Reviewing Accounting Conservatism and Earnings Value

Relevance Across the Business Cycle in Tehran Stock Exchange

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Abstract

According to accounting literature, value relevance of earnings is caused by the relationship between earnings and return. Had the earning response related to negative returns exceeds positive ones, it can be concluded that management has in fact revealed the bad news via conservative methods; this influences the relationship between earnings and return, which increases the amount of value relevance of earnings. Researches show that disclosing policies (the relationship between earnings and return) of business firms are sensitive to business cycles, thus it can be argued that if the business cycle faced contraction or expansion, the reaction of earnings against negative returns would differ comparing to positive returns. The aim of this research is to assess accounting conservatism and value relevance of earnings in business cycles. The samples of this study are 100 companies listed in TSE; their information for the period of 2007 to 2016 were tested. The results from regression test demonstrate that accounting conservatism and value relevance of earnings is much higher in contractionary economic cycles comparing to any other economic cycles. This result is pursuant to Jenkins et al (2009) research

Key words: Accounting conservatism, value relevance of earnings, business cycles.

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1. Introduction

Economic conditions (boom and slump) can affect the companies and accounting information differently. Thus, knowledge of changes of accounting information behavior can help investors and other decision-makers in financial markets for anticipating future accounting information and better allocation of resources.

In the accounting literature, the relation of earnings and return indicates earnings information content (Olson, 1995). If earnings reaction to negative returns is more than that to positive returns, then it indicates that management prevents hiding bad news by conservative procedures (Basu, 1997), and so it affects the relation of earnings and return and increases earnings information content. The researches show that disclosure policies (earnings and return relation) of beneficial units is sensitive to business cycles. Trade boom and slump cycles are potentially from the features of a major economy, and generally, economic boom periods are longer and have longer effects. During economic boom periods, the expectation levels of investors goes up and as a result, earnings response factor (earnings reaction) become more severe (Johnson, 1999). Most deviations in financial reports occur during trade slumps. Also, deviations and forgeries and preventive approaches appear when investors and owners note to trade risks and value decrements during trade slump periods.\(^3\) It seems that higher concentration on trade risks during slump periods cause managers and auditors turn to more conservative procedures in reporting accounting earnings (Jenkins, Gregori, & Valei, 1999). If an accounting system responds to a demand of capital market and other demanders of conservative reports during trade slump periods, the published data are much compatible with expectations and desires of investors and other users, and it probably is more valuable in decision-making patterns, so it will bring higher contents. Therefore, we can ratiocinate that the reaction of earnings to negative returns is different from positive returns (earnings-return relation) if business cycle is in boom or slump. The present research tries to study variability of the financial reporting environment in two aspects of accounting conservatism in earnings reporting and earnings information content in different business cycles.

\(^3\) For example, Sarbanes Oxley Act was approved in 2002 during economic slump after discovery of forgeries of several large American companies.
2. Subject and theoretical fundamentals

Basu (1997) nominated “Conservatism” usage of higher levels of reliability for identification and registration of profits and pleasant news (value increment), and in contrast, usage of lower levels of reliability for identification and registration of losses and unpleasant news (value decrement). Conservatism prevents hiding bad news by accelerating identification of losses, and thus it affects earnings-return relation and cause a different earning reaction against negative returns than positive returns (Basu, 1997). Ball & Shikomar (2005) suggested that demand for conservative reporting indicates that conservatism is useful for users of financial reports of a company. Optimistic views of managers and owners are likely reflected in financial statements. Consequently, pessimism in accounting is a necessity to neutralize the optimistic view (Ball & Shikomar, 2005).

There are evidences indicating accounting conservatism increases during trade slump periods. Firstly, risks of juridical claims increases during trade slump periods and when fall of the stock price in capital market is high. One of the strategies for decrement of risks of juridical claims is conservative reporting (Watts, 2003), which accelerates publication of bad news about the company to decrease risks of juridical claims of owners against the company management (Watts, 2003; Ball & Shikomar, 2005; Lara, Asma, & Penalova, 2009).

Secondly, probably demand for increment of conservative accounting procedures increases during trade slump periods from stockholders and investors due to higher uncertainty in order to identify and knock out projects with negative NPV (Brown & Title, 2006). On the other hand, trade slump conditions make beneficial units review their disclosure policies, and since bad news is more probable during such periods, they try to hide bad news and to show the company situation desirable. Conservatism prevents hiding bad news by management through rapid identification of losses. Therefore, demand for conservatism increases in such situations.

Thirdly, companies usually prefer financing through internal resources than financing through external ones. During trade slump periods, internal financing may be limited due to lower profitability. In such conditions, companies seek external financing (Warfield et al., 1995). Thus, demand for accounting conservatism increases to
decrease information asymmetry between managers and new financial suppliers of the company (Ball & Shikomar, 2005).

Regarding to the above suggestions, it seems that accounting conservatism is variable during different business cycles, and it is more like this during trade slump periods than boom periods.

Warfield et al. (1995) defined information content as capacity of justification of stock return; while Ahmad et al. defined it as existence of information load around future profit. Upon opinion of Vofiz (Prezcruse & Tirman, 2007), profit information content can be shown by earnings-stock return relation (information content is accessible in the frame of earnings profitability by justification of the stock return). According to Biwer (1989), change of stock price is a reaction to earnings change in a definite period.

Since accounting information reflects situation of a company in a special trade environment, it is expected that the contents of accounting information change during business cycles. The researches show that the earnings information content changes during different business cycles. This variation of accounting conservatism during business cycles causes changing the contents of accounting earnings in business cycles (Watts, 2003; Ball & Shikomar, 2005; Choyi, 2007).

As mentioned earlier, during trade slumps, forces in financial and capital market demand more conservatism. Applying conservatism strategies in profit report implies that bad news is reflected in earnings much faster than good news. If companies respond to such demand increment for conservatism in earnings during trade slump periods and report more conservative earnings to the market, the reported earnings will have more acceptability in the market, and its information content will be more. Also, during trade boom periods, there are more growth opportunities, and since accounting information are measured by historical finished price, the distance between accounting information with growth opportunities are more during trade boom periods. As a result, probably investors need information about current values more than historical accounting information for clarification of their future expectations about performance and value of company. Hence, probably earnings information content decreases during trade boom periods due to less trust of investors on accounting information (Jenkins, Georguri, & Valeri, 2009).

According to the above text, we can conclude that earnings information contents are higher during trade slump periods than those of during trade boom periods.
3. Literature Review

Balakershina et al. (2016) studied the effect of accounting conservatism on investment levels of companies during global financial crisis. The results showed that conservative companies encounter less decrement in growth of debts and stock performance.

Kim et al. (2015) showed that conditional conservatism was accompanied with less fall of future stock price of a company. In other words, they suggested that conditional conservatism limited enthusiasm of management for hiding bad news for investors, which finally concluded fall of the stock price in the market.

Bart et al. (2009) used Olson Model for cash and accrual items of accounting earnings and found that severing earnings to its components helped anticipation of market value of the company according to Remained Earnings Model.

Maryam Shafiei (2016) studied the relation between accounting conservatism and earnings quality and the stock price. The findings showed that there was a significant relation between conditional and unconditional conservatism with earnings quality and the stock price. In other words, increment of unconditional conservatism was accompanied with decrement of earnings quality, and increment of conditional conservatism was accompanied with increment of earnings quality.

Pourvali Aeliar et al. (2016) found that there was a direct and significant relation between conservatism and earnings quality, and conservatism cause increment of earnings by controlling earnings manipulation opportunities by management.

Lafond & Watts (2010) found that accounting conservatism decreased information asymmetry. The concluded that information asymmetry between internal and external individuals leads to request for conservatism in financial statements.

Rezazadeh & Azad (2008) studied the relation between information asymmetry between investors and conservatism level in financial reporting. The results of experimental tests indicated a positive and significant relation between information asymmetry between investors and applied conservatism
level in financial reporting. In addition, the results showed that change of information asymmetry between investors cause change of conservatism level.

Perzkuruz & Timerman (2007) studied stock return variations at benchmarks of business cycle changes. The results showed that variation of stock market is noticeable at benchmarks of business cycles.

Alipour & Pourheydari (2011) studied the behavior of accounting information towards business cycles and features of companies. The results showed that there was a significant relation in Tehran Stock Exchange between some of accounting variables (e.g. sale growth, gross earnings margin) with business cycles, and there was no relation between some variables (e.g. change of total assets).

Jenkins et al. (2009) studied conservatism and earnings information content in business cycles. They found that conservatism and earnings information content during trade slump periods were higher than those in trade boom periods. They proved that if there was a weak relation between historical accounting information and future growth opportunities in companies, information content of future expected earnings was higher during trade boom periods.

Khan & Watts (2009) showed that conservatism decreased by increment of the firm's size, but it increased by increment of ratio of market value to book value of equity and financial leverage level. They also showed that conservatism decreased by increment of the company's life, and increased by increment of company uncertainty and investment cycle length.

Forughi & Abbasi (2011) in a research titled “study of effective factors on accounting conservatism” tested the effects of different factors on accounting conservatism. Their results showed that there was a negative relation between conservatism with the company's size and the average company's life. Also, there was a positive and significant relation between conservatism and ratio of market value to book value of equity, financial leverage, average of uncertainty, and average of reverse of the investment cycle length.

4. Methodology

Since the results of this research can be used for making decisions by financial managers, this research is an applicable one by goal. Also, this is a descriptive-correlational research because the researcher intends to evaluate the relation
between two or more variables. The data of the stock companies including annual earnings, annual returns of stocks, which are required for sampling, are collected for a period of 10 years from 2007 to 2016. Then, the variables of the research and the possible relationship between them are measured by the Multi-variable regression models. Partial regression tests by least mean squares were used for analyzing raw data and converting them to the data for testing hypotheses. For measure the conservatism using the Basu model (1997), and for the value relevance of earnings, is used a model presented and tested by Jenkins and colleagues in 2009. In order to assess patterns of conservatism and information content of a dummy variable to control the impact of business cycles added and the regression equation is estimated for the entire study period. The tests were implemented in Eviews software at confidence level of 95%. The patterns have been extracted from the work of Jenkins et al. (2009).

5. Hypotheses

This research intends to study the effects of business cycles on conservatism levels of financial reports and earnings information content of listed companies in Tehran Stock Exchange. The hypotheses are determined as follows upon the main question of this research: “Do trade boom and slump periods affect accounting conservatism level and earnings information content?”

**Hypothesis 1**: Accounting conservatism is higher during trade slump periods than during trade boom periods.

**Hypothesis 2**: Earnings information content is higher during trade slump periods than during trade boom periods.

6. Time period

This is a post-event research and is based on real and historical data of the stock market and financial statements of companies. Data Panel Method was used for examination of correlation between variables. The time period of this research is 2007 to 2016 and its space territory is all listed companies in Tehran Stock Exchange.
7. Sample and data gathering

The companies with the following conditions were selected for determination of sample members:
1. The company is not a bank, an investment company, an insurance company, or a brokerage firm.
2. The company has attended in the stock market from 2007 to 2016 continuously and has not interrupted its transactions more than 6 months per year.
3. The fiscal year end of company is March 20.
4. The company has not changed its fiscal year.
5. The Financial data of the company is available for this period.

Upon the above conditions, only 100 companies were selected. The research period is 10 consecutive years, thus the sample size is 1000 year-firm. Data was gathered from field and library by Tadbir Pardaz software and Rahavard Novin software.

8. Research variables

8.1. Independent variable

The main independent variable of this research is “business cycle” which includes trade boom and slump. The indices of Tehran Stock exchange were used to define the business cycle. So that the average of the total market index during the research period is calculated and the years in which the total market index is higher than the average are slump period (Johnson, 1999). This variable is considered as a virtual variable in the hypotheses test model, and its value is 1 for trade boom years and is zero for other years.

8.2. Dependent variables

The dependent variables in this research are accounting conservatism and earnings value relevance. Each variable is measured and tested by regression patterns. Then the test pattern for testing hypotheses is obtained by developing the patterns through adding virtual variables, according to Jenkins et al. (2009).
8.3. The model of hypothesis 1

Hypothesis 1 is tested by the developed model of Basu (1997). In Basu's original model, positive returns represent good news and negative returns representing bad news. According to Basu, the reaction of earning to bad news is longer than the reaction of earnings to good news, if in this model $\beta_3$ is opposite zero and positive, Indicates conservatism, and a positive and significant $\beta_3$ indicates that reflects of bad news on earning are much faster than good news. In this model Earn is dependent variable and RET is an independent variable. So that a virtual variable is added to Basu’s memory level measurement model, which reflects trade boom periods, and its value is 1 for boom periods; otherwise, it is zero. Therefore, the difference between conservatism levels in trade boom periods with other periods is shown by fitness of this regression.

$$EARN_t = \beta_0 + \beta_1 RET_t + \beta_2 DRET_t + \beta_3 RET_t * DRET_t + \beta_4 EXP_t + \beta_5 EXP_t * RET_t + \beta_6 EXP_t * EXP_t * DRET_t + \epsilon_t$$

in which,

- $EARN_t$ : Annual earnings of the company, which is standardized by dividing by capital market value of the period's start;
- $RET_t$ : Annual return of the company's stock;
- $DRET_t$ : A virtual variable, which is 1 for companies with negative return; otherwise, it is zero;
- $EXP_t$ : A virtual variable, which is 1 if t period is from trade boom years; otherwise, it is zero.

In this model, $\beta_3$ indicates conservatism level if it is positive and not zero. $(\beta_1 + \beta_3)$ is earnings reaction towards bad news. If $(\beta_1 + \beta_3) > \beta_1$, then $\beta_3$ is positive, and in fact, this is the earnings time asymmetrical factor that is the criterion of conservatism. Also, $\beta_5$ is the effect of the business cycle on the time symmetry of good news, and $(\beta_5 + \beta_7)$ is the effect of business cycle on the time symmetry of bad news. If $\beta_7$ is negative and significant, then accounting
conservatism is during trade boom periods is less than that in trade slump periods. Therefore, we consider the following statistical assumptions:

\[ H_0: \beta_7 \geq 0 \]
\[ H_1: \beta_7 < 0 \]

### 8.4. The model of hypothesis 2

Hypothesis 2 is tested by the developed model of Jenkins et al. (2009). In this model, stock returns are considered as a function of current net profit and a change in net profit over the previous period. Therefore, \( RET \) is a dependent variable and \( Earn \) is an independent variable of the model. So that a virtual variable is added which indicates measurement pattern of earnings information content.

\[
RET = \beta_0 + \beta_1 Earn_n + \beta_2 \Delta Earn_n + \beta_3 EXP_n + \beta_4 Earn_n * EXP_n + \beta_5 Earn_n * \Delta EXP_n + \epsilon_n
\]

in which,

- \( RET_n \): Annual return of the company's stock;
- \( Earn_n \): Net profit of each stock before unexpected items;
- \( \Delta Earn_n \): Change of the annual profit of each stock before unexpected items;
- \( EXP_n \): A virtual variable, which is 1 if \( t \) period is from trade boom years; otherwise, it is zero.

In the above regression pattern, \( \beta_1 \) and \( \beta_2 \) are earnings information contents during total research period, \( \beta_4 \) and \( \beta_5 \) are earnings information contents during trade boom periods. According to hypothesis 2 and the above regression pattern, we consider the following statistical assumptions:

\[ H_0: \beta_1 \leq \beta_4 \]
\[ H_1: \beta_1 > \beta_4 \]

In other words, if earnings information content during trade boom periods (\( \beta_4 \)) is less than that during total research period (\( \beta_1 \)), then the hypothesis 2 is accepted according to high earnings information content during trade slump periods.
9. Results of testing hypotheses

9.1. Classification of business cycles

As mentioned before, the total market index is used for identifying existence of boom or slump periods in the capital market. So that the average of total market index during the research period is calculated and the years in which total market index is higher than average are slump period and the other years considered as boom period. Hence, the research period is classified and the effects of trace cycles on regression patterns have been applied. Table 1 shows the results of this classification.

<table>
<thead>
<tr>
<th>Year</th>
<th>Weighted average of total market index</th>
<th>Growth rate (%)</th>
<th>Business cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>9771</td>
<td>1.17</td>
<td>Slump</td>
</tr>
<tr>
<td>2008</td>
<td>10392</td>
<td>6.36</td>
<td>Slump</td>
</tr>
<tr>
<td>2009</td>
<td>10679</td>
<td>2.93</td>
<td>Slump</td>
</tr>
<tr>
<td>2010</td>
<td>17364</td>
<td>62.32</td>
<td>Boom</td>
</tr>
<tr>
<td>2011</td>
<td>25433</td>
<td>46.47</td>
<td>Boom</td>
</tr>
<tr>
<td>2012</td>
<td>30073</td>
<td>18.24</td>
<td>Slump</td>
</tr>
<tr>
<td>2013</td>
<td>64812</td>
<td>115.51</td>
<td>Boom</td>
</tr>
<tr>
<td>2014</td>
<td>71957</td>
<td>11</td>
<td>Slump</td>
</tr>
<tr>
<td>2015</td>
<td>66005</td>
<td>(8.27)</td>
<td>Slump</td>
</tr>
<tr>
<td>2016</td>
<td>77654</td>
<td>18.24</td>
<td>Slump</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>27.33</td>
<td></td>
</tr>
</tbody>
</table>

According to the above table, the years 2010, 2011, and 2013 were trade boom periods due to higher growth rates of the total market index than the average value for the total research period. Also, the years 2007, 2008, 2009, 2012, 2014, 2015, and 2016 were trade slump periods due to lower growth rates of the total market index than the average value for the total research period.

9.2. Descriptive statistics of research variables

Table 4.1 summarizes the descriptive statistics of research variables after screening and removing outliers.

Table 2: Descriptive statistics of research variables
9.3. Results of hypothesis 1

The Basu’s developed model is the main pattern for testing hypothesis 1, to which a virtual variable is added for indicating the trade period. F Test Method was used to determine whether using Panel Data Method is efficient for estimation of the above models. Table 3 shows the results.

Table 3: Results of F-Limer Test for model 1

<table>
<thead>
<tr>
<th>Test type</th>
<th>Test statistic</th>
<th>Statistic value</th>
<th>Freedom</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Limer</td>
<td>F</td>
<td>0.916</td>
<td>(722.99)</td>
<td>0.6568</td>
</tr>
</tbody>
</table>

Since P-value in this test (0.6568) is greater than 0.05, the incompatibilities of intercepts of this model is rejected and combined data can be used at confidence level of 95%. We should not use Hussmann Test due to using Combined Data Method. Also, since autocorrelation between residues of model is confirmed according to the primary results, the first order autocorrelated variable AR(1) is entered to remove this problem. Table 4 shows the results.

Table 4: Results of statistical analysis for hypothesis 1 (Basu’s developed model)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>Sig.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>EARN</td>
<td>= β₀ + β₁ RET + β₂ DRET + β₃ RET * DRET + β₄ EXP + β₅ EXP * RET + β₆ EXP * DRET + ε</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.3357</td>
<td>19.076</td>
<td>0.0000</td>
<td>–</td>
</tr>
<tr>
<td>RET</td>
<td>0.0013</td>
<td>7.838</td>
<td>0.0000</td>
<td>3.274</td>
</tr>
<tr>
<td>DRET</td>
<td>-0.0275</td>
<td>-1.624</td>
<td>0.1047</td>
<td>3.435</td>
</tr>
<tr>
<td>EXP</td>
<td>0.0001</td>
<td>2.073</td>
<td>0.0412</td>
<td>2.836</td>
</tr>
<tr>
<td>EXPxRET</td>
<td>-0.0897</td>
<td>-5.541</td>
<td>0.0000</td>
<td>2.363</td>
</tr>
<tr>
<td>EXPxDRET</td>
<td>-0.0144</td>
<td>-0.440</td>
<td>0.6598</td>
<td>4.371</td>
</tr>
<tr>
<td>EXPxRETxDRET</td>
<td>-0.0002</td>
<td>-0.185</td>
<td>0.8533</td>
<td>3.345</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.2782</td>
<td>4.882</td>
<td>0.0000</td>
<td>1.019</td>
</tr>
<tr>
<td>Determination factor</td>
<td>0.4499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Fisher</td>
<td>5.948</td>
<td></td>
<td>Durbin Watson</td>
<td>1.776</td>
</tr>
<tr>
<td>F Fisher</td>
<td>5.948</td>
<td></td>
<td>Durbin Watson</td>
<td>1.776</td>
</tr>
</tbody>
</table>
The results show that determination factor of the developed model (0.4499) is higher than Basu’s primary model (0.185). Thus, this pattern clarifies 44.99 percent of changes of dependent variable through changes of the independent variable. According to the results, the estimated coefficient for $RET_{it} \times DRET_{it}$ is 0.0001 with a significant level of 0.0412. This indicates a positive and significant coefficient and shows that sample companies have applied conservative procedures on their financial reports.

Making decision about hypothesis 1 depends on the estimated coefficient $\beta_5$ for variable $EXP_{it} \times RET_{it} \times DRET_{it}$. Since this variable indicates accounting conservatism during trade boom periods, the results show that the value of the estimated coefficient is $-0.0002$ with a significant level 0.8533; which indicates that it is negative with a significance level higher than 0.05. This indicates that the conservatism levels of sample companies during trade boom periods are lower than the other periods (trade slump). Thus, it is concluded that, according to Basu’s (1997) model, sample companies are conservatism during the total research period. This is while the sign and significance level of conservatism coefficient of the model changes by adding to Basu’s model a virtual variable for trade boom periods. This change can be construed as decrement or deletion of conservatism procedures in financial reporting of sample companies. This subject coincides with hypothesis 1, which suggests accounting conservatism during trade slump periods is higher than that during trade boom periods. Hence, hypothesis 1 is confirmed.

9.4. Results of hypothesis 2

The developed model for measuring information content was used for testing this hypothesis. Also, a virtual variable was added to the information content measurement model to study the effects of business cycles on earnings information content. The Conditional F Method was used to determine whether using Panel Data Method is efficient for estimation of the above models. Table 5 shows the results.

<table>
<thead>
<tr>
<th>Test type</th>
<th>Test statistic</th>
<th>Statistic value</th>
<th>Freedom</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Limer</td>
<td>F</td>
<td>0.946</td>
<td>(855.99)</td>
<td>0.6275</td>
</tr>
</tbody>
</table>
Since P-value in this test (0.6275) is greater than 0.05, the incompatibilities of intercepts of this model is rejected and combined data can be used at confidence level of 95%. Hussmann Test should not be used due to using Combined Data Method. Table 6 shows that results.

Table 6: Results of statistical analysis for hypothesis 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>Sig.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>13.1294</td>
<td>3.290</td>
<td>0.0010</td>
<td>–</td>
</tr>
<tr>
<td>EARN</td>
<td>0.0090</td>
<td>3.108</td>
<td>0.0019</td>
<td>1.462</td>
</tr>
<tr>
<td>ΔEARN</td>
<td>–1.9266</td>
<td>–1.770</td>
<td>0.0770</td>
<td>2.130</td>
</tr>
<tr>
<td>EXP</td>
<td>10.2948</td>
<td>1.361</td>
<td>0.1736</td>
<td>1.720</td>
</tr>
<tr>
<td>EARN×EXP</td>
<td>–0.0177</td>
<td>–2.368</td>
<td>0.0181</td>
<td>1.935</td>
</tr>
<tr>
<td>ΔEARN×EXP</td>
<td>2.7081</td>
<td>2.036</td>
<td>0.0420</td>
<td>1.923</td>
</tr>
<tr>
<td>Determination factor</td>
<td>0.1678</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Fisher</td>
<td>1.715</td>
<td>Durbin Watson</td>
<td>2.232</td>
<td></td>
</tr>
<tr>
<td>P-value</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results show that this pattern clarifies 16.78 percent of changes of the dependent variable through changes of independent variable. According to the results, earnings information content is confirmed because earnings coefficient ($β_1$) is 0.0090 with a significant level of 0.0019, which indicates that this coefficient is positive and significant. In addition, the estimated coefficient for EARNₜₜ₁*EXPₜₜ₁ is -0.0177 with a significant level of 0.0181. This indicates a negative and significant coefficient and shows that the relation of reported earnings by sample companies during trace boom periods was negative. For making decision about hypothesis 2 and studying the difference between information content in different business cycles, the coefficients ($β_1$) and ($β_4$) shall be compared. For this purpose, Wald Test is used for the following statistical assumptions:

$H_0$: $β_1 = β_4$

$H_1$: $β_1 ≠ β_4$

Table 7 shows the results of Wald Test.
Since the significance level of Wald statistic is less than 0.05, H0 is rejected, and $\beta_1$ and $\beta_4$ are significant. This indicates that earnings information content is different during various trade periods. Since the coefficients for $EARN_{it}$ and $EARN_{it} \times EXP_{it}$ (earning information content during trade slump and boom periods, respectively) are 0.0090 and -0.0177, it is found out that earnings information content during trade slump periods is higher than that during trade boom periods. Hence, hypothesis 2 is confirmed.

10. Conclusion

The results of testing hypothesis 1 show that there have been levels of accounting conservatism in sample companies. Also, the results show that the conservatism coefficient decreases and becomes negative by adding to the measurement model a virtual variable for the trade boom period. This finding indicates a decrement or deletion of conservatism procedures in financial reporting of sample companies during trade boom periods, which leads to the increment of conservatism procedures in financial reporting in other periods (trade slump). Hence, hypothesis 1 is confirmed. The results of the present research are compatible with those of Jenkins et al. (2009).

The results of testing hypothesis 2 show that the reaction of stock return to accounting earnings during research period was direct and significant. Also, the results show that the relation between the return and earnings became reverse by adding a virtual variable for trade boom periods. In other words, earnings information content during trade boom periods is less than that during other periods. Hence, hypothesis 2 is confirmed. The findings are compatible with Jenkins et al. (2009). On the other hand, the results are not compatible with Johnson (1999). This research studied the relations between earnings and the return in business cycles and found that earnings response coefficient increased in trade boom periods.
11. Proposals

11.1. Proposals resulted from the research

It is recommended that investors notice financial reporting methods of companies for making investment decision, and to select the stock regarding their expected profit. According to the results of this research, it seems that companies with higher conservatism levels are more suitable for long-term investment horizons.

Also, it is recommended that investors lead managers for applying conservative procedures in financial reporting through applying corporate governance mechanisms. Also, notice business cycles and severe monitoring during trade boom periods if necessary, because, according to the results of this research, probably demand for accounting conservatism decreases by capital suppliers of the company during trade boom periods, which endangers their current and future benefits in the company.

Furthermore, it is recommended that managers of joint stock companies follow up the news related to the company in the capital market and consider it in financial reporting and publish it to the public at all times. By doing this, the capital market and other users shall not follow up the news from other sources, and thus, company managers have much control on the firm’s market value.

Finally, it is recommended that stakeholders of the capital market notice business cycles while using financial reports of companies for making investment decisions, and notice this point that the relation between accounting information with stock price and return is severely affected by business cycles, and the reaction of capital market to such information may not be reasonable for some special periods.
References


