

The impact of financial conditions on earnings quality of companies listed in Tehran Stock Exchange

Fatemeh Heydari¹, Hossein Nourani^{2*}

¹Department of Accounting, Bandar Abbas Branch, Islamic Azad University, Bandar Abbas, Iran

^{2*}Department of Accounting, Bandar Abbas Branch, Islamic Azad University, Bandar Abbas, Iran

Received: 10th Jan 2017, Accepted: 23rd Jan 2017, Published: 15th March 2017

Abstract

This study seeks to find an answer for the question if financial conditions have impact on earnings quality (quality of accruals, earnings stability, earnings predictability, and earnings smoothness) in companies listed in the Tehran Stock Exchange. To test the hypotheses, 118 companies among the companies listed in the Tehran Stock Exchange during 2006 to 2014 were selected. Data needed to evaluate research variables were extracted from databases of "Tadbirpardaz" and "Rahavard-e Novin". Analyses results shows that the financial conditions have significant impact on accruals quality of companies listed in stock exchange. In this regard, according to the findings of this study, it is recommended for capital market participants, decision makers, analysts and potential investors in Tehran Stock Exchange to pay attention to quality of earnings in addition to quantify the earnings in their decisions and to consider the relationship between financial conditions and earnings quality of company.

Key Words: financial conditions, earnings quality, earnings stability, earnings smoothing, earnings, accruals quality

Introduction

Accounting earnings quality and its relevance to predicted goals and valuation depend on the stability of its components. Achieving to stable earnings is effective in increasing the predictive power of investors and reducing the company's risk. Some elements of earnings are reasonably stable over time. Disclosure of these stable elements of earnings assists consumers in predicting future payments related to these items. Other elements of earnings may be largely unstable. Information related to these elements should be reported in such a way that users can distinguish their effects from the effects of elements that have stability. Financial analysts are trying to assess the outlook of companies' earnings. Earnings' outlook refers to combination of desired and undesired characteristics of net profit, for example, the company with stable elements and items in their earnings will have higher earnings quality compared to companies without these items and elements. This allows analysts to predict the

future earnings of the company with greater reliability (Ismaili, 2007, 8).

Economic institutions are faced with ups and downs during their operational life and some of them are considered as successful units due to their strong performance, while others are considered as unsuccessful units due to their poor performance. Companies that are facing with financial deterioration due to the continuation of poor performance try to overcome this situation in any way to improve their financial performance. Otherwise, they will experience bankruptcy (Al-Alter et al., 2008, 18). One of the ways that managers of financially distressed companies use to hide their poor performance to gain opportunities and to postpone the bankruptcy is increased manipulation in accounting earnings, leading to reduced reliability of these companies. In addition, the foreign studies conducted in this regard found that as result of increased earnings management, the conditional conservatism will reduce in these companies, which means that the earnings of the these companies are non-conservative (Dastgir et al, 2012, 2). Therefore, it is expected that companies with different financial situation to report their earnings with different quality. In literature, four characteristics of earnings have been recognized so far, which include accrual quality, earnings stability, predictability of earnings, and earnings smoothing. Lee et al (2014, 4) uses these four variables in their study.

Review of literature

Financial reporting

Since old days, companies have tended to release their information on financial reporting at the minimum level to prevent giving more opportunity for their rivals. Therefore, managers of business units are always facing with two major challenges in financial reporting that one of them is creation of equilibrium between transparency of financial reports and the other one is the amount of information that should be released and for which group of people they should be released (Seyedi, 2005, 26).

Factors affecting the reliability of financial reports

Most of accounting studies have considered disclosed information reliability synonymous with management reliability, while there are important differences between them. Disclosed information reliability is evaluated separately in each time of

disclosure and this evaluation may be different for each company at different times, while management reliability is sustainable characteristics related to managers of the company and it is related to perception and understanding of investors of managers' reliability and competence. The reliability of the source of a message in turn is only one of the elements reliability of the message and other variables affect the reliability of message. This suggests that management reliability is only one of the factors affecting the reliability of the information disclosed (Accounting Knowledge and Research, 2005: 31-37, 73).

Ways of improving financial reporting in support of equity

- Flexible reporting
- Reporting separate parts
- explaining the nature of the activity of companies
- Providing information about the company's future prospects
- Information on business competitors
- fast data transferring about important changes
- effective transferring of information.

Quality of earnings

The quality of reported earnings means earnings with high predictive power, stability (repeatability) and low volatility (variability). In general, earnings are examined in this study using time series.

The presence of appropriate grounds for manipulating of earnings is arising from conflicts of interest and also due to some inherent limitations of accounting, including:

1. Deficiencies in the process of future estimates and predictions
2. Ability to use multiple methods of accounting has caused that companies' real earnings to be different from earnings reported in the financial statements (Zarif Fard 1999, 56).

In accounting and financial texts, some business characteristics have been identified that their presence is increasing the quality of earnings. If a company has the following characteristics, the quality of earnings will be high:

1. Stable conservative accounting methods
2. The pre-tax income flow from operating and repeatable activities
3. obtaining the level of net earnings and growth rate, independent of tax considerations (such as reduced tax rates which resulted in a tax exemption)
4. Having an appropriate level of debt
5. Having the appropriate capital structure
6. company's earnings is not resulted from inflation

Elements affecting earnings quality

Accounting methods:

Earnings reflecting the "economic reality" has higher quality. Economic reality means that the ups and

downs of the company's business position to be identified without artificial smoothing. Economy of every industry has some inherent features such as seasonality of activity and nature of demand for products. In order to assess the quality of earnings in each company, accounting methods of company should be considered compared with economic reality of each industry (Khajavi and Nezami, 41, 2005).

Accounting estimates

One of the common methods to determine the validity of accounting estimates is to compare estimates with real results conducted by financial analysts. Significant conflict between estimates and real figures indicates high risk in estimates that it is related with earnings quality and endangers it since it may be understood that all estimates of the company are unreliable and incorrect, and consequently reported earnings differs significantly with real earnings (Zarif Fard, 1999, 90).

Internal control system and management integrity and honesty

Weak internal control systems, which may cause errors in the accounting process, reduce the reliability of the earnings. Integrity or honesty of management improves the quality of reported earnings. Dishonesty or lack of integrity in management provides the conditions for using questionable accounting methods (Ismaili, 2006, 34).

Industry type

It can be stated that operating earnings are appropriate basis to evaluate the earnings quality. Financial analysts believe that operating earnings compared with non-operational earnings have higher quality because the earnings arising from the sale institute activities that are result of ordinary activities of institution have higher stability (ibid, 35).

Research Hypothesis

The main hypothesis:

The financial conditions have significant effect on the quality of earnings.

Sub-hypotheses:

1. The financial conditions have significant effect on the quality of accruals.
2. Financial conditions have significant effect on the ability to predict future earnings.
3. Financial conditions have significant effect on earnings smoothing.
4. Financial conditions have significant effect on earnings stability.

Methodology

The current study is applied. Population of the study included companies listed in Tehran Stock Exchange during 2009-2014. Among all the companies listed on the Tehran Stock Exchange, 122 companies met the following conditions were selected as sample of study. The data of this study were collected from financial statements of companies and database of tax organization of the country. To analyze the collected data, Eviews software was used.

Data analysis

First hypothesis: the financial conditions have significant effect on the quality of accruals. To test this hypothesis, the results of the first model estimate presented in the table (1) were used. According to the results of the first model, the probability level (or significance level) is equal to 0.0000, and as this level is less than 0.05, the null hypothesis is rejected at the 95% confidence level, that is the model is significant. The Durbin-Watson statistic value is 2.091, indicating lack of auto-correlation. The results related to coefficient of determination show that approximately 26.93% changes in dependent variable are explained by independent and control variables of model.

In general, the results of the first model estimate show that the coefficient of variable HVSB is -0.016022 indicating the negative impact of financial conditions on the quality of accruals, which coefficient of variable HVSB is significant according to statistic at 95% confidence level. In other words, by increasing financial distress, the accruals quality of company decreases. According to above-mentioned cases, the first hypothesis of the study is confirmed. This means that financial conditions have significant negative impact on earnings quality.

Table 1: results of the first research model estimate

$AQ_{it} = \beta_0 + \beta_1 HVSB + \beta_2 CFO + \beta_3 SALES + \beta_4 SIZE + \beta_5 OPCYCLE + \beta_6 LOSS + \epsilon_{it}$					
Variable	Symbol	Estimated coefficient t	Standard error	Statistic t	Probability
Constant value (intercept)	C	-0.002593	0.059864	-0.043322	0.9655
Dummy variable of financial conditions	HVSB	-0.016022	0.005977	-2.680608	0.0075
Changes in cash flow	CFO	0.004348	0.012082	0.359888	0.7190
Sales changes	SALES	-0.012045	0.005875	-2.049985	0.0407
Company size	SIZE	0.007499	0.003795	1.976036	0.0485
Length of the company operating cycle	OPCYCLE	0.000987	0.005878	0.167971	0.8667
Dummy variable of loss	LOSS	-0.009868	0.006469	-1.525484	0.1276
The coefficient of determination	38%				
Adjusted coefficient of determination	26.93%				
Durbin-Watson	2.091				
F statistic	3.4329				
The probability (statistic F)	0.000				

The second hypothesis: the financial conditions have significant effect on earnings stability

To test this hypothesis, the results of the second model estimate presented in the table (2) were used. According to the results of the first model, the probability level (or significance level) is equal to 0.0000, and as this level is less than 0.05, the null hypothesis is rejected at the 95% confidence level, that is the model is significant. The Durbin-Watson statistic value is 2.012, indicating lack of auto-correlation. The results related to coefficient of determination show that approximately 56.20% changes in dependent variable are explained by independent and control variables of model.

In general, the results of the second model estimate show that the coefficient of variable HVSB is 0.014060 indicating the positive impact of financial conditions on the earnings stability, which coefficient of variable HVSB is not significant according to statistic at 95% confidence level. According to above-mentioned cases, the second sub-hypothesis of the study is not confirmed at 95% confidence level. This means that financial conditions have no significant impact on earnings stability.

Table 2: results of the second research model estimate

$PERS_{it} = \beta_0 + \beta_1 HVS B + \beta_2 C F O + \beta_3 S A L E S + \beta_4 S I Z E + \beta_5 O P C Y C L E + \beta_6 L O S S + \epsilon_{it}$					
Variable	Symbol	Estimated coefficient t	Standard error	Statistic t	Probability
Constant value (intercept)	C	0.940339	0.161520	5.821814	0.0000
Dummy variable of financial conditions	HVSB	0.014060	0.011926	1.178903	0.2388
Changes in cash flow	CFO	-0.002844	0.001289	-2.206835	0.0276
Sales changes	SALES	-0.009180	0.017014	-0.539587	0.5896
Company size	SIZE	-0.028690	0.011458	-2.503954	0.0125
Length of the company operating cycle	OPCYCLE	-0.011207	0.015088	-0.742800	0.4578
Dummy variable of loss	LOSS	0.018305	0.018230	1.004102	0.3156
The coefficient of determination	%61.96				
Adjusted coefficient of determination	%56.20				
Durbin-Watson	2.012				
F statistic	10.7594				
The probability (statistic F)	0.000				

The third sub-hypothesis: the financial conditions have significant effect on prediction of future earnings

To test this hypothesis, the results of the second model estimate presented in the table (3) were used. According to the results of the first model, the probability level (or significance level) is equal to 0.0000, and as this level is less than 0.05, the null hypothesis is rejected at the 95% confidence level, that is the model is significant. The Durbin-Watson statistic value is 1.963, indicating lack of auto-correlation. The results related to coefficient of determination show that approximately 10.09% changes in dependent variable are explained by independent and control variables of model.

In general, the results of the third model estimate show that the coefficient of variable HVSB is 0.004790 indicating the positive impact of financial conditions on the earnings stability, which coefficient of variable HVSB is not significant according to statistic at 95% confidence level considering statistic t. According to above-mentioned cases, the third sub-hypothesis of the study is not confirmed at 95% confidence level. This means that financial conditions have no significant impact on future earnings.

Table 3: results of the third research model estimate

$PRED_{it} = \beta_0 + \beta_1 HVS B + \beta_2 C F O + \beta_3 S A L E S + \beta_4 S I Z E + \beta_5 O P C Y C L E + \beta_6 L O S S + \epsilon_{it}$					
Variable	Symbol	Estimated coefficient t	Standard error	Statistic t	Probability
Constant value (intercept)	C	-0.082052	0.084113	-0.975505	0.3296
Dummy variable of financial conditions	HVSB	0.004790	0.008843	0.541672	0.5882
Changes in cash flow	CFO	0.001599	0.000236	6.768011	0.0000
Sales changes	SALES	0.003658	0.008635	0.423606	0.6720
Company size	SIZE	0.012530	0.005517	2.271313	0.0234
Length of the company operating cycle	OPCYCLE	0.010348	0.008540	1.211701	0.2259
Dummy variable of loss	LOSS	0.005763	0.012288	0.468937	0.6392
The coefficient of determination	%20.52				
Adjusted coefficient of determination	%10.09				
Durbin-Watson	1.963				
F statistic	1.9684				
The probability (statistic F)	0.000				

The fourth sub-hypothesis: the financial conditions have significant effect on earnings smoothing

To test this hypothesis, the results of the third model estimate presented in the table (5) were used. According to the results of the first model, the probability level (or significance level) is equal to 0.0000, and as this level is less than 0.05, the null hypothesis is rejected at the 95% confidence level, that is the model is significant. The Durbin-Watson statistic value is 2.002, indicating lack of auto-correlation. The results related to coefficient of determination show that approximately 47.88% changes in dependent variable are explained by independent and control variables of model.

In general, the results of the fourth model estimate show that the coefficient of variable HVSB is -0.002367 indicating the negative impact of financial conditions on the earnings stability. However, coefficient of variable HVSB is not significant according to statistic at 95% confidence level considering statistic t. According to above-mentioned cases, the fourth sub-hypothesis of the study is not confirmed at 95% confidence level. This means that financial conditions have no significant impact on earnings smoothing.

Table 5: results of the fourth research model estimate

$\text{SMOOTH}_{it} = \beta_0 + \beta_1 \text{HVS}B + \beta_2 \text{CFO} + \beta_3 \text{SALES} + \beta_4 \text{SIZE} + \beta_5 \text{OPCYCLE} + \beta_6 \text{LOSS} + \varepsilon_{it}$					
Variable	Symbol	Estimated coefficient t	Standard error	Statistic t	Probability
Constant value (intercept)	C	0.084736	0.045036	1.881505	0.0603
Dummy variable of financial conditions	HVS B	-0.002367	0.002065	-1.146445	0.2519
Changes in cash flow	CFO	5.18E-05	0.000659	0.078653	0.9373
Sales changes	SALES	-0.004881	0.001445	-3.377839	0.0008
Company size	SIZE	-0.000817	0.003102	-0.263507	0.7922
Length of the company operating cycle	OPCYCLE	-0.003145	0.001505	-2.089497	0.0370
Dummy variable of loss	LOSS	-0.003287	0.002803	-1.172523	0.2413
The coefficient of determination	%54.74				
Adjusted coefficient of determination	%47.88				
Durbin-Watson	2.002				
F statistic	7.9870				
The probability (statistic F)	0.000				

Results of study

First sub-hypothesis

Results of first sub-hypothesis showed that financial conditions have a significant impact on the quality of accruals, since dummy variable coefficient of financial conditions was negative (-0.016) and it is significant according to significance level of t test (0.007). It means that financial conditions have a significant negative impact on the accounting earnings quality. Results of this study are in line with results of studies conducted by Campa and Camacho (2014) and Iskra et al (2014). Financial conditions, as essential factor, are effective in accounting data information. Therefore, content of accounting data information is conditional to financial position of companies, evaluated by using bankruptcy probability models. Managers and employees are the most important groups use these data and access them. On the other hand, creditors and others are using data output that are same essential financial statements and use them in analyzing the performance of companies. Therefore, managers do not provide accruals with appropriate quality in bankruptcy and financially distressed situations to cover their financial conditions.

Second sub-hypothesis

Results of second sub-hypothesis showed that financial conditions have a significant impact on the earnings stability, since dummy variable coefficient of financial conditions was positive (0.014) and it is not significant according to significance level of t test (0.238). Results of this study are in line with results of studies conducted by Godratian (2014) and Iskra et al (2014). As accounting earnings are influenced by economic conditions of the country (boom or recession) and the demand of goods and services is fixed in boom period, demand for goods of the company also is stable. Therefore, it is expected that company to experience with lower volatility and higher stability. However, due to lack of reliability in economy, demand for goods and services of company is not stable, and it is expected that company status and consequently company earnings to be volatile. It causes earnings stability in the recession period to be lower than boom period.

Third sub-hypothesis

Results of third sub-hypothesis showed that financial conditions have no significant impact on the future earnings predictability, since dummy variable coefficient of financial conditions was positive (0.014) and it is not significant according to significance level of t test (0.238). Results of this study are in line with results of studies conducted by Godratian (2014) and Iskra et al (2014). As business firms experience ups and downs in their operating life, companies suffering from financial distress due to their continuous poor performance want to save themselves from this situation and improve their situation. Therefore, the current financial situation of the company cannot be regarded as bases for earnings prediction.

Fourth sub-hypothesis

Results of fourth sub-hypothesis showed that financial conditions have no significant impact on the earnings smoothing, since dummy variable coefficient of financial conditions was negative (-0.0023) and it is not significant according to significance level of t test (0.238). Results of this study are in line with results of studies conducted by Campa and Camacho (2014) and Iskra et al (2014). Financial conditions of a company (bankruptcy and financial distress) in this study were not considered as affective factor in earnings smoothing, but we concluded that managers smooth the earnings based on representative theory to receive higher wages and rewards of investors and stockholders. Results of this study are inconsistent with results of Jabarzadeh et al (2009) since they stated that financial conditions have a significant impact on earnings smoothing. Their views can be justified by the fact that investors prefer to invest in companies that enjoy constant profitability. Managers smooth the earnings to show the company's desirability in poor

financial condition, since they are faced with reported earnings volatilities in such situations. Therefore, they smooth the earnings to ensure the investors that their company has constant profitability and it is appropriate place for investment.

Main hypothesis

The results of the research are in line with results of Abskra et al (2014). As the main hypothesis of the study investigates the impact of financial conditions on the quality of accounting earnings, the term that is used for earnings measurement efficiency is earnings quality. Earnings quality is very important for users of accounting information, policy makers and researchers as a superior product of financial information. On the other hand, the appropriate conditions to manipulate earnings resulting from conflict of interests and a part of inherent limitations of accounting are some of the deficiencies in the process of future estimates and prediction and use of multiple methods of accounting, caused that the reported earnings of companies to be different from real earnings. This type of incentive exists among managers of companies who are experiencing financial distress and bankruptcy. Therefore, it can be expressed that financial conditions affect the quality of earnings.

Recommendations

According to the first sub-hypothesis, it is recommended for users of the financial statements and the funders of stock companies to pay attention to low quality of accruals as effective tool in determining the financial conditions of the companies in their investment decisions (sale and purchase of the stocks) and lending to companies.

With regard to the second sub-hypothesis, it is recommended for investors to pay attention to procedure of reported earnings in past and its stability in evaluation of the companies listed in stock exchange, in addition to profitability status and return obtained by stock of company.

According to the third sub-hypothesis, it is recommended for Tehran Stock Exchange and securities as well as companies collecting and providing financial information system in the stock exchange to prepare software based on statistical models for predicting the future earnings based on past earnings and to provide them for those who want to use this advanced software to predict the earnings.

According to the fourth sub-hypothesis, it is suggested that Stock Exchange and the Audit Organization to reduce the authority of managers to smooth the earnings by legal obligations. In addition, auditors, investors, creditors should be aware that earnings smoothing in most of companies is performed for distortion and the earnings in a company should not be considered as a sign of low

risk. Considering the main hypothesis, it is recommended for users of financial information to pay attention to financial status of the companies in adopting economic decisions, since if companies are distressed financially, the earnings quality will be low.

References

1. Ismaili, Sh and Khosh Tinat, M., (2006), "The relationship between earnings quality and stock returns," *Accounting Studies*, No. 12 and 13, pp. 27-56.
2. Datgir, M, Hossein-zadeh, AH, and Khodadadi, V, Vaez, A, (2012), "quality of earnings in distressed companies ", *financial accounting studies*, Year 4, Issue 1, serial number (11), pp. 16- Seidi, H. (2005). "The value of reporting in the information age", *accountant*, No. 148, p. 28.
3. Knowledge and Research in Accounting (2005), "The judgment of investors about the reliability of the information disclosed by management", *Journal of Iranian Accounting Association*, No. 2, pp. 37-30 and 77-72.
4. Campa, D., and Camacho, M. (2014). Earnings management among bankrupt non-listed firms: evidence from Spain. *Spanish Journal of Finance and Accounting* , 18 , No. 1 , 8–11.