Assessing the Effect of Conditional and Unconditional Conservatism on Financial Reporting Quality in Listed Companies on Tehran Stock Exchange

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Abstract

Conservatism is an evaluation criterion of financial reporting quality. Requesting accounting information of higher quality can be influenced by the acceptance of securities in capital market. In this study, a major and two minor hypotheses are designed. All listed companies on Tehran Stock Exchange are considered as target population of the research which are examined over a ten-year period (2006-2015). Research sample is selected considering the following criteria: continuous activity of the firm during the research period, consistency of reporting timetables to omit seasonal effects, elimination of investment and financial intermediation institutions. The achieved findings indicate that at the significance level of %95 there is a significant relationship between conditional conservatism (derived from Givoly and Hayn's (2000) model), unconditional conservatism (derived from Beaver and Ryan's (2000) model) and reporting quality (following Barth et al. (2001) study).

1. Introduction

Conservatism can be applied to evaluate financial reporting quality. Accounting information quality can be influenced by a set of factors derived from demands for such information to be used in transactions and markets (capital and business). Demand for accounting information of high quality can be influenced by the acceptance of securities in capital market. On the other hand, financial reports as the important outputs of accounting system can provide needed information to evaluate the performance and profitability of business units. To achieve this goal, the information should be presented in a way that supplies users with previous performance of the companies and enables them to assess and predict the future profitability and performance of business units. Managers' ability to compare, estimate and predict can generally affect financial reporting quality and specifically affect the earnings quality, since this capacity gives the manager an opportunity to improve the company's conditions. While the manger can

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consciously or unconsciously falsify the statements to show optimal conditions for the company to gain higher position or more rewards; therefore, the companies' financial reporting quality can be affected by managers.

2. Review of Literature

Firms disclose their financial status and performance through financial statements. Disclosure stands for transferring or presenting economic information (financial, nonfinancial, qualitative or quantitative) associated with the firm's financial status and performance. Disclosure of information may be mandatory or optional due to the established rules (Sajjadi et al., 2009). Quality and disclosure are essential needs of financial reporting. Financial reporting of higher quality can enhance the predictability of future cash flows for investors and users of financial statements. Owing to the fact that accounting and economics have interactions, financial reporting quality can be influenced by economics. Financial reporting quality affects the usefulness of financial statements or reports in which accuracy and consistency are of great importance. Financial reporting quality introduces the rules based on which useful and useless information can be segregated, and thus information usefulness improves (Noravesh, 1998). Most investors and legislators confirm the financial reporting of higher quality, since they mostly believe that capital markets are directly influenced by financial reporting quality (Levitt, 1998). On the basis of the conducted studies, earnings which are considerably correlated to the future operating cash flows are considered of higher quality (Yetman&Yetman, 2004; Francis et al., 2004; Dechow&Dichev, 2002). According to the Statement of Accounting Concepts No. 1, financial reporting should supply investors, creditors and other users of financial statements with the information which helps them to evaluate the amount, timing and risk of future net cash flows that will be received from their investment and economic decisions. Conservatism and its categories are explained in the following manner. Basu (1997) defines conservatism as the accountant's tendency to require a higher degree of verification for recognizing good news in earnings than for bad news. Since annual unexpected returns capture news arrival during the year, this definition has implications for the earnings-return relation. Feltham and Ohlson (1995) introduced balance sheet conservatism and defined it as the existence of a persistent understatement of the book value figure with respect to the market's valuation of the firm. Based on this viewpoint, conservatism is the rule whereby & when there is a genuine doubt concerning which of two or more reporting alternatives should be selected, the alternative with the least favourable effect upon owners' equity should be chosen (Smith and Skousen, 1987). Furthermore, there is

another definition of conservatism leads to the minimization of cumulative reported earnings by slower revenue recognition, faster expense recognition, lower asset valuation, and higher liability valuation (Givoly & Hayn, 2000). The current study has applied this definition. There is also another definition which proposed conditional and unconditional conservatism (Rayan, 2006). Conditional conservatism involves the more timely recognition of bad news than good news in earnings (often referred to as asymmetric timeliness), as occurs with impairment accounting for many types of assets. It is also called earnings-return conservatism or retrospective conservatism. Unconditional conservatism involves the predetermined understatement of the book value of net assets, as occurs with the immediate expensing of the costs of most intangibles. This kind of conservatism is also called balance sheet conservatism which predicts the future (Ryan, 2006). Considering the abovementioned issues and the significance of reporting quality, the investigation of those factors which affect reporting quality is of great importance. Regarding Ruch and Taylor's (2011) study which theoretically examined the conservatism effects on financial reporting quality, the relationship between conservatism and financial reporting quality should be given special attention. Therefore, the present study aims to answer the following question: is there a significant relationship between conditional and unconditional conservatism and financial reporting quality in listed companies on Tehran Stock Exchange or not?

Poulaie Mooziraji and Darash (2014) examine the impact of Conditional and Unconditional Conservatism on Cost of Capital of 87 listed companies on Tehran Stock Exchange during 2005-2010 with cross sectional and panel analyses. Their findings show there is positive relationship between conditional conservatism and cost of capital, also, there is negative relationship between unconditional conservatism and cost of capital.

3. Research Hypotheses

First hypothesis: There is a significant relationship between conservatism and financial reporting quality. Second hypothesis: There is a significant relationship between conditional conservatism and financial reporting quality. Third hypothesis: There is a significant relationship between unconditional conservatism and financial reporting quality.

4. Research Methodology

This study is an applied cross-sectional one which is conducted under the investigation of all listed companies (research target population) on Tehran Stock Exchange over a

ten-year period (2001-2010). Criteria-filtering technique is applied to choose research sample considering the following criteria: continuous activity of the firm during the research period, consistency of reporting timetables to omit seasonal effects, elimination of investment and financial intermediation institutions. Regarding these criteria, 134 companies have been selected as the research sample.

5. Research Variables

Independent variables of this study are conditional conservatism (CON1) and unconditional conservatism (CON2) which are the most applicable criteria for measuring conservatism based on the reviewed literature. Ahmed and Duellman's (2007) model which is derived from Givoly and Hayn's (2000) model is written as follows:

Conditional Conservatism Index=
[(net earnings – operating cash flow)/ total assets]$\times$(-1)

In this index, accruals are focused since it has an earnings-return viewpoint which shows conditional conservatism. Conditional conservatism involves the more timely recognition of bad news than good news in earnings (often referred to as asymmetric timeliness), as occurs with impairment accounting for many types of assets. It is also called earnings-return conservatism or retrospective conservatism. Unconditional conservatism involves the predetermined understatement of the book value of net assets, as occurs with the immediate expensing of the costs of most intangibles. This kind of conservatism is also called balance sheet conservatism which predicts the future (Ryan, 2006). Ahmed and Duellman's (2007) model which is derived from Givoly and Hayn's (2000) model is written as follows: unconditional conservatism index= (book value of shareholders' equity/ market value of shareholders' equity)$\times$(-1)

Market value of shareholders' equity is focused in this index, thus it is balance sheet conservatism and demonstrates unconditional conservatism. Financial reporting quality is regarded as the dependent variable. Following Barth et al. (2001) and Kordestani and Rahimi (2011), the accompanying model is utilized to evaluate financial reporting quality:

$$CFO_{i,t+1} = \alpha_0 + \alpha_1\ CFO_{i,t} + \alpha_2\ \Delta AR_{i,t} + \alpha_3\ \Delta INV_{i,t} + \alpha_4\ \Delta AP_{i,t} + \alpha_5\ \Delta DEPR_{i,t} + \alpha_6\ \Delta OTHER_{i,t} + \varepsilon_{i,t+1}$$

Where;

$CFO_{i,t}$: cash flow from operations for firm i in year t

$\Delta AR_{i,t}$: changes in account receivable for firm i in year t

$\Delta INV_{i,t}$: changes in inventory account

$\Delta AP_{i,t}$: changes in account payable for firm i in year t

$\Delta DEPR_{i,t}$: depreciation expense for firm i in year t

$\varepsilon_{i,t+1}$: error

$\Delta OTHER_{i,t}$: other accruals except the abovementioned which can be calculated in the following manner

$$OTHER_{i,t} = OP_{i,t} - (CFO_{i,t} + \Delta AR_{i,t} + \Delta INV_{i,t} - \Delta AP_{i,t} + \Delta DEPR_{i,t})$$

OP stands for operating earnings. Financial reporting quality is assessed through residual's absolute value. The less the residuals are, the more accurate the financial information and reports will be (RES=$\mid e_{i,t+1} \mid$). Residuals' median shows information quality. In other words, if residuals are equal with or less than the median, financial reporting is of high quality, otherwise it is of low quality. The following control variables are applied in this study:

$SIZE_{i,t}$: natural logarithm of the stock market value for firm i in year t (to control size effects).

$BM_{i,t}$: ratio of book value to market value for firm i in year t (to control growth opportunities or firm's life cycling)

$ROA_{i,t}$: ratio of net profit to total assets for firm i in year t (to control firm performance)

Lev: financial leverage (which indicates capital structure in this study and is defined as the ratio of total liabilities to total assets at the end of the period)

$Ag_{i,t}$: number of years after firm's establishment (derived from financial statements)

Regression model

First hypothesis' model:

$$Quality_{i,t} = \beta_0 + \beta_1 Con1_{i,t} + \beta_2\ Con2_{i,t} + \beta_3\ SIZE_{i,t} + \beta_4\ BM_{i,t} + \beta_5\ ROA_{i,t} + \beta_6\ Lev_{i,t} + \beta_7 Ag_{i,t} + \varepsilon_{i,t}$$

Second hypothesis' model:

$$Quality_{i,t} = \beta_0 + \beta_1 Con1_{i,t} + \beta_2 SIZE_{i,t} + \beta_3\ BM_{i,t} + \beta_4\ ROA_{i,t} + \beta_5\ Lev_{i,t} + \beta_6 Ag_{i,t} + \varepsilon_{i,t}$$

Third hypothesis' model:

$$Quality_{i,t} = \beta_0 + \beta_1 Con2_{i,t} + \beta_2 SIZE_{i,t} + \beta_3\ BM_{i,t} + \beta_4\ ROA_{i,t} + \beta_5\ Lev_{i,t} + \beta_6 Ag_{i,t} + \varepsilon_{i,t}$$

Where;

Quality: financial reporting quality

Con1: conditional conservatism

Con2: unconditional conservatism

SIZE: firm size

BM: ratio of book value to market value

ROA: performance

Lev: financial leverage

Age: firm age

6. Data Analysis and Hypotheses Testing

In this study, multiple correlation coefficient has been applied to assess the relationship between more than two variables, while partial correlation coefficient has been used to examine the relationship between two variables, providing that one of which is fixed. Multiple regression analysis is also employed to determine variables' dependency. The gathered data is registered in Excel 2010 software to be finally analyzed in SPSS 17 software.

Before testing research hypotheses and final goodness of fit, the descriptive statistics (central tendency and dispersion indexes such as mean, median, standard deviation, variance, range of variations, ...) of research variables, data normality (kolmogorov-smirnov test), model's normality and nonexistence of residuals' correlation (Durbin-Watson test), variance fixedness of residuals (the scatter plot, and residual plot against estimations) will be assessed. At last, probability value deploys to test the significance of research hypotheses. If the existing correlation between variables is significant, fitness of regression model is confirmed to estimate the dependent variable based on the independent variable.

Research findings

Findings of the first hypothesis testing are shown in the accompanying table.

Table 1. Findings of the first hypothesis testing.

Variable	Coefficient	T-statistic	Significance
Fixed (constant) value	12.282	94.150	0.000
Conditional conservatism	7.35	-0.766	0.044
Unconditional conservatism	5.094	4.612	0.020
Firm size	6.020	10.000	0.033
Ration of book value to market value	7.321	2.468	0.514
Return on assets	5.44	0.323	0.047
Financial leverage	6.077	1.138	0.006
Firm age	2.520	1.164	0.045
Coefficient of determination: 0.178			
Significance: 0.000			
Durbin-Watson: 1.935			
Correlation: 0.332			
F-statistic: 35.560			

These findings demonstrate that the regression model (with goodness of fit) is statistically significant (0/05>0/000). Durbin-Watson statistic (1.935) is between 1.5 and 2.5 which indicates that the assumed correlation between errors is rejected, and regression model can be utilized to test this hypothesis.

Coefficient of determination (0.178) shows that %17.8 of changes in financial reporting quality can be estimated through independent variables due to the existence of control variables. Correlation coefficient (0.332) shows positive correlation between these two variables. Considering the results, this conclusion can be drawn that there is a significant relationship between financial reporting quality and conditional and unconditional conservatism (sig=0.020, 0.044<0.05).

Findings of second hypothesis testing can be observed in the following table.

Table 2. Findings of second hypothesis testing.

Variable	Coefficient	T-statistic	Significance
Fixed (constant) value	17.279	45.676	0.000
Conditional conservatism	8.094	4.594	0.000
Firm size	5.020	9.997	0.000
Ratio of book value to market value	3.001	2.433	0.115
Return on assets	7.44	8.305	0.001
Financial leverage	6.032	1.163	0.045
Firm age	2.563	11.156	0.048
Coefficient of determination: 0.176			
Significance: 0.000			
Durbin-Watson: 1.910			
Correlation: 0.531			
F-statistic: 24.709			

These findings demonstrate that the regression model (with goodness of fit) is statistically significant (0/05>0/000). Durbin-Watson statistic (1.910) indicates that the assumed correlation between errors is rejected, and regression model can be utilized to test this hypothesis. Coefficient of determination (0.176) shows that %17.6 of changes in financial reporting quality can be estimated through conditional conservatism due to the existence of significant control variables. Correlation coefficient (0.531) shows positive correlation between these two variables. Considering the results, this conclusion can be drawn that there is a significant relationship between financial reporting quality and conditional conservatism (sig=0.000<0.05).

Findings of third hypothesis testing can be observed in the following table.

Table 3. Findings of third hypothesis testing.

Variable	Coefficient	T-statistic	Significance
Fixed (constant) value	17.297	89.442	0.000
Unconditional conservatism	6.113	-0.628	0.030
Firm size	8.021	10.325	0.000
Ratio of book value to market value	8.001	2.578	0.110
Return on assets	9.027	2.509	0.012
Financial leverage	4.007	1.159	0.047
Firm age	3.003	1.195	0.033
Coefficient of determination: 0.160			
Significance: 0.000			
Durbin-Watson: 1.871			
Correlation: 0.400			
F-statistic: 20.602			

Durbin-Watson statistic (1.871) is between 1.5 and 2.5 which indicates that the assumed correlation between errors is rejected, and regression model can be utilized to test this hypothesis. Considering the results, H1 is accepted and this conclusion can be drawn that there is a significant relationship between financial reporting quality and unconditional conservatism in listed companies on Tehran Stock Exchange (sig=0.050>0.030).

7. Conclusion

Results of hypotheses testing demonstrated that there is a significant relationship between conditional and unconditional conservatism and financial reporting quality. Correlation coefficient and multiple linear regression were applied to find the relationship between variables and to test research hypotheses. The findings showed a high correlation coefficient between conditional and unconditional conservatism and financial reporting quality at the error level of 0.05, and significance level less than 0.05 (P-value). Therefore, all research hypotheses confirmed a significant relationship between different types of conservatism and financial reporting quality, and a positive relationship between firm size and financial reporting quality at the confidence level of %95. The achieved findings of this study associated with this relationship are consistent with the findings of Singhvi and Deasi (1971), Ashton (1974), Tai et al. (1990), Kook (1991), Wallace and Naser (1995), Owusu-Ansah (1998), Archambault and Archambault (2003), Cohen (2004), and Sajjadi et al. (2009); while they are inconsistent with the findings of Ahmad and Kortis (1999). Furthermore, firm age and financial reporting quality were significantly and positively related to each other at the confidence level of %95. This finding is consistent with the findings of Owusu-Ansah (1998) conducted in Zimbabwe, and Sajjadi et al. (2009). This result can be justified due to the learning curve. There was also a significant relationship between financial leverage and financial reporting quality. This finding is consistent with the findings of Cohen (2004) and Graham et al. (2005). There was also a significant relationship between firm performance and financial reporting quality in listed companies on Tehran Stock Exchange. This finding is consistent with the findings of Lang and Lundholm (1993) and contrary to the findings of Cohen (2004), since they believe that firms with more profitability face higher costs. It seems that different models pay attention to various aspects and effects of conservatism on economic environment and behavioural elements of conservatism in financial reporting. For instance, Basu's model examines conservatism considering its behavioural effects on market behaviour, while in other models the existence of conditional and unconditional conservatism and timely recognition of accruals were focused. Mention must be made though that conservatism is a qualitative issue which is difficult to measure and analyze through consistent models.

8. Suggestions

1. Based on the results, firm size affects financial reporting quality. Thus, bigger firms enjoy higher disclosure quality and legislators of accounting laws and financial reporting should concentrate on small firms to ensure their financial reporting quality.

2. The results show that firm age influences financial reporting quality, thus the older a firm is, the higher its disclosure quality will be. Therefore, the legislators of accounting laws and financial reporting should concentrate on younger firms to ensure their financial reporting quality.

3. It is suggested that stock market as an observational institution in Iran capital market encourages listed companies to present their timely financial reports and improve their quality, accuracy and actuality.

4. Auditing institutions as observational institutions should enhance the auditing quality of financial reporting and validate them to be more applicable.

5. Since there is a direct relationship between financial leverage and reporting quality in both tested models, it can be concluded that increasing financial leverage enhances reporting quality. Business units with higher financial leverage have more problems with lenders and stock holders (especially problems related to the profit distribution policies) which can be dealt with the application of conservatism in accounting, and as a result, the cost of liabilities will decrease. Increasing financial leverage will develop institutional owners' observation. Conservatism improves financial reporting quality.

6. It is suggested that the users of financial statements pay much attention to both balance sheet conservatism and earnings-return conservatism to improve their financial reporting quality.

7. It is suggested that stock market codifies specific laws for Tehran Stock Exchange to provide the users with appropriate financial reports and enhance their quality.

8. Owing to the fact that conservatism decreases information asymmetry, it can also decrease opportunity costs and information risks for uninformed investors. Therefore, it is expected that conservatism, regarded as an important feature for investors, increases accounting information quality.

9. Suggestions for Future Studies

1. It is suggested that the relationship between competitive

and financing structures and conditional and unconditional conservatism is assessed to evaluate financial reporting quality.

2. Considering the specific features of each industry, it is suggested to assess the relationship between reporting quality and the effect of accounting conservatism on the decrease of interest conflicts among shareholders and financial creditors.

3. It is suggested to investigate whether the conducted studies in the field of accounting conservatism improve positive accounting theory.

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