity. According to the coefficient of determination, 86% of the variability in the dependent variable is coated by independent variable which is less than first hypothesis. Since, the current return on stock consists of two factors: price and dividend, the result of such as pre-expected results.

Table C:

Dependent Variable: RCI				
Method: Panel Least Squares				
Date: 02/27/15 Time: 13:22				
Sample: 1388 1392				
Periods included: 5				
Cross-sections included: 50				
Total panel (balanced) observations: 250				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EI	2.547175	0.193383	13.17169	0.0000
SG	-0.400805	4.198487	-0.095464	0.9240
SIZE	350.9967	532.5936	0.659033	0.5107
LEV	65.30135	921.9892	0.070827	0.9436
CEV	2.499092	6.512599	0.383732	0.7016
C	-4900.066	7410.726	-0.661213	0.5093
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.869408	Mean dependent var	2157.964	
Adjusted R-squared	0.829752	S.D. dependent var	3395.625	
S.E. of regression	1401.074	Akaike info criterion	17.53068	
Sum squared resid	3.75E+08	Schwarz criterion	18.36174	
Log likelihood	-2132.335	Hannan-Quinn criter.	17.86516	
F-statistic	21.92361	Durbin-Watson stat	1.286927	
Prob(F-statistic)	0.000000			

The Forth Hypothesis

In the fourth hypothesis as same as the second hypothesis the results show a significant relationship between operating cash flow and current return on equity. In this hypothesis also a positive significant relationship between sales growth and return on equity was achieved. This result suggests the increase in sales growth increase stock returns. In this hypothesis, the coefficient of determination (75%) showed relatively strong coverage by the independent variable is the dependent variable changes.

Dependent Variable: RCI
 Method: Panel Least Squares
 Date: 02/27/15 Time: 13:23
 Sample: 1388 1392
 Periods included: 5
 Cross-sections included: 50
 Total panel (balanced) observations: 250

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CFO	-1016.110	1406.296	-0.722543	0.4708
SG	23.89912	5.200807	4.595271	0.0000
SIZE	339.9106	758.1895	0.448319	0.6544
LEV	-2133.479	1253.304	-1.702285	0.0903
CEV	1.010429	8.988893	0.112409	0.9106
C	-1407.714	10606.88	-0.132717	0.8946

Effects Specification

Cross-section fixed (dummy variables)
 Period fixed (dummy variables)

R-squared	0.751465	Mean dependent var	2157.964
Adjusted R-squared	0.675994	S.D. dependent var	3395.625
S.E. of regression	1932.843	Akaike info criterion	18.17418
Sum squared resid	7.14E+08	Schwarz criterion	19.00525
Log likelihood	-2212.773	Hannan-Quinn criter.	18.50866
F-statistic	9.956953	Durbin-Watson stat	1.442946
Prob(F-statistic)	0.000000		

Limitations

Since the financial statements report historical value and generally these values have major differences with the current values, therefore, this research has been limited.

Recommendations

Due to the irrelevance of financial statements information which historical cost with its current value analysis make difficult in financial leverage and the growth of fixed assets, Hence, it is recommended, companies are encouraged to provide relevant data on the current value with the use of incentive policies.

References

Babajani, j. And Azimiyan Cheshmeh, M. (2013). The reliability of accruals on stock returns, *Journal of Financial Accounting*, 2 (12), 100-83.

Conslar, J. and Greg, M. L. and Havranek, S. F. (2012). Earnings per Share versus Cash Flow per Share as Predictor of Dividends per Share. *Managerial Finance*. 37(5). 482-488.

Dastgir, M. And Rastegar, M. (2012). Investigating the relationship between earnings quality (stable income), size of accruals and stock returns with accruals quality. *Journal of Financial Accounting*. 3(1). 1-20.

David , H and Kewei , H ; and Siew , H.T (2009) . Accruals, cash flows, and aggregate stock returns. *Journal of Financial Economics*. 91(3). 389-406.

Foroughi, D and Hamidian N. (2011). The oretical relation between accruals and stock returns. *Journal of Economics, Accounting and Financial Management*. 25(5). 194-177.

Georgios, P; and Dimitrios, Th; and Tao, W (2011). Accruals and the performance of stock returns following external financing activities. *The British Accounting Review*. 43(1).214-229.

Ghosh, A.Gu and Jain, P. (2010). Sustained earnings and revenue growth, earnings quality, and earning response coefficients. From <http://www.ssrn.com>.

Hosseini, GH A. (2013). *The relationship between market returns, oil prices, exchange rates and interest rates and stock returns for each industry separately In the Tehran Stock Exchange*. Accounting Master's thesis. University of Sistan and Baluchestan.

Khajavi, Sh, Nazemi, A. (2006). Investigation the relationship between earning quality and return on stock in companies listed on the Tehran stock exchange. *Evaluation of accounting and auditing*. 5(40). 24-32.

Mei, L. (2008). Unusual operating cash flows and stock returns. *Account, Public Policy*. 27(3). 420-429

Nissim, D. and Ziv, A. (2001). Dividend Changes and Future Profitability. *Journal of Finance*. 56(6). 2111-2133.

Safari, M. (2011). Statistics and its application in management. *Printing, Publishing Dana-Tehran*. 5(2). 13.