

## Effect of timely and reliability of financial reports on irrational pricing and profit and its components

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**Abstract:** Misunderstanding of investors of the stability rate of accounting profit and the components of cash and its commitments was led to the phenomenon of incorrect stock prices by investors and ultimately it will cause to allocate non-optimal resources in the capital market. In this study, the timely effectiveness and reliability of information on pricing irrational stock were reviewed by using the profits and its components in listed companies in Tehran Stock Exchange in the period from 1381 to 1391. For this purpose, it is used the assessment system of simultaneous equations and rational pricing Myshkyn test (1983). The results show that the use of accounting profit and its components causes incorrect price of stocks, when the reliability of financial reports increases, the degree of irrational pricing of stocks (using the commitment and operating cash flow) reduces.

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### Introduction

The present research relates to irrational pricing of accounting income and its components. Topic irrational pricing that is also known anomaly distort pricing, raised the issue of rational pricing in macroeconomics. In accounting, the issue is more about profit sustainability literature. In the investigation, it claims that the capital markets and those who involved in it, significantly commitments and cash flow and overall stability were assessed wrongly and according to its incorrect assessment of the stability of the aforementioned items, they decide about the pricing of shares and their trades. Incorrect understanding of the sustainability of profits and cash items and its subsidiary undertaking, lead to inaccurate pricing of the stocks. One way to reduce the severity of irrational pricing of stocks, to make the transparency of information by providing high-quality financial reports. The quality of financial reports can involve different aspects of the features but the two components, timely and reliability of financial reports are the most important component of the quality of the information. The more reports were delivered to investors timely, the greater it has reliability, and it causes investors to act more wisely in the pricing of the stocks.

In this study, investigated whether the rate of the timely and reliability of financial reports, has or not effect on the rational pricing of stocks by using the accounting profit and its components?

### 2. The quality of accounting profits

The theory quality of profits for the first time was offered by financial analysts and stock brokers because they felt that reported profits do not show power of the company's profitability as deserved.

They found out that the analysis of financial statements of companies due to numerous weaknesses in the accounting information is difficult to measure. The main reason that financial analysts in their assessments don't use the reported net income or profits of per stock and they are caution in determining the value of the company not only the quantity of profit, but also to its quality.

The propose of quality of profits is potential field of growth of profit and the rate of the possibilities of future profits. In other words, the value of a stock depends not only on the profits offer share of this year company, but on the expectations of the stakeholders of the future company and the future profitability and confidence attribute to the future profits [3].

Understanding of accountants and financial analysts from the word profit is different. Financial analysts generally say that reported earnings (accounting profit) are different from the actual benefits. One reason for this difference of view of analysts is that earnings can be manipulated by managers. Jay and Shrand (2010) believe that more quality benefits provide more information about the different aspects of a company's financial performance.

Quality of profit has no meaning in itself but also with respect to a decision or specific decision model, finds meaning. Quality of functional profits is a basic and actual performance of the company and accounting system that measures the mentioned performance. Therefore, the quality of profits should be given with regard to particular decision that depends on an informed opinion about the financial performance. [18]

### 3. The relationship between profit management and profit quality

It is usually assumed that profit management (with the use of commitment items and how to manipulate the actual activities) reduces the quality of profits (Dchv, Jay and Shrand, 2010). With assumption that the management in opportunistic case thinks to its personal interests, managers may manipulate profits so that they may the most benefits. the opportunistic behavior of managers demands that they manipulate profit reports. Accounting management was done by applying judgment and the accounting system. And management of real benefit was done through the manipulation of real activity and basic performance.. gained Profit numbers are not useful for evaluating the performance of management and not for the company's stock valuation. Therefore, the manipulated profit figures don't have quality in the perspective of financial analysts. [9]

### 4. irrational pricing profit and its components.

It is used Mishkin test to check rational pricing (ie assumptions about efficiency of market),in macroeconomics. In accounting, to check whether mentally market expectations of earnings and their components (in the process of formation of stock prices) with the objective expectations of profit and its components(according to historical information) is identical or not, for the reason the test Mishkin (1983) is used.

It is supposed that a correct model (ie a proper equilibrium pricing equation) predicts the expected return. The estimated parameters of the model are compared with the objective expectations of processing profit on historical information (such as cash flow, commitment). Recent equation is called the predictive equation.

If the estimated parameters of two equation are significantly different, deduction, this will be that the market mental expectations about profit is not rational. Because in this case, the mentioned parameters with obtained parameters of objective expectations, according to historical data are significantly different.

For simplicity, it is supposed thatxt Profit and  $z_{t-1}$  of any known variable type of predicting profit isat the beginning of period and  $UR_t$  is unexpected output of stocks (it is unexpected for investors and not necessarily with regard to the right information collection). In this case, if the market is efficient, unexpected output (if it is properly measured) should only period  $t$  react to new information. So,  $UR_t$  with part of the profits that anticipated by investors, should haven't correlated, only it should have correlation with the unforeseen part of ( $UX_t$ ). This

topic implies that in the following regression (equation valuation):

$$UR_t = \beta(X_t - c'Z_{t-1}) + e_t(1)$$

Coefficient  $C$  maximizes model R2, and reflects investors' expectations of profits. That is, Coefficient of concordance that maximizes relationship between  $UR_t$  and  $UX_t$  [ $\hat{C}_t = X_t - c'Z_{t-1}$ ] should be ratio that represents the best measure of the unexpected benefits perceived by investors, because the  $c'Z_{t-1}$  actually measures the expected profits of investors according to  $Z_{t-1}$ . Mishkin test compares slope coefficients perceived by the market ( $c$ ) with the slope coefficients derived from historical data ( $d$ ) according to the following predicting equation, ( $d = c$ ).

$$X_t = d'Z_{t-1} + u_t$$

For the test of objective and subjective expectations about the relationship between past and current profits it is just to test the hypothesis  $\alpha_1 = \alpha_1^*$ . To test the theory, the system of the above equations is estimated by method of nonlinear least squares. To gain coefficient  $\beta$  and  $\alpha_1$ , it is necessary to assume that  $\alpha_0$  is the same in both equations.

If  $\alpha_1$  equals  $\alpha_1^*$ , the sum of remainingsquares of bound systems (SSRC) (where  $\alpha_1$  equals  $\alpha_1^*$ ) shouldn't be significantly different from the sum of remaining squares of the unconstrained system (SSRU) (where  $\alpha_1$  against  $\alpha_1^*$  not). In 1983, Mishkin showed that this limitation can be tested by using the following ratio (under the null hypothesis asymptotically has distribution of  $\chi^2(q)$ ):

$$M = 2n \ln( \frac{[SSR]}{[SSR]^u} ) (5)$$

Where,  $n$  is the number of observations each of the equations ( $2n$  is the total number of observations).

### 5. Review of literature

-1- Foreign researches

Sloan (1996) was the first researcher that addressed that investors in such a way pricing the payable notes as if they recognized that available information in commitment items (cash flow) to predict future profits, is more (lower) effective (or so-called pricing are doing wrongly)

He found out that by adopting a policy of long-term investment in stocks of companies with low commitment items and adopting short-term policy of investing in stocks of companies with large commitment items, can gain a major future abnormal outputs. Collins and Hrybar (2000) suggest that the irrational pricing of commitment items is different from fluctuations of the profit announcing ad. [16]

Dcho and Dicho (2002) examined role of commitment items in better measure of the performance of companies in a range of time. Because commitment items requires assumptions and

forecasts of future cash flows. So the quality of commitment items and profit with the increase in the forecast error, decreases the amount of commitment items.

Desai, Rajogopal and Vnkatachalam (2004) speculate that abnormal commitment items may be a deceptive and hidden abnormality. They found out that operating cash flow as well as abnormal traditional criteria explains (such as the ratio of book value to market value at the price of stock and profit) irrational pricing related to commitment items.

Chan et al (2006) investigated the relationship between commitment items (the difference between profit and cash flow) with future stock output.

Lee (2010) in investigating the effects of market competition on the quality of voluntary disclosure of information, competition increases the quality of voluntary disclosure of information. The result of his research shows that big companies versus small companies have highly competitive capacity

Wu and Zhang (2011) in a study investigated the issue whether abnormalities of capital market is result of risk factor or false pricing. In this study, they considered variables such as B / M, size, release of capital, the growth of assets, commitment items and the possibility of bankruptcy.

#### -2- Internal investigation

The results of Khodadadi and Johnny s studies (1390) show that the managing companies of the benefit rather than other companies have the weaker performance, more development, larger size and a higher interest rate. Namazi and et al (1390) demonstrated that there was a insignificant positive correlation between the profit management and the auditor's size, and a positive but significant relationship between profit management and the auditor's progressive course[12]. mshki and Norideh (1391) showed that flatting companies rather other companies have more stable profits. In other words, they found out that there is a significant relationship between the stability and the flat benefit,. [11] Hashemi, Hamidian and Abrahimi (1392) examined incorrect pricing of commitment items by taking into account the risk of financial failure. Khani and Sadeghi surveyed (1392) The effect of irrational pricing of commitment items on profits of companies but they did not discover significant relationship in the case, Hasan Yeganeh and Hajizadeh (1392) also found out that with regard to institutional ownership of irrational pricing of discretionary commitment items has significant effect but it has insignificant effect on non-discretionary commitment abnormalities,. [4] Kurdistani and Abrahimi (1392) have also shown that with increase of the quality of disclosure declines the incorrect stock price. [10]

## 6. research hypotheses:

First hypothesis: the use of accounting profit for the pricing of stocks causes to make irrational pricing of stocks.

The second hypothesis: the use of operating cash flow for the pricing of stocks causes to make irrational pricing of the stocks.

The third hypothesis: the use of commitment items for pricing the stocks causes to make irrational pricing.

The fourth hypothesis: Increase timely disclosure of information reduces the level of irrational pricing of stocks by the accounting profit.

## 7. Method

this study is based on applied type and its data and it has event approach (the past).. Research variables occurred in the past and the ability to control and manipulate does not exist for the researcher. Research is based on collective data and the library method and documentation and its main purpose is to determine the amount and type of relationship between variables.

### 7-1 scope of research

According to available literature in method and identification research, each research has three scopes, time, place and topic.

The scope of the topic is the impact of the company's growth on abnormal commitment items and operating cash flows.

- the scope of time is since the beginning of 1381 until the end of 1391.

- the scope of place, the survey includes the Tehran Stock Exchange.

### 7-2- statistical society and statistical sample

The population is all companies listed on Tehran Stock Exchange in the period 1381 to 1391 during 11 years. In choosing the statistical sample, the following conditions applies:

1. The end of the financial year is in the end of March, and during the study period, the companies have not changed in fiscal year.

2. Stock of companies of trade interruption is not more than 4 months

3. but the insurance, banking companies and financial investment is not.

With these above restrictions, the volume of the statistical sample equals 196 companies (1751 year-corporation) that is used to test research hypotheses.

### 7-3- descriptive statistics of research

Descriptive statistics of research include mean, median, maximum, minimum, and standard deviation of Data that in Table 1 is presented. These values provide the overview of the distribution of research data.

Table 1. descriptive statistics of research

Variables	mean	median	maximum	minimum	standard deviation
<b>ABRET</b>	27/0	08/0	24/4	78/0-	68/0
<b>E</b>	16/0	16/0	39/1	37/1-	23/0
<b>CFO</b>	10/0	10/0	67/1	99/1-	30/0
<b>ACC</b>	06/0	04/0	19/2	61/1-	34/0
<b>TIME</b>	50/0	49/0	37/1	23/0-	29/0

Definition of variables:

ABRET: equals abnormal stock output that obtained from a fraction of the average market output

E pure profit of homogeneous accounting by the value of the stock market of the beginning of period

CFO: Operating Cash Flow

: ACC is commitment items that have been matched with the start of the stock market.

TIME is The timely score of disclosure of financial reports

REL is The reliability score of financial reports

8. test of research hypotheses

In this section, the results of research to test hypotheses have been proposed in here. In order to test the research hypotheses, systems of simultaneous equations was estimated and then Mishkin (1983) has obtained by the done estimates in the software Stata12.

8-1- test results of first hypothesis

$$\begin{cases} E_{t+1} = \alpha + \beta_1 CFO_t + \beta_2 ACC_t + \epsilon_{t+1} \\ ABRET_{t+1} = \theta(E_{t+1} - \alpha - \beta_1^* CFO_t - \beta_2^* ACC_t) + \epsilon_{t+1} \end{cases}$$

To test the first hypothesis, the system of simultaneous equations estimated and its results are presented in Table 2.

$$\begin{cases} E_{t+1} = \alpha + \beta_1 E_t + \epsilon_{t+1} \\ ABRET_{t+1} = \theta(E_{t+1} - \alpha - \beta_1^* E_t) + \epsilon_{t+1} \end{cases}$$

The results of the predicted equation showed that intercept (04/0) and the pure profit ratio of current period (66/0) both are significant at 1% and it determines about 26% of changes of the pure profit for the coming period. Chi-square statistic that is significant (70/987) also shows that overall prediction equation is significant.

The results of the second and third hypothesis of research

To test the hypothesis, the second and third study, the system of equations simultaneously was estimated and the results are presented in Table 3.

Table 2 the results of estimate of equation system

Variables	Coefficient	Z statistics( significant)	X2 statistics (significant)	Coefficient of determining
A predicting equation Intercept E	04/0 66/0	***36/4 (00/0) ***78/24 (00/0)	987/70	25/96
B) Equation for pricing	29/0- 55/0 45/3	***82/5- (00/0) ***19/5 (00/0) ***68/6 (00/0)	59/10	12/32
Mishkin test The first hypothesis	29/14	Reject of the first hypothesis		

The results of the predicted equation showed that intercept (05/0), and operating cash flow variables factor (60/0) and commitment items (49/0) are significant at 1% and it explains about 21% of changes of the pure benefit in the coming period.

In the second hypothesis of the study, statistical significance of Myshkyn (48/12) at 1% indicates that operating cash flow coefficient in two predicting

equations and pricing have significant differences and Investors estimate rate of the stability of operating cash flow before happening.

**Results of the fourth hypothesis**

To test the fourth hypothesis of research, the system of equations simultaneously was estimated, results are presented in Table 4.

$$\begin{cases} E_{t+1} = \alpha + \beta_1 E_t + \beta_2 TIME_t + \beta_3 TIME_t \cdot E_t + \epsilon_{t+1} \\ ABRET_{t+1} = \theta(E_{t+1} - \alpha - \beta_1^* E_t - \beta_2^* TIME_t - \beta_3^* TIME_t \cdot E_t) + \epsilon_{t+1} \end{cases}$$

The results of estimate of the predicted equation show that coefficient of pure profit variables (87/0) and TIME \* E (35 / 0-) at 1% and coefficient of timely variable (07/0) are significant at the 5% level and

independent variables of predicting equation explains about 27 percent of changes of pure profit in the coming period.

Table3 the results of estimate of equation system

Variables	Coefficient	Z statistics	X2 statistics	Coefficient determining
A0 predicting equation	05/0	***53/6 (00/0)	85./00	20/69
CFO	60/0	***62/18 (00/0)		
ACC	49/0	***07/18 (00/0)		
B) Pricing equation:	23/0-	***74/3- (00/0)	415/40	10/26
CFO	58/0	***51/3 (00/0)		
ACC	22/4	***12/4 (00/0)		
	94/3	***90/4 (00/0)		
C) Mishkin test	***48/12 (00/0)	Reject H1		
the second hypothesis	***81/12 (00/0)	Reject H2		
The third hypothesis				

To test the fourth hypothesis of research, meaningful statistics of Mishkin (11/12) at 1 percent shows that that coefficient of TIME \* E in two predicted equation and pricing have significantly

different in spite of increase of the scores of timely reporting, investors haven't correctly estimated rate of stability of pure profit.

Table 4 the results of estimate equation system

Variables	Coefficient	Z statistics	X2 statistics	Coefficient determining
A0)predicting equation	01/0-	51/0- (61/0)		
Intercept	87/0	***71/14 (00/0)	682/50	26/62
E	07/0	**10/2 (04/0)		
TIME	35/0-	***90/2- (00/0)		
TIME* E				
B) pricing equation	31/0-	***52/5- (00/0)	18/71C	
intercep	32/0	**36/2 (02/0)		
E	77/2	***77/2 (00/0)		
TIME	01/0-	01/0- (98/0)		
TIME* E	12/3	***12/3 (00/0)		
C) mishkin test		12/11	Reject H4	
The forth				

**Results**

In this study, the effectiveness of timely rate and reliability of financial information on the irrational pricing of stocks was investigated. When information is not enough transparency, investors wrongly estimate sustainability accounting profit (the important measure of quality of earnings), according to its wrong estimates, to buy and sell their stocks. Trading based on an incorrect understanding of the investorstakes place in sustainability of accounting profit (and the components of cash and accrual) and it causes to make incorrect prices for the stocks. In this case, it said that stocks have been priced irrationally. However, the increase in transparency of presented information and quality of financial reporting could prevent irrational pricing of the stock. When data are reported in real time it has high reliability that it prevents from the mistaken understanding of investors

in the accounting profit and its component. This topic itself prevents from incorrect pricing of stocks in the capital market. Results of research and research hypothesis show that the investors wrongly estimate rate of the stability of profits and its components and based on an incorrect assessment of itself irrationally priced their stocks. However, further studies showed that when the degree of timely and reliability of financial reports increase, operating cash flow and commitment items overcome irrational pricing, but pricing of accounting profits remains incorrect and irrational and market attribute to information has effective accounting profit.

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