

## The Relationship of Return with Free Cash Flow and Earning Before and After Restatement of Financial Statements; Case Study

**Mohammad Reza Abdoli<sup>1\*</sup> and Hamid reza Nazemi<sup>2</sup>**

<sup>1</sup>. Assistant professor of Accounting; Shahroud Azad University  
<sup>2</sup>. MS student of Accounting; Shahroud Azad University

\* Corresponding author's Email: Mra830@yahoo.com

**ABSTRACT:** This research evaluated the relationship of return with Free Cash Flow (FCF) and earning before and after restatement of financial statements. Stock return was used as the study's dependent variable while Free cash flow per share (FCFPS) and earning per share (EPS) were used as independent variables. A series of data collected from the financial statements of 150 companies listed in Tehran stock exchange between 2008 to 2012 was used as the study's data collection. According to the obtained results, before restated financial statements, there is a positive and a negative relationship between EPS and dependent variable and FCFPS and dependent variable, respectively. The negative relationship, however, is not significant. Following restatement of financial statements, FCFPS and EPS have respectively a negative and a positive impact on companies' return but again the impact is not significant. The overall results indicated that before restatement, investors found their decisions on EPS. After restatement, the explanatory power of information is decreased which in turn results in the decrease of the financial statements' reliability.

**Keywords:** Restatement of Financial Statements, Free Cash Flow, EPS

**ORIGINAL ARTICLE**

Received 21 Dec. 2013  
Accepted 03 Feb. 2014

### INTRODUCTION

According to confirmed accounting principles, the financial statement of prior periods is restated for two reasons: a) applying changes in the original accounting procedure and b) the necessity of correcting accounting errors. Restated financial statements contain new information for the market.

In addition to the effects of procedure change, in most cases annual adjustments indicate significant or basically deviations in prior periods statements. To observe accounting standards, the related correction is not considered in the profit and loss of the prior period report due to its significance. This means that users of these statements found their decisions on false information with a misleading non-systematic origination.

Restated financial statements, in fact, broadcast clear and decisive signals implying that prior periods' statements are not reliable and have a reduced quality. Therefore, following restated financial statements, investors' expectations about future cash flows as well as expected return rate are changed (Xia, 2006). In this research, the effects of EPS and FCFPS on companies' stock return are studied before and after restatement of financial statements.

### Background

In a research with the subject of "developing a pattern for effective factors on restatement of financial statements" Nikbakht and Rafiei (2012), showed that profitability, financial leverage, management tenure, management change, auditor change and auditing

organization size affect the occurrence of the restatement of financial statements.

Dastgir and Sharifi (2011) investigated the relationship between cash flows and stock return. Their results indicated a significant relationship between free cash flows and stock return. However, it was confirmed that free cash flows have higher informative content, compared with operating cash flows, in explaining stock return.

Etretch et al. (2010) compared the intact-fraud less financial statements and concluded that the companies with fraud less restated statements present lower balances compared with those which restate their financial statements due to fraud (Michael, 2010).

Wilson (2008) studied the decline of informative contents of EPS following restatement. According to his results, relative EPS has lower informative content after restatement. Also, the results indicated that the companies which changed their auditor and board of directors' members immediately after restatement, experienced lower decline of informative content.

Maio (2012) studied the long-term relationship of return with profit and EPS. He investigated the indirect relationship between earning due to market return and earnings growth through establishing a limited link with current value. According to the results, it is possible to predict earning growth using the return. In other words, earning growth is predictable by considering the return change (2012).

**Research Hypotheses:** The main object of this study is to survey the relationship of return with EPS

and FCFPS before and after restatement of financial statements. To achieve the object, the two following hypotheses were applied:

**Hypothesis 1:** before restatement of financial statements, return has a significant relationship with FCFPS and EPS.

**Hypothesis 2:** after restatement of financial statements, return has a significant relationship with FCFPS and EPS.

## MATERIALS AND METHODS

This is an applied study in terms of study category and is a descriptive-correlative study in terms of study method. Its main object is to determine the existence, rate and type of relationship between the studied variables using ex post facto approach.

Its population is the companies listed in Tehran stock exchange during 2008 to 2012 which were selected by systematic deletion sampling.

### Study Variables

**Independent Variables:** EPS (Earning per Share): is calculate by dividing earning, after deducting company's tax, to total number of shares.

FCF (Free Cash Flows): is operating cash flow (net profit plus fixed tangible and intangible assets depreciation expense) minus capital expenditures minus dividend.

Capital expenditures: is the increase of fixed assets which is derived from balance sheet.

Dividend: is derived by dividing the approved earning to total number of shares

According to Bukit et al. (2009), earning is more manipulated in the companies with higher rates of free cash flows.

**Dependent Variables:** Return: is the total set of advantages which is allocated to the shares within one year (Esmaeili, 2006; Mollahoseini, 2008).

### Research Model:

$$\text{Ret} = a + b_1 \text{EPS} + b_2 \text{FCFPS} + \epsilon$$

Where: EPS: Earning per Share, FCFPS: Free Cash Flow per Share.

## RESULTS

**Hypothesis 1:** Before restated financial statements, return has a significant relationship with FCFPS and EPS. According to the table of variance analysis of regression model (Fig. 1), F-statistics is significant at an error level of 5% (sig. =0.044). Therefore, the linearity of the research regression model is confirmed with a reliability of 95%. This means that before restated financial statements, the variables of FCFPS and EPS are very powerful in explaining companies' return. To determine that whether the coefficients of the statistical assumptions are significant, the following hypotheses are examined:

Before restated financial statements, FCFPS and EPS have not significant impact on companies' return

$$H_0: \beta = 0$$

Before restated financial statements, FCFPS and EPS have significant impact on companies' return

$$H_1: \beta \neq 0$$

In the regression coefficients table(Fig. 2), the significance level of EPS regression coefficient is 0.000 which is below 5% (sig. =0.013) and it is significant. Therefore,  $H_0$  is rejected and  $H_1$  is accepted while FCFPS coefficient (-7.097) is not significant in an error level of 5%.

However, the normalized coefficients of the model's variables (Fig. 2) show that before restated financial statements, EPS variable (0.244) has a significant positive impact on companies' return while FCFPS variable (-0.026) has a negative impact on it which is not significant.

**Hypothesis 2:** Before restated financial statements, return has a significant relationship with EPS & FCFPS.

According to the table of variance analysis of the regression model (Fig. 1), F-statistics is not significant at an error level of 5% (sig. =0.505). Therefore, the linearity of the research regression model is rejected. This means that before restated financial statements, the variables of FCFPS and EPS are not powerful in explaining companies' return.

To determine that whether the coefficients of the statistical assumptions are significant, the following hypotheses are examined:

Before restated financial statements, FCFPS and EPS have not significant impact on companies' return

$$H_0: \beta = 0$$

Before restated financial statements, FCFPS and EPS have significant impact on companies' return

$$H_1: \beta \neq 0$$

In the regression coefficients table (Fig. 2), the regression coefficients of EPS (0.00005) and FCFPS (-0.534) are not significant in the sig. level of 5% (sig.>0.05). Therefore,  $H_0$  is accepted and  $H_1$  is rejected. This means that after restated financial statements, EPS and FCFPS have not significant impact on companies' return.

However, the normalized coefficients of the model's variables (Fig. 2) show that before restated financial statements, EPS variable (0.108) and FCFPS variable (-0.029) have a positive and a negative impact on companies' return, respectively but the impact is not significant. It should be mentione, however, that companies' return is affected as much as the obtained coefficients.

**Table1.** Model Summary and Regression statistics

Model	Definition factor	correlation factor	F-data	Sig. level	Durbin-Watson
<b>Model 1</b>	0.059	0.243 <sup>a</sup>	3.210	0.044 <sup>a</sup>	1.875
<b>Model 2</b>	0.013	0.115 <sup>a</sup>	0.687	0.505 <sup>a</sup>	2.038

**Table 2.** Coefficients

Model	Variable	B factor	β factor	t- statistics	sig. level
<b>1</b>	Pre restatement EPS	0.000	0.244	2.534	0.013
<b>2</b>	Post restatement EPS	0.00005	0.108	1.094	0.277
<b>3</b>	pre restatement FCF	-7.097	-0.026	-0.0269	0.788
<b>4</b>	post restatement FCF	-0.534	-0.029	-0.0298	0.767

## DISCUSSION

The examination of the first hypothesis showed that before restated financial statements, EPS has a significant positive impact on companies' return while FCFPS has a negative impact which is not significant. This means that due to its higher levels of reliability and explanatory power investors and decision makers consider pre restatement EPS as a base for their investment decisions. The results of this hypothesis agree with those obtained by Shahmoradi(2002), Ahmadi et al. (2009).

On the other hand, the results of the second hypothesis indicate the decline of the explanatory power of information. In fact, this implies an inverse relationship between the dependant variables following restatement of financial statements. The only difference is the higher intensity of the impact on EPS.

The results of this study summarize that before restated financial statements, the relationship between return and EPS is strong while following restated financial statements it goes weak. This means that the market considers EPS as an invalid measure for companies' economic efficiency. However, negative anticipation of financial-accounting systems is another cause of restatement. This agrees with the results of Shough and Tuwa (Shough, 2007).

## REFERENCES

- Ahmadi, M. & Aghalatifi, S. (2008). "An investigation into the impact of operating cash flow and net profit on stock return of the companies listed in Tehran stock exchange using panel data model". Quantitative studies in management, quarterly periodical
- Bukit, R. & Iskandar, T. (2009). Surplus free cash flow, earnings management and audit committee. Journal of Economics and Management, 3(1): 204-223.
- Dastgir, M. & Sharifi, M. (2011). "Relationship between cash flows and stock return"; Auditor journal; No. 52.
- Esmaeili, Sh. (2006). "Relationship between EPS quality and shares"; M.S thesis, University of Allameh Tabatabaei

Maio, P (2012)." The long-run relation between returns, earnings, and dividends ". Electronic copy available at: <http://ssrn.com/abstract=2170079>.

Maio, P. (2012)." The long-run relation between returns, earnings, and dividends ". Electronic copy available at: <http://ssrn.com/abstract=2170079>

Michael, E., scholz, s. & Smith, k.R. (2010)."How do restatements begin? Evidence of earnings management preceding restated financial reports" journal of business finance accounting.

Mollahoseini, A., Ghorbannezhad, K. (2008). "An investigation into the relationship between free float share and stock return rate of the companies listed in Tehran stock exchange", accounting and auditing surveys; period. 15; No.2

Nikbakht, M. & Rafiee. A. (2012). "Development of a pattern for effective factors on restatement of financial statements". Accounting knowledge.

Shahmoradi, M. (2002). "Relationship between accounting earnings and stock return"; M.S thesis of Accounting, Tehran University

Shough, E. & Tao, A. (2007). The Relationship of Returns to Earnings and Cash Flows Before and After Restatement.

Technical Committee of Auditing Organization, accounting and auditing Principles (2007); "Accounting Standards"; Auditing Organizatoin, Journal No. 160

Wilson, W.M. (2008). "An Empirical Analysis of the Decline in the Information Content of Earnings Following Restatements". The Accounting Review, Vol. 83, No. 2

Xia, W. (2006). "Accounting Restatements: A Comparison between China and USA". Journal of Modern Accounting and Auditing, Vol. 2, No. 10.