

## **Investigate the Effect of Financial and Accrual Reporting Quality and Debt Maturity on Return on Investment (ROI) in Tehran Stock Exchange**

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**Abstract:** One of the most important touchstones of financial statements is to evaluate the company by investors and creditors. Therefore, financial statements must have high quality. If the financial statements have high quality, this represents a fair and correct management and thereby makes investors more confidence to the financial statements. The debt maturity reflects management's efforts to select the optimal debt maturity structure. Therefore, the quality of financial statements and debt maturity are issues that can affect efficiency and financial performance of any company. In this study, the effect of the financial reporting quality and debt maturity on return on investments of listed companies in Tehran Stock Exchange will be discussed. The sample consists of 43 investment company that during the years 2008-2013, were tested using panel data models. The results showed that the financial reporting quality has an impact on return on investment and the first hypothesis is accepted. But, the debt maturity does not affect the return on investment and the second hypothesis is rejected.

**Key words:** Financial reporting quality, debt maturity, returns, sample, Iran

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### **INTRODUCTION**

The financial reporting quality depends on how to prepare the financial statements. The most stable attempt to develop a conceptual framework is the Financial Accounting Standards Board's work. So far, by steps at the international level, the financial statements prepared and presented in a more accurate, more timely, more complete and genuine way. It is important due to it is the reason for investor's trust, increasing the reputation of the company and thus increase efficiency and profitability. Information must be understandable, relevant, reliable and comparable in order to be useful for decision-making. The timeliness is one of the most important factors determining the relevance of the information. Information should be available for external users as soon as possible after the end of the fiscal year, otherwise the economic value of this information would be less (Talaneh, 2001). Financial reporting divides the company's specific information from the perspective of management and provides it significantly for users, so that investors, creditors and other users exert it to allocate resources and capital (Bergstresser *et al.*, 2006). The basic role of financial reporting is to transfer the information in a timely and authentic manner to those who are outside

the organization (Nourvash and Hosseini, 2009). As the core of the financial reporting, financial statements is a kind of information about the financial situation and financial performance of economic enterprises that are prepared and presented for a wide range of creditors and government. Since, the information contained in the financial statements is one of the important pillars of logical decisions, therefore users should examine the quality of reporting before using the financial statements (Bozorg Asl, 2001). The result also indicate that continually raise the financial reporting quality is a requirement in the business world. Since investors are not sure about the future, they invest in different asset classes such as corporate stock, gold, silver, land and buildings, bonds, etc., to reduce investment risk. Therefore, investing in more than one asset is called the investment collection or portfolio. This theory was first proposed by Markowitz and later expanded. For various reasons, managers are trying to develop a desirable reports for managers and shareholders by manipulating accruals or other accounting procedures and this leads to a reduction in the financial reporting quality. Previous studies have proven that management practices to manipulate financial statements using accrual has an enormous impact on investment decisions. Because

accruals moderate, the profit and sales of company and on the other hand, this causes a change in the amount of reported assets and as a result, the stock price will fluctuate ('Bekaert *et al.*, 2000).

For the first time, Smith and Barkley (1995) conducted a comprehensive study to assess all factors affecting the debt structure and significant impact of all factors with different extents. In addition to traditional studies, the capital structure which investigate the choose between debt and equity as a component of capital structure by considering the time, it can investigate factors affecting the choice of debt maturity schedule.

#### **Research hypotheses:**

- H<sub>1</sub>: there is a significant positive relationship between the quality of financial and accrual reporting and return on investment
- H<sub>2</sub>: there is a significant positive relationship between the debt maturity and return on investment

**Theories of risk and return** There are five theories regarding the risk and return (Rahnama Roodposhti and Salehi, 2010).

**Expectancy theory:** Expectancy theory is based on the idea that people have rational behavior and do the best things. According to this theory, the people's imagination regarding the future forms considering all information available as well as the implications for the economic functionality. According to this theory, the stock prices reflect the current information, the expectations regarding the future and an important factor causing price changes. The information is new, if the expectations be negative, stock price started to decline and if people's expectations about profit is positive, the stock price will be progressive. Attitudes or new information that reaches the market, constitute price volatility and fluctuations in stock prices also constitute the fluctuations in the market index.

**Efficient market hypothesis:** Efficient market hypothesis has been identified and defined by Eugen Fama (1970). Efficient market is a market in which the available information have an immediate impact on the stock price. According to this hypothesis, the capital market would be efficient, if, first of all, the market prices fully reflect the published information and secondly, market prices react immediately to new information. In this market, the future prices cannot be predicted, the prices follow a random fluctuation and no one can achieve abnormal returns.

**Signaling and liquidity hypothesis (asymmetric information):** This is the theory of asymmetric

information. This theory is based on the belief that the short-term debt is a positive sign of the company's low credit risk argues that companies that their current value are less than their true value, would prefer short-term debt in order to reflect their value of credibility. Companies that are inferior in quality, prefer the long-term debt. When the transaction costs be positive, they cannot carry out their long-term commitment. When the rate of credit (credit rating and quality) is inclined toward lower risk, debt maturity has a more negative relationship with the quality of company a proponent of this theory. He argues that when a company's credit rating is high, prefer short-term debt. In other words, companies that have better performance, would avoid the crisis maturity (Stephana *et al.*, 2011).

**The relationship between the financial reporting quality, debt maturity and return on investment:** The role of debt is clear in reducing the administrative authority and regulation of investment decisions and there is evidence that increases the efficiency of investment. The role of debt maturity in uncertain situations has shown that the use of short-term debt is a mechanism that leads to a reduction in agency costs and information asymmetry between shareholders, creditors and managers. Short-term debt decreases the investment problems. The underestimated investment resulting from conflicts between creditors and shareholders. This option is an opportunity for lenders and companies to provide renewed contract and lowering agency costs (Hajiha and Akhlaghi, 2012).

General information is produced by the financial reporting quality and the private information that being disclosed by short-term debt, are probably interchangeable. If the private information obtained by creditors supplements the general information which is produced by high quality financial reporting, shortening debt maturity makes reporting quality improved. Therefore, when short-term debt is high, the effect of the financial reporting quality on the efficiency of investment will increase (ibid.).

Management decisions that lead to the manipulation of financial statements accounting items, reduce the financial reporting quality. Previous research has suggested that reducing the financial reporting quality affect negatively the investor confidence. In face of declining investment, corporate finance ability and foreign investment ability be reduced. On the other hand, decision is effective in connection with the financing and the establishment of debt to manage debt maturities.

**Research background:** Hashemi *et al.* (2014) examined the effect of the financial reporting quality and debt maturity

on return on investment. The findings show that by increasing the financial reporting quality as well as shortening the debt maturity, the investment efficiency will improve. The effect of the financial reporting quality on the return on investment for companies that have a shorter debt maturity, is weaker. In other words, the positive impact that high quality financial reporting and the short debt maturity have on return on investment, partly can be replaced by each other.

Mehregan and Faraji (2014) estimated the return on investment in Iran's public and private sectors. Using data from the period 1959-2007 and taking advantage of a delayed distribution method to estimate the period of return on investment in Iran's public and private sectors, they tried to offer suggestions for investment and a benchmark for evaluating investment managers. The results show that while the return period for all sections comply with a 2nd grade function, but the length of the return on investment for private sector is 7 years and for public sector is 10 years. The highest growth rate for the private sector was obtained in the fourth period and for the public sector was obtained in the fifth period.

Rajgopal *et al.* (2011) examined the relationship between financial reporting quality and dispersion of abnormal stock returns in 1987 to 2000 in America, they used two samples for the analysis and found that the reduction in the financial reporting quality would fluctuate the abnormal stock returns. In other words, the financial reporting quality has a positive effect on stock returns and this effect plays an influential role in abnormal stock returns.

Dutta and Humphrey (2013) analyzed the relationship between stock return volatility, operating performance and stock return in America. This study showed that the stocks which have less stock return volatility, will have higher operating efficiency and for this reason, we understood that the stock which have higher stock return, will have less volatility. These results provide a slight explanation for the effect of low volatility which is independent from anomalies or inefficiencies in market. Finally, they emphasize on the importance of controlling the stock returns volatility when analyzing a stock's performance. In a sample of Spanish companies during the period 1998-2008 and in a study entitled "the financial reporting quality, debt maturity and the return on investment in Spain", Gomariz and Ballesta (2014) examined the impact of these factors on each other. They found that increasing the financial reporting quality reduces the return on investment and the earlier debt maturity also increases the financial reporting quality and the companies that have fewer short-term debts, the effect of the financial reporting quality on their investment efficiency would be lower.

## MATERIALS AND METHODS

The current research method is applied and the procedure is correlational and events associated. All financial statements of companies listed on the Stock Exchange, Codal website and Tadbirpardaz software have been used to collect statistical and financial data. The statistical population included all investment companies in Tehran Stock Exchange during 2008 and 2013 and the sample composed of 43 companies that the information about those companies were used to test the hypotheses. Since the sample was tested a 6 year period, the number of statistical sample included 258 years of the companies.

**Static test:** When the variables are unstable or have a unit root, the conventional econometric techniques may not be appropriate because the regression leads to biased and misleading estimations. Therefore, the considered variables were tested and then the model estimated.

Table 1, reflects the static variables and since the significance level is equal to 0.000 for all variables as a result all variables are static at 95%.

**F-limer test:** F-limer test can be used to choose between pooled data regression methods (consolidated) and regression with fixed effects.

Table 2 and 3 show the F-limer test results for the research hypotheses, if the significance level is <5%, the panel model can be accepted. Table 2 and 3 shows that the significance level is equal to 0.000 and as a result, the panel model be accepted.

**Hausman test:** According to Table 4 and 5, the fixed effects model will be accepted, because the significance level is equal to 0.001 and <0.05 and as a result, the fixed effects model is accepted at 95% significance level.

Table 1: Results of static test

Variables	t-statistic	Significance level
Financial reporting quality	-9/67	0/000
Debt maturity	-14/98	0/000
Return on investment	-17/25	0/000
Tobin's Q ratio	-107/69	0/000

Table 2: F-limer test results for the first hypothesis

Test	Significance level	Results
F-limer test	0.000	Panel data (panel model)

Table 3: F-limer test results for the second hypothesis

Test	Significance level	Results
F-limer test	0.000	Panel data (panel model)

Table 4: Hausman test results for the first hypothesis

Variables	Values
$\chi^2$ statistic	16/063
significance level	0/001
Results	Fixed effects model

Table 5: Hausman test results for the second hypothesis

Variables	Values
$\chi^2$ statistic	15/07
significance level	0/001
Results	Fixed effects model

## RESULTS AND DISCUSSION

**Test first research hypothesis:** There is a significant positive relationship between the financial and accrual reporting quality and return on investment. In this hypothesis, the financial reporting quality is independent variable and the return on investment is dependent variable and Tobin's Q ratio is intended as a control variable for increased accuracy in hypothesis testing.

As can be seen in Table 6, the significance level of all the variables accepted in 95 and 90%, the significance level of f-statistic is equal to 0.000 which indicates that the regression is generally significant. The coefficient of determination ( $R^2$ ) is equal to 0.5. The t-statistic is equal to 1.7 and its coefficient is positive and therefore, the research hypothesis is accepted. In this hypothesis, Tobin's Q is the control variable. The coefficient of t-statistics is positive in this variable and it is equal to 3.022 which indicates that there is a positive correlation between the control variable and the dependent variable. The relationship between return on investment and Tobin's Q ratio is also positive. The coefficient of t-statistics is positive, because if a company have higher Tobin's Q ratio, it would certainly have higher return on investment and vice versa.

Finally, it can be stated that the first hypothesis is accepted and there is a significant positive relationship between the financial and accrual reporting quality and return on investment. In other words, the more the financial reporting quality the more the return on investment.

The first hypothesis test results is consistent with Sajadi (2009), Rajgopal and Venkatachalam (2011) and Gomariz and Ballesta (2014). Sajadi found that the total accruals items and discretionary accruals items be recognized by the stock markets and the variance of abnormal stock returns increases. Rajgopal and Venkatachalam found that reducing the financial reporting quality creates volatility in the abnormal stock returns. Nouri and Deilami also found that there is a significant relationship between financial reporting quality and return on investment. Gomariz and Ballesta found that increasing the financial reporting quality reduces the return on investment.

**The second hypothesis test:** There is a significant positive relationship between the debt maturity and return on

Table 6: The first hypothesis test results

Variables	Coefficient	t-statistic	Significance level
Financial reporting quality	0/108	1/7	*0/08
Tobin's Q ratio	0/077	3/022	0/022
$R^2$		0/5	
F-statistic		4/06	
Significance level F		0/000	
Durbin-Watson		1/4	

Table 7: Second hypothesis test results

Variables	Coefficient	t-statistic	Significance level
Financial reporting quality	-0/153	-1/87	*0/060
Tobin's Q ratio	0/07	2/9	0/003
$R^2$		0/5	
F-statistic		4/08	
Significance level F		0/000	
Durbin-Watson		1/4	

investment. In this hypothesis, the debt maturity is independent variable, the dependent variable is return on investment and Tobin's Q ratio is intended as a control variable. The purpose of testing this hypothesis is to investigate the relationship between debt maturity and return on investment in a circumstance that there is Tobin's Q ratio as the control variable.

As can be seen in Table 7, the significance level of all the variables accepted in 95%, the significance level of f-statistic is equal to 0.000 which indicates that the regression is generally significant. The coefficient of determination ( $R^2$ ) is equal to 0.5. The t-statistic is equal to -1.78 and its coefficient is negative and therefore, the research hypothesis is rejected.

In this hypothesis, Tobin's Q is the control variable. Tobin's Q ratio is considered as a measure to evaluate the company's performance. The relationship between return on investment and Tobin's Q ratio is also positive, the coefficient of t-statistics is positive in this variable and it is equal to 2.9 which indicates that if a company have higher Tobin's Q ratio, it would certainly have higher return on investment and vice versa.

Finally, it can be stated that the second hypothesis is rejected and there is a significant negative relationship between the debt maturity and return on investment. In other words, the more the debt maturity, the less return on investment.

The result of this hypothesis is similar to Gomariz and Ballesta (2014) who found a negative relationship between debt maturity and the return on investment and for this reason, the more the long-term debt, the less the return on investment.

## CONCLUSION

The purpose of this study was to evaluate the effect of financial reporting quality and debt maturity on returns on investment in companies listed in Tehran Stock

Exchange has been. The sample consists of 43 investment company that during the years 2008-2013, were tested in Eviews software using panel data models. In this research, two hypotheses were tested. The first hypothesis test result showed that there is significant positive relationship between the financial reporting quality and return on investment. In other words, the more the financial reporting quality the more the return on investment. If the financial statements be manipulated by managers or be presented in a vague and incomplete manner, the return on investment would be reduced in these conditions. One reason is lack of trust of shareholders and investors on the financial statements. The second hypothesis is rejected and indicates that there is no significant positive relationship between the debt maturity and return on investment. In other words, although the debt maturity structure helps companies, but it cannot improve company's return on investment. The results showed that the preparation of financial statements would have costs for companies and for this reason, these companies ignore this cost.

#### **RECOMMENDATIONS**

it is recommended that the cost of the financial reporting quality in the future research, be considered as a negative factor.

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