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CASH COMPONENTS OF PROFITS TO CONTINUE PROFIT AND STOCK RETURNS

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ABSTRACT

The main objective of the present study is to examine the evidences related to cash components of profit for continuing profit and stock returns in companies listed in Tehran Stock Exchange. This is an applied study and is a descriptive-correlation research type. The research population consists of Tehran Stock Exchange companies. According to the time range and data availability, 108 banks were selected as the sample. The method is a collection of library information, so that information from the bank's financial statements for the years 2010-2016 has been used. The data analysis method is multivariate regression and the research data are analyzed with the panel approach. The results of the study in line with the objectives of the research indicate that the cash components of the profit are suitable for the continuation of profit and stock returns in the companies listed on the Tehran Stock Exchange and these components can appropriately maintain the profit and return of the stock. In general, the present study showed that cash components act more appropriately than accruals components in demonstrating profit continuity. Therefore, in order to sustain profitability, cash components should be considered and its data to be used.

Keywords: *Cash Components of Profit, Components of Profit Accruals, Profit Continuity, Returns.*

INTRODUCTION

A shareholder always seeks to maximize his wealth, which makes up wealth in the stock market from two major components of profit and share price changes. That is, the sum of these two variables is called stock returns. The change in the company's returns and profits depends on several factors (Park, 2014). One of the main factors in this regard is the continuity of profitability and the company's efficient activities. Because if a company can continue to profit, it can be viewed as a value-added company that will be traded on a high-value stock market. Continuity in profit and profitability consists of two components of cash and accrual components. Therefore, the present study, with regard to cash components of profit, seeks to evaluate the continuity of profit and returns of the company (Bakhshayesh, 2016).

The purpose of financial reporting is to provide information that is useful for current decisions. Considering the emphasis on the usefulness of the decision, the financial reporting quality is of interest to those who use financial reports for contractual purposes and investment decisions. The quality of profit is one of the factors of the quality of financial reporting. There are several structures that attempt to reflect the quality of profit in accounting research (Jenkins, 2014). The structures used to evaluate the earnings quality use the properties of the time series of profit, i.e., earnings persistence. Earnings persistence is one of the qualitative features of accounting

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profit that is based on accounting information and helps investors in evaluating future earnings and cash flows of a company. In addition to the fact that reported earnings figure is important to investors and affects their decisions, earnings persistence as one of the qualitative characteristics of earnings is of interest to investors, and investors do not pay attention to the amount of accounting profit in estimating future earnings and expected cash flows, and the sustainable part of the sector will pay more attention to the unsustainable part. In fact, they pay more attention to the components that make up the final profit figure (Mirzadeh, 2014). Therefore, investment decisions will depend on the earnings persistence in the future periods (Massoudi, 2015). The persistence of the reported earnings has been theoretically and empirically shown in terms of the reaction rate of investors to reported profits. Sustainable earnings are considered permanent from the perspective of investors and can be used with greater reliance by them (Hemmati, 2014).

Richardson and Sloan (2008) defined earnings persistence as the current period earnings regression coefficient on the earnings of the previous period. Laippe (1987) defines persistence, regardless of the amount and innovation of profits based on self-solidarity in profit, and states that persistence is the rate of innovation of the current period, which is a permanent section of the profit series.

Lev (1983) provides evidence that earnings persistence is affected by the type of product, the degree of competition, the volume of capital, and the size of the company. Lev suggests that the intensity of competition is influenced by the persistence of corporate accounting returns rate. Non-competitive industries and highly competitive industries have relatively stable rate of return. Therefore, the industry concentration ratio should have a positive effect on earnings persistence. Cheng (2000) suggests that small companies in the concentrated industries are not able to maintain the rate of return, because they usually lack the economies on the scale of mass production. Cheng argued that the market share and size of the company had a positive relationship with earnings persistence. Lev (1983) showed that they had a more stable profit with large size. Lev (1983) argued that companies that are heavily capitalized are large enough to be more profitable by operating leverage. Therefore, profitability volatility is positively correlated with the intensity of the capitalization of the industry.

Penman (2002) used an analysis of financial statements to evaluate the earnings persistence. He showed that the estimation of earnings persistence can be improved by differentiating the change in return on net operating assets (RNOA) to profit margin (PM) and asset turnover (ATO).

Penman (2002) provided two interpretations for change in profit margin: 1) the higher profit margin indicates that lower costs are likely to be sustainable, and therefore higher profitability is more sustainable. (2) The higher profit margin shows the abnormal operating costs and volatility that cannot be justified by sales growth, so higher profitability cannot be durable.

There are also two interpretations for changing asset turnover. 1) A higher asset turnover indicates that the ability to make a sale is stable for a certain investment, hence higher profitability is more durable. (2) A higher asset turnover indicates an abnormal and unsustainable growth in sales that is not justified by asset growth, hence high profitability is not durable. Therefore, according to the presented contents, the main purpose of this study is to investigate the continuity of profit and return with regard to cash components of profit.

RESEARCH METHODOLOGY

This is an applied research in terms of objective, because its results are applicable to stock market decisions and can be used by different groups, particularly shareholders and investors, and other stock market participants. The research methodology is descriptive of the type of regression, because the purpose of this study is to investigate the relationships that have been analyzed using regression model and statistical tests have been conducted to evaluate the hypotheses. It is also an ex post facto research with a focus on historical data, because data is gathered by looking at the past. The study population consisted of all public stock companies listed on the Stock Exchange. The reason for the selection of Tehran Stock Exchange is that the legal requirements for these companies make company's public offering of information on a regular basis and with acceptable quality. The statistical sample is selected using elimination method and taking into account the spatial and temporal scopes. For this purpose, the sample of this study is the companies listed on the stock exchange which have the following conditions:

1. The end of the financial year will end in March.
2. Company in the research period has not changed the financial year.
3. The company's financial information will be available annually from 2010 to 2016.
4. Research is carried out for non-financial companies. Therefore, banks and all investment companies, leasing, holdings, and financial institutions were excluded from the sample. Thus, all the remaining companies to analyze will be 108 companies.

The library method was used to collect information about theoretical foundations and research literature, and by referring to books, articles and theses, the necessary information was gathered for this section. To collect financial information, the data and figures available in the Tehran Stock Exchange were used by document mining method. Therefore, the required information was extracted from the financial reporting published by the companies, the Tehran Stock Exchange's official website, as well as the RAHAVARD NOVIN database software.

In this study, using Excel software, we initially gathered data and then we used EViews software for analysis. After data extraction and transfer to statistical software, descriptive and inferential statistics were analyzed. The statistical method of this research is multi-variable regression of mixed data. Descriptive statistics of data for each variable are provided through dispersion and distribution along with frequency distribution tables. The Jarquerra statistics were used to examine the normality of the data and the Durbin-Watson statistic used to examine the inconsistency of the error terms. The combined data analysis method was then used to estimate the multivariate regression model. The F-Limer statistic has been used to examine the suitability of the panel or pooled pattern of regression model and the chi-square to examine the method of fixed or random effects were used. Also, Fisher's statistics to determine the significance of the regression model, and t-student statistics to examine the significance of the coefficients of independent variables in each model have been used.

RESEARCH FINDINGS

The aim of this study is to examine the evidences related to cash components of profit for the continuation of profit and stock return in companies admitted to the Tehran Stock Exchange. To this end, three hypotheses were developed to examine this issue as follows. The investigation of them will be discussed through the following models.

$$NI_{t+1} = \rho_0 + \rho_1(NI_t - FCF_t) + \rho_2 FCF_t + \nu_{t+1}$$

$$NI_{t+1} = \gamma_0 + \gamma_1 NI_t + \gamma_2 \Delta CASH_t + \gamma_3 DIST\text{-}D + \gamma_4 DIST\text{-}E + \nu_{t+1}$$

$$NI_{t+1} = \gamma_0 + \gamma_1 NI_t + \gamma_2 FCF_t + \nu_{t+1}$$

Before estimating the models, the estimation method should be determined to be conducted through diagnostic tests. Their results are presented below.
Before estimating the model, the F-Limer test was used to examine the use of panel data in comparison with the pooled data method. The hypotheses of this test are as follows:

H_0: Pooled data
H_1: Panel data

The results of this test are displayed in table (1).

Table 1: F-Limer Test

Model	F statistic	Probability Level	Accepted Method
First Model	5.16	0.000	Panel data
Second Model	7.31	0.000	Panel data
Third Model	29.8	0.000	Panel data

As shown in table. 1, the results for all three models indicate a rejection of the H0 hypothesis. As a result, the panel data method is accepted and Hausman's test to be also performed. It should be noted that the hypotheses of this test are as follows:

H_0: Panel data with random effects
H_1: Panel data with random effects

Table 2: The results of this test

Model	F statistic	Probability Level	Accepted Method
First Model	29.18	0.000	Fixed effects
Second Model	43.8	0.000	Random effects
Third Model	6.22	0.044	Fixed effects

Considering the results of the Hausman test and the rejection of the H0 hypothesis, the panel data method with fixed effects is used to estimate the first, second and third models. Therefore, the results of estimating these models are presented using panel data method.
Now, using the multivariable regression data, the research models are estimated that can be seen in Table 3, 4 and 5.

Table 3: The results of the first model estimation

Variable	Coefficient	Student T Statistics	Significance
Intercept	0.053	9.20	0.000
Net profit minus free cash flow	0.17	6.43	0.000
Free Cash Flow	0.59	17.46	0.000
Fisher's F statistic (Significance)	47.01 (0.000)		
Coefficient of determination	0.33		
Adjusted coefficient of determination	0.32		
Durbin-Watson statistic	1.77		

Durbin-Watson statistic are used to examine the autocorrelation of the remaining sentences. If the number obtained is between 1.5 and 2.5, then there is a lack of autocorrelation. According to the results, the rate of this statistic is 1.77. Therefore, there is no autocorrelation in the remaining sentences of this regression model.

F Fisher's statistics are used to determine whether the model is significant or not. This statistic at 95% probability level indicates that the research model is significant, because there is an error factor of 0.000, which indicates the significance of whole model.

The coefficient of determination represents the percentage of variation of the dependent variable, which is explained by the independent variables of the model. In this model, the determination coefficient is 0.33. This means that independent variables explain 33% of variations in dependent variables. So in other words, 33% of the variations of earnings persistence can be observed through independent variables.

The purpose of the first hypothesis of this study is to investigate whether the cash flow components of profit are more stable than the components of earnings accrual? Therefore, according to the analysis conducted and the level of significance, the variables of net profit minus free cash flow and free cash flow is equal to (0.000) and (0.000), which indicates the significance of these two variables. Also, due to the fact that the coefficient of free cash flow variable (0.59) and coefficient of variable of net cash flow minus free cash flow (0.17), therefore, because the amount of cash flow coefficient representing cash items is higher than net profit minus the free cash flow, thus it should be stated that the cash flow components of profit are more stable than the components of earnings accrual. And the first hypothesis of the research is not rejected and confirmed. The second hypothesis model is then examined.

Table 4: The results of estimating the second model

Variable	Coefficient	Student T Statistics	Significance
Intercept	0.010	60.1	0.109
Net profit	0.63	18.61	0.000
Change in cash	0.0009	1.04	0.297
Cost of Debt	-0.137	-2.03	0.042
Cash payment to shareholders	0.432	8.591	0.000
Fisher's F statistic (Significance)	146.70 (0.000)		
Coefficient of determination	0.70		
Adjusted coefficient of determination	0.69		
Durbin-Watson statistic	1.66		

Durbin-Watson statistic are used to examine the autocorrelation of the remaining sentences. If the number obtained is between 1.5 and 2.5, then there is a lack of autocorrelation. According to the result, the rate of this statistic is 1.66. Therefore, there is no autocorrelation in the remaining sentences of this regression model.

F Fisher's statistics are used to determine whether the model is significant or not. This statistic at 95% probability level indicates that the research model is significant, because there is an error factor of 0.000, which indicates the significance of whole model.

The coefficient of determination represents the percentage of variation of the dependent variable, which is explained by the independent variables of the model. In this model, the coefficient of determination is 0.70. This means that independent variables explain 70% of the variations of the dependent variable.

The purpose of the study second hypothesis is to evaluate whether the more persistence of the cash components f earnings is mainly due to distribution of cash flow among shareholders? Therefore, according to the analysis conducted and considering the beta coefficient and the probability level of the variable cash payment to shareholders are equal to (0.432) and (0.000), and this coefficient is more than two other variables of cash profit items, i.e. change in cash and debt costs, thus it can be argued that more persistence of cash components of earnings is mainly due to distribution of cash flow among shareholders. So the second hypothesis of the research is confirmed. The third hypothesis of the study is then investigated below.

Table 5: The results of estimating the third model

Variable	Coefficient	Student T Statistics	Significance
Intercept	0.25	4.61	0.000
Net profit	1.52	4.74	0.000
Free Cash Flow	-1.15	-3.29	0.001
Fisher's F statistic (Significance)	27.85 (0.000)		
Coefficient of determination	0.36		
Adjusted coefficient of determination	0.35		
Durbin-Watson statistic	2.12		

Durbin-Watson statistic are used to examine the autocorrelation of the remaining sentences. If the number obtained is between 1.5 and 2.5, then there is a lack of autocorrelation. According to the result, the rate of this statistic is 2.12. Therefore, there is no autocorrelation in the remaining sentences of this regression model.

F Fisher's statistics are used to investigate whether the model is significant or not. This statistic at 95% probability level indicates that the research model is significant, because there is an error factor of 0.000, which indicates the significance of whole model.

The coefficient of determination represents the percentage of variation of the dependent variable, which is explained by the independent variables of the model. In this model, the coefficient of determination is 0.35. This means that independent variables explain 35% of the variations of the dependent variable.

The purpose of the third hypothesis of this study is to investigate whether the expectations of profit from stock prices (returns) are the result of the relative persistence of cash components of earnings. In this regard, given that the two variables of net profit and free cash flow have a significant level (0.000) and (0.001). This amount indicates the significance of these two variables, therefore, it should be stated that the expectations of profit from stock prices (returns) are the result of the relative persistence of cash components of earnings. So the third hypothesis of the research is confirmed.

DISCUSSION & CONCLUSION

The results of the study in line with the objectives of the research show that the cash components of the earnings are suitable for the continuation of profit and stock returns in the companies listed on the Tehran Stock Exchange, and these components can adequately maintain the profit and return of the stock. In general, the present study indicated that cash components act more appropriately than accruals components in demonstrating profit continuity. Therefore, in line with profit continuity, cash components should be considered and their data to be used

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