

## **EVALUATION OF ABNORMAL RETURNS FROM ANNUAL PROFIT ANNOUNCEMENT IN TERMS OF THE CAPITAL MARKET BOOM AND RECESSION**

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### **ABSTRACT**

One of the most important information for users of financial information to make decisions regarding their own information related to the company's earnings and stock returns. This research seeks to answer the question that active investors in the stock exchange relative to annual earnings announcements how to react? Is the information content of annual earnings announcements? In this study, information about the literature and the theoretical research using of research library methods were used and collected. To test the hypotheses of this study, data of 131 firms over the period 2009 to 2013 were used. In the first variables were identified and the websites of the Stock Exchange of information needed to address [www.tsetmc.com](http://www.tsetmc.com) and [www.codal.ir](http://www.codal.ir) were extracted and classified in an Excel spread sheet. These data are used to test hypotheses, by SPSS software depends on normality or not the normality of the data that using the test (K-S) was determined using descriptive statistics and t-test were analyzed. The results of this study indicate that annual profit announcements associated with boom and recession having informational content and will create abnormal returns.

**Keywords:** *Annual Profit Announcement, Abnormal Returns, Boom, Recession*

### **INTRODUCTION**

Today due to expansion of economic activities, development of financial markets and stimulate investment in capital markets, particularly the stock exchange by natural and legal persons, the most important tool to make the right decisions and gain expected and optimum use of resources, access to information accurate and timely and detailed analysis and realistic it is. Including information that users of firm's financial information regarding to their own make decisions, information related to the firm profits and stock returns. The Stock return is an important factor in choosing the best investment. Investment returns reflect the benefits of the investment and investors who seek investment opportunities are many factors to consider. Because their more cash assets are transformed into securities. If investors to invest regardless of the number of factors investment income, they will not favorable outcomes. The main thing that any investor's to attention in their make decisions to returns this means that investors are looking for most efficient opportunities to invest their additional resources in capital markets (Hashemi and Saedi, 2011). One of the major issues in accounting that so far has retained their special place in theoretical discussions, profits for the accounting. In the course of the first accounting empirical research that has been studied based on the methodology scientific of demonstrability, useful information related to accounting profit that on various forms, topic has been of interest to accounting experts. The results of study the relationships between earning, rates of abnormal returns and amount activities carried out by Ball and Brown this was that a significant relationship exists between earning and abnormal returns, and informational earnings moves in the stock market. On the other hand, the earning could be a factor in determining the price of stock; because of the efficient market hypothesis, information may be obtained from other sources and have an impact on their stock price. Although the informational content perspective, the concept of profit, describes the usefulness of accounting activities, but from this perspective, the benchmark measure of fundamental stock value is still questionable. According to the efficient capital market hypothesis that are empirical research confirms, the accounting profit have informational content (Kordestani, 2007).

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**History and Theoretical Studies**

Announcement profit has been estimates information content and causing the fluctuation of stock prices (Tabrizi and Samadi, 2006). Value accounting information from the perspective of investors through observational studies examined and correlation data published accounting and stock price change, calculated and analyzed. If this correlation is significant, it can be considered evidence of the usefulness of accounting information to investors (Shabahang, 2008). George (1973) in a paper entitled ((The stock market reaction to estimates of profit per share by company officials)), the macro and individual market behavior compared to declare an estimated profit per share has been reviewed in the New York Stock Exchange (Foster, 1973).

The research carried out on the information content of profits. This is offered information content of profit storming order to demonstrate the relationship between annual profit and abnormal rate of return. The research is predicted that increases in unexpected profits, usually associated with a positive abnormal returns and vice versa (Ball and Brown, 1986).

One study, a significant increase was not observed in the buying and selling shares at the offered price of the dividend announcement (Skinner, 1991).

Using the information provided evidences, upon which the buying and selling shares offered price range in the period after the dividend announcement, a day has been expanded and before the dividend announcement is observed the offered price reduction. According to theory of efficient capital market, stock prices reflect historical and published data is available (Mac, 1993).

In study, Yan (1998) refers to the elements in which he was observed major movements in stock price dividend announcement date, which could encourage traders to gather more information. He found that both the variability of profits and market reaction to unexpected profits is positively relationship with changes in buying and selling of shares offered price range in the period prior the dividend announcement. Hence, the offered price range on the day before, the day of announcement and the day after the announcement of the having increase (Yan, 1998).

During the years 1973-1993, studied how the market reaction to the first announcement of dividend payments. This found of the negative abnormal returns than to the first declaration of dividend payment. These research results was very different with same research results, he said that there was observed a negative reaction due to the market economic situation and do not be unusual events. Also found that by increasing dividend payments, negative abnormal returns increases. The research is consistent with the view that shareholders' are not interested in America to receive cash as cash dividend (Jan, 2000).

In the article has been reported little difference in the buying and selling shares of the offered price range and increases trading volume on the dividend announcement date (Acker, 2002).

The research on changes in stock prices, corporate profits and the risks surrounding the release date of the new shares on the Tehran Stock Exchange during 1994 -1989 was concluded that the new dividend announcement is affected on cost (Aghaii and Rezazadeh, 1996).

On hand relationship between unexpected profits and abnormal stock returns is studied and on the other factors affecting on unexpected profits of the accepted companies in Tehran Stock Exchange. The research was introduced unexpected profit regression model function of size, age, state ownership, financial leverage and dependence currency. These research findings indicate that the use of regression analysis (based on logarithmic) between unexpected profits as the proposed dependent variable and independent variables there is a relationship significant in 95 percent confidence level (Sajadi, 1998).

This is despite the fact that such a relationship was not found using simple leaner regression model.

The research findings in Tarbiat Modarres University showed that there was no significant relationship between the variables in 1993; but in the years 1994 to 1998 this relationship is stronger (MasoudFoladi, 2001).

This means that in 1993, investors have been profit and loss information less the basis for their make decision. Finally, with opening the stock market downturn, the view named has changed and moved assets to the income which the results are reflected in the income statement.

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#### ***The Stock Dividends***

Net income, shares that the between shareholders are divided in proportion to the stock, the amount of the interest is a company to its shareholders.

Amount of profit for distribution between shareholders are determined by the board of directors in terms of the amount of shares. This amount will be distributed among the shareholders with respect to the rights of different groups. It should be noted that cash dividend related to distribute cash benefit commonly. If profit from sources other except current income, as that term is defined non-cash benefits.

In connection with dividend investors are divided into two groups. A group eager to receive cash dividends and other groups are men able to long-term capital gains.

Decisions about dividends is significant because the wealth of the shareholders of a corporation, including market value plus dividends (Roudposhti *et al.*, 2006).

#### ***Return***

Return in the investment process is the driving force that motivate and reward is for investors. Return from investments is important to investors, because the all games investment is to earn are turn. Return evaluation only logical (before risk assessment) that investors can to compare different and alternative investments to do. To better understand investment performance, measuring actual returns (of the past) is required. Especially check the returns relating to the past at estimates and projections of the many rolls the future returns (Johns, 2005).

In relation to the concept of return, Markowitz argues that it is possible define returns will vary of an investment to others, but in any case, investors prefer highest than lowest their income. In this connection, Francis also believes that if the investment is considered kinds of transferring funds that is expected to earn extra money from it, in this way each investment will involve a degree of risk which involves the loss of the money in time to get future returns (Moradzadehfard, 2004).

Some of the other definitions that the returns on investment expressed as follows:

Return financial asset item within a year of financial assets can be interpreted in this way, if future cash flows using a discount rate to be calculated the present value of the acquired is equal to the asset price (Neveu, 2001).

Return on an investment is cash flows realized by the owners of the investment over a certain period of time obtained. The returns expressed as a percentage of the value of the investments made in the beginning (Nvrvsh, 2006).

#### ***Realized Returns versus Expected Return***

The determine differences between realized returns and expected returns is important, because the two discussions extensively used at topics investment.

#### ***Realized Return***

Efficiency is obtained and it is located. Indeed realized returns a efficiency that have occurred, reached and located.

#### ***Expected Return***

Expected return that is, estimated return on an asset that investors expect to earn in the future. It is associated with uncertainty and likely to be achieved or not achieved. Investors should to earn expected return an asset purchase and they are take note that this efficiency may not be realized. Investing in risky securities and long-term can be achieve of the investors expected return, while this will happen less in the short term.

#### ***Hypotheses***

**The main hypothesis:** Annual profits announcements have information content and will abnormal return.

**The first sub-hypothesis:** Annual profit announcements have information content in terms market boom and will abnormal return.

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**The second sub-hypothesis:** Annual profit announcements have information content in terms downswing and will abnormal return.

**MATERIALS AND METHODS**

**Methods**

This is a retrospective study, namely based on analysis of past data (the information used of the exchange website and so that relates to the past) is performed.

This research of the aspect aim is applied research component and the research method of the aspect nature and content is correlation. Research carried out in the framework of deductive reasoning-inductive. Thus, the theoretical and research background was conducted by inductively from the library studies, articles and websites in the inductive and gathering information to confirm or refute hypotheses.

The sampling is removed systematically and of society, companies that have the following conditions are selected and studied:

- 1- Their fiscal year end is March.
- 2- In the course of investigating this company's there is no change in their fiscal year.
- 3- Whose shares are active, at least from 2009 to 2013 have been traded on the Tehran Stock Exchange.
- 4- The component mediated groups, holding, investment and banks are not.
- 5- Trading interrupted is not more than two months.

After seeks to listed companies in stock, 131 companies were selected that having five conditions of the top.

Theoretical research information is collected as a library and used of books and articles in Persian and English. Numerical data is collected to test the hypotheses through Exchange Website at ([WWW.codal.ir](http://WWW.codal.ir)), ([WWW.tsetmc.com](http://WWW.tsetmc.com)), ([WWW.tse.ir](http://WWW.tse.ir)).

**Measurement of Variables Methods**

**Independent Variable: Annual Profit Announcements**

Announcement date is the day the board of directors or general assembly of shareholders decide the dividend payment and announced the results of their decisions. For example, on the first of July the general assembly decides on the dividend and announcement date the first of July (Hejazi, 2007).

According to the provisions of the Commercial Code of Iran, the declaration date is the date of approval by the general assembly of shareholders and unit investor in the date can identified profit from the investment (Khorami, 2009).

**Dependent Variable: Abnormal Return**

It is common in the finance literature that information content profit is measured by abnormal returns. Deviation or error in forecasting stock returns is called abnormal returns. In fact the abnormal return of the different between actual return and expected return (expectation stock return) is achieved which is calculated as follows:

$AR_{it}$  = Abnormal return on stock i at time t.

$R_{it(1)}$  = Real return on stock i 10 days before the profit announcement.

$R_{it(2)}$  = Real return on stock i 10 days after the profit announcement.

$E(R_{it})$  = expected return on stock I at time t.

$AR_{it} = R_{it} - E(R_{it})$

**equation (1)**

$R_{it(1)} = (P_1 - P_0) / P_0$

**equation (2)**

$R_{it(2)} = (P_2 - P_1) / P_1$

**equation (3)**

$P_0$  = Stock price 10 days before the profit announcement.

$P_1$  = Stock prices on date profit announcement.

$P_2$  = Stock price 10 days after the profit announcement.

The CAPM formula is used to measure the expected returns.

$E(R_{it}) = R_f + \beta_i (R_{mt} - R_f)$

**equation (4)**

$R_{mt} = (TEDPIX_t - TEDPIX_{t-1}) / TEDPIX_t$

**equation (5)**

$TEDPIX_t$  = Tehran Stock Exchange all share price index at the end of the year

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**TEDPIX<sub>t-1</sub>** = Tehran Stock Exchange all share price index at the beginning of the year.

**R<sub>mt</sub>** = Market returns

**R<sub>f</sub>** = Risk-free rate of return.

$$\beta_i = \frac{\text{Cov}_{I,m}}{\text{Var}_m}$$

Thus abnormal returns surrounding the profit announcement daily for 21 days (10 days before and 10 days after the profit announcement) are calculated and in the form of increased information content of dividends is approved.

**Variable Dampers: Market Depression and Boom**

The review process daily total market index and calculate the average for each year during the recession (average negative returns) and prosperity (average positive returns) is determined.

**The Research Dependent Variable Normalized Test**

Since the normality of the dependent variable leads to normality of residuals of the model; It is necessary before fitting the model, its normal control.

The null and normality testing hypothesis as follows:

H<sub>0</sub>: The data is normally distributed.

H<sub>1</sub>: The data is not normally distributed.

Kolmogorof-Smirnof test was used to test the above hypothesis. In the test if significance level is less than 5% the null hypothesis is rejected at 95% confidence level.

**Table 1: Kolmogorof-Smirnof test results for the dependent variable**

Mean	
131	Number
-1.8700	Mean
0.32897	Standard deviation
0.107	Absolute value of mean
0.107	Positive mean
-0.066	Negative mean
1.228	Kolmogorov-Smirnov
0.098	Significant level

Based on the values presented (Table 1), since the significant level values for abnormal returns in the model is greater than 5% (P- value or Sig = 0.098 > 5%), Therefore, the null hypothesis namely normality of the variables was verified and against hypothesis based on data does not normality to be rejected, and data related to the dependent variables have normal distribution.

**Research Hypotheses Test**

**The main hypothesis:** Annual profits announcements have information content and will abnormal returns.

Statistical assumption of this hypothesis is as follows:

- H<sub>0</sub> = Annual profits announcements have not information content and will not abnormal returns.
- H<sub>1</sub> = Annual profits announcements have information content and will abnormal returns.
- H<sub>0</sub> = CAR (21 days) = 0
- H<sub>1</sub> = CAR (21 days) ≠ 0

Where CAR, 21 days average abnormal returns around the announcement of cash dividends.

We will used of the statistical hypothesis testing for a population mean (One – Sample T Test) to evaluate this hypothesis significance due to examine abnormal returns 10 days prior to the dividend announcement and abnormal returns after the dividend announcement and assess the information content. The test statistic is:

$$t \approx Z = \frac{\bar{X} - \mu_0}{S_{\bar{X}}}$$

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**Table 2: Significant level, mean difference and T-value**

Result	Confidence level	Mean difference	Confidence interval 99%		t	Degrees of freedom	Sig
			Low limit	High limit			
Confirmation hypothesis	99%	-3.16341	-3.1750	-3.1518	-541.362	130	0.000

Based on the results of this test and according to table (2) the significance level (Sig = 0.000) of the test is less than 0.05 (because the test is two- sequence, half  $\alpha$  of value i.e. 0.01 has been considered) hypothesis  $H_0$  is rejected and it implies to confirm this hypothesis and shows that with 99% confidence we can say that there is a significant relationship between cash profit announcements and abnormal returns. In other words, the cash profit announcement will appear abnormal returns and since the information content is measured by abnormal returns suggest that the information content of cash profit announcement is days around profit announcement.

**The First Sub-hypothesis**

In terms of market boom of the annual profit announcements have information content and will created abnormal returns.

$H_0$  = In terms of market boom of the annual profit announcements have not information content and will not create abnormal returns.

$H_1$  = In terms of market boom of the annual profit announcements have information content and will created abnormal returns.

**Table 3: Significant level, mean difference and T-value**

Result	Confidence level	Mean difference	Confidence interval 99%		t	Degrees of freedom	Sig
			Low limit	High limit			
Confirmation hypothesis	99%	-3.6138	-3.5244	-3.1518	-157.885	130	0.000

Based on the results of this test and according to table (3) the significance level (Sig = 0.000) of the test is less than 0.05 (because the test is two- sequence, half  $\alpha$  of value i.e. 0.01 has been considered) hypothesis  $H_0$  is rejected and it implies to confirm this hypothesis and shows that with 99% confidence we can say that there is a significant relationship between cash profit announcements and abnormal returns. In other words, in terms of market boom of the annual profit announcements will appear abnormal returns and since the information content is measured by abnormal returns suggest that the information content of cash profit announcement is days around profit announcement.

**The Second Sub-hypothesis**

In terms of market recession of the annual profit announcements have information content and will created abnormal returns.

**Table 4: Significant level, mean difference and T-value**

Result	Confidence level	Mean difference	Confidence interval 99%		t	Degrees of freedom	Sig
			Low limit	High limit			
Confirmation hypothesis	99%	-3.12566	-3.1343	-3.1171	-718.966	130	0.000

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**H<sub>0</sub>** = In terms of market recession of the annual profit announcements have not information content and will not create abnormal returns.

**H<sub>1</sub>** = In terms of market recession of the annual profit announcements have information content and will created abnormal returns.

Based on the results of this test and according to table (4) the significance level (Sig = 0.000) of the test is less than 0.05 (because the test is two- sequence, half  $\alpha$  of value i.e. 0.01 has been considered) hypothesis H<sub>0</sub> is rejected and it implies to confirm this hypothesis and shows that with 99% confidence, we can say that there is a significant relationship between cash profit announcements and abnormal returns. In other words, in terms of market recession of the annual profit announcements will appear abnormal returns and since the information content is measured by abnormal returns suggest that the information content of cash profit announcement is days around profit announcement.

**Summary of Research Hypotheses**

**Table 6.4: Summary results of testing hypotheses**

Conclusions	Description of hypothesis	Hypothesis
confirmation	Annual profit announcements have information content and will created abnormal returns.	Hypothesis 1
confirmation	In terms of market boom of the annual profit announcements have information content and will created abnormal returns.	Hypothesis 2
confirmation	In terms of market recession of the annual profit announcements have not information content and will not create abnormal returns.	Hypothesis 3

**The Conclusions of Research**

Summary and conclusion of this study for top companies in Tehran Stock Exchange in the period 2009 to 2013in the shows the fact that the information content of annual profit announcements and difference between abnormal returns before and after the of annual profit announcement as the main question of this research was verified. Also by confirmation secondary hypotheses, the information content of annual profit announcements and difference between abnormal returns was approved before and after the of annual profit announcement also in terms boom and recession Tehran Stock Exchange. The results this research correspond with the study Aghaii and Maleknejad (2009) and Salmenin (2008).

**Recommendations based on Findings**

- According to confirmation main hypothesis and the information of the annual profit announcement it is suggested that managers and investors more pay attention to reasoned decision in this case.
- According to confirmation the first sub- hypothesis and the information of the annual profit announcement in terms of market boom, it is suggested that investors and capital market analysts to consider market boom for investment and buying or selling shares.
- According to confirmation the secondary sub- hypothesis and the information of the annual profit announcement and difference abnormal returns before and after the of annual profit announcement in terms market recession, it is suggested that investors and capital market analysts to consider difference in abnormal returns before and after the profit announcement of their decisions.

**Offers Subject to Future Researchers**

- A- Evaluation of abnormal returns from the announcing forecasted annual earnings per share in capital market boom and recession.
- B- Evaluation of abnormal returns from annual profit announcement according to the type of property companies listed in Tehran Stock Exchange.
- C- Evaluation of abnormal returns from annual profit announcement according to the company's development and size opportunities in the companies listed on Tehran Stock Exchange.

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**Limits**

A- In this study were not considered economic factors such as inflation, political conditions, fluctuations and price bubbles in recent years, which may affect the results and it is assumed that these factors are constant.

B- The results obtained in this study is limited to companies listed on the Stock Exchange, therefore, these results may not be generalizable to firms out of stock.

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