Investigation of Relationship between Earnings Smoothing and Cash Flows from Operations in Iran Stock Exchange

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ABSTRACT

Earnings smoothing has been a topic of interest among many researchers for decades especially after 1970. Earnings manipulation in management of earnings will mislead the users of financial statements. Nowadays, main focus of financial reporting is on predicting earnings and Cash Flows from Operations as a performance index of the corporation and all financial analysis consider earnings as a main factor in their investigations and judgments. Therefore, recognizing the effect of earning smoothing on the Cash Flows from Operations as a performance benchmark is of special importance. This study examines whether current earnings smoothing using the Cash Flows from Operations standard deviation divided by net income standard deviation as our proxy for earnings smoothing, we document a significant negative association between earnings smoothing and smoother firms with Cash Flows from Operations, during a sample of 60 accepted corporations for a four year fiscal period (2008–2012) and analysis two regression models in Tehran stock exchange.

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INTRODUCTION

One of the most important characteristics of publicly held is to separate ownership from management. Based on this, there have been possible for managers to have access to same information and also prepare and send the information such as financial information. Professional societies, although with little differences, stress on this point that financial accounting should give some information to the users of financial statement so that they can evaluate, amount, timing, and uncertainty of future cash flows (Panahian and Zolfaghari, 2010).

Increasingly development of economic activities and their intricacies and also attending to accurate accounting information and financial statements have created modern analytical and managerial approaches in accounting. Financial statements are the means by which managers are seeking to see the results of their control over the resources for which they are responsible. The mentioned statements are to convey such information as the financial position, performance and cash flows of a firm (Saeidi, 2012). Special attention has been paid to cash flows, in theoretical framework of financial accounting which is determiner of goals, duties, and limitations of accounting, and financial statements and reporting, in different countries. Attention to cash flows and the possibility of predicting it, has been so much that in most countries it has been defined as one of financial reporting goals (Panahian and Zolfaghari, 2010). It has been noticed that earning statement is considered as one of the possibilities to be presented in financial reporting. For that reason, the company’s earning is considered vital information for it can be used to measure the corporate performance. In other words, information of the earning can be used to assess the performance or accountability of management and also predict the ability of companies in the effort of contributing to the following earning (Kustono, 2011).

One of the most important problems which would occupy manager's thoughts during financial period is access to financial analysts’ forecasts and meeting the market expectations. Because announcing reported earnings less than as expected result in to reduce stock value and compromise manager's position. Of course meeting the market expectations is one of the matters that would affect the behavior of managers and lead to them to manage earnings (Moradi et al., 2012). Financial reporting should represent some information to investors, creditors, and other potential and real users to help them evaluate amounts, timing, and uncertainty of future cash receipts resulting from stock earning or loan interest and revenue resulted from sales, or receipt of receivable accounts (Panahian and Zolfaghari, 2010). As a firm’s accounting records are not open to

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Managers would like to manipulate the information in favor of them and as apposite to others and or speaking more complete they would manage earning. Reported earnings have broad effect an all business activities in economic institution and also decision making by managers (Moradi et al., 2012). If the manager opportunistically manipulates the earning, this management authority can distort the reported earnings. However, one of function defined for accounting, is representation of useful information to investors in order to determine the value of securities and help to make conscious investment decisions along with studying expected stock returns of the corporation (Panahian and Zolfaghari, 2010).

In general, earning reporting is frequently not free from the accounting manipulation. Yet it appears different from the fraudulence. Accounting manipulation can be still in tolerant when it is put in the accounting rules. In contrast, fraudulence practices tend to be against the rules and accounting standards. Thus, it is delicately different from earning smoothing. In fact, one of the practices of accounting manipulation is earning smoothing (Kustono, 2011). Barnea et al. (1976) consider earning smoothing as one of the common approaches of creative accounting in which fluctuations are deliberately manipulated and adjusted about some levels of earnings that is normal for the firm. Hepworth (1953) finds smoothing as a reasonable and wise action by which managers smooth their earning by using specific means (Saeidi, 2012). In connection with the pursuit of analyzing earning smoothing in the companies, some definitions of it can be inferred. First of all, earning smoothing is defined as the emphasis on the fluctuations in earning levels that are considered normal for the company (Barnea et al., 1976). For another thing, Beidleman, (1973) defines earning smoothing as the management efforts to reduce abnormal variations in the earning to the extent permitted by the principles of good management and accounting. There are two types of earning smoothing: intentional, that is earning smoothing of the real intention and the other one is artificial earning smoothing. Real earning smoothing indicates management actions that seek to control economic conditions that directly affect corporate earnings in the future. In addition, this real earning smoothing affects cash flow. On the contrary, artificial earning smoothing can show manipulation which is undertaken by management to smooth the earning. Thus, the action of this manipulation resulted in a fundamental or economic condition that can affect cash flow, but shifts the cost and/or earning from one period to another (Kustono, 2011).

Among all accounting information, accounting earning is regarded as the most important information resource to evaluation of profitability power and Cash Flows from Operations. The Investors are interested in estimating their own investment value which depends on stock return of the corporation that is under effect of earning smoothing. The innate values of stock and stock return are calculated on the basis of present value of expected Cash Flows from Operations. Therefore, the study of relation between earning smoothing and Cash Flows from Operations is essential.

The remainder of the paper is organized as follows. Section 2 provides some literature about earning smoothing and Cash Flows from Operations and previous researches about these concepts. Section 3 presents research methodology. Research hypothesis and research design are presented in section 4 and 5 respectively. Data and sampling with results of hypothesis testing are in section 6 and 7. Then section 8 represents conclusions of the study.

Literature Review:

Earning smoothing has been a topic of interest among many researchers for decades especially after 1970. Chong (2006) suggests three main reasons about why managers smooth their earnings: first, to reach the benchmark level that has been established in the stock market, usually by analysts’ forecasts, second to meet their own performance target, and third to avoid violations of debt contracts (Saeidi, 2012; Mohammadi et al., 2012). Earning smoothing in such instances is as a tool used by management to reduce the variability of reported earnings stream relative to the target which is intentionally smoothed by using artificial or real variable. In addition, earning smoothing is one-dimensional manipulation of accounts that attract the attention of many accounting literature in the realm of earnings management. Beside, earning smoothing reflects the concern to reduce the possibility of fluctuations in earning by making a steady flow. Eckel (1981) revisited the previous researches on earning smoothing and suggested an alternative conceptual framework to discern earning smoothing manner. He criticized most of the researches for using one accounting variable to determine earning smoothing (Kustono, 2011; Saeidi, 2012). From the viewpoint of investors, both, accrual earning items, and Cash Flows from Operations (CFO) are measures to evaluate the performance of an entity in its cash fund producing power. Both, the accrual items, and cash flows, as financial information, should effectively help to allocate scarce resources of investment market among all corporations. Cash flow is considered for evaluation models in its financial, economic and accounting dimensions. However in previous mentioned that managers manipulating earnings (earning management) and for this reason it is may this manipulation has a relation with Cash Flows from Operations.
Since late 1960s accounting studies have documented important relations between accounting earnings, and stock prices. While accounting earning based on accrual accounting has low value relevance due to emphasis on historical cost and probability of earning management such as earning smoothing, Cash Flows from Operations is not under the impact of accounting accrual items and its manipulation by accounting decisions is not easy. Therefore, some people believe that Cash Flows from Operations, is a better index to evaluate the performance of entities in short term. It may be said that both, the earning smoothing and the Cash Flows from Operations have some value relevance, and are complementary to each other (Panahian and Zolfaghari, 2010). Our first research goal is to examine whether current earning smoothing through accruals is associated with lower cash flow from operation. Existing theories on earning smoothing do not provide clear predictions on this association. Most theoretical models focus on the impact of earning smoothing on the informativeness of accruals on the level of economic performance. These models assume the volatility of the economic performance to be public information and therefore earning smoothing has no signaling effect on Cash Flows from Operations in these models. Two models most related to our study are Trueman and Titman (1988) and Kirschenheiter and Melumad (2002), where managers smooth reported earnings to influence the market’s perception of the economic earnings’ volatility. However, in neither model are the managers’ smoothing decisions related to actual Cash Flows from Operations, and thus smoothing only clouds investors’ judgment on the volatility of true economic performance. In summary, the existing theoretical models on earning smoothing do not predict a significant relationship between current smoothing and Cash Flows from Operations (Das et al., 2013).

It is a fact that earning smoothing becomes a phenomenon which has been often proved in some previous studies. This practice has been investigated through various levels of different samples. Furthermore, earning smoothing is considered to be an important factor. In follow we propose some studies about earning smoothing and related subjects.

<p>| Table 1: A review on previous studies |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Description of and results</th>
<th>Author(s)</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Studied the association between the accounting method of investment tax credits (earning smoothing instrument) and the growth rates of earnings per share and the returns on the stockholders' equity (earning smoothing objectives). This study mentioned that there is noteworthy relationship between them, which shows earning smoothing practices are present.</td>
<td>Gordon et al.</td>
<td>1996</td>
</tr>
<tr>
<td>2</td>
<td>Studied the ability of accounting data including earning, cash flows, and accruals in future cash flows prediction. The results of this research are as follows: a) Decomposition of earning in to cash and accrual component leads to improvement of cash flows prediction. b) Historical cash flows have the power of future cash flows prediction in comparison with historical earning. c) Historical cash flow unlike, using cash flows and accruals components simultaneously, have a lower power of future cash flows prediction.</td>
<td>Al Attar and Hussein</td>
<td>2004</td>
</tr>
<tr>
<td>3</td>
<td>Studied the relation and information accumulative content of earnings and Cash Flows from Operations (CFO) on stock return of corporations in New Zealand. The results showed that: a) Explanatory power of earning is more than cash flows, although the differences are not important statistically. b) Both, the earnings and cash flows have information accumulative content for stock returns.</td>
<td>Habib</td>
<td>2008</td>
</tr>
<tr>
<td>4</td>
<td>In a research conducted on the value relevance of industry and firm cash flows and accruals with stock returns within a ten years financial course, both, industrial cash flows, and industrial accruals have a meaningful relation with stock returns.</td>
<td>McCOMBS and LaGore</td>
<td>2008</td>
</tr>
<tr>
<td>5</td>
<td>Indicated that in a low level of investment opportunity, the value relevance of CFO increases with the increasing of investment opportunity, while in a high level of investment opportunity, at first it has a direct, and then, a contrary relation with investment opportunity.</td>
<td>Komar and Krishnan</td>
<td>2008</td>
</tr>
<tr>
<td>6</td>
<td>Showed that there is a negative significant relationship between financial leverage and earning smoothing. Also, in companies that have a higher free cash flow, there is more negative significant relationship between financial leverage and earning smoothing</td>
<td>Moradi</td>
<td>2008</td>
</tr>
<tr>
<td>7</td>
<td>Examined the performance of traditional and new indicators of liquidity to forecasting companies’ earning smoothing. The results of their research indicated that there is significant relationship between traditional liquidity indexes and size of companies with earning smoothing, and that the most important effective item is the level of inventory in the examined companies.</td>
<td>Khajavi et al.</td>
<td>2011</td>
</tr>
<tr>
<td>8</td>
<td>Showed that earning smoothing increase the abnormal returns and market values of the companies.</td>
<td>Al-Qaisi</td>
<td>2011</td>
</tr>
<tr>
<td>9</td>
<td>Indicated that CEO bonus on average increases with earnings smoothing, the increase is larger when the firm’s cash flow volatility is higher. Further, CEO bonus is shielded from the negative effects of lower earnings arising from the need to report a smoother earnings stream.</td>
<td>Das et al.</td>
<td>2013</td>
</tr>
</tbody>
</table>

Methodology:

Models of earning target are differentiated from the real earning. Often, these models contain errors inherent profit target because its validity cannot be detected empirically. This research is basically of casual and applied research types and employed the coefficient of variation method developed by Eckel (1981) to determine the presence of earning smoothing. In this method, the coefficient of variations is used to measure the variability of sales and earnings. This method has been used by many previous studies in determining the
presence of earning smoothing like Albrecht and Richardson (1990). The company is artificial smoothing if \( \frac{CV\Delta I}{CV\Delta S} < 1 \).

In that case, Eckel (1981) model of the earning smoothing is done by basing on the following premises.
1. Income is a linear function of the sales = sales-variable cost-fixed cost.
2. The ratio of variable costs to sales is in constant currency units
3. Fixed costs are constant or increasing from period to period, but not likely to decline.
4. Gross sales can only be smoothed by real smoothing; gross sales cannot be artificially smoothed.

Mathematically, Eckel illustrates all the above as the following: when,

\[ S = Sell \]
\[ I = Income \]
\[ S = Selling average \]
\[ I = Income average \]
\[ CV = Coefficient of variation \]
\[ \Delta S = Changes of sell in one period \]
\[ \Delta I = Changes of income in one period \]
\[ n = Number of years observed \]
\[ CV\Delta S = Coefficient variation for sell change in a certain time \]
\[ CV\Delta I = Coefficient variation for income change in a certain time \]

Thus, the formula for classifying the companies as smoothing and non-smoothing can be formulated as the following.

\[ Eckel\ index = \frac{CV\Delta I}{CV\Delta S} \tag{1} \]

\[ CV\Delta I = \sqrt{\frac{\sum (I_t - I)²}{n-1}} \tag{2} \]

\[ CV\Delta S = \sqrt{\frac{\sum (S_t - S)²}{\Delta S}} \tag{3} \]

The companies with absolute value are less than one index is categorized as a company that does the practice of earning smoothing. On the contrary, companies with an index are equal to or greater than 1, are not considered practicing earning smoothing. The use of the coefficient variation is good for showing that the coefficient is the dimension of sample variability, which provides a comparison of variance among different groups (Albrecht and Richardson, 1990). Furthermore, this index is a good instrument to define the degree of earning smoothing by the company (Iñiguez and Poveda, 2004). It is stated that identifying such an index by summing the area of earning smoothing that effect of smoothing a set of variables that potentially (Ashari et al., 1994). Size can also explain the smoothing behavior by management (Iñiguez and Poveda, 2004), (Zmijewski and Hagerman, 1981). In this case, Eckel methodology has been widely replicated and expanded in many studies.

**Research hypothesis:**
Based upon prior theoretical and empirical research, we have no ex-ante prediction on the relation between earning smoothing and Cash Flows from Operations.

To consider the relationship between earning smoothing and cash flow from operation (CFO) in companies listed in Tehran Stock Exchange, two hypotheses were developed and tested.

H1: There is a significant relationship between earning smoothing and Cash Flows from Operations.
H2: There is a significant relationship between smoother firms and non-smoother firms with their Cash Flows from Operations.

In order to extent these hypothesizes and develop the regression models related to each hypothesis we first tried to introduce important criteria and their mathematical formulation.

**Research design:**

**Dependent variable:**
In this study, earning smoothing is a main variable and considered as dependent variable, we measure it as the ratio of the standard deviation of Cash Flows from Operations to the standard deviation of earnings (net income before extraordinary items) (Das et al., 2013).
Independent variable:

In financial accounting, Cash Flows from Operations (CFO), cash flow provided by operations or cash flows from operating activities refers to the amount of cash a company generates from the revenues it brings in, excluding costs associated with long-term investment on capital items or investment in securities. The International Financial Reporting Standards defines operating cash flows as cash generated from operations less taxation and interest paid, investment earning received and less dividends paid gives rise to operating cash flows (Ross et al., 2013).

According to the proposed hypothesizes we considered Cash Flows from Operations as the independent variable and it estimated as net income (NI) minus total accrual cost as shown below (Moradi et al., 2012).

\[
\text{Total accrual (TA) } = (\Delta \text{current assets } - \Delta \text{cash and cash equivalents}) - (\Delta \text{current liabilities } - \Delta \text{financing item}) - \Delta \text{other allowance } - \Delta \text{depreciation}.
\]

\[
\text{Cash Flows from Operations (CFO) } = \text{NI } - \text{TA}
\]

In equation (5), \(\Delta\) indicates the change in the amount from the beginning of the fiscal year to the end of the fiscal year.

Control variables:

To isolate the impact of the CFO variable on earning smoothing, it is also necessary to introduce a set of control variables. These variables account and control for possible effects of other firm attributes that might affect earning smoothing. Prior studies have indicated that these attributes are significantly associated with the firm’s adoption of accounting policies to achieve earnings targets (Peasnell et al., 2005; Prencipe and Bar-Yosef, 2011), and hence possibly with earning smoothing.

Size:

First, there is a control for firm size, which is measured as the natural logarithm of market value of equity (MVE), as large companies may smooth earnings to reduce political costs, because they are closely monitored and more scrutinized than are small companies (Prencipe et al., 2011).

\[
\text{Size } = \log(\text{MVE})
\]

\[
\text{MVE } = \text{Number of current share } \times \text{final share price}
\]

Roa:

Return on assets (ROA) is as a proxy for firm performance and used as a control for profitability (e.g., Dechow, 1994; Dechow, et al., 1995; Kothari et al., 2005; Sloan, 1996). A strong performance reduces the need and the incentive to smooth earning. ROA estimated as a ratio of net income before extraordinary items to the total assets (Prencipe et al., 2011).

\[
\text{ROA } = \frac{\text{Net income before extraordinary items}}{\text{Total assets}}
\]

Leverage:

To control for adverse selection and equity risk, financial leverage measured as the book value of total liability divided by the book value of total equity, a proxy for the possibility of debt covenant violations that may create an incentive to increase (rather than smooth) earning in order to avoid such a violation (e.g., DeFond and Jiambalvo, 1994; Jaggi and Lee, 2002; Prencipe et al., 2011).

\[
\text{LEV } = \frac{\text{The book value of total liability}}{\text{The book value of total equity}}
\]

Growth:

Growth opportunities, which is measured by the growth of sales (sales in year \(t\) minus sales in year \(t-1\) and scaled by sales in year \(t-1\)), because earning is likely to be negatively correlated with a company’s growth (e.g., Carey and Simnett, 2006; Johnson, Khurana et al., 2002; Prencipe al., 2011).

\[
\text{Growth } = \frac{\text{Sale}_t - \text{Sale}_{t-1}}{\text{Sale}_{t-1}}
\]
Generally, size, growth, and profitability (ROA) could naturally affect the smoothness of a firm’s earning. Leverage controls for alternative, balance-sheet related measures of future viability and capital structure.

**Research Models:**

To test the research hypotheses, the following regression models have been proposed. To test the first hypothesis of the research, and to examine the relationship between earning smoothing and Cash Flows from Operations, model 12 has been estimated, then to test the second hypothesis of the research, i.e. examine the relationship between smoother firms and non-smoother firms with their Cash Flows from Operations, model 13 has been developed. All models are extension to the previous models such as Panahian and Zolfaghari (2010), Mohammadi and Monfared Maharlouie (2012) and Cheng and Li (2013).

\[
ES_{it} = \beta + \alpha_1 \cdot CFO_{it} + \alpha_2 \cdot \Delta CFO_{it} + \sum_{t=1}^{n} \gamma_i \cdot \text{Controls} + \epsilon_{it} 
\]  

(12)

So that:

- \(ES_{it}\) = earning smoothing of company \(i\) in year \(t\).
- \(CFO_{it}\) = cash flows of operation of company \(i\) in year \(t\).
- \(\Delta CFO_{it}\) = changes of Cash Flows from Operations of company \(i\) in year \(t\) compared with year \(t-1\).
- \(\text{Controls}\) = control variables included (firm size, return on assets, leverage and growth).
- \(\gamma_i, \alpha_i\) = coefficients of explanatory variables.
- \(\epsilon_{it}\) = error term.

\[
ES'_{it} = \beta + \alpha_1 \cdot CFO_{it} + \alpha_2 \cdot \Delta CFO_{it} + \sum_{t=1}^{n} \gamma_i \cdot \text{Controls} + \epsilon_{it} 
\]  

(13)

So that:

- \(ES'_{it}\) = a dummy variable that assumes value 1 if the firm is classified as smoother and 0 if is classified as a non-smoother based on the Eckel index.

All other variables are defined as previous model.

**Data and Sampling:**

This research is an applied one. It is based on the quasi-experimental research design and ex post facto approach (from past data). Ex post facto method is used when the researcher considers the subject after investigating the occurrence of events. Moreover, there is no possibility of manipulating the independent variables.

Data related to Cash Flows from Operations, earning smoothing and all other variables such as control variables have been represented from statement of financial reports of companies to the Tehran stock exchange, and other information has been extracted from audited financial statements, Tehran stock exchange reports and notes to financial statements existing in the site of www.rdis.ir. Population of this research consists of all companies listed in Stock Exchange in six year period from 2008 to 2012. Because of year 2008 was the start point of global financial crisis; we set aside the year 2008 and selected the year 2012 as the last fiscal year for our research. In this research statistical sampling is not used. The statistical universe of present research is the accepted corporations in Tehran stock exchange based on exclusion method and the following criteria:

1. They must have been listed in Tehran Stock Exchange by the end of March 2012.
2. The corporations whose fiscal year end was 29/12 were set aside.
3. They must not have had any change and operation postponement in fiscal year during the years 2008 to 2012.
4. Financial statements and companies’ attached notes must exist completely in Stock Exchange site in mentioned period.
5. Financial statements and main company’s attached notes must exist separately from financial statements of integrated company’s attached notes in period studied.
6. The investment and financial brokerage corporations were omitted from the sample.
7. The corporations who didn’t have continuous operations during our research course, or their financial information was not available within these four years, were set aside.

According to the listed criteria, 60 companies in the period 2008 to 2012 have been selected for this study. Moreover, in this study, regarding the data type, and methods of the present analysis, the "combined data" method has been used. In this study, in order to perform statistical tests, SPSS version 20 and Eviews version 7 have been used for data analysis.
Results:

Table (1) shows the descriptive statistics used in these research. Mean, median and standard deviation for key variables and regression research have been represented in table (1).

Table 2: Descriptive statistics for dependent and main explanatory variables

<table>
<thead>
<tr>
<th>Research variables</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ES_{it}$</td>
<td>4.115</td>
<td>3.360</td>
<td>3.221</td>
</tr>
<tr>
<td>$CFO_{it}$</td>
<td>0.725</td>
<td>0.863</td>
<td>1.390</td>
</tr>
<tr>
<td>$\Delta CFO_{it}$</td>
<td>0.437</td>
<td>0.120</td>
<td>2.860</td>
</tr>
<tr>
<td>SIZE</td>
<td>5.080</td>
<td>5.339</td>
<td>1.597</td>
</tr>
<tr>
<td>ROA</td>
<td>0.030</td>
<td>0.026</td>
<td>0.062</td>
</tr>
<tr>
<td>LEVERAGE</td>
<td>0.667</td>
<td>0.290</td>
<td>0.177</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.134</td>
<td>0.080</td>
<td>0.278</td>
</tr>
<tr>
<td>$ES_{it}$</td>
<td>0.510</td>
<td>1.000</td>
<td>0.500</td>
</tr>
</tbody>
</table>

Table (2) shows correlation coefficient between research variables. As we can see in the table, ES has the strongest has a strong negative relation with CFO, (-0.525), and then with $\Delta CFO$ (-0.083), in the next stage, it has strongest relation with size (0.143). As it is seen in the second column, earning smoothing firms is much negative influenced by Cash Flows from Operations, so $ES$ has the negative relation with CFO and $\Delta CFO$, (-0.475) (-0.225) respectively, that means the non-smoother firms have more Cash Flows from Operations than smoother firms.

Table 3: Correlation coefficients (certainty level) between research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>$ES_{it}$</th>
<th>$ES_{it}$</th>
<th>$CFO_{it}$</th>
<th>$\Delta CFO_{it}$</th>
<th>SIZE</th>
<th>ROA</th>
<th>LEVERAGE</th>
<th>GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ES_{it}$</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$CFO_{it}$</td>
<td>-0.525</td>
<td>-0.475</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\Delta CFO_{it}$</td>
<td>-0.083</td>
<td>-0.225</td>
<td>-0.270</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.143</td>
<td>-0.020</td>
<td>0.300</td>
<td>-0.200</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>-0.069</td>
<td>-0.130</td>
<td>-0.110</td>
<td>0.210</td>
<td>0.380</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEVERAGE</td>
<td>-0.021</td>
<td>-0.010</td>
<td>-0.070</td>
<td>-0.070</td>
<td>-0.300</td>
<td>0.160</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>-0.036</td>
<td>-0.180</td>
<td>0.030</td>
<td>0.170</td>
<td>0.100</td>
<td>-0.250</td>
<td>0.120</td>
<td>1</td>
</tr>
</tbody>
</table>

Regression models Results:

Table (4) which analysis the first regression model, and considers the relation between earning smoothing and Cash Flows from Operations, and changes on Cash Flows from Operations, shows nonexistence of statistically meaningful relation of Cash Flows from Operations (CFO), and changes on cash flow from operation ($\Delta CFO$) with earning smoothing. Considering the last column of this table, we see that the coefficients are less than ($\alpha=0.05$), and this shows that there is a relation between these dependent variables and earnings smoothing.

Table 4: Test results of H1

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Non-standard coefficients</th>
<th>Standard coefficient</th>
<th>T</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>7.8575</td>
<td>3.2302</td>
<td>2.4325</td>
<td>0.0155</td>
</tr>
<tr>
<td>$CFO_{it}$</td>
<td>-0.7017</td>
<td>0.2413</td>
<td>-0.043</td>
<td>-2.9085</td>
</tr>
<tr>
<td>$\Delta CFO_{it}$</td>
<td>-0.3344</td>
<td>0.9410</td>
<td>-0.115</td>
<td>-2.0238</td>
</tr>
</tbody>
</table>

According to first model, and as shown in Table (4), B= -0.7017 and the significant level of t-statistics and CFO coefficients (0.0155) indicate that there is a significant and negative relationship with earnings smoothing. In other words, with the increase in CFO, motivation in earnings smoothing is reduced.

Table (5), like table (4) shows a negative statistically meaningful relation of Cash Flows from Operations (CFO), with smoother firms.
Table 5: Test results of H2

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Non-standard coefficients</th>
<th>Standard coefficient</th>
<th>T</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Standard error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>12.8732</td>
<td>5.4498</td>
<td>-</td>
<td>2.5619</td>
</tr>
<tr>
<td>CFO_{it}</td>
<td>-0.5869</td>
<td>0.2032</td>
<td>-0.262</td>
<td>-1.9989</td>
</tr>
<tr>
<td>ΔCFO_{it}</td>
<td>-0.1988</td>
<td>0.3213</td>
<td>-0.443</td>
<td>-2.39879</td>
</tr>
</tbody>
</table>

Also in these two analyses we find that ROA has a negative and significant coefficient. Apparently, more profitable companies are less likely to smooth earnings, presumably because earnings smoothing becomes less relevant to managers and investors when profitability is high enough to satisfy all stakeholders. That is, when the company generates high earnings, management tends to pay less attention to earnings smoothing. Similarly, GROWTH shows a negative and significant coefficient. This result comes as no surprise given that growing companies tend to have growing (rather than smooth) earnings. The other two companies attributes: SIZE and LEV, have a negative and a positive coefficient, respectively, albeit statistically insignificant.

Conclusion:
There are several theories about earning smoothing. Management and manipulation of earnings will mislead the users of financial statements. Nowadays, main focus of financial reporting is on predicting earnings and Cash Flows from Operations as a performance index of the firm and all financial analysis consider earning as a main factor in their investigations and judgments. Therefore, recognizing the effect of earning smoothing on the Cash Flows from Operations as a performance benchmark is of special importance. For this purpose, it was formulated and tested two hypotheses whose results are summarized as follow.

This study examines earnings smoothing using the Cash Flows from Operations standard deviation divided by net income standard deviation as our proxy for earnings smoothing, we document a significant negative association between earnings smoothing and smoother firms with Cash Flows from Operations, during a sample of 60 accepted corporations for a four year fiscal period (2008–2012) in Tehran stock exchange.

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Habib, A., 2008. The role of accruals and cash flows in explaining security returns: Evidence from New Zealand, Journal of International Accounting Auditing & Taxation


