Block share ownership and corporate earning: Evidence from Tehran Stock Exchange

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CHRONICLE	ABSTRACT
	During the past few years, there have been growing interests among researchers to study the effect of block share ownership on corporate earning especially in developing countries. The purpose of this paper is to consider the impact of block ownership on performance of firms in terms of profitability. The proposed study develops two econometric models and applies them on selected firms from Tehran Stock Exchange over the period 2002-2010. The primary objective of this survey is to find the relationship between return of assets and Tobin's Q as dependent variables with eight independent variables including company size, sales growth, block ownership, debt and liability ratios, etc. The results of implementation of ordinary least squares on two econometric models reveal that while there is no meaningful relationship between return of asset and block ownership there is a meaningful relationship between block ownership and Tobin's Q.

1. Introduction

During the past few years, there have been growing interests among researchers to study the effect of block share ownership on corporate earning especially in developing countries. King and Santor (2008) examined how family ownership impacts the performance and capital structure of 613 Canadian firms over the period 1998- 2005. They distinguished the impact of family ownership from the use of control-enhancing mechanisms and reported that freestanding family owned firms with a single share class had similar market performance than other firms based on Tobin's q ratios, superior accounting performance based on ROA, and higher financial leverage based on debt-to-total assets. However, family owned firms, which implement dual-class shares had valuations, which were lower by 17% on average compared with widely held firms, despite having similar ROA and financial leverage. Andres (2008) examined the relationship between founding-family ownership and firm performance by applying panel information on 275 German exchange-listed firms. He showed that family firms were not only more profitable than widely-held firms but also outperform firms with

other kinds of blockholders by separating the family impact from general blockholder impacts. Nevertheless, the performance of family businesses was only better in firms where the founding-family was still active either on the executive or on the supervisory board. They recommended that family ownership was associated with superior firm performance only under certain circumstances. If families were just large shareholders without board representation, the performance of their companies would not distinguishable from other firms. The results also indicated that other blockholders either influenced firm performance adversely or had no detectable influence on performance measures.

Kim and Lu (2011) investigated the relationship between CEO ownership and firm valuation hinges critically on the strength of external governance (EG). The relationship was hump-shaped when EG was weak, but was insignificant when EG was strong. The results implied that CEO ownership and EG were substitutes for mitigating agency problems when ownership was low. However, very high levels of share ownership could reduce firm value by entrenching the CEO and discouraging him from taking risk, unless mitigated by strong EG. They identified channels through which CEO ownership affected firm value by examining R&D, which was discretionary and risky. They found CEO ownership similarly exhibited a hump-shaped relationship with R&D when EG was weak, but no relationship when EG was strong.

Jeon et al. (2011) studied the relationship between foreign ownership and the decisions on payout policy in the Korean stock market. They reported that foreign investors demonstrate a preference for firms that pay high dividends. The results were driven by the fact that most of the foreign investors in the Korean market were institutional investors and thus had both dividend clienteles and monitoring incentives. However, foreign investors neither expressed preference for firms that buy back shares, nor were they related to encouraging firms to increase repurchases. They reported little evidence that domestic institutions had a significant impact on payout policy.

Chen et al. (2012) investigated the effect of insider managerial ownership on financial performance of publicly traded tourist hotels in Taiwan. Insider managerial shareholding (IMS) incorporated two various classes of owners including managers and directors. The indicators of financial performance under consideration were return on assets (ROA), return on equity (ROE), stock return (SR), and Tobin's Q. In addition to analyze total insider managerial ownership (IMS), the study splited IMS into two components (MAS and DIRS) and examined each of them, separately. Subsequently, panel regression tests investigated the impacts of IMS, MAS, and DIRS on financial performance of Taiwanese tourist hotels. Test results recommended that IMS explained ROA, ROE and Tobin's Q, but not SR. Further, compared to MAS, DIRS had a more significant effect on hotel performance. Bennedsen and Meisner Nielsen (2010) reported that there was a higher value discount in family firms, in firms with low cash flow concentration, and in industries with higher amenity value.

Barry et al. (2011) analyzed the link between ownership structure and risk in both privately owned and publicly held banks. They considered five categories of shareholders, which were specific to their dataset and reported that ownership structure was significant in explaining risk differences but mainly for privately owned banks. Lin et al. (2009) provided some new insights to the debate regarding the merits of bank equity ownership of companies and emphasized how banking and corporate finance behaved differently in emerging markets due to their unique institutional background.

2. The proposed study

The proposed study of this paper uses the historical information of stocks traded on Tehran Stock Exchange over the period 2002-2010. In our survey, we consider four major criteria for picking the stocks, which are as follows,

1. Firm must be tradable before year 2002 and it must have been actively traded during the years of study.

2. Firm should not have changed their fiscal year during the period of study.
3. No holding or investment companies are permitted in this survey.
4. All necessary information must be available.

Based on these criteria, we could determine 142 firms for the proposed study of this research and using 1278 year-firm from 24 different industries, the proposed study of this paper considers the following two hypotheses,

1. There is a meaningful relationship between return of assets and block ownership status.
2. There is a meaningful relationship between Tobin's Q and block ownership.

2.1 Dependent variable

2.1.1 Return of assets

Return of assets (ROA) is the first variable of this work and it is computed as follows,

$$ROA_{i,t} = \frac{EBT_{i,t}}{Asset_{i,t}},$$

(1)

where $EBT_{i,t}$ is the earning before tax and $Asset_{i,t}$ is total book value of all assets associated with firm *i* at time *t*.

2.1.2 QTobin

This ratio measures the performance of firms based on Q Tobin,

$$QTobin_{i,t} = \frac{S\_MV_{i,t} + STD\_BV_{i,t} + LTD\_BV_{i,t}}{TA\_BV_{i,t}},$$

(2)

where $S\_MV_{i,t}$ is market value of firm *i* at time *t*, $STD\_BV_{i,t}$ is the book value of short term debts of firm *i* at time *t*, $LTD\_BV_{i,t}$ is the book value of long term liabilities of firm *i* at time *t* and finally $TA\_BV_{i,t}$ is total asset book value of firm *i* at time *t*.

2.2. Independent variables

2.2.1 Block owners (LBOWN$_{i,t}$)

This variable represents the ownership of small number of shareholders who own big portions of shares. The primary objective of these shareholders is to have, at least, one member in board of directors and in Tehran Stock Exchange, this ratio is calculated as follows,

$$BS = \frac{N}{B+1} + 1,$$

(3)

where *N* is total number of outstanding shares, *B* is total number of members of board of directors and *BS* determines the number of seats.

2.3. Control variables

2.3.1 The number of board of directors (BDSIZE$_{i,t}$)

This variable determines the number of seats in board of directors in a firm.

2.3.2. Debt ratio (DR$_{i,t}$)

This is the ratio of total liabilities (*TotalDebit*) on total assets (*TotalAsset*) and shows what portion of financing is provided through borrowing money from banks or other financial institutions.

$$DR_{i,t} = \frac{TotalDebit_{i,t}}{TotalAsset_{i,t}}.$$

(4)

2.3.3. Liquidity ratio ($LIQ_{i,t}$)

This is the ratio of total current assets (*Cuttent_Assets*) on total current liabilities (*Current_Liabilities*) as follows,

$$LIQ_{i,t} = \frac{Current\_Assets_{i,t}}{Current\_Liabilities_{i,t}}.$$

(5)

2.3.4 Age ($AGE_{i,t}$)

This ratio is calculated by taking the natural logarithm of a firm from the year it started its business activities.

2.3.5. Size ($SIZE_{i,t}$)

This variable is computed by taking natural logarithm of market cap.

2.3.6. Growth ($GROWTH_{i,t}$)

This ratio shows the relative growth of firm's sale *i* at time *t* and it is calculated as follows,

$$GROWTH_{i,t} = \frac{Sale_{i,t} - Sale_{i,t-1}}{Sale_{i,t-1}}.$$

(6)

2.3.7. Risk ($RISK_{i,t}$)

Risk of a firm ($RISK_{i,t}$) is calculated as the standard deviation of the monthly return of firms during the fiscal year.

2.4. Data gathering

The proposed study of this paper gathers the necessary information from Tehran Stock Exchange and the regression analysis have been performed using Eviews and SPSS software packages.

2.5. The proposed models

The proposed study of this paper uses two econometrics models as follows,

$$ROA_{i,t} = \alpha + \beta_1 LBOWN_{i,t} + \beta_2 BDSIZE_{i,t} + \beta_3 DR_{i,t} + \beta_4 LIQ_{i,t} + \beta_5 AGE_{i,t}$$
$$+ \beta_6 SIZE_{i,t} + \beta_7 GROWTH_{i,t} + \beta_8 RISK_{i,t} + \varepsilon_{it}$$

(7)

$$QTobin_{i,t} = \alpha + \beta_1 LBOWN_{i,t} + \beta_2 BDSIZE_{i,t} + \beta_3 DR_{i,t} + \beta_4 LIQ_{i,t} + \beta_5 AGE_{i,t}$$
$$+ \beta_6 SIZE_{i,t} + \beta_7 GROWTH_{i,t} + \beta_8 RISK_{i,t} + \varepsilon_{it}$$

(8)

3. The results

Table 1 shows details of statistical observations for the proposed study of this paper.

Table 1
Statistical observations

Variable	Number of observations	Mean	Standard deviation	Lowest value	Highest value	Skewness	
ROA	1277	0.1536	0.1565	-0.3097	0.8111	1.009	4.739
QTOBIN	1277	1.6024	1.1788	0.2333	11.8044	4.163	25.149
LBOWN	1277	56.272	24.981	0.0000	99.513	0.637	2.996
BDSIZE	1277	5.068	0.3395	3	7	4.017	23.982
DR	1277	0.6735	0.1758	0.0000	1.9011	0.429	6.514
LIQ	1277	1.1888	0.5257	0.0000	6.4713	3.131	23.420
AGE	1277	3.5058	0.3507	1.3862	4.0604	-1.211	5.196
SIZE	1277	12.4708	1.5300	8.4319	17.2060	0.693	3.038
GROWTH	1277	0.2016	0.5264	-1.0000	9.4684	9.014	130.657
RISK	1277	2.3458	1.0081	-4.2381	5.6879	-1.072	6.778

Table 2 shows details of the implementation of ordinary least square for Eq. (7)

Table 2
The results of regression model

		Coefficient	t-student	P-value	Result
Intercept	α	0.0961	8.180	0.0000	Positive
LBOWN	β_1	-0.0001	-0.725	0.4682	Not significant
BDSIZE	β_2	0.0017	0.2852	0.7755	Not significant
DR	β_3	-0.2155	-9.358	0.0000	Negative
LIO	β_4	0.0334	4.972	0.0000	Positive
AGE	β_5	-0.3548	-12.620	0.0000	Negative
SIZE	β_6	0.0424	11.833	0.0000	Positive
GROWTH	β_7	0.0343	9.649	0.0000	Positive
RISK	β_8	-0.0011	-0.7593	0.4478	Not significance
AR(1)		0.3961	14.200	0.0000	Positive

In addition, Table 3 shows details of implementation of various statistical tests on the first model.

Table 3
Statistical tests for the first model

Ramsey		Durbin-Watson	Breusch-Pagan		*Jarque-Bera*	
F	P-value	D	F	P-value	Chi-Square	P-value
0.2098	0.6469	1.98	5.407	0.0000	1.033	0.5963

As we can observe from the results of Table 3, Durbin=Watson ratio is calculated as 1.98, which means there is no correlation between residuals. Based on the results of Table 2, we can conclude that there is not any meaningful relationship between return of assets and block ownership and the first hypothesis of this paper is rejected when the level of significance is five percent. Table 4 shows details of the implementation of ordinary least square for Eq. (8).

Table 4
The results of regression model

		Coefficient	t-student	P-value	Result
Intercept	α	-6.6164	-5.830	0.0000	Negative
LBOWN	β_1	0.0015	2.348	0.0190	Positive
BDSIZE	β_2	0.0076	0.2846	0.7760	Not significant
DR	β_3	1.1767	12.691	0.0000	Positive
LIO	β_4	-0.0212	-0.919	0.3580	Not significant
AGE	β_5	-2.0281	-6.576	0.0000	Negative
SIZE	β_6	1.0103	68.933	0.0000	Positive
GROWTH	β_7	-0.0195	-2.082	0.0375	Negative
RISK	β_8	-0.0007	-0.131	0.8954	Not significance
AR(1)		0.6915	35.691	0.0000	Positive

In addition, Table 5 shows details of implementation of various statistical test to verify the first model.

Table 5
Statistical tests for the first model

Ramsey		Durbin-Watson		Breusch-Pagan		*Jarque-Bera*	
F	P-value	D		F	P-value	Chi-Square	P-value
3.527	0.0606	2.04		7.728	0.0000	2.1524	0.3408

As we can observe from the results of Table 6, Durbin=Watson ratio is calculated as 2.04, which means there is no correlation between residuals. Based on the results of Table 4, we can conclude that there is a meaningful relationship between Tobin' Q and block ownership and the first hypothesis of this paper is confirmed when the level of significance is five percent. In other word, an increase of one percent on block ownership will yield 0.0015 unit increase in Tobin's Q.

4. Conclusion

In this paper, we have presented an empirical study to find the relationship between return of assets and Tobin's Q as dependent variables with eight independent variables including company size, sales growth, block ownership, debt and liability ratios, etc. The results of implementation of ordinary least squares on two econometric models have disclosed that while there was no meaningful relationship between return of asset and block ownership there was a meaningful and positive relationship between block ownership and Tobin's Q.

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