

## **A study of the effect of establishing accounting standards on conservatism amount: Iranian scenario**

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### **Abstract**

*The aim of current study is to examine the relationship between conservatism contract and information content of accounting earnings in listed companies on Tehran Stock Exchange. Conservatism result in increased reliability of financial information and reduce reported earnings. Therefore, this question is proposed: reduced reported earnings what have effect on value relevance of earnings. On other hand, whether conservatism as a qualitative sub-feature for reliability will increase or reduce value-relevance/information content of accounting earnings as information relevance? Research methodology is exposit event type (using before events) and library method and local area are listed companies on Tehran Stock Exchange during 2003-2010. To analyze and test the hypotheses the multiple regression analyze method have been employed.*

*Results show that there is an inverse relationship between conservatism contract and informational content of accounting earnings. Across the world, the most of accounting standards contains requirements to apply conservatism practices. Including such requirements into standards context is due to attention to provided information reliability feature in financial to reliability what have effect on information relevance? For answering such questions it has to performed researches regarding to conservatism and its effects. It is clear the requisite for this is to innovate methods to quantitavasion this concept and to measure its amount.*

**Key words:** conservatism, value relevance of earnings, financial reporting quality

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### **1. Introduction**

Conservation is one of the main characteristics of financial reporting which have been discussed and examined in a long period in accounting theory (Salehi and Rostami, 2009). So far, various methods have been used to measure quantitavation this criteria it is proposed in efficient market theory, price and stock return reflect all new and existing information. On other hand, the stock return reflects both good news and bad news (Salehi, Ghorbani, and Jafarian, 2011). All news and existing information to be reflected in stock return without any differences between them. Earnings, it is necessary high reliability in order to determine earnings versus good news and losses versus bad news. Difference between earnings and return in terms of reflection of various evens effect will provide on appropriate back ground to measure conservatism. Losses and adverse news will be reflected in both earnings and current period return. While some increments in assets value and some revenues without reflection in accounting earnings will be reflected only in return. Accounting earnings will postpone the recognition of these revenues or increments in future period.

Basu (1997) has been one of the pioneers for conducting researches about conservatism in the recent decade. He has conducted the first prominent research in this regard which has been resulted in to provide model for investigating amount of exercised conservatism in preparing financial statements. In his model, conservation would be meant to recognize and reflect the bad news

rapidly (increasing assets and revenue value). He used the stock return as indicator to determine the kind of existing news about business unit. Because the stock return will reflect the information which the market have received them.

With attention to above explanations, it could be expected that there should be more powerful relationship between accountings and negative returns to compare with positive return because accounting earnings will reflect negative returns as well as good news, but it will postpone to recognize and reflect bad news to future periods. Basu (1997) named these criteria as asymmetric timelines of earnings.

In Givoly and Hayn's opinion (2000), the growth of accruals could be indicator of change in accounting conservatism degree. On other hand, if the accruals increase then the conservatism decrease and inversely.

The main aim of this research is to examine the effect of conservatism [quantitativation of conservatism quality criteria by using quatitativation methods of quality characteristics( Basu (1997) and Givoly and Hayn's model, 2000)] on information content (value relevance) of accounting earnings to help codifiers of accounting standards to impose requirements and special values for companies in institutions for fulfillment of these procedures in their financial statement when information content of accounting earnings increase by adapting conservatism procedures.

In the nest sections the conservation place and research back ground will be reviewed and then research method will be explained. In the next session the results is analyzed and finally concluding and suggestions will be provided.

### **1.1 conservatism in financial reporting**

Conservatism has historical record (experience) and some have tried to include it into theory area. Some framework writers such as UK Accounting Standards Board (ASB) have introduced conservatism hierarchical order of quality characteristics of accounting information. Some other such as Financial Accounting Standards Board (FASB) has not mentioned any place for it in concept framework and especially in quality characteristics of accounting information. But in Accounting Concept Statement No. 2, they have proposed conservatism as a contract have taken it a prudent response against existing uncertainties.

In Iran, the technical committee of auditing organization in theoretical concepts of financial reporting chapters 2 which is a translation from UK accounting standards board principles statements will recognize conservatism with other word (prudence) and introduce in as a quality sub-characteristics for reliability.

In 2006 International Accounting Standards Board (IASB) and American financial accounting standards board published its argument common paper about theoretical framework of financial reporting. The aim of this paper would be to bring near the theoretical framework of UK financial accounting standards board and international accounting standards board. This common paper has two sections including (a): aim of financial reporting and (b): Quality characteristics of financial reporting have been provided. According to common committee the quality characteristics of financial information reporting which are effective on making decisions will constitute the following components:

- i. Relevance including the productiveness and confirmativeness value of future cash flows.
- ii. Comparability including procedure constant.
- iii. Understandability
- iv. Present fairly including: provability of completeness neutrality. Neutrality which would be one of the characteristics of financial information fair presentation in common committee's

opinion in consists of unwillingness to determine the events predate and/or motivation of adapting behavior especially against them. Common (joint) committee in its argument paper has excluded the accounting conservatism and neutrality. International Accounting Standards Board in 2007 August in fair value presentation 9 section shows that accounting conservatism would not be component of characteristics accounting information quality pictures.

## **2. Review of literature**

Sen (2000) states that if conservatism would lead to reduce earnings in current period, consistent application from conservatism accounting would create a hidden reserve which couldn't increase future earnings when investment is reducing. Based on this, it is possible reported earnings would have low quality. He suggests that the managers have access two ways, either reported conservatism by reduction in earnings quality or neutralize the effect of conservatism by under-evaluation the current cost so that improve the earnings quality.

Balachandran and Mohanram (2006) have examined the relationship between conservatism and information content of accounting earnings in the United States. Their conservatism criteria would be under-representation of book values and asymmetric timeliness earnings by Penman and Zhang (2002) and Basu (1997). They investigated the relationship between conservatism-criteria and value-relevance of accounting earning in industry level and during three years time period from 1975 and 2004. They measured value-relevance (information content) by using price-earnings regression adjuster  $R^2$ , book value and combination from both and also they examined two types of conservatism (conditional and un-conditional). They concluded that industries with high un (non) conditional conservatism level the value-relevance of earning and book values are high and also in industries which face the non-conditional conservatism reduction will experience very much and material reduction in the value relevance of earnings and book values. In industries with high growth also there is much reduction in value relevance of earnings than industries with low growth.

William et al., (2006) have examined the effect of conditional conservatism on value relevance of accounting earnings and found that the relationship between conditional conservatism and value relevance of accounting earnings depend on accrual level in each country. In countries with high level of accruals the conditional conservatism has relationship with value relevance of accounting earnings. On the other hand in countries with low accruals there is not interest of conditional conservatism.

Jenkins and Velury (2008) have examined the relationship between auditing tenure and conservatism in reported earnings. Conservatism indicator for them was the same as Basu's (1997) conservatism model. One of the aims from conducting this research was that they believed long term relationship between auditor and client likely lead to reduce auditing quality. Time period of their research was 25 year observations from 1980 to 2004 which include earnings information, auditors and stock returns as well as companies which have audited by auditing authorities. Findings show that the level of conservatism in reported earnings is low in relatively in early years of relationship between auditor and client and results of research suggested that there is an increase in conservatism from short term tenure to middle term and from middle term to long term no changes have happened/ occurred in conservatism level.

Christos et al., (2009) examined the effect of conservatism reporting on value relevance of accounting earnings during 1989-2003 in the Greece stock exchange. They assumed that conservatism level increase after financial crisis 1999 (2000-2003) relative to before financial crisis (1989-1999).

Conservatism helps to accounting earnings to show move information content for stock returns. Their conservatism indicator was Basu's model and they used the model developed by Easton and Harris's (1991) to measure the information content of accounting earnings. Finally they concluded that level of conservatism have increased and information content of accounting earnings

### 3. Research methodology

Conservatism results in accounting earnings show more information center for stock returns. Or conservatism leads to increase information contents of accounting earnings.

Statistical community of the study includes listed companies on Tehran Stock Exchange during 2003-2010. Selected samples are companies which have the following criteria:

- i. Their financial year end be 12/29 each year.
- ii. At least they would have provided information and initial data to securities for an eight year period.

With attention to the above conditions, it has been selected 54 companies in mentioned time period. Therefore, total samples of research would be 432 firms.

In this research the multiple regression analysis have been used. In multiple regressions analysis the effect of several independent variables such as stock return on a dependant variable such as accounting earnings is examined. Methodology of research would be post-event type. (Using post information)

In this research it requires to measure two factors of conservatism and information content of accounting earnings. To determine the amount of conservatism the Basu's model (1997) and Givoly and Hayn's model (2000) is used. Since they shown that results of Basu's model is different from those other models and since reporting context is different depending on industry, country and time period, it is necessary to use from different models at the same time. So, in this research to measure conservatism two models have been used and their results have been compared.

Basu (1997) showed this model as follows:

$$EPS_{i,t} / P_{i,t-1} = \beta_0 + \beta_1 DT_{i,t} + \beta_2 Ret_{i,t} + \beta_3 Ret_{i,t} * DT_{i,t} + \varepsilon_{i,t} \quad (\text{Equate 1})$$

$Eps_{i,t}$ : Net profit after tax deduction divided to number of common stock for firm I in year t.

$P_{i,t-1}$ : Stock price in the beginning period for the firm i

$Ret_{i,t}$ : Annual stock return for firm I in financial year t.

DT is a dummy variable which takes one value if return of firm I in financial year t is negative and otherwise is zero. When stock return is negative it is assumed that it reflects bad news about future. Therefore this dummy variable which doesn't predict bad news of stock return about future takes zero value. On other hand, if DT could not predict bad news (that is in lack of conservation) will take zero value. If it talks zero value and above relation will equate to:

$$EPS_{i,t} / P_{i,t-1} = \beta_0 + \beta_2 Ret_{i,t} + \varepsilon_{i,t}$$

When stock return predicts bad news of stock return about future takes one value and above model will equate to:

$$EPS_{i,t} / P_{i,t-1} = (\beta_0 + \beta_1) + (\beta_2 + \beta_3) Ret_{i,t} + \varepsilon_{i,t}$$

$\beta_2$ : It measures response of earning to positive return.

$\beta_2 + \beta_3$ : It measures response of earning to negative return. Conservatism means that  $\beta_2 < \beta_2 + \beta_3$  or on the other hand  $\beta_3$  be larger than zero. This coefficient is the same Basu's (1997) criteria in measuring conservatism and in coefficient is named earnings asymmetric response or asymmetric timeliness earnings.

Givoly and Hayn (2000) stated their conservatism indicator as follows:

$$\text{Conservatism indicator} = \frac{\text{operating accruals}}{\text{total assets in the first period}}$$

Operating accruals is calculated as follows:

$$\text{OPACC} = \Delta \text{AR} + \Delta \text{INV} + \Delta \text{PE} + \Delta \text{AP} + \Delta \text{TP}$$

OPACC= Operating accruals,  $\Delta \text{AR}$ = changes in receivable,  $\Delta \text{INV}$ = changes in inventory,  $\Delta \text{PE}$ = changes in pre-payment,  $\Delta \text{AP}$ = changes in payable,  $\Delta \text{TP}$ = changes in payable tax.

In Givory and Hayen's opinion the growth of accruals could be the indicator for change in degree of accounting conservatism. On the other hand if the accruals increase, then the conservatism will reduce and inversely. To control inflation on accruals and conservatism changes and also to symmetry information around, the firms with different sizes the indicator variables have divided on total assets.

To determine information content of accounting earnings the Easton and Harris' model (1997) would have used. They expanded their model as follows:

$$\text{Ret}_{i,t} = \alpha_0 + \alpha_1 (\text{EPS}_{i,t} / P_{i,t-1}) + \alpha_2 (\Delta \text{EPS}_{i,t} / P_{i,t-1}) + \varepsilon_{i,t}$$

$\Delta \text{Eps}_{i,t}$ = Earnings per share difference form firm I in beginning and ending year t and other variable defined like before.

#### 4. Results of the study

In this research the Basu's model (1997) and Givoly and Hayn's model (2000) have been used as a tool to determine conservatism level. Basu's model was fitted by box graph for every variable and deleted them so that the coefficients from regression would not bias due to them. After grouping sample companies industries based on their conservatism level which is determined by above method, the value relevance of earnings have been determined based on adjusted determination ration in Easton and Harris's (1991) regression model. To test hypothesis of research the 95 percentage confidence ( $\alpha=0.05$  level) have been considered. To determine the significance of B3 in different industries for grouping based on their conservatism level, the 5% error level ( $\alpha=0.05$ ) have been considered.

##### 5.1 Testing of hypothesis by Basu's model

The hypothesis of the study is postulated as follow:

$H_0$  : There is not a significant relationship between earnings per share and its changes with stock return.

$H_1$  : there is a significant relationship between earnings per share and its changes with stock returns.

The results of Table 1 suggests that regression model is not significant or existence of linear correlation is rejected and corresponding hypothesis approve being significance of regression or existence of value-relevance of accounting earnings. This regression model has been fitted for each conservatism levels. Then confirmation or rejection of researches hypothesis have been examined by comparing amount of adjusting adjusted determination ration for each level of conservatism.

To determine the level of conservatism the sample companies were divided to nine groups of industries (as table 1). Then For each group after deleting pert observations the Basu's model to data was fitted.

Table 1. Conservatism in any industry

Industry no.	Industry name	Views (after pert)	Estimated $\beta_3$ in Basu's model
1	Car and parts	107	0.003*
2	Machinery and equipments	46	0.005*
3	Drug	66	0.001
4	Tile and ceramic, cement, other mines	56	-0.002
5	Basic metals	29	0.001
6	Petrochemical	23	0.001
7	Food	23	-0.001
8	Metal products	13	0.001
9	Other industries	32	0.002

\* Significance level in 5 percent

With attention to Table 1, industry No. 2 (equipment and plant) with positive significant  $\beta_3=0.005$  coefficient have highest conservatism level. After it industry No.1 (automobile and parts) with positive and significant  $\beta_3=0.003$  have conservatism. In other industries the existence of conservatism was not seen. Based on this level of conservatism and other industries with low conservatism (if Basu's model shows non-existence of conservatism it is assumed that conservatism level has been very low).

After determining level of conservatism, to determine value-relevance of earnings in each level of conservatism the regression equation is fitted and after deleting observations which their residuals have more than two standard deviations.

The results are as follows:

In low conservatism there is a significant and appropriate relationship between per share earnings and stock return and it was seen the highest value relevance of earnings ( $R^2=0.181$ ). In the middle conservatism the value relevance is less than high conservatism and more than conservatism ( $R^2=0.171$ ). In third group (high conservatism) there was a significant but lower relationship between per share earnings and stock returns ( $R^2=0.146$ ). Based on the adjusted determination ratio in this model it could be stated that according Basu's model if it would have not conservatism in the firms (low conservatism), the earnings have highest value relevance.

In table 2 summary of model and p-value and Durbin-Watson statistics have been provided.

Table 2. Summary of testing of hypothesis

Conservatism Level	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Low conservatism	0.436	0.190	0.181	34.98762	1.688
middle conservatism	0.409	0.168	0.171	28.42355	1.551
high conservatism	0.443	0.196	0.146	31.81732	1.568

## 5.2 Testing of hypothesis by Givoly and Hayn's model

To test hypothesis by Givoly and Hayn's model the geometrical average of operating accruals on nine determined categories of the industries in time period similar with Basu's model have been obtained. These figures have been indicated in the following table:

Table 3. Geometrical average of operating accruals

Industry no.	Industry name	Views (after pert)	geometrical average of operating accruals
1	Car and parts	107	0.0852
2	Machinery and equipments	46	0.0705
3	Drug	66	0.1112
4	Tile and ceramic, cement, other mines	56	0.0524
5	Basic metals	29	0.0879
6	Petrochemical	23	0.0496
7	Food	23	0.1053
8	Metal products	13	0.0596
9	Other industries	32	0.0739

With due attention to Givoly and Hayn's model the industries 5, 3, 7 have determined as industries with low conservatism. Industries 1, 2, 9 have determined industries with middle conservatism and industries 4, 6, 8 have considered as industries with high conservatism. Results of tests for determining value relevance of each level of conservatism were the same as Basu's model. That is information per share earnings in lowest conservatism have the highest value relevance ( $R^2=0.353$ ). Further, in high conservatism have the lowest value relevance ( $R^2=0.187$ ). Value relevance of per share earnings in middle conservatism level in between two other states ( $R^2=0.265$ ). It should be noted that in Givoly and Hayn's model adjusted determination ratio in three levels of conservatism is higher than the same state based on Basu's model. In Table 4, summary of model and Durbin-Watson statistics value have been provided.

Table 4. Summary of testing of hypothesis

Conservatism Level	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Low conservatism	0.606	0.367	0.353	44.63324	1.965
middle conservatism	0.511	0.261	0.265	64.81575	1.324
high conservatism	0.456	0.208	0.187	49.03930	1.271

## 6. Conclusion

After performed analysis about research hypothesis, the hypothesis was not confirmed and it was rejected. That is it was found there is an inverse and non-linear relationship between level of

conservatism and value relevance of accounting earnings. On other hand, the more the accounting conservatism level the earnings will provide lower value relevance for stock returns. The results is consistent with those other performed researches about measuring value relevance of earnings which suggested during forty years ago the value relevance of accounting earnings for stock prices (or stock returns) have enjoyed a deduction method e.g. Collins et al., (1997), Lev and Zarowin (1999), Francis and Schipper (1999). However, they were not consistent with other performed researches about the relationship between level of conservatism and earning value relevance. For instance Balachandran & Mohanram (2006) have concluded from their research as conservatism increase the value relevance of earnings and book values will increase. Also in industries which face the reducing conservatism it was observed.

Another reason which could be addressed for contradiction between obtained results in Iran country and other research is that nevertheless in most researches about conservatism the Basu's model (1997) is used, in same researches have been indicated that in samples with high conservatism the Basu's model show low conservatism and inversely.

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