Investigation of Relationship between Accounting Conservatism and Real Earnings Management and Accrual Earning Management in Firms Listed in Tehran Stock Exchange

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**ABSTRACT**

Abstract: Most of the studies on earnings management have used the accrual approach and the relation between other variants and this approach has been examined and recognized, but few studies have used the real items approach. Given the importance of the conservatism index in financial reporting and the prevalence of this index in accounting principles, this study examines the linear relation between accounting conservatism, with conditional and unconditional approach, and the accrual as well as real earnings management. The originality of this study lies in the examination of the relation between accounting conservatism and real earnings management. The method used is correlation and ex-post facto, which has been used for data analysis through multiple regression test in SPSS. The statistical population of this study consists of 86 firms between the years 2007 and 2011. The results of this study show that there is a linear relation between accounting conservatism and accrual and real earnings management.

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**INTRODUCTION**

Codifiers of accounting standards have considered criteria for the information quality, among which is observing conservatism. Conservatism in broad sense of word means preferring pessimism over optimism in ambiguous events. In financial terms, conservatism is divided into conditional and unconditional. Unconditional conservatism is exercised in initial recognition and recording and makes net asset to be recorded at a lower cost than its market value. Conditional conservatism, however, is exercised in the course of net asset and results in the lagging recognition of the earnings [14]. Recent studies suggest that accounting earnings are conservative, in other words, the earnings tend to reflect a bad news (negative stock returns), rather than good news (positive stock returns) on a more timely basis [1].

Conservatism is the result of the necessities to recognize the economics earnings and losses, thus the accounting information that reflects the economic losses in an appropriate, timely manner in relation to the earnings [1]. A common assumption in previous literature is that conservatism imposes limitations on accrual earnings management. Lafond and Watts [16] consider conservatism as a governmental tool that reduces the managerial power to manipulate and overestimate financial statement. The analytical work of Cohen et al. too confirms that conservatism reduces the opportunist prejudices in accounting by analyzing the firm’s stimuli for earnings management. Financial statements constitute the core of the process of financial reporting. Financial statements, especially earnings and loss statements are the investors’ center of focus. The concept of conservatism in accounting has a long history. Basu defines conservatism as the accountants’ tendency to the necessity of strong evidences for separating the good news from the bad. One of the things that has always attracted the attention of economics and accounting is the conflict between the managers’ and the investors’ revenue. There are several ways to solve this conflict, among which the methods of conservative accounting and the timely recognition of loss can be mentioned.

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Earning is one of the most important items of the financial statements, which attracts the attention of the users of the financial statements. Therefore, the information provided by the firm and thus, exercising earnings management is highly significant. Conceptually, earnings management can be defined as the purposeful intervention in financial reporting in order to gain some personal revenue. It can be said that studies have been done on the relation between conservatism and accrual earnings management. The real earnings management, however, has not been dealt with. Therefore, this study attempts to examine the relation between conservatism and real as well as accrual earnings management. The present study is done to enrich the accounting researches and to inform the investors about the questions “Do the managers of the accepted firms carry out the earnings management? And how is the relation between carrying out the earnings management and conservatism in the firms?” Therefore it can be said that the aim of this study is to present exact information and clarifying for appropriate decisions that have large scale economic results. We will try to identify some tools used to exercise conservatism and real earnings management in order to use more efficiently the financial information, particularly the earning numbers of firms in the Stock Exchange.

**Literature review:**

**The Concept of Accounting Conservatism:**

Conservatism in accounting is one of the limiting conventions, and means to understate the assets and incomes and to overstate the debts and expenses in ambiguous situations. Iatridis notes that the managers may have a opportunities tendency to overstate the assets and incomes and to understate the debts, in order to increase their reward and improve the firm’s financial view and future perspective. Conservatism tends to understate the assets and to neutralize the managers’ opportunities behaviors.

Basically, the aim of conservatism is to prevent inappropriate decisions on the part of the investors and other users of the financial statements. From the perspective of the agency theory, which associates the managers’ salary and bonus to the reported earning, the managers have a strong tendency to hide the bad news that decrease the earnings. Therefore, conservatism can be considered a mechanism to control the managers’ tendency to represent the earnings more than reality [23].

In accounting literature, the important features of conservatism have been examined. Firstly, partiality in presenting the book value of the stock less than its market value, which has been dealt with by Feltham and Ohlson [9], and which characterizes conservatism from the perspective of the balance sheet. Secondly, the tendency to accelerate the identification of the losses and to postpone the identification of the earnings, which has been dealt with by Basu [1] and characterizes conservatism from the perspective of earnings and losses [15]. Beaver and Ryan [2] call this two kinds of conservatism conditional and unconditional.

**Conditional Conservatism:**

Conditional conservatism is today known by Basu’s definition [1]: “conservatism refers to the accountants’ tendency to require a higher degree of verification for recognizing good news than bad news”. The fact is that Bliss defined conservatism for the first time in 1924 as such: “predict no earnings, but predict all the losses”. This definition of conservatism by Bliss is the basis for the definitions of accounting conditional conservatism. It seems, however, that this definition implies the extreme notion of conditional conservatism, which consists of recognizing all the losses, but no earnings. In extreme conditional conservatism, the earnings are recognized only when they have absolute verification. Extreme conditional conservatism is not desirable because of the expenses caused by the untimeliness of the information. Postponement in recognition of the earnings with highly verifiable information is expensive both for setting rewards for the managers and for allowing cash earnings for the investors. Using the principle of verifiability allows paying the rewards in a more timely manner than the time extreme conservatism assigns [11].

Lara et al. [17] note that conditional conservatism acts as a mechanism of dominance, which is useful for both the authenticators and the investors, and which increases the firm’s value.

Moreover, Lafond and Watts [16] argue that it is hoped that conditional conservatism would have “lower information asymmetry between managers and outside investors” and “conservative financial reports are likely to generate a more informed capital market”.

Examining the role of the accruals in conditional conservatism suggests that the unrealized revenues can be recognized through the accruals in case of earning and loss. The results show that the firms with losses use the accruals in order to create a downward control in the expected cash flows, which matches earlier literature.

**Unconditional Conservatism:**

This kind of conservatism is also called ex ante conservatism. It influences mostly the balance sheet and results from using the accounting standards that decrease the earnings independent of the current economic news. For example, the immediate recognition of the expenses of research and development, even if its expected cash flows are positive, is of this kind. Another example is how the assets are amortized. Isse notes that the book amortization of the assets is more accelerated than their economical amortization [10].
Beaver and Ryan [2] and Ryan state that using unconditional conservatism results in huge difference between the commercial unit’s market value and its book value. Because, by using unconditional conservative approach, expenses such as research, development and advertising are transferred to the expense account, but the market assigns value to such expenses. They further note that the ratio of the market value to the book value is a suitable criterion for the evaluation of unconditional conservatism. Unconditional conservatism is actually the sustained understatement of the net assets, which is independent of news. For example, the immediate recognition of the expenditures of advertisement, research, and development as expenses instead of capitalizing them. Beaver and Ryan state that ex ante conservatism in previous periods precedes post ante conservatism in subsequent periods. That is, if a firm uses ex ante conservatism in a certain period for expending some expenditures, there is a decrease in its balance sheet as the assets meant for future as response to bad news. In other words, if ex ante conservatism results in not recognizing an asset in previous periods, the bad news resulting from the decreased value of this asset cannot be recognized in the current period’s earnings. On the other hand, suppose a firm does not have unconditional conservatism and records the expenses in a period as assets. So if there is a bad news in subsequent periods about the revenue of these assets, post ante conservatism is expected that in that period according to decreased asset value accounting [20].

**Accrual Numbers Earnings Management:**

A fundamental factor in earnings management test in the firms is estimating the empowerment factor and the managers’ commenting on earning determination. Studying the literature on earnings management suggests the existence of different approaches in estimating and calculating the manager’s empowerment in determination of the reported earnings.

The models based on accruals are divided in two groups: a) models based on voluntary accruals [12,6,13,7] and b) models based on specific accruals.

Of these two groups, the former’s models have been more favored. Some believe that the explanation capacity of the models based on accruals is more than that of the other models [7].

In their studies on earnings management, Healy, De Angelo and Jones, using accruals to discover earnings management, presented models, which have been tested in subsequent studies a number of times [6,12,13].

Dechow et al., offering a model which was then called “adjusted Jones model”, compared this model with the models of Jones, Healy, and De Angelo as well as the industry model and concluded that the adjusted Jones model has more power to discover the earnings management in commercial blocks [7].

Accruals represent a crucial aspect of the mandatory reporting and are associated with managerial projects on the commercial perspectives of the firm. Previous researches’ findings suggest that the investors and the analyzers have failed to understand fully the uses of the accruals for the subsequent year’s earning.

**Real Earnings Management:**

Schipper, in his research, notes that earnings management can also include real activities. This kind of earnings management, which is carried out by the operational altering, aims at misleading those interested. The manipulation of the real activities influences cash flows and in some cases the accruals.

Roy Chowdhury [21] states that though these kinds of misleading in the firm’s operation helps the manager in reaching the reporting goals, it does not increase the firm’s value.

Cohen and Zaroween consider the manipulation of the real activities as what the managers do and which result from the normal routine of the commercial block’s activities. This definition matches that of Chowdhury who defines the manipulation of the real activities as the following:

“Administrative acts that result from the normal commercial activities, and are done with the initial purpose of projecting the specific earnings’ threshold” [21].

Real earnings management refers to the opportunist timing and structuring of the operational trading, financing, and investing by the manager of the commercial block in order to influence the reported earnings in a special direction, which puts on the firm’s shoulders the burden of subsequent expenses and the economic consequences. Real earnings management is carried out by manipulating different real activities, but generally three activities have been mentioned in previous studies [21]:

1. Decreasing the discretionary expenses such as those of researching and advertising.
2. Extra production.
3. Manipulation in selling and selling the fixed assets.

**Research Background:**

Ewert and Wagen Hofer and Demski [8] state that the conservative accounting standard creates a dicker between real and accrual earnings management.

Lara et al [17] examine the influence of management on earnings’ timing asymmetry. They conclude that earnings management increase the size of the earnings conservatism.
The results confirm the hypothesis that there is a positive, strong relation between information symmetry and conservatism.

Li in a study named “Conservative Accounting and the Behavior of Predicting the Managers’ Earning”, found that spreading the memo of earning prediction, and repeating that increases according to the conservatism level. Also, the information content of the manager prediction, measured according to the level of relation to the analysis results, has a negative relation with the level of conservatism and this relation changes with the change in the growth of the assets and is fixed when the managers reveal the combined effect of the changes in the conservatism exercised in financial reporting, which may lead to errors in analyzers’ estimations. Moreover, following the spread of the earning memos by the managers, the analyzers modify the earning prediction in order to reduce the effects of the exercised conservatism. Generally, the managers spread the earning memos in order to adjust the effects of the conservative accounting which are not fully recognized by the analyzers.

Paek et al examine the effects of conservatism on the earnings sustainability. According to them, the possibility of the repeat in positive changes of earning for a few periods is more than that of the repeat in negative changes of earning in a few periods. For using the procedures of conservative accounting leads the recognition of the losses to be done quickly and in the current period, but the recognition and reflection of the possible earnings, is done gradually and in a number of periods. In their study, they conclude that the earnings with more conservatism, are less sustainable than the earnings with less conservatism. They show that the authorization of accounting standards with conservative procedures guarantees the expenses for the capital market. These standards reduce the sustainability and predictability and misleads the potential and actual investors from appropriate economic decisions.

Chen, Lin and Strong [4] found that unconditional conservatism correlates with the higher quality of accounting information and lower expenses of the capital and conditional conservatism correlates with the lower quality of accounting information and the higher expenses of the capital.

Bani Mahd determines the factors influencing the accounting conservatism and offers a model to measure it. The results of his study suggest that the accounting conservatism and the profitability index in Iran have reduced simultaneously in the course of the research.

Yaseri [26] examines the earnings made from manipulating the real activities. His results suggest that there is a manipulation of the earnings through real activities at the level of zero revenue for the studied firms. The financial leverage influences the level of this manipulation, but the opportunities for the growth of the short-term current liability do not.

Kordestani and Amirbeigi [15] examine the timing asymmetry of the earnings as a criterion to evaluate conservatism. The results of this study show that there is a negative relation between the timing asymmetry of the earnings and the MTB ratio as two criteria to evaluate conservatism, which is statistically significant.

Mehrani et al. [19] examine the relation between conservatism and the accruals of the earnings. Their results show that in Iranian capital market, the firms’ accounting earning is more sensitive to negative yield than positive yield.

**Research Hypotheses:**

1. There is a relation between accounting unconditional conservatism and accrual earnings management.
2. There is a relation between accounting unconditional conservatism and accrual earnings management.
3. There is a relation between accounting unconditional conservatism and real earnings management.
4. There is a relation between accounting unconditional conservatism and real earnings management.

Basically, in order to test the hypotheses, these regression models are used respectively:

1. \[ AM_1 = \alpha + \beta1\text{Condi} - \text{Conser} + \beta2\text{LEV} + \beta3\text{MTB} + \beta4\text{Size} + \epsilon_t \]
2. \[ AM_1 = \alpha + \beta1\text{Uncondi} - \text{Conser} + \beta2\text{LEV} + \beta3\text{MTB} + \beta4\text{Size} + \epsilon_t \]
3. \[ RM_1 = \alpha + \beta1\text{Condi} - \text{Conser} + \beta2\text{LEV} + \beta3\text{MTB} + \beta4\text{Size} + \epsilon_t \]
4. \[ RM_1 = \alpha + \beta1\text{Uncondi} - \text{Conser} + \beta2\text{LEV} + \beta3\text{MTB} + \beta4\text{Size} + \epsilon_t \]

Conditional conservatism (Condi–Conser) index; unconditional conservatism (Uncondi-Conser) index; (t): time period index; firm’s size; financial leverage (Lev); market value to book value ratio (MTB) of the stockholders’ salary; Error term (ε).

**Research Methodology:**

The present study is ex-post facto, with a correlative method and of a functional – developmental type, which using a multiple regression model examines the linear relation between the variants. It uses the t and F statistics respectively to test the models’ validity and their rate. The statistical population includes all the firms
accepted in TSE, and 86 firms in the time period of 2007 to 2011, with the following conditions and limitations are examined and evaluated as the statistical population:

1. The firms that completely provided the information necessary for this study from 2007 to 2011.
2. The firm’s fiscal year ends in March 20.
3. It should not be among the banks and financial institutions (investing or insuring firms, financial brokers, leasing companies)
4. The firm should have no change in fiscal year from 2007 to 2011.

In order to collect data, the library tools and the firms’ financial statements have been used by Rahavarde Novin and other information software and websites. To test the hypotheses, the multiple regression method has been used in SPSS 2.0 software.

Research Variables:

a) Accruals Earnings Management:

The model for estimating accruals earnings management (adjusted Jones model):

\[ \text{TAC}_{it} = \frac{1}{\text{TA}_{it-1}} + \beta_0 (\Delta \text{REV}_{it} - \Delta \text{REC}_{it}) + \beta_2 \Delta \text{Sales}_{it} / \text{Assets}_{it} + \beta_3 \Delta \text{RO}_{it} (t-1) + \beta_5 \Delta \text{SG}_{it} + \epsilon_{it} \]

TAC: Total accruals (net income before the unexpected announcement of minus operational cash flows)

\( \Delta \text{REV}_{it} \): Changes in the income in the years t-1 to t for the firm i

\( \Delta \text{REC}_{it} \): Changes in the received accounts and documents in the years t-1 to t for the firm i

PPE: Quantity of the gross profit, machinery and tools in the year t for the firm i

E: Regression disorders, it is assumed that it is cross-sectional non-correlate and with the normal distribution with a zero mean.

b) Real Earnings Management:

\[ \text{PROD}(t)/\text{ASSET}(t-1) = \alpha + \beta_0 \text{SALES}(t)/\text{Assets}(t-1) + \beta_1 \Delta \text{Sales}(t)/\text{Assets}(t-1) + \beta_2 \Delta \text{ROA}(t-1) + \beta_3 \Delta \text{SG}(t) + \epsilon(t) \]

PROD(t):che sold item cost + inventory disparity between the beginning and the end of the period

Sales(t): net sales of the year t

ΔSales(t): sale in the year t – sale in the year t-1

Assets (t – 1): total assets of the firm at the end of the period t-1

SG: sale expenses

ROA: assets yield (totalassets/ netincome)

c) Conditional Conservatism:

Basu Model: the tendency to accelerate the recognition of losses and to postpone the recognition of earnings characterizes conservatism from the perspective of earnings and losses, and according to this, Basu [1] introduces the criterion for the timing asymmetry of the earnings. Basu Model is as follows:

\[ \text{Eit} / \text{Pi}_{it-1} = \alpha + \beta_1 \text{DI}_{it} + \beta_2 \text{Ri}_{it} + \beta_3 \text{D} \times \text{Ri}_{it} + \epsilon_i \]

Eit: earnings before the unexpected announcement of the firm i in the year t

Pi_{it-1}: the firm i’s capital market value in the beginning of the year t

Di_{it}: annual percentage rate of the stocks in the firm i in the year t

D: a virtual variant between 0 and 1, in which if Ri ≥ 0, its value would be one, otherwise, it would be zero

β: measures the earnings reaction to the positive yield

β2 + β3: measures the earnings reaction to the negative yield

D) Unconditional Conservatism:

Givoly and Hayn Model: this model is a criterion for unconditional conservatism. Accruals on the optional items are used in this model. On the one hand, accrual accounting is a way to exercise conservatism and on the other, exercising option on the part of the managers when there is no certainty, paves the way for the emergence of conservatism.

\[ \text{Acc}_{it} = (\text{NI}_{it} + \text{DEP}_{it}) - \text{CFO}_{it} \]

\[ \text{OACC}_{it} = \Delta(\text{AR}_{it} + \text{I}_{it} + \text{PE}_{it}) - \Delta(\text{AP}_{it} + \text{TP}_{it}) \]

\[ \text{NOACC}_{it} = \text{ACC}_{it} - \text{OACC}_{it} \]

ACC: Total accruals

NI: net income before the unexpected announcement

DEP: depreciation expenses
CFO: operational cash flow
OACC: operation accruals
AR: Accounts receivable
I: inventory
PE: prepayment
AP: accounts payable
TP: taxes payable
NOACC: non-operational accruals

In Givoly and Hayn model, conservatism index equals (Morad Zadeh Fard et al, 1390):

\[ \text{CONACC} = \frac{(\text{NI} + \text{DEP} - \text{CFO}) \times (-1)}{\text{TA}} \]

Conservatism index = (operational income + depreciation expense – cash flow resulting from operation / total assets in the first period) \times (01)

**D) Control Variants:**

MTB: market value to book value ratio of the stockholder
Size: the firm’s size which is a natural logarithm of the total assets
Leverage: financial leverage (total liability to the total assets at the end of the period)

**Results and finding:**

**Descriptive Analysis:**

For the descriptive analysis of the variants, SPSS has been used. The statistical indices examined are in the form of the central index of mean and median and also the dispersion index of variance and standard deviation and can be seen in the table 1.

Table 1: Descriptive statistics of the variants in five years.

<table>
<thead>
<tr>
<th>Variant</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Mean</th>
<th>Median</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variant</td>
<td>LEV</td>
<td>0.04</td>
<td>18.36</td>
<td>1.14</td>
<td>0.62</td>
<td>3.41</td>
</tr>
<tr>
<td></td>
<td>Size</td>
<td>0.95</td>
<td>7.95</td>
<td>5.78</td>
<td>5.74</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>MTB</td>
<td>0.22</td>
<td>16.90</td>
<td>2.45</td>
<td>2.02</td>
<td>3.05</td>
</tr>
<tr>
<td></td>
<td>Cond.-Conser</td>
<td>-101.58</td>
<td>2.79</td>
<td>-2.20</td>
<td>-1.22</td>
<td>38.86</td>
</tr>
<tr>
<td></td>
<td>Uncondi-Conser</td>
<td>-93.18</td>
<td>1.11</td>
<td>-1.58</td>
<td>-4.41</td>
<td>44.47</td>
</tr>
<tr>
<td>Dependent Variant</td>
<td>AMt</td>
<td>-62.26</td>
<td>150.25</td>
<td>-0.07</td>
<td>-0.34</td>
<td>98.47</td>
</tr>
<tr>
<td></td>
<td>RMt</td>
<td>-391.29</td>
<td>-0.15</td>
<td>-15.59</td>
<td>-2.59</td>
<td>2084.21</td>
</tr>
</tbody>
</table>

**Inferential Analysis:**

**Data Normalcy Test:**

In order to test normalcy of the data, Kolmogorov–Smirnov test is used in SPSS, the results of which for all dependent and independent variants is shown in table 2.

Table 2: The results of Kolmogorov-Smirnov test (KS).

<table>
<thead>
<tr>
<th>Variance</th>
<th>Significance Level</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variant</td>
<td>(LEV) Financial leverage</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(Size) Firm size</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(MTB) Market to book value ratio</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Conditional conservatism index</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Unconditional conservatism index</td>
<td>0.000</td>
</tr>
<tr>
<td>Dependent Variant</td>
<td>(RMt) Real Earnings Management</td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td>(AMt) Accrual Earnings Management</td>
<td>0.119</td>
</tr>
</tbody>
</table>

**Hypotheses Test:**

**First Hypothesis:**

Hypothesis: there is a relation between accounting conditional conservatism and accrual earnings management.

In order to do the multiple regression test, the following hypotheses are made:

H_{0}: There is no significant linear relation between accrual earnings management and conditional conservatism.

H_{1}: There is a significant linear relation between accrual earnings management and conditional conservatism.

Considering table 3, the Durbin-Watson statistic of 2.190 is in the range of 1.5 to 2.5, error independence is confirmed and the correlation coefficient (0.436) suggests a positive correlation between accrual earnings management and conditional conservatism with additional variants. Significance level (0.000) confirms H_{1} hypothesis at 5% error level. Therefore, it is concluded that there is a linear relation between accrual earnings management and conditional conservatism. Considering the table of number coefficients of regression and fixed amount, the regression equation for this hypothesis would be as follows:
\[ AM_t = -2.584 - 0.001CC + 0.072LEV - 0.017MTB + 0.364Size + 0.006 \]

Considering the coefficients of the model’s independent variants, the firm size (Size) has the largest influence on accrual earnings management, followed by the financial leverage (LEV). The conditional conservatism index has the least influence on accrual earnings management.

Table 3: The results of testing the first and the second hypotheses.

<table>
<thead>
<tr>
<th>Statistic</th>
<th>First Hypothesis</th>
<th>Second Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination Coefficient</td>
<td>0.436</td>
<td>0.473</td>
</tr>
<tr>
<td>Adjusted Determination Coefficient</td>
<td>0.190</td>
<td>0.223</td>
</tr>
<tr>
<td>Standard Error of determination</td>
<td>1.29</td>
<td>1.27</td>
</tr>
<tr>
<td>Durbin-Watson coefficient</td>
<td>2.190</td>
<td>2.205</td>
</tr>
<tr>
<td>F statistic</td>
<td>18.745</td>
<td>22.93</td>
</tr>
<tr>
<td>Significance level</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Coefficients of the independent variants</td>
<td>β</td>
<td>T</td>
</tr>
<tr>
<td>(α) Fixed amount</td>
<td>-2.584</td>
<td>-4.552</td>
</tr>
<tr>
<td>(LEV) Financial leverage</td>
<td>0.072</td>
<td>1.733</td>
</tr>
<tr>
<td>(MTB) Market to book value ratio</td>
<td>-0.017</td>
<td>-4.468</td>
</tr>
<tr>
<td>(Size) Firm size</td>
<td>0.364</td>
<td>3.939</td>
</tr>
<tr>
<td>(Cond.- Censer) Conditional conservatism index</td>
<td>-0.001</td>
<td>-0.068</td>
</tr>
<tr>
<td>(Uncond.- Censer) Unconditional conservatism index</td>
<td>-0.001</td>
<td>-0.068</td>
</tr>
</tbody>
</table>

**Second Hypothesis:**

In order to do the multiple regression test, the following hypotheses are made:

- H0: There is no significant linear relation between accrual earnings management and unconditional conservatism.
- H1: There is a significant linear relation between accrual earnings management and unconditional conservatism.

Considering table 3, the Durbin-Watson statistic of 2.205 is in the range of 1.5 to 2.5, error independence is confirmed and the correlation coefficient (0.473) suggests a positive correlation between accrual earnings management and unconditional conservatism with additional variants. Significance level (0.000) suggests a linear relation between accrual earnings management and unconditional conservatism (H1 hypothesis confirmed at 5% error level). Considering the table of number coefficients of regression and fixed amount, the regression equation for this hypothesis would be as follows:

\[ AM_t = -2.741 - 0.040UC + 0.071LEV - 0.024MTB + 0.333Size + 0.006 \]

Considering the coefficients of the model’s independent variants, conservatism index and the firm size (Size), with the significance level of t statistic (0.000) have the largest influence on accrual earnings management.

**Third Hypothesis:**

In order to do the multiple regression test, the following hypotheses are made:

- H0: There is no significant linear relation between real earnings management and conditional conservatism.
- H1: There is a significant linear relation between real earnings management and conditional conservatism.

Considering the results of table 4, the Durbin-Watson statistic of 1.698 is in the range of 1.5 to 2.5, error independence is confirmed and the correlation coefficient (0.266) suggests a positive correlation between real earnings management and conditional conservatism with additional variants. Significance level (0.000) suggests a linear relation between real earnings management and conditional conservatism (H1 hypothesis confirmed at 5% error level). Considering the table of number coefficients of regression and fixed amount, the regression equation for this hypothesis would be as follows:

\[ RM_t = 7.752 - 0.002CC - 0.076LEV - 0.002MTB + 0.379Size + 0.005 \]

Considering the coefficients of the model’s independent variants, the firm size (Size), with the significance level of t statistic (0.000) has the largest influence on real earnings management.
Table 4: The results of testing the first and the second hypothesis.

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Third Hypothesis</th>
<th>Fourth hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.266</td>
<td>0.266</td>
</tr>
<tr>
<td>Determination coefficient</td>
<td>0.071</td>
<td>0.071</td>
</tr>
<tr>
<td>Adjusted determination coefficient</td>
<td>0.062</td>
<td>0.062</td>
</tr>
<tr>
<td>Standard error of determination</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>Durbin-Watson coefficient</td>
<td>1.697</td>
<td>1.698</td>
</tr>
<tr>
<td>F statistic</td>
<td>7.796</td>
<td>7.785</td>
</tr>
<tr>
<td>Significance Level</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Coefficients of the independent variants:

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>t</th>
<th>P-Value</th>
<th>β</th>
<th>t</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>7.752</td>
<td>18.467</td>
<td>0.000</td>
<td>7.764</td>
<td>18.486</td>
<td>0.000</td>
</tr>
<tr>
<td>LEV</td>
<td>0.076</td>
<td>2.491</td>
<td>0.130</td>
<td>0.075</td>
<td>2.478</td>
<td>0.014</td>
</tr>
<tr>
<td>MTB</td>
<td>0.002</td>
<td>0.080</td>
<td>0.963</td>
<td>0.002</td>
<td>0.078</td>
<td>0.938</td>
</tr>
<tr>
<td>Size</td>
<td>0.379</td>
<td>5.557</td>
<td>0.000</td>
<td>0.378</td>
<td>5.528</td>
<td>0.000</td>
</tr>
<tr>
<td>Condi- Censer</td>
<td>-0.002</td>
<td>-0.286</td>
<td>0.775</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncondi- Censer</td>
<td></td>
<td></td>
<td></td>
<td>-0.002</td>
<td>-0.210</td>
<td>0.834</td>
</tr>
</tbody>
</table>

Fourth Hypothesis:

In order to do the multiple regression test, the following hypotheses are made:

H0: There is no significant linear relation between real earnings management and conditional conservatism.

H1: There is a significant linear relation between real earnings management and conditional conservatism.

Considering the results of table 4, the Durbin-Watson statistic of 1.698 is in the range of 1.5 to 2.5, error independence is confirmed and the correlation coefficient (0.266) suggests a positive correlation between real earnings management and conditional conservatism with additional variants. Significance level (0.000) suggests a linear relation between real earnings management and conditional conservatism (H1 hypothesis confirmed at 5% error level). Considering the table of number coefficients of regression and fixed amount, the regression equation for this hypothesis would be as follows:

\[ RM_2 = 7.752 - 0.002CC - 0.076LEV - 0.002MTB + 0.379Size + 0.005 \]

Considering the coefficients of the model’s independent variants, the firm size (Size), with the significance level of t statistic (0.000) has the largest influence on real earnings management.

Conclusion:

When the managers have a tendency to reduce or postpone the recognition of the earnings, they use the factors reducing the earnings. This ends up out of the purposes of the theoretical framework supporting the investors. Now, while the cash flows reflect the bad and good news in a symmetrical way, the accruals are not used to exercise conservatism. If the accruals of the earnings, are divided into voluntary (abnormal) and involuntary, then conservatism must be reflected in the involuntary part. While, unfavorable conservatism, which is defined as the voluntary under recognition of the assets or the income, or the over recognition of the liabilities or the expenses, is reflected in the voluntary accruals. In other words, the voluntary accruals distance the earnings conservatism from the favorable amounts and therefore, conservatism principles are violated. Structurally, the managers have a tendency to reduce the earnings, for tax-related purposes, and for not paying stock earnings, among other things. In these situations, the managers use the procedures, among many possible ones, that lead to smaller earning numbers (decreasing earnings management) and therefore, in the periods with bad news, there is a more significant relation between earning and yield (over conservatism). If the managers increase the earning numbers artificially with motivations such as increasing the reward (increasing earnings management), in the periods with bad news, there would be a poor relation between earning and yield (no conservatism). The results of this study as well as that of Mehrani et al. [19] show that the total accruals of the firms is linked to earning conservatism. They are also consistent with the results of the studies by Larra et al [17], which show that the earnings management influences accounting information.

Suggestions:

A. The results show that accrual and real earnings management influence conservatism. In order to improve conservatism, which is one of the qualitative features of the accounting information and in order to increase the investors’ trust in the firms’ financial reports, in the stock exchange organization and in the audit organization, it is suggested that the necessities of financial reporting be codified in a way that minimizes the possibility for the managers to use financial reporting tools for manipulating accounting numbers.

B. As argued in this study, the relation between accruals and conservatism is linear and significant. And since exercising over conservatism to the financial statements may result in high earning numbers for subsequent years, this has to be considered when exercising conservatism. We also suggest the researchers and financial analyzers to consider this fact in their studies and analyses.
REFERENCES