The Effect of Earnings Response Coefficient in the Abnormal Efficiency

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ABSTRACT

This research investigates the companies that have continuous growth of abnormal profits in recent years, and the changes in variable interest rate of reaction, systemic risk, quality of earnings, the impact on abnormal returns are paid. The main objective of our study was to increase the response rate of profit growth, the abnormal returns, the present study is a descriptive study, a survey. And as to the purpose of the study was applied in the present study, the estimation method based on data fusion. This compilation of information Time series (2008-2013), and cross-sectional data (112 companies listed on the Stock Exchange) is. Software used in this study is Eviwse8 software. To estimate the econometric models of data combination, so that the F test Limer, for the panel or pool model, for each of the companies and also, the Husman test to determine the fixed effects or random effects model, and the explore the cointegration test, to evaluate the long-run relationship between the variables of the model used. And the results indicate the existence of a positive and significant impact on response variables increase profits, increase systemic risk abnormal returns on the dependent variable, the confidence level of 99% and a positive impact, and significantly increase the quality of earnings on returns varies abnormally, the 90% confidence level the dependent variable is the abnormal return is high.

KEYWORDS: abnormal Efficiency, earnings response coefficient, systematic risk, earnings quality.

INTRODUCTION

One of the main objectives of accounting, preparation of information for users, the investment decision is made on account of the empirical research was to show that the market value of securities, and for accounting react to new information, and the research has shown at least, it can be useful to know some of the accounting information (Poorheidari and Shahbazi, 2008). However, the financial statements are as useful for investors, they can be good news or bad news Enable available, which in the future will have continuity (durable rip), Predict (to process the news Determine) the good news Current evil, power, and subsequently achieve profitability, the future expected return of investment (Parsaiyan, 2009: 101).

Investors may demand, the amount of information is not correct, because they bear all related costs Do not. These factors because, we investigate the usefulness of the information, the decision is limited, and not as it ought Determinants accounting standards, lead (Poorheidari and Shahbazi, 2008). Knowing that, what impact on earnings response coefficient abnormal returns, one of the most important questions for users of accounting and financial information, the market price of securities, including predictions of management accounting information to react, the reaction from Content load of information, these anticipations capital market participants is to change behavior, hence the impact on abnormal returns this response is important, to identify and report abnormal returns, and Non-continuous from impact prevent exaggerated. In this study, the simultaneous effects of persistent abnormal returns, and analysts forecast earnings quality, and earnings response coefficient have been examined. Studies show that companies with a history of AEG (abnormal returns) ERC positive and lasting more than firms without a history, do. Analysts past earnings, such as leverage and anchor, to calculate the unexpected earnings profile, as the research shows that analyst forecasts, the best representative for the unexpected earnings profile (yin yuor yunulong He, 2013). Companies with expected revenue management, and has a pattern of rising incomes higher ERC, the companies have no clear pattern (yin yuor yunulong He, 2013). Abnormal returns also show that, for any valuable information related to revenue growth due to displacement of the unusual income (yin yuor yunulong
Previous research shows that companies that have a history of continuous positive market AEG are assigned a higher value reward ratio, and continued profitability and quality of accruals and earnings volatility of earnings quality is achieved (He, 2013). Market reaction accountants, financial accountants provide the information, because it is react, understand more about the market's reaction makes the accountants seek to identify other ways to cope, and thus the usefulness of information in decision-making add (Mohebbi, 2010). Goal Ball and Brown, finding evidence to explore the relationship between prices (returns) shares of companies and their accounting profit, they based their sample companies have good news and bad news were grouped based on this company, according to the announcement. Two sets of good news and bad news, classified, and their reported earnings, with profits from the estimated time series models, were compared. According to their study, two types of portfolio at the end of each year, according to the good news and the bad, the main findings of Ball and Brown were created, in comparing the cumulative abnormal returns for the three baskets profit deviation (using simple models) to show that the companies had good news, positive average abnormal returns (ei) gained, on the contrary, companies that had bad news, the average abnormal returns were negative for and sharp, clearly showed that the profit and The reaction of the stock market, there. Ball and Brown estimated that between 80 to 85% abnormal returns, before the publication of annual reports is realized. They acknowledged that, although the profit measure of company performance, but the announcement could have a big impact on market reactions, they showed that the content of the information reported profit, while useful, is different from the expected profit, and market On this basis, directly to align it reacts, so most of the information content of earnings, with a market of different ways "before the annual declaration" is expected, the results show that, when the dividend is declared, the market moves has its end, and prices have jump. Reported profit forecast on the market, many questions about the time of the Annual Report, and information resources available on the market and helped to create the financial statements, the assessment was reinforced analysts (Chamber and Freeman, 2004).

Expressed concern

Knowing that, what impact on earnings response coefficient abnormal returns, one of the most important questions for users of accounting and financial information, and in this respect there is a growing body of literature. In recent years, financial reporting, has been subject to serious criticism, and accounting standards, able to communicate between businesses and users of financial statements, effective, and so the question is whether the existing accounting systems, information requirements for users of financial statements to evaluate the company provides, and whether the companies have, continuous growth of abnormal profits in previous years, the rate of reaction is more profitable than the rest of the firms indicated whether or not ?, then this companies report higher earnings quality or not? (Beaver et al., 1980) and (Baver celark & wriat 1979), (Chan et al), (Jones, 1991), (Watts and Zimmerman 1986) In this case study, and the research we seek to answer the question of whether the reaction of interest on abnormal returns is effective or not?

Theoretical

Assumptions

The main hypothesis: an increase in the reaction rate of interest, there were significant effects on abnormal returns.

Hypothesis 1: increase systemic risk, there were significant effects on abnormal returns.

Hypothesis 2: Increase the quality of earnings, there were significant effects on abnormal returns.

Operational definitions:

Abnormal returns:

\[ \text{Abit} = \text{rit} - \text{rmt} \]

ARit = Rmt-Rjt abnormal returns expected return = true – Bazdh

Rmt = return expected

Actual stock returns:

The actual return on equity

\[
\text{Rjt} = \frac{\text{P1} \times (1 + \alpha) + \text{DPS} - (\text{Pe} + (\alpha \times 1000))}{\text{P0} + \alpha}
\]

P1 = price of shares at end of period
P0 = the stock price at the beginning of the period
DPS = gross cash dividend per share
  = Retained earnings and reserves, the rate of increase of capital, cash received from receivables
Expected return:
Rmt = Rij - [Rf + β * (Rmj-Rf)]
Rmt = return expected
The reaction rate of profit:

\[
\frac{P1 - P0}{EPS} - \frac{EPS}{EPS} = \frac{EPS}{EPS}
\]

\[
\text{ERC} = \frac{P1 - P0}{EPS} - \frac{EPS}{EPS}
\]
P1 = stock price after adjustment
P0 = the price of shares before adjustment
I1 = market index after adjustment
I0 = pre-adjusted market index
Adjusted EPS = EPS *
EPS before adjustment = EPS
Systematic risk:

\[
C_OV(A, M) = \text{Var}(M)
\]

\[
\beta_A = \frac{C_OV(A, M)}{\text{Var}(M)}
\]
Calculation of Earnings Quality:

\[
Y_{le} = \frac{\left( \text{CAPX}_t - \text{CAPX}_{t-1} \right) / (E_{lt} - E_{l(t-1)})}{(E_{lt} - E_{l(t-1)})}
\]

\[
Y_{ce} = \frac{\left( \text{CAPX}_t - \text{CAPX}_{t-1} \right) / (E_{lt} - E_{l(t-1)})}{(E_{lt} - E_{l(t-1)})}
\]

According to (1) and (2)

\[
E_{ln} = \frac{Y_{le} + Y_{ce}}{2}
\]

History
Chen and others (2011), and Rajgopal & venkatachalam (2011), Kothari (2000) pointed out that the quality of financial reporting income, and profits can clearly important economic implications, including reducing the volatility of stock returns is unusual, in other words, The financial statements, and in particular interest is the More qualitative, from what I expected based on the efficient market hypothesis, this information will be reflected in the stock, so stock prices fluctuate less.

Moradoglu & Sivaprasad (2007), in their study, the effect of capital structure on returns paid cumulative abnormal, and concluded between systematic risk and abnormal returns, there is a significant positive correlation.

Chiu Chi (2009), the effect of the level of transparency of financial reporting, performance and value of the company, the Taiwan Stock Exchange studied, the results showed, transparency, disclosure of financial information, the maximum value of the company, and the creation of moral hazard between the manager and The owner helps.

Trainer (2012), in their study, as the effect of volatility, and their combined effect on the relationship between systematic risk, and returns to the conclusion that, in markets with less volatility, strong relation between return and systematic risk there.

High quality data and information asymmetry leads to harmony, and interact more and more investment managers, and investors are more risk acceptance, demand a higher expected rate of return.

yin yuor yunulong He (2013), in their study showed that companies with a history of AEG (abnormal returns), positive, and lasting ERC higher than firms without a history, do. Analysts past earnings, such as leverage and anchor, to calculate the unexpected earnings profile, as the research shows, the analyst predicts a representative, for the benefit profile is unexpected.
Demirjian and Leo Louise (2013) in their study, they reported that high earnings management can reduce the quality of earnings, and Manipulated information may lead to incorrect decisions, while the absence of earnings management to ensure the quality of earnings because of factors such as capital gains and bonuses helps manage the quality and the quality of earnings response coefficient gain a meaningful relationship.

Khajavi, Valipoor and Hakemi (2010), in his study examines the impact of the capital structure, the cumulative abnormal returns for firms listed in Tehran Stock Exchange for payment, and it is concluded that the systemic risk of abnormal returns, there were significant effects. Amiri, Forooghi, Ghorbani and Hashemi (2012), the effect of the quality of financial reporting, the unusual volatility of stock returns for firms listed in Tehran stock exchange, over a ten-year period examined, and to measure the quality of earnings, the model calculates the return volatility Francis and Bohemian, the three-factor model of Fama and Heidari Khamiran (2013), in his study examines the impact of systemic risk, the efficiency of pharmaceutical and chemical companies, using wavelet analysis, the Tehran Stock Exchange (the return volatility) payments, and the conclusions are significant relationship between systematic risk and stock returns is using wavelet method of payment.

Vakilifard, Saidi and Eftekhari Aliabadi (2013), in their study, the response rate to the benefit of, at the Tehran Stock Exchange began, and studying and measuring the impact of the declared profit companies, high efficiency, and low efficiency in the Tehran Stock Exchange, In the years 1385 and 2010 were evaluated, and found that the market reaction, the good news (positive adjusted earnings announcement) and bad (negative adjusted earnings announcement), reactive than expected, and the sensitivity of the market, the good news emotional reaction is not bad. The results of this study, there was no difference in response rate of profit, the company's high-efficiency and low efficiency, the emphasis is placed, and the relationship between good and bad news, and the market's reaction confirms not only in relation to the bad news Companies efficiency is low, which means that the market is bad news (negative adjustments), due to inefficient firms, more than expected reaction to it.

Ghorbani and Forooghi, Amiri (2013), the effect of earnings quality, efficiency changes bohemian shares in listed companies in Tehran Stock Exchange began, and the results of this study indicate that adversely affect the quality of earnings, the abnormal returns, and also There is a direct effect of annual stock return variables, and operating cash flows in future years, and adversely affect the Company's shares on the Bohemian efficiency changes.

**RESEARCH METHODOLOGY**

The study conducted by the way, is a descriptive study. As well as to the purpose of the study is applied.

Quasi-experimental research design, and using retrospective approach (the last data), a longitudinal study of deductive logic is implemented. In terms of variables, including the quantitative research.

For the present study, firms listed in Tehran Stock Exchange is. The community includes companies that have the following conditions.

- Companies that part of the investment industry, banks and financial Brokingare classified.
- Companies of the end of the financial year, 29 March of each year
- Companies of the five-year period, more than three months have stopped the trading symbol.
- Companies after, 1/1/2008 Exchange accepted or before 29/12/2013 are out of stock into, or information not available.

According to the conditions set above, only 112 companies in the period 2008 to 2013, had the above conditions. Therefore, the study population was selected.

In this study, sampling, screening Non-statistical (systematic elimination), the sample size was 112 companies.

The data source for this study was collected, the company's financial statements. Data for this study through computer databases, go to the library, morgue and office monitoring, and evaluation of the Stock Exchange of Tehran, Tehran Securities Exchange Technology Management Web site Kadal and management of research, development and exchange of Islamic Studies, been collected. This cross-sectional study, the data used to calculate the variables, their needs, the financial reports published by the Stock Exchange, and the new software packages outcomes were collected.
In this study, models based on the combined data, the first of these variables must be stationary, the tests Significant, for ensuring data compilation. After ensuring that the Significant of data, models and interpreted. The models were estimated, based on data fusion approach, the Pool or the Panel to determine the model, the F test is used Limer, and then Husman test, to determine the method of fixed effects or random effects method, as well as in Finally, to evaluate the long-run relationship between the variables in the model, the cointegration test is explored.

**Table 1. Shows the results of the unit root test for independent variables (with the intercept)**

<table>
<thead>
<tr>
<th>Level</th>
<th>pp-Fisher</th>
<th>ADF-Fisher</th>
<th>prob</th>
<th>IPS</th>
<th>prob</th>
<th>LLC</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>511.241</td>
<td>0.000</td>
<td>465.369</td>
<td>0.000</td>
<td>-50.110</td>
<td>0.000</td>
<td>earnings response coefficient</td>
</tr>
<tr>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>623.497</td>
<td>0.000</td>
<td>500.841</td>
<td>0.000</td>
<td>-12.996</td>
<td>0.000</td>
<td>system risk</td>
</tr>
<tr>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>521.520</td>
<td>0.000</td>
<td>494.124</td>
<td>0.000</td>
<td>-53.108</td>
<td>0.000</td>
<td>earnings quality</td>
</tr>
<tr>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculations research

Based on the results, the test Significant in Table 1, in 99% of all independent variables, Levin, Lin and Chu tests, we have boys and Shane, Dickey-Fuller and Phillips-Perron generalized Fisher Fisher steady level. The results, according to statistics value Levin, Lino Chow, our sons and Shane, Dickey Fuller and Phillips-Perron generalized Fisher Fisher, and the probability of these statistics have been derived. For example, in response to changing interest rates, given that the test statistic Levin, Lin and Chu equivalent (/870-/874), and the (critical level is between 2 and 2), as well as the possibility for this variable is equal to zero (prob <0.01), thus this variable is stationary in levels, and requires no Difference of. The same analysis for all variables, is established.

**Table 2. shows the results of the unit root test variables (with the intercept and trend)**

<table>
<thead>
<tr>
<th>Level</th>
<th>pp-Fisher</th>
<th>ADF-Fisher</th>
<th>prob</th>
<th>IPS</th>
<th>prob</th>
<th>LLC</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>554/930</td>
<td>0.000</td>
<td>498/124</td>
<td>0.000</td>
<td>-22/114</td>
<td>0.000</td>
<td>abnormal returns</td>
</tr>
<tr>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td>Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculations research

Based on the results, the test Significant in Table 2, at 99%, the dependent variable model (abnormal returns), Levin, Lin and Chu tests, we have boys and Shane, Dickey Fuller and Phillips-Perron generalized Fisher at without different of steady.

**Table3. hypothesis test results**

<table>
<thead>
<tr>
<th>The second hypothesis</th>
<th>The first hypothesis</th>
<th>The main hypothesis</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the quality of earnings, there were significant effects on abnormal returns</td>
<td>Increase systemic risk, there were significant effects on abnormal returns</td>
<td>Increase the reaction rate of interest, there were significant effects on abnormal returns</td>
<td>model</td>
</tr>
<tr>
<td>( \text{UNRE} = \alpha_0 + \beta_1 \text{UNRE}_{t-1} + \epsilon_t )</td>
<td>( \text{UNRE} = \alpha_0 + \beta_1 \text{UNRE}_{t-1} + \epsilon_t )</td>
<td>0.0000=P-Value + F = 4.0706</td>
<td>Lynner F test</td>
</tr>
<tr>
<td>0.0039=P-Value + ( \text{X}^2 = 3.0825 )</td>
<td>0.0057=P-Value + ( \text{X}^2 = 6.6161 )</td>
<td>0.0032=P-Value + ( \text{X}^2 = 7.0558 )</td>
<td>Hausman test</td>
</tr>
<tr>
<td>Panel - fixed effects</td>
<td>Panel - fixed effects</td>
<td>Panel - fixed effects</td>
<td>Type Model</td>
</tr>
<tr>
<td>1.0328</td>
<td>0.7939</td>
<td>1.0324</td>
<td>Coefficients (intercept)</td>
</tr>
<tr>
<td>0.0007</td>
<td>0.0527</td>
<td>0.0001</td>
<td>SD</td>
</tr>
</tbody>
</table>
Dana and Ghanbari, 2015

| Variable increase earnings quality, according to the statistic t, and the probability of it, at a confidence level of 99%, a positive and significant effect on the dependent variable is the abnormal return | Variable systemic risk, at 99%, a positive and significant effect on the dependent variable (abnormal returns) is | Response variable interest rate, according to the statistic t (9547.4) that, below a critical level (96.1 to 96.1), and the probability of it being equal to (0040.0) and P-Value <0.01, the level of confidence of 99%, a positive and significant effect on the dependent variable (abnormal returns) | T-statistics | p-v | The regression equation |
|---|---|---|---|---|
| \( \text{UNRE}_{1} = 1.0328 + 0.0012 \) | \( \text{UNRE}_{2} = 0.7029 + 0.4341 \) | \( \text{UNRE}_{3} = 1.0224 + 0.0001 \) | \( t \) | \( p \) | \( \text{RESULTS} \) |

Source: Calculations research

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239

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