

THE ROLE OF FINANCIAL REPORTING QUALITY IN REDUCTION THE CONSTRAINING EFFECT OF DIVIDEND POLICY ON INVESTMENT DECISIONS IN TEHRAN STOCK EXCHANGE

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ABSTRACT

Miller and Modigliani's (1961) dividend irrelevance theorem predicts that in perfect capital markets dividend policy should not affect investment decisions. Yet in imperfect markets, external funding constraints that stem from information asymmetry can force firms to forgo valuable investment projects in order to pay dividends. The purpose of the present study is to investigate the role of financial reporting quality in mitigating the constraining effect of dividend policy on investment decisions. The statistical population of this research is companies listed in Tehran Stock Exchange (TSE), and the research period is from 2008-2012. Financial reporting quality measured based on the modified Dechow and Dichev (2002) model by McNichols (2002). To test the research hypothesis multiple regression models of panel data were used during research period. Our findings show that there is no significant relationship between financial reporting quality, dividend policy, and investment by them.

Keywords: *Financial Reporting Quality, Dividend policy, Investment*

INTRODUCTION

Miller and Modigliani (1961) establish that in a perfect capital market, dividend payout policy is irrelevant to firm value because: (1) only investments, which generate future earnings and cash flows, affect firm value, and (2) investments are independent of dividends. The latter, termed the separation principle by Fama and Miller (1972), provides an important prediction of this dividend irrelevance theorem: Dividend policy should not affect investment decisions. However, in imperfect markets, dividend policy can affect investment decisions. When managers know more about the value of the firm's assets and investment projects than outside investors, adverse selection and moral hazard problems can constrain the firm's access to external funds (Jensen and Meckling 1976; Myers and Majluf 1984). This constraint can result in a competition between investment projects and dividends for internal funds, and firms with limited internal funds must choose between pursuing investments and paying dividends. To the extent that managers are reluctant to cut dividends (Lintner 1956), paying dividends can force those firms to forgo valuable investment projects. Recent research finds evidence consistent with dividends having a constraining or negative effect on investments. Survey evidence by Brav et al. (2005) indicates that many managers view the objective of maintaining the dividend level as a "nearly untouchable" goal, and they are willing to forgo valuable investment opportunities in order to maintain dividends. Consistent with Brav et al.'s survey evidence, Daniel et al. (2010) provide archival evidence that firms facing a cash shortfall reduce investments below expected levels in order to maintain dividends. It is also possible that firms may reduce investments to increase dividends. We posit that financial reporting plays an important role in mitigating the constraining or negative impact of dividends on investments. High quality financial reporting reduces information asymmetry by providing more information on the value of the firm's investment projects, thereby reducing adverse selection at the issuance of securities (Bushman and Smith 2001). Further, high quality financial reporting mitigates moral hazard problems by facilitating contracting and monitoring (Healy and Palepu 2001). Thus, firms with higher quality financial reporting have better access to external funds and so are less likely to forgo valuable investment projects in order to pay dividends (Santhosh, Wang and Yu 2012)

MATERIALS AND METHODS

Statistical sample and population of research

The population of this research includes all the companies quote in “Tehran stock exchange”. In 2008-2012 Through screening method, only the companies which have all the following qualifications have been selected as statistical samples and others were deleted:

1. Due to their different nature in activities, investing companies, insurance companies, leasing companies and banks were deleted and manufacturing companies were chosen.
2. To choose active companies, their transactions should not have been stopped during the years between 2008 and 2012. In other words, the stocks of these companies should have been active during the years mentioned and their stop should not last more than 6 months.
3. It must be mentioned that information from the year 2008, has also been used to calculate some of the variables.

By applying the conditions above, the number of the sample selected from the above statistical population was 99 companies and 495(years- firm).

Hypothesis Development

The following hypothesis have been proposed according to the research objectives;

Hypothesis: “The Quality financial reporting reduces the negative effect of dividend”.

Measurement of the Dependent and Independent Variables

Table 1 shows the definitions of the variables used in this paper:

Table 1: description of variables

Variable name	Definition
Total Investment jt	the sum of research and development expenditure (XRD), capital investment of firm j at the end of year t, scaled by total assets (AT) of firm j at the end of year t-1.
R&D Investment jt	Research and development expenditure (XRD) of firm j at the end of year t scaled by total assets (AT) of firm j at the end of year t-1.
Capital Investment jt	difference between property, plant, and equipment of firm j at the end of year t and t-1 scaled by total assets (AT) of firm j at the end of year t-1.
Dividend jt	Common/ordinary dividends (DVC) declared by firm j in year t, scaled by total assets (AT) of firm j at the end of year t-1.
RQ jt-1	Financial reporting quality measured as in below: $\Delta WCA_{jt} = \beta_0 + \beta_1 Cfo_{jt-1} + \beta_2 Cfo_{jt} + \beta_3 Cfo_{jt+1} + \beta_4 \Delta Revenues_{jt} + \beta_5 PPE_{jt} + \varepsilon_{jt}$ The negative of the standard deviation of regression residuals from the modified Dechow and Dichev (2002) model by McNichols (2002) of firm j over years t-5 to t-1.
Size jt-1	log of total assets (AT) of firm j at the end of year t-1.
Tobinq jt-1	ratio of the market value of total assets (market value of capital plus book value of debt) to book value of total assets (AT) of firm j at the end of year t-1.
Sdcfo jt-1	standard deviation of the cash flow from operations deflated by average total assets (AT) of firm j over years t-5 to t-1
Sdsale jt-1	standard deviation of the sales (SALE) deflated by average total assets (AT) of firm j over years t-5 to t-1.
Sdinvestment jt-1	standard deviation of investment (Total, R&D, or Capital) deflated by average total assets (AT) of firm j over years t-5 to t-1.
Tangibility jt-1	ratio of property, plant, and equipment (PPENT) to total assets (AT) of firm j at the end of year t-1.
Leverage jt-1	ratio book value of debt to book value of total assets (AT) of firm j at the end of year t-1.
Cfop jt-1	ratio of cash flow from operation to sales of firm j at the end of year t-1.
Age jt-1	difference between the first year when firm j appears and the year t-1
Cycle jt-1	log value of receivables to sales plus inventory to cost of goods sold multiplied by 360 of firm j at end of year t-1.
Cash jt-1	ratio of cash to total assets of firm j at the end of year t-1.
Roajt	ratio of pretax income plus R&D expenditure to total assets of firm j at the end of year t

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Research method and data collection

In this respect, research is trying to This research highlight the important role of financial reporting quality in mitigating the conflict between firms' investment and dividend decisions and thereby reducing the likelihood that firms forgo valuable investment projects in order to pay dividends.

The data used in this study comes from several databases. Data and variables are extracted through financial statements, explanatory notes of sample companies, and weekly and monthly reports of stock exchange and by using RahavardNovin software.

Data analysis method and testing the hypotheses

In this study:

We estimate the following multiple regression model to examine how financial reporting quality (RQ) moderates the effect of dividends on investments:

$$\text{Total Investmen}_{jt} = \beta_0 + \beta_1 \text{Dividend}_{jt} + \beta_2 \text{RQ}_{jt-1} + \beta_3 \text{Dividend}_{jt} \times \text{RQ}_{jt-1} + \sum \beta_i \text{Controls}_{jt-1} + \varepsilon_{jt}$$

Before estimation of regression models for testing the hypothesis, we selected the appropriate pattern for regression model by using F and Hasman. If possibility of F-limier test is more than significant level of 5%, using pooled data is suitable. If the possibility of Hasman test is less than significant level of 5%, we have not enough reason for rejecting the pattern of fixed effects, and we should use this pattern to test the assumption. Unless if the significant level is more than 5%, using random effects pattern is suitable. In all statistical techniques EXCEL and Eviews7 software are used.

RESULTS

Reviewing the descriptive statistics of research variables

The descriptive statistics of research variables are presented in table 2.

by comparing the changes (obtained through dividing standard deviation to average) in the independent and dependent variables we conclude that there is a moderate dispersion in all variables and that this issue can be deduced from the standard deviation, we could also conclude from the distance of the mean and median, whether variables are Symmetry or not Symmetry.

Table 2: descriptive statistics of researh variables

Variable	Mean	Median	Std. Dev	Minimum	Maximum	Skewness	Kurtosis	Observations
Total	0.000	0.000	0.003	0	0.03	6.12		99
Investment jt								
R&D	.037	0.01	0.132	-0.47	1.23	2.89		99
Investment jt								
Capital	0.038	0.01	0.132	-0.47	1.23	2.87		99
Investment jt								
Dividend jt	0.115	0.08	0.129	0	0.75	1.8		99
RQ jt-1	-0.37	-0.22	0.409	-2.29	-0.03	-2.73		99
Size jt-1	5.79	5.73	0.64	4.36	8.01	1.05		99
Tobinq jt-1	1.77	1.27	1.84	0.48	22.78	6.27		99
Sdcfo jt-1	0.20	0.06	1.54	0.01	20.32	11.79		99
Sdsale jt-1	0.173	0.15	0.116	0.02	0.075	2		99
Sdinvestment jt-1	0.0408	0.03	.0408	0	0.3	2.37		99
Tangibility jt-1	0.0322	0.26	.027	0	2.88	3.59		99
Leverage jt-1	0.608	0.63	0.171	0.1	1.19	-0.34		99
Cfop jt-1	0.197	0.16	0.223	-0.69	1.6	1.34		99
Age jt-1	35.1	37	12.13	9	61	-0.23		99
Cycle	2.39	2.42	0.277	1.51	3.77	0.115		99
Cash	0.051	0.04	0.56	0	0.43	3.06		99
Roa	0.0137	0.11	0.132	-0.25	0.7	0.86		99

Source: Calculations research

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Testing the Hypothesis

As can be seen in the table according to the F test (17.65) in the error level (0.0000), Can be say that, the model at the confidence level %95 is significant generally, and the results relating to of Durbin Watson statistics is between 1.5 to 2.5 it has not solidarity(2.055). Moreover, the results relating to the adjusted determination coefficient indicate that, in total research period 0.41 amount of venture capital have been affected by research variables. Below adjusted determination coefficient indicate that considered factors of this research can explain the 41. % of total investment by financial reporting quality.

Table3: Estimation results of the model

Total Investment_{jt}=β₀+β₁Dividend_{jt}+ β₂RQ_{jt-1}+β₃ Dividend_{jt}×RQ_{jt-1}+∑ β_i Controls_{jt-1}+ε_{jt}				
Variables	Coefficient	Std. Error	t-Statistic	Prob
Dividend jt	0.305	0857	0.36	0.722
RQ jt-1	0.020	0.331	0.06	0.951
Dividend*RQ	-0.017	1.16	-0.02	0.988
Size	-1.44	0.545	2.65	0.008
Tobinq jt-1	0.068	.022	3.06	0.002
Sdcfo jt-1	0.017	0.046	0.38	0.702
Sdsale jt-1	0.24	0.54	0.45	0.656
Sdinvestment jt-1	-8.64	1.32	-6.53	0.000
Tangibility jt-1	2.85	0.221	12.87	0.000
Leverage jt-1	-0.302	0.579	-0.52	0.602
Cfop jt-1	-0.084	0.246	-0.34	0.733
Age jt-1	-0.026	0.038	0.068	0.500
Cycle jt-1	0.0963	0.027	3.57	0.000
Cash jt-1	0.729	0.897	0.81	0.417
Roajt	0.0171	0.68	0.25	0.801
R-squared		0.41		
Adjusted R-squared		0.41		
F-statistic		17.65		
Probe(F-statistic)		0.0000		
Durbin-Watson stat		2.055		

Source: Calculations research

Value (P-Value) t statistics related to the venture capital is the greater than %5, so we can say that there is not significant correlation between financial reporting quality, dividend and investment confidence level %95. Thus Regarding P-Value gained for the zero hypotheses considering the width equal from the focal points is accepted.

DISCUSSION

The role of quality reporting is different in various investment. Lack of certainty of future return in research and development (r&d) investments is more compared to capital investments. Therefore information asymmetry between management and external investors is more and may lead to ethical problems. In addition, the role of financial reporting quality in lowering the negative effects of dividend on the value of the company is also different. Therefore, most probably a company with a high growth rate would more information asymmetry when valuing the company (Smith and Watts,1992).

The purpose of this research is to review the role of financial reporting quality in mitigating the constraining effect of dividend policy on investment decisions in” .In this research a number of 99 companies was reviewed in 2008-2012 time period. To test the research hypothesis multiple regression models of panel data were used during research period. Our measure of financial reporting quality is based on the modified Dechow and Dichev (2002) model by McNichols (2002).

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The result taken from this hypothesis test shows that there is no significant relationship between financial reporting quality, dividend policy. Reassessing past research about hypothesis of this research show that the finding from the current are in conflict with finding of Ramalingegowda, Wangandyu (2013) Lee et al (2010) Chen et al (2010) Biddle et al (2006,2007,2009) Verdi(2009).

According to the research results a series of recommendation to use these results have been given :

- In this research R&D investment capital, investment and total of these two investments were used as capital investment should be used as the dependent variable.
- According to the special characteristics of each industry it is recommended that in future research the relative impact of financial reporting quality in limiting the negative impact of dividend on investment should be distinguished according to the industry.
- In this research the companies listed on the Tehran stock exchange were. As a result it is recommended that this topic is also analyzed in over the counter (OTC).

REFERENCES

- Biddle, G., and G. Hilary (2006).** Accounting quality and firm level capital investment. *The Accounting Review* 81, 963–982.
- Biddle, Gary and Gilles Hilary. (2007).** How Does Financial Accounting Quality Improve Investment Efficiency?, *The Accounting Review*
- Biddle, G., G. Hilary, and R. Verdi. (2009).** How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics* 48, 112-131.
- Brav, A., J. R. Graham, C. R. Harvey, and R. Michaely. (2005).** Payout policy in the 21st century. *Journal of Financial Economics* 77 (3):483-527.
- Bushman, R., and A. Smith. 2001.** Financial accounting information and corporate governance. *Journal of Accounting and Economics* 31, 237–333.
- Chen, Zhihong, (2005).** Earnings Quality and the Sensitivity of Capital Investment to Accounting Information, Working paper, HongKong University of Science and Technology.
- Daniel, N. D., D. J. Denis, and L. Naveen (2010).** Sources of financial flexibility: Evidence from cash flow shortfalls. Working paper. Purdue University.
- Dechow, P., and I. Dichev (2002).** The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review* 77, 35-59.
- Fama, E., and M. Miller (1972).** The theory of finance, Dryden Press, Hinsdale, Illinois.
- Healy, P. M., and K. G. Palepu (2001).** A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31, 405-440.
- Jensen, M., and W. Meckling(1976).** Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3, 305-360.
- Lee, C. M. C., Mucklow, B., Ready, M. J. (1993).** Spreads, depths, and the impact of earnings information: An intraday analysis, *The Review of Financial Studies*, 6(2), 345-374.
- Lintner, J. (1956).** Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review* 46, 97-113.
- McNichols, M.(2002).** Discussion of “The quality of accruals and earnings: The role of accrual estimation errors”. *The Accounting Review* 77, 61-69.
- Miller, M. H., and F. Modigliani (1961).** Dividend policy, growth, and the valuation of shares. *Journal of Business* 34 (4):411-433.
- Myers, S., and N. Majluf (1984).** Corporate investment and financing policies when firms have information that investors do not have. *Journal of Financial Economics* 13, 187-222.
- Ramalingegowda, Santhosh. Wang, Chuan-San and Yong Yu. (2013).** The Role of Financial Reporting Quality in Mitigating the Constraining Effect of Dividend Policy on Investment Decisions
- Smith, Jr., C. W. and R. L. Watts.(1992).** The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Financial Economics* 32, 263–292.