



## Effect of Conservative Reporting on Investors' Opinion Divergence at the Time of Earnings Announcement

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### ABSTRACT

This research aims to investigate the effect of conservative reporting on the investors' opinion divergence at the time of earnings announcement in a 5 year period during 2012-2016; the required data have been collected from Tehran Securities and Stock Exchange Organization and the population is consisted of 585 corporates-years which have been selected by the systematic removal sampling. To investigate the research hypotheses, linear regression and correlation were used and to analyze data and test the hypotheses, Eviews software has been utilized. In conclusion, it can be pointed out that the conservative measures are negatively related to the proxies of investors' opinion divergence at the time of earnings announcement and the relationship is stronger when the corporate reports bad news; also, conservation information content is stronger when the market is shocked by an announcement.

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## 1 Introduction

Conservatism is interpreted as the accountant tendency to higher degrees of investigations in order to recognize good news against the bad ones concerning the financial statements. In this interpretation of conservatism, accounting profit is to reflect the bad news more quickly than good ones. By applying the stock returns to measure the news, time asymmetry can be regarded as a criterion of conservative behavior to identify good and bad news and to examine the main question in Iran capital market. Information plays a crucial role in the performance of markets because the decisions including the ones in relation to investment in capital market, competitor entry and exit to industries, financing and flexible information disclosure level are often made in the uncertainty conditions. Financial reporting aims to provide information in terms of qualitative features to the consumers. One of information reliance components is more likely to be the asymmetric confirmation.

In the literature, the authors stated that asymmetric confirmation (conservatism) is a different confirmation to identify the incomes and costs leading to the under demonstration of earnings and assets. Thus, making conservative policies along with an appropriate indication of financial status and profitability of corporate reduces the competition pressures and threats on one hand and decreases the expectations of stockholders and investors regarding future performance of corporate on the other hand. Management seeks for maximizing the beneficiaries' wealth through assessing the interests and ex-

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penses and making conservative or bold decisions. It seems that increased competitive pressures will enhance the asymmetric confirmation level, which may be decreased due to the need to financial resources if necessary [6]. In relation to the research purpose, a variety of researches has been conducted in Iran; Beyranvand and Hematfar [1] rejected the relationship between conservatism and accounting information value. Raei et al. [3] investigated the stock valuation in Tehran Securities and Stock Exchange Organization with respect to heterogeneous behavior and investors limited reasoning and concluded that the investors moved between these two strategies and sometimes, trend-following investors forced the fundamental analysts to consider their expectations and beliefs while selecting the trend following strategy. Research conducted on the earnings especially in capital markets has demonstrated that the earnings are of valuable information content and considerably affect the user decision making. Providing timely information in terms of earnings may act as a key element regarding evaluation models and investment decisions in addition to improving the qualitative feature of information relevance. In most researches on timely earnings announcements, studying and determining the effects of timely earnings announcements on stock price have been mainly focused and effective factors in time and way of earnings announcements have received less attraction, which are to be discussed by a new stream of studies.

It has been shown that conservatism may occur in response to information asymmetry in stock market and can be associated with stock return variations and analyst predictions with low stock costs and improved information environment in a long-term period. In total, research results indicated that conservatism was useful for the stockholders since it is used in financial accounting reporting to assess the corporate value. Undoubtedly, few researchers challenged the result and displayed that conservatism might be of harmful impact on the investor assessment and the subsequent assessment could be less precise for the corporates with high growth in asset value. Therefore, to understand whether asymmetric confirmation (conservatism) is useful or harmful for the mentioned purpose is of significant importance. An important aspect of economic impact of accounting information on stock market may be the investors' opinion divergence. Investors' opinion divergence or opposition refers to a phenomenon by which the investors may present different opinions and views on corporate value and assessment while confronting the information asymmetry or interpreting the information. In this paper, it can be expected that capital market authorities, investors, and financial managers cause the prosperity of capital market through recognizing the elements related to conservative reporting and applying effective policies. Given that final purpose is to solve the corporate investment problem, major sponsors can be grouped into the potential and actual investors, creditors, securities and stock activists and accounting standards compiling board. Accordingly, the research tries to answer the question whether the conservative reporting is effective in stockholders' opinion divergence at the time of earnings announcements.

## 2 Literature and Research Background

Difference of investors' expectations is a key problem in capital market studies considered as a risk factor influencing the asset price and as a consequence, it will affect the capital cost of corporate. Furthermore, it has been predicted that difference of investors' expectations along with short-term sale limitations can lead to the increased stock price at the time of assessment by optimistic people. Previous researches have not addressed how the accounting information disclosure, especially earnings announcements may affect difference of investors' expectations. Some empirical findings indicate that difference of investors' expectations is resulted from earnings announcements. However, several stud-

ies found out that accounting numbers disclosure had a reverse effect: creating a difference in information interpretation and heterogeneous reaction of investors. Recently, the view has been supported by some studies. He demonstrated that earnings announcements might cause difference of investors' expectations through dispersing the other expectations. This paper is based upon the reasoning that conservatism reduces the investor oppositions to the information improvement. It has led to the hypothesis that conservatism is associated with less opinion divergence on earnings announcement days. On the other hand, conservatism can cause the delayed recognition of earnings, which requires a higher reliable threshold. However, a corporate is able to complete the reported results with the disclosure of unreported good news. If reported information is incomplete, investors may have various expectations on corporate perspective leading to the hypothesis that the negative relationship between asymmetric confirmation (conservatism) and difference of expectations becomes weaker with the release of good news and it will be stronger due to the release of bad news. According to the mentioned assumptions, the above hypothesis is presented as follows:

H<sub>1</sub>: Conservative measures are negatively related to proxies of investors' opinion divergence at the time of earnings announcements and the relationship becomes stronger due to reporting bad news by the corporate.

H<sub>2</sub>: Conservative information content becomes stronger at the time of earnings announcements, which shock the market.

Derakhshande and Ahmadi [2] found out that optimistic and pessimistic beliefs of investors have negative and positive impact on market trades. In addition, the research results indicate that optimistic and pessimistic beliefs of investors have no meaningful impact on market prices. Rostami et al. [4] reviewed the heterogeneous information applications for equilibrium pricing of assets and selecting optimal portfolios and stated that there was a positive correlation between relative prices and monthly returns. Beyranvand and Hematfar [1] rejected the first hypothesis with respect to the meaningful relationship between conservatism and accounting information value and confirmed the H<sub>2</sub>.

Raei et al. [3] investigating the stock valuation in Tehran Securities and Stock Exchange Organization with regard to heterogeneous behavior and limited reasoning of investors pointed out that investors moved between these two strategies and sometimes, trend-following investors forced the analysts to consider their expectations and beliefs while selecting trend-following strategies.

### 3 Research Hypotheses and Methodology

H<sub>1</sub>: Conservative measures are negatively related to proxies of investors' opinion divergence at the time of earnings announcements and the relationship gets stronger when the corporate reports bad news.

H<sub>2</sub>: Conservative information content gets stronger when the market is shocked with the announcements.

This research is an applied one and its design is a descriptive and surveying correlation. In addition, data nature used in examining the hypotheses is data panel. To collect the required data, library method has been utilized and research data have been gathered by the means of financial statements, explanatory notes and data reported by the selected corporates using Novin Rahavard and Tadbir Pardaz software. Sampling was conducted by systematic removal and screening. Population is consisted of all the corporates accepted by Tehran Securities and Stock Exchange Organization during 2012-2016 and total 585 corporates have been selected as the sample.

To investigate H1, the conservative impact on proxies of investors' opinion divergence has been first estimated as a regression model as follows:

$$DIS_{it} = \beta_0 + \beta_1 CONS_{it} + \beta_2 SURPRIE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \varepsilon_{it} \quad (1)$$

Afterwards, to investigate the relationship between conditional conservatism and proxies of investors' opinion divergence when the corporate reports bad news, the model (2) is used according to the coefficient of determination estimated for two models:

$$DIS_{it} = \beta_0 + \beta_1 CONS_{it} + \beta_2 SURPRIE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \beta_5 BAD_{it} + \beta_5 CONS_{it} * BAD_{it} + \varepsilon_{it} \quad (2)$$

To investigate H2, the model (3) is presented:

$$SURPRIE_{it} = \beta_0 + \beta_1 CONS_{it} + \beta_2 SIZE_{it} + \beta_3 MB_{it} + \beta_4 LEV_{it} + \beta_5 UE_{it} + \varepsilon_{it} \quad (3)$$

$DIS_{it}$ : Proxies of investors' opinion divergence in the corporate  $i$  in the period  $t$ ,

$SURPRIE_{it}$ : Abnormal return absolute value at the time of  $[1+, 1-]$  around earnings announcements,

$CONS_{it}$ : Conditional conservatism of the corporate  $i$  in the period  $t$ ,

$BAD_{it}$ : Artificial variable for bad news of the corporate  $i$  in the period  $t$ ,

$UE_{it}$ : Measurement index of unexpected announcements in the corporate  $i$  in the period  $t$ ,

$SIZE_{it}$ : Size of corporate  $i$  in the period  $t$ ,

$MB_{it}$ : Market-to-book value ratio of the corporate  $i$  in the period  $t$ ,

$LEV_{it}$ : Financial leverage of the corporate  $i$  in the period  $t$  and

$\varepsilon_{it}$ : Model error

In the following, how to measure the research variables will be discussed.

a) Proxies of investors' opinion divergence: According to the research done by Augusta et al. (2015), three proxies including real stock turnover, real trading volume and adjusted turnover have been used.

1) First proxy: It is the standardized unexpected market-adjusted turnover ( $SUMATO_{it}$ ) presented by (4):

$$SUMATO_{it} = \frac{TO_{it} - E(TO_{it} | RET_{it}, TO_{mt})}{SD_i} \quad (4)$$

$TO_{it}$ : Logarithm of real turnover in the corporate  $i$  in the period  $t$  computed by (5):

$$TO_{it} = \alpha + \beta_1 |RET_{it}|^+ + \beta_2 |RET_{it}|^- + \beta_3 TO_{mt} + \varepsilon_{it} \quad (-55 \leq t \leq -5) \quad (5)$$

Earnings announcement period

$TO_{it}$ : Logarithm of real turnover in the corporate  $i$  in the period  $t$  computed by (6):

$$TO_{it} = vol_{i,t} / share_i \quad (6)$$

$Vol_i$ : Stock trading volume  $i$

$Share_i$ : Number of released stocks

$TO_{mt}$ : Logarithm of market stock turnover

$|RET_{it}|^+$ : If the return is positive, the  $\beta_1$  coefficient is positive.

$|RET_{it}|^-$ : If the return is negative, the  $\beta_1$  coefficient is negative.

$E(TO_{it}|RET_{it}, TO_{mt})$ : Expected stock turnover

It has been calculated by (7).

$$E(TO_{it}|RET_{it}, TO_{mt}) = \hat{\alpha} + \hat{\beta}_1 |RET_{it}|^+ + \hat{\beta}_2 |RET_{it}|^- + \hat{\beta}_3 |TO_{mt}| \quad (-1 \leq t \leq +1). \quad (7)$$

SD: Standard deviation of corporate stock turnover

2) Second proxy: Standardized unexpected trading volume (SUVit) is estimated by (8):

$$SUV_{it} = \frac{Volume_{it} - E(Volume_{it}|RET_{it})}{SD_{it}} \quad (-1 \leq t \leq +1) \quad (8)$$

$Volume_{it}$ : Logarithm of real trading volume (trading value)

$E(Volume_{it}|RET_{it})$ : Expected trading volume (trading value) is estimated by the regression (9):

$$E(Volume_{it}|RET_{it}) = \hat{\alpha} + \hat{\beta}_1 |RET_{it}|^+ + \hat{\beta}_2 |RET_{it}|^- \quad (-1 \leq t \leq +1) \quad (9)$$

3) Third proxy: Abnormal market-adjusted turnover (AMATOit) is computed by (10):

$$AMATO_{it} = \frac{MATO_{it} - E(MATO_{it})}{SD_i} \quad (-1 \leq t \leq +1) \quad (10)$$

MATO: Adjusted turnover computed by (11)

$$MATO_{it} = \left(\frac{Vol}{Shs}\right)_{it} - \left(\frac{Vol}{Shs}\right)_{mt} \quad (-55 \leq t \leq -5) \cup (-1 \leq t \leq +1)$$

$\left(\frac{Vol}{Shs}\right)_{it}$ : Trading volume to corporate stock number ratio

$\left(\frac{Vol}{Shs}\right)_{mt}$ : Trading volume to market stock number ratio

$E(MATO_{it})$ : Mean adjusted turnover

$SD_i$ : Standard deviation of adjusted turnover

- a) Conditional conservatism: According to the models developed by Callen et al. (2010) and Khan and Watts (2009), conditional conservatism equals the  $\beta_3$  coefficient in the regression equation (12):

$$CSCORE_i = E(\beta_3) = \lambda_0 + \lambda_1 MVE_i + \lambda_2 MB_i + \lambda_3 LIAB_i \quad (12)$$

Thus, to estimate  $\beta_3$  and other required coefficients, the regression model (13) is used.

$$NI_i = \beta_0 + \beta_1 NEG_i + RET_i(\eta_0 + \eta_1 MVE_i + \eta_2 M/B_i + \eta_3 LIAB_i) + RET_i * NEG_i(\lambda_0 + \lambda_1 MVE_i + \lambda_2 MB_i + \lambda_3 LIAB_i) + \delta_1 MVE_i + \delta_2 MB_i + \delta_3 LIAB_i + \delta_4 MVE_i * NEG_i + \delta_5 MB_i * NEG_i + \delta_6 LIAB_i * NEG_i + \varepsilon_i \quad (13)$$

MVE: Logarithm of capital market value at the end of fiscal year

MB: Market-to-book value ratio

LIAB: Total debt-to-capital market value ratio at the end of fiscal year

NI: Net interest before abnormal items divided by capital market value at the beginning of fiscal year

RET: Stock return

NEG: Permanent loss variable equal 1 if the return is negative; otherwise, it is 0.

a) Artificial variable for bad news (BAD): It will be 1 if the abnormal stock return is negative at the time of [1+,1-] around earnings announcements; otherwise, it will be 0 (Augusta, 2015).

b) Unexpected announcements (UE): It is computed by absolute interest prediction error value divided by stock price and the equation (14) (Augusta, 2015).

$$FE = \frac{At - Ft}{Ft} \times 100 \quad (14)$$

At: Real interest at the time t

Ft: Predicted corporate interest at the time t

a) Absolute return value of abnormal stock at the time of [1+,1-] around the earnings announcements: the abnormal return is estimated by (15) (Augusta, 2015):

$$AR_{it} = R_{it} - E(R_{it}) \quad (15)$$

Rit: real return of stock i at the day t

E(Rit): Expected return of stock i at the day t

Real stock return is extracted by the means of Rahavard Novin software and to compute the daily stock return, the equation (16) is used:

$$\text{Real stock return} = \frac{\text{stock value at the end of year} - \text{stock value at the beginning of year} + \text{cash interest} - \text{stockholder cash earnings}}{\text{stock value at the beginning of period} + \text{stockholder cash earnings}} \quad (16)$$

Daily market return is estimated by the equation (17):

$$R_{mt} = \frac{I_{mt} - I_{m0}}{I_{m0}} \quad (17)$$

I<sub>mt</sub>: Total stock index at the end of time t

I<sub>m0</sub>: Total stock index at the beginning of time t

Afterwards, the capital asset pricing model (18) estimates the expected return.

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_i \quad (18)$$

Based on  $\beta$  and  $\alpha$ , the expected return is predicted by (19):

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \quad (19)$$

(b) Corporate size (SIZE): Natural logarithm of total assets at the end of fiscal year (Shahalizade, [5]).

## 4 Research Findings

### 4.1 Descriptive statistics

Results of descriptive statistics related to research variables have been presented in Table 1:

**Table 1:** Descriptive statistics of research variable

	abnormal market-adjusted turnover	standardized unexpected volume	standardized unexpected market-adjusted turnover	Absolute return value of abnormal stock	Conservatism	Corporate size	Financial leverage	Market-to-book value	Bad news impact on conditional conservatism	Bad news	Unexpected announcements
Mean	5.1608	-0.18	0.0491	0.55	1.54	14.33	0.626	3.2423	0.503	0.33	335.06
Median	5.1500	-0.18	0.0126	0.64	1.42	14.07	0.61	2.5100	0.00	0.00	20.530
Maximum	12.8	3.65	1.25	5.03	2.83	19.15	2.220	305.49	2.830	1.00	938840
Minimum	-1.980	-3.47	-1.4	-3.44	1.42	10.67	0.130	-120.8	0.000	0.000	0.0200
SD	2.7300	1.264	0.4116	1.383	0.243	1.485	0.231	15.415	0.737	0.471	4174.5
Skewness	0.1862	0.087	-0.058	0.062	2.749	0.936	1.340	11.550	0.875	0.723	20.315
Jarque-Bera test	5.1191	1.146	3.4906	4.262	2460.	120.2	958.0	17316	97.67	104.2	471663
Significance level	0.0773	0.563	0.1745	0.119	0.000	0.000	0.000	0.0000	0.000	0.000	0.0000
Observations	585	585	585	585	585	585	585	585	585	585	585

According to Table 1, the mean indicating the balance point and distribution gravity center is regarded as a suitable index to show the data centrism and estimated 3173 in relation to abnormal adjusted turnover. Median is another central index to show the population status; the equal values of mean and

median indicates the variable normality estimated 3104. Scattering index is a criterion to specify the data scattering variables. Standard deviation is one of the most important scattering indices estimated 1153.95 for the mentioned variable.

Skewness coefficient in terms of specific variations is positive and close to zero indicating that distribution is normal and it is inclined to right. In this paper, skewness is positive for all the variables and in Jarque-Bera test, the significance level is more than 5%; as a result, the abnormal adjusted turnover is of normal distribution.

#### 4.2 Durability test of research variables

Before estimating the pattern, it is essential to investigate the durability of variables; the results of unit root test at first-order difference and level is presented in Table 2.

**Table 2:** Durability test results of variables

Variables	Statistic of Levine, Lin and Chu test	Significance level
abnormal market-adjusted turnover	-56.7321	0.0000
standardized unexpected volume	-18.8751	0.0000
standardized unexpected market-adjusted turnover	-55.1496	0.0000
Absolute return value of abnormal stock	-65.3647	0.0000
Conditional conservatism	-22.2852	0.0000
Corporate size	-26.8033	0.0000
Financial leverage	-16.8013	0.0000
Market-to-book value	-60.0510	0.0000
Bad news impact on conditional conservatism	-11.8116	0.0000
Bad news	-29.2660	0.0000
Unexpected announcements	-805.673	0.0000

In Table 2, significance level of unit root test is less than 0.05 for all the variables indicating zero-order and durable level; in other words, mean and variance as well as covariance of variables have been fixed during 2012-2016 showing the reliability of variables.

#### 4.3 F-Limer and Hausman tests

To determine the estimate method, the results of F-Limer and Hausman tests conducted for  $H_1$  and  $H_2$  have been presented in Table 3. In Table 3, F-Limer test probability is less than 5% in relation to  $H_1$  and  $H_2$ ; thus,  $H_0$  is rejected and panel method is utilized to estimate the model.

In next stage, Hausman test is conducted to determine the use of fixed effect model against the random effect one. Hausman test probability done by chi-square test is less than 5% in relation to  $H_1$  so that the fixed effect model is used and for  $H_2$ , chi-square test probability is more than 5%; therefore, random effect model is applied to estimate and analyze  $H_2$ .



**Table 3:** Results of F-Limer and Hausman tests

	Model	F-Limer test	Significance level	Hausman test	Significance level
H1	DIS1 <sub>SUMATO</sub>	8.498304	0.0000	16.758231	0.0050
	DIS2 <sub>SUV</sub>	13.965126	0.0000	39.333631	0.0000
	DIS3 <sub>AMATO</sub>	1.919665	0.0000	27.805189	0.0000
H1	DIS1 <sub>SUMATO</sub>	8.463061	0.0000	16.804113	0.0187
	DIS2 <sub>SUV</sub>	14.081680	0.0000	38.796465	0.0000
	DIS3 <sub>AMATO</sub>	1.956449	0.0000	32.263219	0.0000
H2	SURPRISE	2.528948	0.0000	6.897967	0.2283

## 5 Analyses Separated to Each Hypothesis

### 5.1 H<sub>1</sub> test at the time of good news report

Conservative measures are negatively related to proxies of investors' opinion divergence at the time of earnings announcements and the relationship is stronger when the corporate reports bad news.

First proxy regression model at the time of good news report is as follows:

$$DIS1_{SUMATOit} = \alpha + \beta_1 CONS_{it} + \beta_2 SURPRISE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \epsilon_{it}$$

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

Second proxy regression model at the time of good news report is as follows:

$$DIS2_{SUVit} = \alpha + \beta_1 CONS_{it} + \beta_2 SURPRISE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \epsilon_{it}$$

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

Third proxy regression model at the time of good news report is as follows:

$$DIS3_{AMATOit} = \alpha + \beta_1 CONS_{it} + \beta_2 SURPRISE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \epsilon_{it}$$

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

Based on Table 4, t-statistical probability is less than 5% in terms of fixed coefficient and coefficients of such variables as conditional conservatism, corporate size and financial advantage in the model (2) concerning proxies of investors' opinion divergence at the time of earnings announcements; therefore, the relationship is statistically significant and the estimate coefficient is negatively significant. For such variables as absolute return value of abnormal stock, financial leverage and market-to-book value concerning proxies of investors' opinion divergence at the time of earnings announcements, t-statistical probability is more than 5%; therefore, the relationship is not statistically significant and H<sub>1</sub> is rejected with the confidence level of 95%.

In the models, (1), (2) and (3), proxies of investors' opinion divergence at the time of earnings announcements are given as 0.63, 0.76 and 0.19, respectively indicating almost 63, 76 and 19% depend-

ent variations. F statistical probability indicates that total model is statistically significant and  $H_0$  is rejected.

Final model of first proxy at the time of good news report

$$DIS1_{SUMATOit} = -15.32624 - 1.128893 CONS_{it} - 0.016333 SURPRISE_{it} + 1.314613 SIZE_{it} - 0.125862 LEV_{it} + 0.000928 MB_{it} + \epsilon_{it}$$

**Table 4:** Results of  $H_1$

Model	DIS1 <sub>SUMATOit</sub>		DIS2 <sub>SUVit</sub>		DIS3 <sub>AMATOit</sub>	
Variables	Coefficients	Sig. level	Coefficients	Sig. level	Coefficients	Sig. level
$\alpha_0$	-15.32624	0.0001	-14.42329	0.0000	-4.712521	0.0000
Cons	-1.128893	0.0003	-0.239150	0.0393	-0.259189	0.0002
SURPRISE	-0.016333	0.8005	-0.035524	0.1415	0.010467	0.4693
SIZE	1.314613	0.0000	0.937960	0.0000	0.316133	0.0000
LEV	-0.125862	0.8413	0.738985	0.0017	-0.265739	0.0592
MB	0.000928	0.8546	-0.000811	0.6680	-0.001834	0.1060
DIS1 <sub>SUMATOit</sub>						
Coefficient of determination	0.710064	F statistic				9.371100
Adjusted coefficient of determination	0.634292	Sig. level				0.000000
	Durbin-Watson	2.127897				
DIS2 <sub>SUVit</sub>						
Coefficient of determination	0.811551	F statistic				16.47853
Adjusted coefficient of determination	0.762302	Sig. level				0.000000
	Durbin-Watson	2.107018				
DIS3 <sub>AMATOit</sub>						
Coefficient of determination	0.361598	F statistic				2.167345
Adjusted coefficient of determination	0.194759	Sig. level				0.000000
	Durbin-Watson	2.308416				

Final model of second proxy at the time of good news report

$$DIS2_{SUVit} = -14.42329 - 0.239150 CONS_{it} - 0.035524 SURPRISE_{it} + 0.937960 SIZE_{it} + 0.738985 LEV_{it} - 0.000811 MB_{it} + \epsilon_{it}$$

Final model of third proxy at the time of good news report

$$DIS3_{AMATOit} = -4.712521 - 0.259189CONS_{it} + 0.010467 SURPRISE_{it} + 0.316133 SIZE_{it} - 0.265739LEV_{it} - 0.001834MB_{it} + \epsilon_{it}$$

## 5.2 H1 test at the time of bad news report

Conservative measures are negatively related to proxies of investors' opinion divergence at the time of earnings announcements and the relationship is stronger when the corporate reports bad news.

First proxy regression model at the time of bad news report

$$DIS1_{SUMATOit} = \alpha + \beta_1 CONS_{it} + \beta_2 SURPRISE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \beta_6 BAD_{it} + \beta_7 CONS_{it} * BAD_{it} + \epsilon_{it}$$

$$H_0: \beta_{7bad} \leq \beta_{7good}$$

$$H_1: \beta_{7bad} > \beta_{7good}$$

Second proxy regression model at the time of bad news report

$$DIS2_{SUVit} = \alpha + \beta_1 CONS_{it} + \beta_2 SURPRISE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \beta_6 BAD_{it} + \beta_7 CONS_{it} * BAD_{it} + \epsilon_{it}$$

$$H_0: \beta_{7bad} \leq \beta_{7good}$$

$$H_1: \beta_{7bad} > \beta_{7good}$$

Third proxy regression model at the time of bad news report

$$DIS3_{AMATOit} = \alpha + \beta_1 CONS_{it} + \beta_2 SURPRISE_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MB_{it} + \beta_6 BAD_{it} + \beta_7 CONS_{it} * BAD_{it} + \epsilon_{it}$$

$$H_0: \beta_{7bad} \leq \beta_{7good}$$

$$H_1: \beta_{7bad} > \beta_{7good}$$

Based on Table 5, t-statistical probability is less than 5% in terms of fixed coefficient and coefficients of such variables as conditional conservatism, corporate size, bad news and impact of bad news on conditional conservatism on proxies of investors' opinion divergence at the time of earnings announcements; therefore, the relationship is statistically significant and the estimate coefficient is negatively significant. For financial advantage concerning proxies of investors' opinion divergence at the time of earnings announcements, t-statistical probability is less than 5% in the models (2) and (3). Therefore, the relationship is statistically significant and t-statistical probability is more than 5% for absolute return value of abnormal stock, financial advantage (model 1) and market-to-book value concerning proxies of investors' opinion divergence at the time of earnings announcements. Therefore, the relationship is not statistically significant and these variables are not significant with the confidence level of 95%. In the models, (1), (2) and (3), proxies of investors' opinion divergence at the time of earnings announcements are given as 0.79, 0.72 and 0.23, respectively indicating almost 79, 72 and 23% dependent variations.

F-statistical probability indicates that total model is statistically significant and  $H_0$  is rejected since the adjusted coefficient of determination is more between conditional conservatism and proxies of investors' opinion divergence when the corporate reports bad news.

Namely, conservative measures are negatively related to proxies of investors' opinion divergence at the time of earnings announcements and the relationship is stronger at the time of reporting bad news.

Final model of first proxy at the time of good news report

$$DIS1_{SUMATOit} = -15.15350 - 1.077647_1 CONS_{it} - 0.002626 SURPRISE_{it} + 1.307424 SIZE_{it} - 0.146113 LEV_{it} + 0.000959 MB_{it} - 0.977784 BAD_{it} - 0.644936 CONS_{it} * BAD_{it} + \epsilon_{it}$$

**Table 5:** Results of H<sub>1</sub>

Model	DIS1 <sub>SUMATOit</sub>		DIS2 <sub>SUVit</sub>		DIS3 <sub>AMATOit</sub>	
Variables	Coefficients	Sig. level	Coefficients	Sig. level	Coefficients	Sig. level
α <sub>0</sub>	-15.15350	0.0002	-14.05914	0.0000	-4.517495	0.0000
CONS	-1.077647	0.0011	-0.340850	0.0073	-0.215181	0.0034
SURPRISE	-0.002626	0.9756	-0.020183	0.5265	0.006649	0.7281
SIZE	1.307424	0.0000	0.923471	0.0000	0.308963	0.0000
LEV	-0.146113	0.8170	0.697066	0.0030	-0.287504	0.0412
MB	0.000959	0.8502	-0.000788	0.6755	-0.001859	0.1004
BAD	-0.977784	0.0342	-0.395906	0.0230	-0.230794	0.0272
CONS*BAD	-0.644936	0.0328	-0.284780	0.0116	-0.134092	0.0475
DIS1 <sub>SUMATOit</sub>						
Coefficient of determination	0.780213	F statistic				9.185577
Adjusted coefficient of determination	0.721571	Sig. level				0.000000
	Durbin-Watson	2.133661				
DIS2 <sub>SUVit</sub>						
Coefficient of determination	0.834140	F statistic				16.41758
Adjusted coefficient of determination	0.789886	Sig. level				0.000000
	Durbin-Watson	2.126454				
DIS3 <sub>AMATOit</sub>						
Coefficient of determination	0.388326	F statistic				2.185423
Adjusted coefficient of determination	0.225124	Sig. level				0.000000
	Durbin-Watson	2.295913				

Final model of second proxy at the time of good news report

$$DIS2_{SUVit} = -14.05914 - 0.340850CONS_{it} - 0.020183 SURPRISE_{it} + 0.923471SIZE_{it} + 0.697066LEV_{it} - 0.000788MB_{it} - 0.395906BAD_{it} - 0.284780CONS_{it} * BAD_{it} + \epsilon_{it}$$

Final model of third proxy at the time of good news report

$$DIS3_{AMATOit} = -4.517495 - 0.215181 CONS_{it} + 0.006649SURPRISE_{it} + 0.308963SIZE_{it} - 0.287504LEV_{it} - 0.001859MB_{it} - 0.230794BAD_{it} - 0.134092CONS_{it} * BAD_{it} + \epsilon_{it}$$

### 5.3 H<sub>2</sub> test

Information content of conditional conservatism is not stronger than when the market is surprised with the announcements.

$$SURPRISE_{it} = \alpha + \beta_1 CONS_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 MB_{it} + \beta_5 UE_{it} + \epsilon_{it}$$

$$H_0: \beta_5 \leq 0$$

$$H_1: \beta_5 > 0$$

**Table 6:** Results of H<sub>2</sub>

Variables	Coefficients	Standard error	t-statistic	Sig. level	Result
$\alpha_0$	2.510565	2.874852	0.873285	0.3830	No Sig.
CONS	0.442649	0.221845	1.995306	0.0466	Positive
SIZE	-0.186600	0.196301	-0.950584	0.3423	No Sig.
LEV	0.006197	0.451515	0.013725	0.9891	No Sig.
MB	0.007880	0.003623	2.174993	0.0212	Positive
UE	3.170005	1.320005	2.401515	0.0043	Positive
Coefficient of determination	0.416588	F-statistic		2.732294	
Adjusted coefficient of determination	0.264120	Sig. level		0.000000	
	Durbin-Watson	2.485150			

Based on Table 6, t-statistical probability is less than 5% in terms of such variables as conditional conservatism, market-to-book value and unexpected announcements when the market is surprised with the announcements. Thus, the relationship is statistically significant and t-statistical probability is more than 5% in terms of corporate size and financial advantage when the market is surprised with the announcements. Therefore, the relationship is not statistically significant and H<sub>1</sub> is not significant for these variables with the confidence level of 95%.

Adjusted coefficient of determination shows the explanatory power of independent variables, which is able to explain 26% variations of dependent ones. Since conditional conservatism and unexpected announcements are positively significant when the market is surprised with the announcements, H<sub>0</sub> is rejected; in other words, information content of conditional conservatism is stronger when the market is surprised with the announcements.

Final model

$$\text{SURPRISE}_{it} = 2.510565 + 0.442649 \text{ CONS}_{it} - 0.186600 \text{ SIZE}_{it} + 0.006197 \text{ LEV}_{it} + 0.007880 \text{ MB}_{it} - 3.17 \times 10^{-5} \text{ UE}_{it} + \epsilon_{it}$$

## 6 Discussion and Conclusion

This research seeks for finding a relationship between conservative reporting and investors' opinion divergence at the time of earnings announcements. According to the regression results, it can be concluded that conservative measures are negatively related to proxies of investors' opinion divergence at the time of earnings announcements and the relationship is stronger when the corporate reports bad news and information content of conditional conservatism is stronger when the market is surprised with the announcements. Current research results are accordance to the theoretical principles and research background and empirical findings indicate that investors' opinion divergence is resulted from the earnings announcements. Furthermore, few studies reported that disclosure of accounting figures has a reverse effect creating an opposition in interpreting information and heterogeneous reaction of investors. Negative effect of conservative measures on proxies of investors' opinion divergence has been supported by few empirical studies. For example, they suggested that interest disclosure, which did not lead to stock price variations, was in relation to abnormal trading volume; it shows views that are more controversial. In addition, it proposed that earnings announcements might lead to investors' expectation divergence through scattering their expectations. Negative effect of conservative measures on proxies of investors' opinion divergence is based upon that conservatism reduces the opposition of investors with the information improvement. It will cause the hypothesis that conservatism is associated with loess opinion divergence around the days of earnings announcements. Other results indicate that the negative relationship between conservative measures and proxies of investors' opinion divergence gets stronger when the corporate reports bad news; it seems that conservatism can result in the identification of delayed interest with a higher confidence threshold. However, a corporate is able to complete the reported results with disclosure of unreported good news. If reported information is incomplete, investors may have different expectations on the corporate perspective, which leads to the hypothesis that the negative relationship between asymmetric confirmation (conservatism) and difference of expectations gets weaker with the release of good news and stronger with bad ones. Consequences have shown that information content of conditional conservatism is stronger when the market is surprised with the announcements. About accounting conservatism, there are two various views. Few researchers believe that conservatism is useful for the users and analysts of financial statements and plays an informational role. They suppose that conservatism increases the reported information volume in securities markets and decreases information asymmetry among the producers and users of financial statements.

In a similar study, it is investigated that the effect of conservative reporting on the opinion divergence and found out that conservative measures are negatively related to the mentioned proxies and announcement time; the relationship gets stronger while reporting bad news. In addition, data analyses have demonstrated that conservatism impact is stronger when the market is surprised with the announcements; it is in accordance to current research findings. Based on research results, conservative measures are in relation to the desired proxies. Thus, conservative measures enhance potential information advantage of an informed investor. Theoretical principle providers in terms of financial statements and national accounting standards are recommended to consider the research results and deter-

mine the principles and qualitative features of financial reporting with respect to conservative measures. As well, Tehran Securities and Stock Exchange Organization is suggested to rank the accepted corporates on the basis of conservatism rate. Investors are proposed to regard conservatism level besides other information to assess the information content of financial reporting and make investment decisions. Finally, managers are recommended to avoid more or less conservative approaches in financial reporting and apply a balanced one to enhance information content of financial reporting.

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