

Investigate the Relationship between the Accounting Quality and the Structure of Price Fluctuations at the Time of Declaration of Profit

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ABSTRACT

The issue of sudden stock prices in recent years, especially after the 2008 financial crisis, has attracted the attention of many academics and professionals. These changes mainly occur in the form of fall and stock price jumps. Given the importance that investors place on their stock returns, the phenomenon of stock collapse, which leads to a sharp decline in returns, has attracted more attention than any other jump. This research examines the relationship between accounting quality and the structure of price fluctuations at the time of earnings announcement. The statistical population of the study consisted of companies listed in the Tehran Stock Exchange between 2011 and 1395. Excel and Eviews software have been used to compute and prepare the data for the research information required and to analyze it. The results of the research showed that earnings quality with the fluctuation of profit in the companies selected as the sample of this research has a significant positive relationship. And shows that 1% change in the independent variable causes 0.59% direct change in the dependent variable. According to the above description, the research hypothesis is confirmed.

KEYWORDS

Accounting quality, price fluctuations, profit fluctuations, returns

INTRODUCTION

The issue of sudden stock prices in recent years, especially after the 2008 financial crisis, has attracted the attention of many academics and professionals. These changes mainly occur in the form of fall and stock price jumps. Given the importance that investors have for their stock returns, the phenomenon of stock collapse, which results in a sharp decline in returns, has attracted the attention of researchers (Tanani et al., 2013). Most investors are careful about two things: drop and return. The fall in

stock prices over the past few decades, especially after the 2008 crisis in Europe and the United States, has become commonplace.

The exact definition of "drop" is debatable, but the concept is clear. As the Economist (2011) writes, "Downfall is any big downstream flow in portfolio value." The downside (or the risk) of this downturn is severe consequences, the company faces increased risk appeals due to the size of the stock price drop. Drop-outs can disrupt financial markets. The value of equity will eliminate investment, and it is extremely harmful to those who rely on the return on investment (Adeli Sabbagh, 2012).

Falling stock price is a phenomenon in which stock prices are subject to severe negative and sudden adjustments. In another definition, the fall in stock prices is referred to as a phenomenon in which a sudden and negative revision occurs in the expectations of investors about the stock of a company. Research in the field of falling stock prices has always been recognized as two main components: First, the company's management, which, because of selfish motives (for its own personal interests) or charity (in the interests of the organization), exaggerates the company's performance by postponing the publication of bad news and speeding up the publication of good news, (Which causes the formation of a bubble in the stock price of the company), and the second is the accounting system and its use for this management action, which allows the management to perform the above actions. Due to the importance of this issue, financial and accounting researchers are in the process of responding to three important questions in this regard for different groups of investors, market analysts, professional accountants and stock market managers: What are the causes of this phenomenon? Second, what are the strategies that prevent this phenomenon? And what are the warning signs to predict this phenomenon? (Dianati et al., 2012).

Researchers in their answer to the first question are reasons such as stakeholder focus on the effects of feedback on market fluctuations, heterogeneity of investor beliefs, profit management, account rinsing, analysts' unrealistic

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assessment of company performance, lack of transparency of financial information, tax evasion, continuation of current negative value projects and management concerns are identified as some of the reasons behind the occurrence of this phenomenon. These researchers, along with the factors that create the phenomenon of falling stock prices and in order to answer the second question, introduce some of the factors that reduce the occurrence of this phenomenon. One of these factors can be the presence of informed and informed participants in the market, such as institutional owners and market analysts, transparency of financial information, lack of information asymmetry between internal members of the organization and foreign individuals. Meanwhile, such things as increasing the volume of stock exchanges relative to its trend over the past six months, experiencing positive returns in more than 36 months, buying and selling company shares by internal members of the organization and ... as warning signs that the fall of stock prices is predicted is introduced (Dianati et al., 2012).

By examining these researches and focusing on the causes of the fall in stock prices, it can be seen that all of these factors create a bubble in the stock price of the company, which is always the result of such actions as: accumulation of bad news in the company and acceleration in identification of good news in profit, profit management, lack of transparency of financial information, etc. (Dianati et al., 2012).

PROBLEM STATEMENT

Ultimately, this will improve the quality of financial statements and will be limited by limiting profit management opportunities. Because it can have a significant influence on corporate governance and align the interests of the stockholder group. Philippon argued that the issue of representation has led to the establishment of bonus schemes for many companies to reduce the conflict of interest. He also stated that managers manage their profits to achieve their own interests. He states that, since cash-flow measurement is easy, managers have used accruals to manage profits in order to achieve the desired benefits. Profit management is a form of profit manipulation that can reduce reliance on profitability.

The more profitable the reliance is, the less useful they are. On the other hand, when profit-oriented profit management is controlled using supervisory systems, accounting profitability is more reliable and contains more useful information (Dechow, Sloan and Sweeney, 1996; Wilde, 1996). Earnings management may be a way of manipulating disclosed corporate statements to mislead shareholders and affect profits based on earnings accounting (Haley and Dahon, 1999). Schipper (2001) also defined profit management as one of the intentional interventions in the financial reporting process to achieve personal goals rather than maximizing stock values. This may be due to the distortion of financial statements by managers, using accounting and forecasting techniques, to achieve some goals that are conflicting with the value of the shareholders.

Warfield (1995) argued that managers who own a large percentage of a company's stock are less likely to change disclosure of financial statements. In addition, institutional investors have more ability to distinguish earnings management than individual investors because of the ability to access relevant information (Balsam Bartoff and Marcoart, 2005). Therefore, the results of the profit management method can not be generalized for each country with different governance structures. Each country should independently examine the impact, relevance and use of the model.

BACKGROUND RESEARCH

Jahl et al. (2016) in Malaysia, considering the review of accruals accrued by audited companies, concluded that large audit firms had more control over and more qualified than other audit firms.

Yoon & Miller (2015) examined the profit management in 249 Korean companies and concluded that in the companies under review, the management of earnings was made using optional accruals. This is especially the case when, in the companies mentioned in the research, the cash from the operation represents the poor performance of the company. The study states that the market reacts positively to net profit changes, but this reaction is negatively related to changes in accruals.

Wang Xinhan (2014) explores the relationship between increasing profits (profit management through sub-items), commenting on the auditor's position and position. The research hypothesis is that a company with a higher profit management through the items of the auditor's audit commentary will likely receive, and the relationship between earnings management and auditor for the companies treated by the auditor is more robust. The findings showed that clients of non-financial auditors report less profits. The findings proved the three hypotheses. The results showed that the three hypotheses are valid for the two constituents.

Ahmad Ebrahim (2013) provided more evidence on the effect of audit quality on the behavior of earnings management. The results showed that the auditor's influence on the effectiveness of the process and the improvement of auditors' awareness of the auditor was taken into account. The results also did not provide evidence that a significant client might influence the independence of the auditor or allow auditors to allow their large clients more power to report.

Gerald G. Lobo (2012) explores the relationship between disclosure quality and earnings management. The amount of information disclosed by companies and profit management are both issues that fall within the scope of management authority; therefore, they tend to know the relationship between them when making a decision. Given the confirmation of the hypothesis of the inverse relationship between the disclosure quality and profit management, this research provides evidence of how the management, with minimum disclosure requirements, can find the power to manipulate reported earnings.

RESEARCH HYPOTHESIS

- There is a significant relationship between accounting quality and profit fluctuations.

SOCIETY AND STATISTICAL SAMPLE

The statistical population of the study consisted of companies listed in the Tehran Stock Exchange between 2011 and 2016.

The sample includes companies listed in Tehran Stock Exchange which have the following characteristics:

1. Companies that have been admitted to Tehran Stock Exchange before 2011.
2. Companies that have been present in Tehran Stock Exchange from 2011 to 2016.
3. Companies with the end of their fiscal year are March 29th.
4. Companies that do not change the fiscal year.
5. The companies whose data they are looking for are available.

TOOL FOR COLLECTING REQUIRED RESEARCH DATA

The data needed to calculate the variables of the research have been extracted from the "New Revelation" database. In the case of incomplete data in this database, the manual archives in the Library of the Stock Exchanges and the Internet site of the Research, Development and Islamic Studies-Securities Exchange Organization website were referenced. After collecting data that is required for the research, selecting the appropriate tool for the calculation and analysis of information about the variables is of particular importance. Excel and Eviews software have been used to compute and prepare the data for the research information required and to analyze it. One of the things that should be considered in collecting data is the validity of data collection tools. The purpose of data collection tools is that the tools can show the facts well. Since the data collection tool in this research is a database prepared by the Tehran Stock Exchange or Tehran Stock Exchange, it is possible to trust the reliability of data collection tools.

RESEARCH MODEL

$$\Delta WC_{i,t} = a_0 + a_1 CFO_{i,t-1} + a_2 CFO_{i,t} + a_3 CFO_{i,t+1} + a_4 \Delta Sales_{i,t} + a_5 GPPE_{i,t} + \varepsilon_{i,t}$$

$$\beta_{i,t} \Delta \beta_{i[x,y],t} = \gamma_0 + \gamma_1 AQ_{i,t} + \gamma_2 \text{Log}(\text{Sales}_{i,t}) + \gamma_3 \text{Lev}_t + \gamma_4 (JBEL_{i,t} / TA_{i,t}) + \gamma_5 \text{SAdj}(CFO_{i,t} / TA_{i,t}) + \gamma_6 (BV_{i,t} / MV_{i,t}) + \gamma_7 \text{Vol}[\text{SAdj}(CFO_{i,t} / TA_{i,t})] + \gamma_8 \text{BHStock Ret}_{i,t} + \gamma_9 \text{SAD}_j(\text{SGR}_{i,t}) + \sum_q \sum_r \gamma_{q,r} D_{q,r} + \varepsilon_{i,t}$$

Dependent Variable:

Δwc : changes in working capital of a company that is obtained through changes in current assets, minus changes in current debt, minus cash changeovers.

Independent Variables:

CFO: Cash Flow during the fiscal year t.

$\Delta sales$: Sales changes during fiscal year t.

GPPE: Property, equipment and equipment for gross fiscal year t.

AQ: Accounting quality is defined as the ability to report financially to better reflect expected cash flows to stakeholders. Considering that accrual items contain relevant information about expected cash flows for stakeholders, the quality of accruals is considered as the successor to accounting quality. Dechow and Dichow (2002) state that quality accruals should be explained by the cash flows of the previous, current and future periods. Hence, the errors resulting from the fitting of regression of accruals of circulating capital over cash flows, mean that there is no relation between accrual items and cash flows. In other words, as much as the amount of error is higher, accounting quality is considered to be lower.

$$\text{Acc} = \beta_0 + \beta_1 * CFO_{t-1} + \beta_2 * CFO_t + \beta_3 * CFO_{t+1} + \beta_4 * \Delta S_{t+\varepsilon}$$

$$\text{Acc} = (\Delta CA - \Delta C) - (\Delta CL - \Delta STD) - \text{Dep}$$

All variables are divided into the sum of initial assets.

Control variables:

Log (sales): The natural logarithm of sales in the financial year t.

LEV: The company's leverage equal to the sum of debt divided by the total assets of the company at the end of the fiscal year t.

IBEI: Net profit before unexpected items.

Sadj (CFO / TA): Seasonal changes in cash flows divided by total assets (as the benchmark in this research is annual, as a result of annual changes is a criterion).

BV: book value of equity.

MV: Equity Market Value.

Vol: Volatility is a criterion, and wherever in a model that uses a volatility symbol, the four-year standard deviation of that specific variable is valid.

BH-StockRet: Company's stock holding return for fiscal year t, plus dividends paid on the last day of the calculation of this variable.

SGR: Sales growth over the fiscal year t, calculated as follows: Sales volumes (sales of fiscal year t, minus the sale of the fiscal year t-1) divided by sales of fiscal year t-1.

DESCRIPTIVE STATISTICS

In this section, information is provided on the calculated variables of the research.

It is necessary to describe this data before analyzing the statistical data. It also describes the statistical data in order to identify the dominant model and the basis for explaining the relationships between the variables used in the research.

The first step in data analysis, description and knowledge of the characteristics and characteristics of the studied units is research and familiarity with their changes in the sample. Knowledge of frequency distribution and central criteria and

the distribution of key variables can serve as complementary information to play an effective role in determining the findings of the research. Therefore, before examining research hypotheses, the research variables are briefly summarized in Table 1. These variables include dependent and independent variables, the mean, mean, sloping, and elongation of these variables during the research period are presented in the table below.

Tab.1.Descriptive statistics of the research variables

Variables	Number	Minimum	Maximum	Average	Middle	Standard deviation	Skidding	Elongation
Changes in working capital	550	3.25	10.47	6.88	7.05	2.02	-0.03	1.89
Operational Critical Currents	550	0.17	7.17	3.74	3.77	2.01	-0.008	1.81
Sales changes	550	0.01	1.58	0.81	0.81	0.46	-0.03	1.77
Property, machinery and equipment	550	8.41	18.64	13.55	13.46	2.92	0.02	1.78
Profit line slope	550	0.20	0.87	0.53	0.53	0.19	-0.01	1.81
Quality of benefit	550	-0.19	0.50	0.15	0.16	0.21	-0.007	1.69
Sales log	550	0.45	1.15	0.79	0.78	0.20	0.02	1.77
Financial Leverage	550	0.67	0.92	0.79	0.78	0.07	0.12	1.79
Net profit before unrealized items	550	0.23	0.81	0.52	0.53	0.16	-0.05	1.86
Seasonal changes in cash flows	550	0.11	0.52	0.31	0.30	0.11	0.03	1.81
Book value of equity	550	4.90	12.58	8.54	8.60	2.28	0.04	1.75
Equity equity value	550	9.34	43.13	26.26	26.35	9.66	0.02	1.85
Volatility	550	0.83	3.35	2.08	2.09	0.72	0.05	1.82
Stock return efficiency	550	-0.38	0.78	0.18	0.17	0.34	0.10	1.78
Sales growth	550	0.12	1.32	0.72	0.72	0.34	0.01	1.79

• Checking Normality:

One of the things that is usually considered in the data review is the normalization of the data. When the study is based on real data and there are limitations to sample selection, this may result in data not being normalized.

Of course, when the number of observations is high, the normalization of data through the central limit theorem can be justified. The Jarque-Bera (JB) test has been used to check the normality of the data. The statistical hypothesis of this test is presented below:

$$\begin{cases} H_0: \text{The distribution of the variable is normal} \\ H_1: \text{The distribution of the variable is not normal} \end{cases}$$

If the significance level of the test statistic is more than 0.05 (significance level ≥ 0.05), the hypothesis is based on the normal distribution of the dependent variable and vice versa. Table 2 shows the results of this test for the capital expenditure variable.

Tab.2.Results of the Jarque-Bera Statistic

Variables	Test statistic	The significance level
Changes in working capital	14.5	0.0000
Operational Critical Currents	41.6	0.0000
Sales changes	17.11	0.0000
Property, machinery and equipment	19.52	0.0000
Profit line slope	18.38	0.0000
Quality of benefit	26.28	0.0000
Sales log	24.94	0.0000
Financial Leverage	22.84	0.0000
Net profit before unrealized items	7.22	0.0000
Seasonal changes in cash flows	5.46	0.0000

Book value of equity	1.77	0.0000
Equity equity value	23.17	0.0000
Volatility	13.88	0.0000
Stock return efficiency	4.43	0.0000
Sales growth	27.52	0.0000

As shown in the table above, the data is not normal, which is resolved through the central limit theorem, because in this case the data assumes that the number of observations in it is higher than 30 is normal.

• F Limer Statistics:

Considering that observations in this research have been exploited at different levels, the question most often used in applied studies is are there any indications that data integration is possible, or that the model varies across all cross-sectional units. Therefore, it should first be examined whether there are any differences between levels, heterogeneity, or individual differences. In case of heterogeneity of the panel data method, otherwise, the least square method is used to estimate the model. For this purpose, the F Limer statistic is used. In this test, the assumption H0 of the same width of origin (combined data) against the opposite hypothesis H1 is used, the inaccuracy of the width from the origin (panel data method) is used. The results of F Limer statistics are as follows:

Tab.3.F-Limer statistics

	Description	Amount	Possibility
First model	Period F	1.4009	0.1392
	Period Chi-square	4.0161	0.1219
Second model	Period F	1.5791	0.1211
	Period Chi-square	5.0068	0.1183
Third model	Period F	1.3895	0.1384
	Period Chi-square	4.5553	0.1201

As shown in Table 3, the results of the Chavo test show that the probability obtained for the F statistic is more than 5%, so the zero hypothesis that the model data is compilation is accepted.

• Autocorrelation Test (Durbin-Watson):

One of the assumptions that are considered in the regression is the independence of the errors (the difference between the actual values and the predicted values by the regression model) of each other. If the independence hypothesis of errors is rejected and the errors are correlated, regression is not possible. In order to be independent of each other, the camera-Watson statistics are used. If the value is in the range of 2.5 to 1.5, a lack of correlation between the errors is accepted, otherwise the correlation between the errors is present. According to the values obtained for the first, second, and third models, the Durbin-Watson statistics

are 1.63, 1.69, and 1.82, thus the lack of correlation between the errors is acceptable.

• Least Squares Model (OLS Regression):

According to Chavo's test results, the least squares model is used to estimate the parameters of the multivariate regression equation. The results of this test are described in Table 4:

Tab.4.Results of the first regression test

Variable	Coefficient	Standard deviation	T Statistics	The significance level
Width from source	2.3451	0.7250	3.2346	0.0112
CFO (t-1)	28.2152	0.8450	33.3908	0.0000
CFO	23.7332	1.3400	17.7113	0.0000
CFO (t+1)	21.1917	1.5650	13.5410	0.0000
Sales	68.4952	1.5150	45.2114	0.0000
GPPE	136.4443	0.4350	313.6651	0.0000
The coefficient of determination	0.3517	Significant level of F statistics		0.0000
Adjusted coefficient of determination	0.3011	F statistics		12.9461
Durbin-Watson Statistics	1.6315			

The coefficient of determination of 0.3011 means that 30.11% of the variation of the variable dependent on the regression tool is explained. The significance level of the F-000 statistic also shows that the assumption of zero is rejected and F's statistic is significant at 99% confidence level. Namely, variables defined as independent are the proper predictor variables.

Tab.5.Results of the second regression test

Variable	Coefficient	Standard deviation	T Statistics	The significance level
Width from source	2.1708	0.5695	3.8118	0.0129
AQ	0.5916	0.1675	3.5330	0.0158
Log(Sales)	4.1568	0.4667	8.9077	0.0000
Lev	1.0632	0.5797	1.8341	0.0582
IBEL/TA	3.8787	3.6196	1.0716	0.1354
SADj(CFO/TA)	47.5081	7.0098	6.7774	0.0000
BV/MV	7.4462	1.8280	4.0735	0.0078
Vol	2.0429	4.9688	0.4111	0.2371
BHStock	0.0720	0.0459	1.5686	0.0724
SADj(SGR)	8.0316	0.9903	8.1107	0.0000

The coefficient of determination	0.4437	Significant level of F statistics	0.0000
Adjusted coefficient of determination	0.4175	F statistics	25.9142
Durbin-Watson Statistics	1.6917		

DISCUSSION AND CONCLUSION

As you can see in the table above, the significance level of the earnings quality coefficient is 0.0158, and since this number is less than 0.05, it can be concluded that the assumption is zero and the assumption is verified and according to the coefficient of this variable (0.5916), it can be stated that the quality of profit with the fluctuation of profit in the companies selected as the sample of this research has a positive meaningful relationship, and shows that 1% change in the independent variable causes 0.59% direct change in the dependent variable. According to the above description, the research hypothesis is confirmed.

• Research Suggestions:

Regarding the title of the issue and the fact that the topic was carried out in the field of Bourse companies, this can be used to manage stock exchanges, corporate executives, potential and actual investors of different sectors, such as institutional investors, public and legal investors, professors and accounting students, and financial management and other people who are somehow interested or related to the topic are attractive. Therefore, based on the results of the last season and the analyzes conducted in this chapter, the following suggestions are presented:

1. According to the assumption of the first hypothesis that high profit quality leads to an increase in the company's corporate fluctuation, it shows that the higher the profitability of the company, the greater the fluctuation of corporate profits. As a result, it is suggested that investors pay more attention to their investment decisions in companies that have a lower profit quality.
2. Due to the positive and significant relationship between coefficient B (slope of information risk line) and the fluctuation of profit, it can be concluded that the higher the risk of information rises, the more the company's corporate profit fluctuates. Therefore, it is recommended to invest in companies that have less fluctuation in profits.

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