Relationship between Restatement of Financial Statements and Information Asymmetry

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Abstract

The main aim of the present study is to examine the relationship between restatement of financial statements and information asymmetry in companies listed on Tehran Stock Exchange. Statistical population of the present study is consisted of companies listed on Tehran Stock Exchange during the time frame of 2004 to 2014 and sample volume was taken equal to 113 companies by using screening method. In this study, restatement of financial statements, restatement of financial statements resulting from operating items and restatement of financial statements which lowers profit were taken as independent variables in order to study their effect on information asymmetry of companies. In this study in which panel data with fixed and random effects were used, results obtained from firm data analysis by using multi-variable regression at 95% confidence indicated that restatement of financial statements has a direct effect on information asymmetry in companies, in a way that restatement of financial statements resulting from operating items has a larger direct effect on information asymmetry in companies comparing to restatement of financial statements resulting from non-operating items. Also, it was indicated that decreasing income restatement of financial statements has a larger direct effect on information asymmetry in companies’ comparing to increasing profit restatement of financial statements.

Keywords: Restatement of financial statements, information asymmetry, operating items.
Introduction

Considering the fact that all the results obtained from all firms’ economic activities are not reflected in income of the current period and also, due to the fact that profit resulting from some activities such as long-term sales contracts, investment activities and research and development activities are realized in following years, information related to these types of activities are made available to professional shareholders and they analyze the information related to stock value which are not reflected in current year performance metrics such as current income and consider them in stock prices. This information is made available to some shareholders such as institutional shareholders through some channels like board members and in this way these information are made available to a number of people; therefore, some of the shareholders may gain more knowledge comparing to others and this in turn, leads to information asymmetry. In other words, in most of the cases information asymmetry is resulted from investment opportunities of a company (Khoshtinat and Yousefi, 2008). Information asymmetry due to growth opportunities, provide more opportunities for income smoothing and transfer of wealth to management thought insider trades and additional bonus. Larger growth opportunities in a company lead to higher rate of unverifiable future cash flows and therefore, cause more information asymmetry between managers and shareholders. Therefore, with increased growth opportunities in a company, external pressures for exercising conservatism increase (Lafond and Wats, 2008).

In addition, annual adjustments and Restatement of prior period financial statements are accompanied with a number of negative outcomes. Net income figure is used as the basis for calculation of a number of things such as board of director’s bonus, tax and shareholders’ dividend. In addition to this, income per share and ratio of price to income per share are among metrics which are used by analysts and investors. Therefore, incorrect statement of profit and modifying it in next periods, that is, after making the related decision, has financial and economic outcomes for various individuals. Among the other negative outcomes of annual adjustments we can refer to the effect it has on auditors’ credibility. The aim of auditors is to Accredit financial statements and when audited financial statements of previous periods are restated due to Significant accounting errors repeatedly, it weaken the trust of society in auditors’ opinion (Nikbakht and Rafiee, 2012). Mangers’ main justification for using annual modifications is to reflect changes in operating and investment environment of companies in a better way. This justification is compatible with accounting standards, because annual modifications are allowed in these standards (Healy & Palepu, 2004). A number of studies have been conducted regarding the relationship between restatement of financial statements with stock price and capital market and investors and findings of this study indicate that stock market’s generally negative returns are due to restatements (Palmrose, 2004; Anderson & Yohn, 2002; Richardson & Tuna, 2002). Richardson and Tuna (2002) have found that restatement of financial statements is related to management’s motivations similar to incorrect reporting. These results can indicate that investors might consider income stated in restatements of financial statements as less reliable (Kravet & Shevlin, 2010).

In 1970, Akerlof, Spence and Stiglitz (1970) for the first time introduced information asymmetry theory. In their study they showed information asymmetry can increase inconsistent selection in markets which occurs before the occurrence of trade for individuals. They picture market in a way that in which seller has more information comparing to buyer.
Tinic (1972) suggests that in financial literature, offered price range of stock purchase and sale is consisted of three parts of order processing cost, Inventory holding cost and reverse selection cost. Order process cost is an amount which is spent by Market-makers for preparing the implementation of purchase and sale orders (Tinic, 1972: 82). Ho & Stoll (1981) have modeled inventory holding cost and suggest that cost of trade cause market-makers to maintain a diversified portfolio in order to be able to cover their costs (Ho & Stoll, 1981: 51). In the end, reverse selection which has been introduced by Copeland & Galai (1982) and Glosten & Milgrom (1985) indicate to a compensatory component for traders for accepting trade risk with individuals who might have access to important and confidential information. In other words, if a major section of market is consisted of uninformed individuals, market-makers increase the difference range of stock purchase and sale offer price in order to compensate for the risk of reverse selection (Copeland & Galai, 1983; Glosten & Milgrom, 1985: 77).

Owezo et al (2002) in their study have shown that market negative reaction in some cases is stronger that restatement of financial statements is accompanied by change of top management of the company. Results of the study conducted by Griffin (2002) indicated that the number of interested and concerned analysts in a company after the announcement of restatement of financial statements and abnormal increase of the activity of groups having insider information reduces from a few months before the announcement of financial restatements. Palmrose et al (2004) have shown that market’s negative reaction to financial statements is stronger in cases which are related to fraud, which cause change in multiple accounts, lowers the reported profit or which are related to accountant or management. Harrybar and Jenkines (2004) in the United States have studied the effect of financial restatements on capital cost estimation and have found that restatement of financial statements reduces future expected profit by reducing investors’ confidence in credibility and competence of management and finally, increases capital cost of a company. Hirshi (2005) has conducted a study with the title of Lack of long-term market reaction to restatement of financial statements and has shown that there is a negative relationship between increased previous profits due to restatement and future return after announcement of restatements. Fu et al (2012) have studied the effect of the number of repeating financial reporting on information asymmetry and capital cost of companies. Research sample in this study is consisted of 7654 firm/year during the time frame of 1951 to 1973. The findings of this study indicated that increased number of financial reporting is accompanied with a reduction in information asymmetry and capital costs of companies. Also, compulsory changed in the number of financial reports indicates to similar results. Barnew and Kay (2014) have shown that investors consider more characteristics when faced with companies that are have financial restatements which indicates to the accuracy of analysts’ estimations. Petersen and Plenberg (2014), have studied the effect of voluntary disclosure on information asymmetry in Industrial companies in Copenhagen stock exchange. Analysis and reported findings in this study is based on one industry for a 4-year period from 2008 to 2013 which includes 81 industrial companies in Denmark Stock Exchange. Their findings indicated that there is a negative relationship between voluntary disclosure and information asymmetry measurement metrics. Also, it was indicated that the difference between stock purchase and sale offer price and turnover ratio are appropriate measuring metrics for information asymmetry. Wilson (2010) in the United States has tested reduction in profit information content after restatement and has found that profit has lower level of information content after restatement. For those
companies in which restatement is due to modification of the error resulting from revenue identification, reduction in income information content is more considerable and significant. Healy & Palepu (2001) have found that demand for financial reporting and information disclosure are the result of information asymmetry and agency conflicts between managers and external investors. Motivational information is a barrier to efficient allocation of resources to capital market. Managers sometimes have more information in different area comparing to investors and are inclined to present the value of their company in a different way. Therefore, when investors invest in securities of these companies they are faced with the problem of information. They rely on reliable information for securities pricing. This price is modified and adjusted to an extent that the expected returns become equal to risk premium plus risk-free rate. It is because, information is important for investors and they consider companies with low quality information negatively (Mikko Westerholm, 2011). Easley & Ohara (2004) have shown that information asymmetry (unequal information between informed investors and uninformed investors) cause uninformed investors to required higher rate of return. From their perspective, the quality of information might be low due to complex accounting environment or errors or due to actions of management is accounting (Kravet & Shevlin, 2010).

Barzegari Khanghah (1996) in his study has shown that unsuccessful companies use accounting changes (restatement of financial statements) as a tool for overstatement of current period income. Ghaemi and Vatanparast (2005) have conducted a study with the title of “studying the role of accounting information in reducing information asymmetry in Tehran Stock Exchange”. In this study the role of accounting information in reducing information asymmetry in Tehran Stock Exchange has been studied. One of the information which is provided by companies is the announcement of estimated income per share for future fiscal year. In this study existence of information asymmetry level and its effect on stock price and trades volume has been studied 21 day prior and after announcement of estimated income per share. Statistical population of this study is consisted of 121 case of announcement of estimated income of companies during the time frame of 2002 to 2004. Results of this study indicated that during the time frame of this study, there is information asymmetry in Tehran Stock Exchange regarding investment and that this information asymmetry is stronger in periods prior to income announcement comparing to periods after it. Findings of this study also indicated that information asymmetry fluctuates with changes in trades volume and stock price in a way that in periods prior to announcement of income, trades volume increases and stock price of companies also fluctuates. Safarzadeh (2010) in his study has shown that there is a significant relationship between restatement of financial statements with current ratio, working capital to total assets ratio, total debts to assets, accumulated income to total assets, sales to total assets, net income to total assets, net income to sales, operating costs to sales, operating income to sales, net income to equity. Shariat Panahi and Kazemi (2011) with studying 185 companies listed on Tehran Stock Exchange during the time frame of 1999 to 2007 have found that restatement of financial statements causes the reduction of income information content and that companies that their major reason for their restatement is correction the errors resulting from revenue recognition are faced with reduced income information content. Rafiee and Safarzadeh (2014) have conducted a study with the title of “effective factors on restatement of financial statements in various industries” and have studied 7 major industries in Tehran Stock Exchange during the time frame of 2005 to 2012 to identify and compare the effective factors on restatement of financial statements. For
comparing the number and importance of annual modifications in different industries, variance analysis and for fitting the model of the effective factors, logistic regression was used. Findings of this study indicated that the number of occurrences and importance of annual modifications differ in various industries. This difference is related to certain characteristics in each industry. Also, the difference in the behavior of the effective factors model on restatement of financial statements in various industries indicated to the importance of industry role in restatement of financial statements.

Therefore, the important topic is to study investors’ reaction toward restatement of financial statements of current period or previous periods, because, the way investors regard this can be effective on their investment decisions. Hence, the main research question in this study is whether overvalue information risk and its inherent and discretionary components after occurrence of restatement of financial statements? In other words, whether investors consider restatement as a result of Unintentional mistakes or as opportunistic actions of manangers and their optional choices in accounting? This study seeks to study the available empirical evidences in this regard and to study the level of compliance of the existing realities with the introduced reasons and opinions regarding the effective factors on information asymmetry in companies with the hope that the findings of this study can aid Capital market participants, decision makers, financial analysts and potential and actual investors in Stock Exchange in their investment projects analysis in financial and securities assets with consideration of the factor of restatement of financial statements; because considering this important factor leads to optimized selection of investment portfolio with minimum risk and maximum return and at the same time to double fold transparency of decision-making and obtained outcomes transparency.
Therefore, research hypotheses can be presented as following:

- **Main hypothesis**: Restatement of financial statements has direct effect on companies’ information asymmetry.

- **Secondary research hypothesis 1**: Restatement of financial statements resulting from operating items has a stronger direct effect on companies’ information asymmetry comparing to restatement of financial statements resulting from non-operating items.

- **Secondary research hypothesis 2**: Decreasing income restatement of financial statements has a stronger direct effect on companies’ information asymmetry comparing to increasing income restatement of financial statements resulting from non-operating items.

**Methodology**

Considering the fact that for testing research hypotheses, historical information was used and hence, it is a semi-empirical study. Research method of the present study is of deductive and ex post facto study (by using historical information) and the statistical method used in it is mixed correlation (time and cross-section series) which means, studying the existence of a relationship between variables by using regression test.

**Variables**

In this study for studying the relationship between restatement of financial statements and information asymmetry, a number of variables were considered; specifications, name and type of them are presented as following:

**Table 1**: Introducing research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type of variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information asymmetry</td>
<td>Q</td>
</tr>
<tr>
<td>Restatement financial statements</td>
<td>res</td>
</tr>
<tr>
<td>Restatements of financial statements resulting from operating</td>
<td>core</td>
</tr>
<tr>
<td>Decreasing income restatements of financial statements resulting from operating</td>
<td>dire</td>
</tr>
<tr>
<td>Unqualified audit opinions</td>
<td>AO</td>
</tr>
<tr>
<td>Audit institution size</td>
<td>BIG</td>
</tr>
<tr>
<td>Return on assets</td>
<td>ROA</td>
</tr>
<tr>
<td>Sales growth</td>
<td>growth</td>
</tr>
</tbody>
</table>
Research statistical population and sample
Statistical population is consisted of all companies listed on Tehran Stock Exchange. Systemic elimination sampling method with considering the following conditions was used:
- Required information for calculating operating variables of research should be available.
- At least they should have been listed on stock exchange from the beginning of 2004 and should have remained until the end of the time frame of this study (end of the year of 2014).
- The end of their fiscal year should be 19th march.
- They should not be among financial, investment institutions and banks.
In the end, 113 companies were selected for being studied.

Data collection
For collecting information in this study, bibliographical method was used. For collecting information stock exchange organization, RahAvardNovin and TadbirPardaz applications were used.

Descriptive statistics of the study
Table 2: Research variables’ descriptive statistics

<table>
<thead>
<tr>
<th>Variables description</th>
<th>Average</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>0.1816</td>
<td>0.1822</td>
<td>0.0604</td>
<td>0.0768</td>
<td>0.2866</td>
</tr>
<tr>
<td>res</td>
<td>0.0933</td>
<td>0.1050</td>
<td>1.4131</td>
<td>0.0142</td>
<td>0.2565</td>
</tr>
<tr>
<td>core</td>
<td>0.2317</td>
<td>.0000</td>
<td>.4221</td>
<td>0.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>dire</td>
<td>0.3846</td>
<td>.0000</td>
<td>.4867</td>
<td>.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>AO</td>
<td>0.0917</td>
<td>.0000</td>
<td>.2887</td>
<td>.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>BIG</td>
<td>0.2615</td>
<td>.0000</td>
<td>.4396</td>
<td>.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>ROA</td>
<td>0.1184</td>
<td>0.0855</td>
<td>0.1281</td>
<td>-0.2398</td>
<td>0.7001</td>
</tr>
<tr>
<td>growth</td>
<td>0.1827</td>
<td>0.1556</td>
<td>0.7945</td>
<td>-1.0000</td>
<td>17.2098</td>
</tr>
</tbody>
</table>
Research findings
After confirming reliability of research variables by using IPS test, data modeling was performed. For testing research hypotheses, the following regression models were considered:

### Table 3: Regression models

<table>
<thead>
<tr>
<th>Main hypothesis</th>
<th>$Q_{i,t} = \beta_0 + \beta_1 \text{res}<em>{i,t} + \beta_2 \text{AO}</em>{i,t} + \beta_3 \text{Big}<em>{i,t} + \beta_4 \text{ROA}</em>{i,t} + \beta_5 \text{growth}<em>{i,t} + \beta_6 \text{HI}</em>{i,t} + \beta_7 \text{lev}<em>{i,t} + \varepsilon</em>{i,t}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st secondary hypothesis</td>
<td>$Q_{i,t} = \beta_0 + \beta_1 \text{core}<em>{i,t} + \beta_2 \text{AO}</em>{i,t} + \beta_3 \text{Big}<em>{i,t} + \beta_4 \text{ROA}</em>{i,t} + \beta_5 \text{growth}<em>{i,t} + \beta_6 \text{HI}</em>{i,t} + \beta_7 \text{lev}<em>{i,t} + \varepsilon</em>{i,t}$</td>
</tr>
<tr>
<td>2nd secondary hypothesis</td>
<td>$Q_{i,t} = \beta_0 + \beta_1 \text{dire}<em>{i,t} + \beta_2 \text{AO}</em>{i,t} + \beta_3 \text{Big}<em>{i,t} + \beta_4 \text{ROA}</em>{i,t} + \beta_5 \text{growth}<em>{i,t} + \beta_6 \text{HI}</em>{i,t} + \beta_7 \text{lev}<em>{i,t} + \varepsilon</em>{i,t}$</td>
</tr>
</tbody>
</table>

With using Chow test, panel model was selected as the appropriate model. Also, fixed effects in main hypothesis model and 2nd secondary hypothesis model and random effects in 1st secondary hypothesis model were confirmed by using Haussmann’s test. For testing research hypotheses, first it is necessary for the multiple-regression models assumptions to be satisfied. Normality of dependent variable was confirmed by using Jarque – Bera test. Also, Serial correlation of errors of multiple-regression models was confirmed at 0.05 confidences by suing Durbin-Watson test and lack of serial correlation. Among other main assumptions of regression analysis we can refer to Consistency of errors variance.

Summary of regression models fit results are as follows:

### Table 4: Results of regression model fit in models’ parameters’ estimation

<table>
<thead>
<tr>
<th>hypothesis</th>
<th>Variable name</th>
<th>Variable coefficient</th>
<th>Coefficient value</th>
<th>t-value</th>
<th>Sig. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>Constant</td>
<td>$\beta_0$</td>
<td>0.743</td>
<td>2.873</td>
<td>0.004</td>
</tr>
<tr>
<td>Restatement of financial statements</td>
<td>res</td>
<td>$\beta_1$</td>
<td>0.265</td>
<td>2.231</td>
<td>0.046</td>
</tr>
<tr>
<td>Unqualified audit opinions</td>
<td>AO</td>
<td>$\beta_2$</td>
<td>-0.338</td>
<td>-2.876</td>
<td>0.021</td>
</tr>
<tr>
<td>Audit institution size</td>
<td>BIG</td>
<td>$\beta_3$</td>
<td>-0.427</td>
<td>-3.111</td>
<td>0.028</td>
</tr>
<tr>
<td>Return on assets</td>
<td>ROA</td>
<td>$\beta_4$</td>
<td>-0.714</td>
<td>-0.909</td>
<td>0.327</td>
</tr>
<tr>
<td>Sales growth</td>
<td>growth</td>
<td>$\beta_5$</td>
<td>-0.602</td>
<td>-2.9210</td>
<td>0.016</td>
</tr>
</tbody>
</table>
In the above table, positive (negative) figures in the column of coefficient value indicates to the magnitudes of direct (reverse) effect of each of these variables on companies’ investment efficiency.

As per table (4) and obtained results for the model related to main hypothesis, significant level of the variable of restatement of (0.046) is smaller than the considered significance level in the present study (5%); also, absolute value of t-test related to this variable (2.231) is larger than the t-value obtained from table with the same degree of freedom. Hence, H0 variable at 95% confidence level is rejected, and considering the positive sign of the coefficient of the variable of restatement of financial statements (0.265), main research hypothesis indicating

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial leverage</td>
<td>lev β 6</td>
<td>0.288</td>
<td>2.129</td>
</tr>
<tr>
<td>Ownership concentration</td>
<td>HI β 7</td>
<td>0.194</td>
<td>3.273</td>
</tr>
<tr>
<td>Constant</td>
<td>β0</td>
<td>0.743</td>
<td>2.873</td>
</tr>
<tr>
<td>Restatement of financial statements</td>
<td>core β 1</td>
<td>0.309</td>
<td>2.277</td>
</tr>
<tr>
<td>Unqualified audit opinions</td>
<td>AO β 2</td>
<td>-0.227</td>
<td>-2.554</td>
</tr>
<tr>
<td>Audit institution size</td>
<td>BIG β 3</td>
<td>-0.427</td>
<td>-3.004</td>
</tr>
<tr>
<td>Return on assets</td>
<td>ROA β 4</td>
<td>-0.714</td>
<td>-1.421</td>
</tr>
<tr>
<td>Sales growth</td>
<td>growth β 5</td>
<td>-0.602</td>
<td>-2.667</td>
</tr>
<tr>
<td>Financial leverage</td>
<td>lev β 6</td>
<td>0.288</td>
<td>2.337</td>
</tr>
<tr>
<td>Ownership concentration</td>
<td>HI β 7</td>
<td>0.194</td>
<td>2.445</td>
</tr>
<tr>
<td>Constant</td>
<td>β0</td>
<td>-0.416</td>
<td>-0.223</td>
</tr>
<tr>
<td>Decreasing income restatement of financial</td>
<td>dire β 1</td>
<td>0.236</td>
<td>3.336</td>
</tr>
<tr>
<td>Unqualified audit opinions</td>
<td>AO β 2</td>
<td>-0.261</td>
<td>-1.073</td>
</tr>
<tr>
<td>Audit institution size</td>
<td>BIG β 3</td>
<td>-0.726</td>
<td>-2.451</td>
</tr>
<tr>
<td>Return on assets</td>
<td>ROA β 4</td>
<td>-0.847</td>
<td>-3.711</td>
</tr>
<tr>
<td>Sales growth</td>
<td>growth β 5</td>
<td>-0.210</td>
<td>-3.838</td>
</tr>
<tr>
<td>Financial leverage</td>
<td>lev β 6</td>
<td>-0.542</td>
<td>-3.388</td>
</tr>
<tr>
<td>Ownership concentration</td>
<td>HI β 7</td>
<td>-0.891</td>
<td>-2.141</td>
</tr>
</tbody>
</table>
that restatement of financial statements has a direct effect on companies’ information asymmetry, is confirmed.

Also, in 1st secondary hypothesis model, significant level (sig) of the variables of restatement of financial statement resulting from operating items (0.045) is less than the significance level considered in this study (5%); also, the absolute value of t-test related to this variable (2.277) is larger than the obtained t-value from table with the same degree of freedom. Hence, H0 at 95% confidence is rejected and considering the positive sign of the coefficient of the variable of restatement of financial statements resulting from operating items (0.309), 2nd hypothesis indicating that resentment of financial statements resulting from operating items has a stronger effect on information asymmetry comparing to restatement of financial statement resulting from non-operating items, is confirmed.

Based on results of 2nd secondary hypothesis model, in the same way, significance level (sig) of the variable of decreasing income restatement of financial statement (0.046) is smaller than the sig; level considered in the present study (5%); also, absolute value of t-test related to this variable (2.231) is larger than the obtained t-value from table with the same degree of freedom. Hence, H0 hypothesis is rejected at 95% confidence and considering the sign of the coefficient of decreasing income restatement of financial statements (0.236), 2nd secondary hypothesis indicating that decreasing income restatement of financial statements have a stronger direct effect on information asymmetry comparing to increasing income restatement of financial statements is confirmed.

Table 5: Results of regression models fit significance

<table>
<thead>
<tr>
<th>model</th>
<th>Coefficient of determination</th>
<th>Adjusted coefficient of determination</th>
<th>f-value</th>
<th>significance (P-Value)</th>
<th>Durbin-Watson Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model of main</td>
<td>0.589</td>
<td>0.553</td>
<td>10.711</td>
<td>0.0083</td>
<td>2.188</td>
</tr>
<tr>
<td>Model of 1st secondary hypothesis</td>
<td>0.528</td>
<td>0.481</td>
<td>13.843</td>
<td>0.00061</td>
<td>1.932</td>
</tr>
<tr>
<td>Model of 2nd secondary hypothesis</td>
<td>0.437</td>
<td>0.387</td>
<td>10.342</td>
<td>0.015</td>
<td>2.067</td>
</tr>
</tbody>
</table>

In the model related to the main research hypothesis, f-value (10.711) indicated that the whole regression model is significant. Coefficient of determination and adjusted coefficient of determination of the model are equal to 58.9% and 55.3%, respectively. Therefore, it can be concluded that in the mentioned regression equation, only around 55.3% of changes in dependent variable of examined companies is explained by independent and control variables.

Based on the results of 1st secondary hypothesis, f-value (13.843) indicates that that the whole model is significant. Coefficient of determination and adjusted coefficient of determination of the model are equal to 52.8% and 48.1%, respectively. Therefore, it can be concluded that in the regression equation, only around 48.1% of changes in dependent variable of examined companies is explained by independent and control variables.
Results obtained from 2nd secondary hypothesis test indicate that f-value (10.342) which means that the whole regression model is significant. Coefficient of determination and adjusted coefficient of determination of the above model are equal to 47.8% and 43.9%, respectively. Therefore, it can be concluded that in this regression equation, only 43.9% of the changes in dependent variable of the examined companies are explained by independent and control variables.

**Conclusion and recommendations**

Based on tables (4) and (5) all research hypotheses are confirmed. According to the results of main hypothesis indicating that restatement of financial statements has a direct relationships on information asymmetry in companies, mangers in companies are recommended to reduce the frequency of restatement of financial statements for reducing information asymmetry and increasing financial reporting transparency through establishment of accounting systems and internal control and usage of efficient and effective internal accounting units. Also, considering the fact that restatement of financial statements resulting from operating items has a stronger direct effect on information asymmetry in companies comparing to restatement of financial statements resulting from non-operating items, investors and financial analysts in companies are recommended to consider these results in their investment decisions and optimization of stock portfolios. Based on obtained results, decreasing income restatement of financial statements has a stronger direct effect on information asymmetry in companies comparing to increasing income restatement of financial statements and hence, investors and financial analysts in companies are recommend to consider these results in investment decisions and stock portfolio optimization.
References