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# Ownership structure and dividend policy: Evidence from Iran

Sasan Mehrani, Mohammad Moradi and Hoda Eskandar\*

Faculty of Management, University of Tehran, Pol-e-Nasr, P. O. Box 14155-6311, Tehran, Iran.

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**Ownership structure is an influential factor on firm policies. One of these policies is dividend policy. Therefore, a significant relationship between ownership structure and dividend policy is expected. This paper examined the relationship between dividend policy and ownership structure in Tehran Stock Exchange from 2000 to 2007. In this study, four regression models were used. Institutional ownership was negatively associated with dividend payout. It indicated that the presence of institutional investors results in less usage from dividend as a signal for good corporate performance. Moreover, positive relationship was founded between dividend payout and concentrated institutional ownership. However, there was not a significant relationship between managerial ownership and dividend payout.**

**Key words:** Ownership structure, institutional ownership, concentrated institutional ownership, managerial ownership, dividend policy.

## INTRODUCTION

Dividend policy is one of the important components of firm policies and has been viewed as an interesting issue in the literature. Dividend payout decisions affect on the firms valuation. Moreover, cash dividend has a special position among the shareholders. However, the main problem is the reasons for adopting a policy of divided payout. Dividend policies depend on several factors. One of these factors is corporate governance.

Corporate governance has recently received considerable attention due to the financial scandals. The reason for the attention is the interest conflicts among shareholders in the corporate structure (Gillan and Starks, 2003). Differences exist between the shareholder types and the demand for dividend (Truong and Heaney, 2007). Among shareholder types, institutional shareholders and managerial shareholders have a greater influence on firm policies. The relationship between a firm's dividend policy and its ownership structure is recognized in the established literature (Short et al., 2002). Dividend policies vary across countries (Laporta et al., 2000). Prior studies suggested significant differences

in dividend policy between developed countries and developing countries (Abdelsalam et al., 2008). Most studies (Gillan and Starks, 1998; Claessens et al., 2000) argued that corporate governance practices including ownership structure are affected by environmental characteristics. Therefore, the relationship between ownership structure and dividend policies is expected to be different in various environments and countries.

This study examined the relationship between ownership structure and dividend policy in Iran. The present study proved to be different because a few studies discussed the relationship between ownership structure and dividend policy in developing countries. This study is a case study of Iran which is a developing nation with characteristics, different from those of developed countries and many emerging economies and developing nations like Malaysia and China (Mashayekhi and Mashayekh, 2008). These environmental characteristics will be discussed further.

Using an Iran panel data set, this paper examined the possible relationship between dividend policy and ownership structure. In particular, the role of institutional ownership and managerial ownership in relation to dividend policy was analyzed within the context of the dividend models of Lintner (1956), Waud (1966) and Fama and Blahnik (1968). The evidence from four models

\*Corresponding author. E-mail: [heskandar@ut.ac.ir](mailto:heskandar@ut.ac.ir). Tel: +989123846856.

consistently showed negative (positive) and statistically significant associations between institutional ownership (concentrated institutional ownership) and dividend, and thus suggested a link between institutional ownership and dividend policy. However, there was not a significant link between managerial ownership and dividend policy.

## BACKGROUND AND MOTIVATION

The corporate environmental characteristics affect corporate governance practices. Therefore, corporate governance changes simultaneously with the environmental changes. Corporate governance changes have been common in countries with relatively high level of institutional ownership and managerial ownership. These investors play a key role in prompting change in many corporate governance systems (Gillan and Starks, 2003). Gillan and Starks (1998) argued that corporate governance changes, including ownership structure, are responses to environmental characteristics changes. Claessens et al. (2000) show that corporate governance and investors and creditors protections are stronger in developed markets, as opposed to emerging markets like Iran.

According to afore mentioned grounds, the studying of ownership structure in Iran, a country with unique environmental characteristics, is an interesting issue. These characteristics include religion, culture, capital market and ownership structure (Arabsalehi and Velashani, 2009). Iran's environmental characteristics are described further.

### Religion

Iran is an Islamic country located in the Middle East, a politically troubled and unstable region of the world. Therefore, business risk is high in this region. Searching through ABI-Information data base, we were unable to find a related study for adjacent countries such as Saudi Arabia, Kuwait, Jordan, Syria, and of course, Iran. Islamic revolution in 1979 intermingled politics and religion in Iran. The revolution changed people's vision of cultural and social values. Consequently, social and business activities were based on religious laws and regulations (Mashayekhi and Bazaz, 2008). For example, Iranian companies have few long-term liabilities because of the forbiddance of bonds (Mashayekhi and Mashayekh, 2008). Therefore, firms generally finance by issuing of common stock.

### Capital market

Tehran Stock Exchange (TSE) was inaugurated in April 1968. Initially, only government bonds and certain state-backed certificates traded on the market. During the

1970s, the need for capital increased the demand for stocks. The transfer of shares of public companies to the private sector led to the expansion of stock market activity. The changes of the economy after the Islamic Revolution in 1979 expanded public-sector control over the economy and reduced the need for private capital (Mashayekhi and Mashayekh, 2008). At the same time, business activities based on fundamental religious laws and regulations (Mashayekhi and Bazaz, 2008). Therefore, the interest-bearing bonds were abolished because Islamic law and regulations forbid interest. Thus, the TSE experienced a period of standstill. This period ended in 1989 with the privatization of public companies and the promotion of private-sector economic activity based in the first five-year development plan of the country (Mashayekhi and Mashayekh, 2008).

In recent years, the Iranian government has moved towards privatization of governmental companies for the fulfillment of Article 44 of Iranian constitution; therefore, it began to sell their stocks on the stock exchange (Yegane et al., 2008). Since then, the TSE has expanded continuously.

### Investors' rights protection

Iran has an emerging and somewhat inefficient capital market (Mashayekhi and Mashayekh, 2008). Emerging markets often have less protection for shareholders and creditors (Shaleifar and Vishny, 1998) and are less efficient than developed markets (Walczak, 1999). Therefore, the type and level of conflicts of interest are different from those in developed markets. For example, in emerging markets, the risk of expropriation of minority shareholders by large shareholders is higher than in developed markets (Claessens et al., 2000). Leuz et al. (2003) state that in emerging countries like Iran, in which investors protection rights are not well established or legally enforced, and in which securities markets are not huge with concentrated ownership, and in addition, Iranian Trade Law being very old, allows firms to ignore many requirements in Iranian Code of Corporate Governance. According to this law, it is difficult for minority shareholders to impose their rights against management or controlling shareholders. Corporate governance in Iran appears to optimize the interests of a broader group of stakeholders rather than just maximizing the interests of shareholders. In countries like Iran, the main objective of the corporation does not appear to be creating wealth for the shareholders (Allen, 2005).

### Ownership structure

Several surveys have been conducted on ownership structure In Iran. These surveys find that all the listed companies are owned and controlled by few major

shareholders (Moradi, 2007). These shareholders are often governmental and are divided into two major groups: governmental and institutional investors that are generally owned by the government. Now, institutional investors own more than half of the publicly held stock on the TSE (Mashayekhi and Mashayekh, 2008). Therefore, governmental members occupy important seats in board of directors (Mashayekhi and Bazaz, 2008).

According to Claessens et al. (2000), '...the direct participation by government officials in the control of a large part of the corporate sector opens up the possibility of widespread conflicts between public and private interests...'. For example, public sector shareholders may apply the company's resources to the provision of cheaper goods and services or may not prefer dividend distribution, which may impair private sector shareholder interests. Another characteristic of ownership structure in Iran is relating to managerial ownership. In most of the Iranian companies, managers do not own their companies stocks or may own little percentage of their companies stocks (Moradi, 2007).

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Ownership structure is an influential factor on company policies. Decisions regarding to dividend are one of the fundamental components of corporate policies (Kouki and Guizani, 2009). Therefore, a significant relationship between ownership structure and dividend policy is expected.

### **Institutional ownership and dividend policy**

Institutional investors are large investors such as insurance firms, banks, pension funds, financial institutions, investment firms, and other nominee firms associated with the mentioned categories of institutions (Koh, 2003). The presence of institutional investors may lead firms to change their behavior. They have the influence on investee corporations and can affect their policies because of their substantial shareholdings. One of these policies is dividend policy. Significant relationship between institutional ownership and dividend policy is expected. There are different theories about this relation. Two of these theories are more prevalent, agency theory and signaling theory.

### **Agency theory**

Agency theory refers to interest conflicts between the manager (agent) and owner (employment). The first time, Jensen and Mackling (1976) discussed the principles of agency theory. Dividend policies are depending on the

alignment of ownership and control incentives. Agency problems that arise from diversion of these incentives will therefore affect payout dividend policy. The role played by the institutional framework and related ownership structures is thus important when dividend policies are to be investigated (Wiberg, 2008).

The payment of dividends may act to help in reducing agency costs because: (1) management is forced for creating enough cash to pay dividends, (2) management is forced for funding projects refers to their capital market and naturally provide more information in the market and (3) free cash flow decreases and does not waste (Laporta et al., 2000).

Jensen's (1986) suggested that extra cash is better to pay as dividend in order to reduce managerial discretionary funds and agency costs. Eckbo and Verma (1994) showed that institutional investors prefer free cash flow to be distributed in the form of dividends. The agency perspective, therefore, hypothesizes a positive relation between institutional ownership and dividend, as institutions demand dividends in order to reduce the agency costs of free cash flow (Short et al., 2002). An increasing number of studies argue that institutional investors help to resolve agency problems by monitoring management. As a result, institutional ownership may have a positive effect on agency costs, and consequently on dividend policy (Han et al., 1999).

Truong and Heaney (2007) examined this relationship among companies in 37 countries and showed that a positive relationship exists between institutional ownership and dividend payments. Wiberg (2008) reviewed the relationship between research institutions ownership and dividend policy among 189 Swedish companies. Results showed that institutional ownership and dividend payments are positively related.

Short et al. (2002) used the four models to examine this relationship. Evidence showed a significant positive relationship between these two variables in all four models.

### **Signaling theory**

This theory suggests that there is information asymmetry between managers and stockholders. Managers have internal information while stockholders do not. Managers would take costly but credible measures to transfer this information. One of these measures is dividend. Therefore, dividend policy is a signal to transfer the information relating to future profitability (Miller and Rock, 1985; Pettit, 1972).

Zeckhauser and Pound (1990) suggested that dividends and institutional shareholders may be viewed as alternative signaling devices. The presence of institutional shareholders may mitigate the use of dividend as a signal of good performance, as these shareholders themselves can act as a (more) credible

signal. This hypothesis predicts a negative relation between dividend and institutional shareholders.

Jensen et al. (1992) found the evidence of a negative relationship between institutional ownership and dividend payments. Jain (2007) showed that individual investors prefer dividend-paying firms whereas institutional investors typically prefer non-paying firms. Also, Barclay et al. (2006) showed that institutional investors prefer retains cash in the company to dividend distribution.

Kouki and Guizani (2009) analyzed this relation among Tunisian companies. They used five linear regression models. They concluded institutional ownership is negatively associated with dividend. As a result, we hypothesize that:

**H1:** There is a significant relationship between the institutional ownership and dividend payout.

### **Concentrated institutional ownership and dividend policy**

In a related issue, prior researches examined the role of concentrated institutional ownership (for example, block holders). According to Shleifer and Vishny (1986), concentrated institutional ownership creates the incentives to monitor management, which overcomes the free-rider problem. Several studies (Claessens and Djankov, 1999) showed that concentrated institutional ownership contributes to financial discipline and therefore fewer resources consumed in low return projects and more cash flows can be distributed as dividends. Also, Mitton (2005) showed that firms with higher concentrated institutional ownership pay higher dividends. Kouki and Guizani (2009) also realized that with more ownership concentration in the hands of institutions, dividend distribution would be greater.

In contrast, Gugler and Yutoglu (2003) showed that firms with high ownership concentration tend to pay lower dividends. Also, Maury and Pajuste (2002) found a significant negative relationship between concentrated institutional ownership and dividend payments among Finland companies. As a result, we hypothesize that:

**H2:** There is a significant relationship between concentrated institutional ownership and dividend payout.

### **Managerial ownership and dividend policy**

An important body of literature exists on how ownership structure influences dividend policies. Especially the link between managerial ownership and dividend policies has been well documented (Wiberg, 2008). Jensen's (1986) free cash flow theory suggests that managers are reluctant to pay out dividends, preferring instead to retain resources under their control.

The evidence shows that dividend decreases as the increasing of the voting power of owner-managers, and is almost zero when owner-managers have absolute control, while it is always positive when firms controlled by institutional shareholders (Eckbo and Verma, 1994). Short et al. (2002) found a negative association between dividend payout and managerial ownership. Chen et al. (2005) found a negative relationship between managerial ownership and dividend policy in Hong Kong. Jensen et al. (1992) showed that managerial ownership is associated with significantly lower dividend payout among US firms. Farinha (2003) documented a similar negative relationship in UK. As a result, we hypothesize that:

**H3:** There is a significant relationship between managerial ownership and dividend payout.

### **Control variables**

Given that ownership structure is not the sole affecting factor on dividend policy, several control variables introduced to isolate other contracting incentives that have been found to influence dividend policy. These control variables are size, leverage (LEV), market-to-book value (MTBV) and free cash flow (FCF).

#### **Size**

This is defined as natural logarithm of total assets. Fama and French (2001) and Grullon and Michaely (2002) documented that firms with more assets have higher dividend payout. However, Gugler and Yurtuglu (2003) and Farinha (2003) showed that dividend payouts are negatively associated with firm size.

#### **Leverage (LEV)**

This is defined as long-term debts to total assets. According to Jensen and Meckling (1976), and Stulz (1988), leverage has an important role in monitoring managers and reducing agency costs. Moreover, some debt contracts limit dividend payout. Therefore, we expect a negative relationship between payout and leverage. Fama and French (2001) and Grullon and Michaely (2002) found companies with less leverage have more incentive to pay dividends.

#### **Market-to-book value (MTBV)**

Batacharya's (1979) found that dividend policy negatively affected by MTBV of the firm. Also, Batacharya (1979) used the market-to-book ratio as a proxy for future investment opportunities and find firms with lower MTBV

have a more incentive to pay dividends. In contrast, Gul (1999) reported MTBV has little influence on dividend payouts in Japan.

### Free cash flow

This is defined as free cash flow per unit of asset. Crutchley and Hansen (1989) define FCF as the funds available to managers before discretionary capital investment decisions. FCF is calculated as a subtraction of company's capital expenditures from its cash flow from operations.

Kouki and Guizani (2009) show a strong effect of the free cash flow on dividend policy. The more available cash, the higher the dividend per share.

## METHODOLOGY

### Models

Similar to Short et al. (2002), in this study, four models were used to test the hypothesized link between ownership structure and dividend policy: Lintner Models (1956) (the full adjustment model and the partial adjustment model), the Waud model (1966) and Fama and Babiak model (2001) (earnings trend model). Further discussion explains these models.

#### The full adjustment model (FAM)

If income changes are considered permanent and a firm has a desired payout ratio  $r$ , then the relationship between changes in earnings ( $E$ ) and changes in dividends ( $D$ ), for firm  $i$  at time  $t$ , will be given by:

$$D_{it} - D_{(t-1)i} = \alpha + r (E_{it} - E_{(t-1)i})$$

Firms with institutional ownership and managerial ownership may have a different  $r$ . therefore, the model becomes:

$$D_{it} - D_{(t-1)i} = \alpha + r (E_{it} - E_{(t-1)i}) + r_I (E_{it} - E_{(t-1)i}) \times INST + r_C (E_{it} - E_{(t-1)i}) \times CONC + r_M (E_{it} - E_{(t-1)i}) \times M$$

Also, we include control variables. Therefore, this model will be as follows:

$$D_{it} - D_{(t-1)i} = \alpha + r (E_{it} - E_{(t-1)i}) + r_I (E_{it} - E_{(t-1)i}) \times INST + r_C (E_{it} - E_{(t-1)i}) \times CONC + r_M (E_{it} - E_{(t-1)i}) \times M + r_S SIZE + r_L LEV + r_M MTBV + r_O FCF + \epsilon \quad (1)$$

Where;  $D$ : the total amount of ordinary dividends related to the accounting year;  $E$ : net profit derived from normal trading activities after depreciation and other operating provisions;  $INST$ : the percentage of equity held by institutions at the beginning of the accounting year;  $CONC$ : the sum of square of institutions ownership percentage at the beginning of the accounting year;  $M$ : total percentage of equity owned by directors at the beginning of the accounting year;  $SIZE$ : natural logarithm of total assets;  $LEV$ : long-term debts to total assets;  $MTBV$ : market to book value of stockholders equity;  $FCF$ : capital expenditures minus operating cash flow;  $\epsilon$ : error term.

#### The partial adjustment model (PAM)

This model assumes that for any year,  $t$ , the target level of dividend,  $D_t^*$ , for firm  $i$  at time  $t$  is relating to profits,  $E_{it}$ , by a desired payout ratio,  $r$ :

$$D_{it}^* = r E_{it}$$

Firms with institutional ownership and managerial ownership may have a different  $r$ , therefore, the model becomes:

$$D_{it}^* = r E_{it} + r_I E_{it} \times INST + r_C E_{it} \times CONC + r_M E_{it} \times M$$

In any given year, the firm adjusts only partially to the target dividend level. Thus:

$$D_{it} - D_{(t-1)i} = \alpha + c (D_{it}^* - D_{(t-1)i})$$

where  $\alpha$  = a constant representing the resistance of management to reduce dividends, and  $c$  equals the 'speed of adjustment coefficient' which represents the extent to which the management wishes to 'play-safe' by not adjusting to the new target immediately. Substitution yields the following reduced form:

$$D_{it} - D_{(t-1)i} = \alpha + cr E_{it} + cr_I E_{it} \times INST + cr_C E_{it} \times CONC + cr_M E_{it} \times M - c D_{(t-1)i}$$

Also, we include control variables. Therefore, this model will be as follows:

$$D_{it} - D_{(t-1)i} = \alpha + cr E_{it} + cr_I E_{it} \times INST + cr_C E_{it} \times CONC + cr_M E_{it} \times M - c D_{(t-1)i} + r_S SIZE + r_L LEV + r_M MTBV + r_O FCF + \epsilon \quad (2)$$

Variables are defined as in the full adjustment model.

#### The Waud model (WM)

The Waud model includes elements of both partial and full adjustment model. This model assumes that the target dividends,  $D_t^*$ , for firm  $i$  at time  $t$ , are proportional to the long-term expected earnings,  $E_t^*$ :

$$D_{it}^* = r E_{it}^*$$

Also, it is assumed that the actual dividend change follows a partial adjustment mechanism:

$$D_{it} - D_{(t-1)i} = \alpha + c (D_{it}^* - D_{(t-1)i})$$

The formation of expectations follows an adaptive expectation model:

$$E_{it}^* - E_{(t-1)i}^* = \alpha + d (E_{it} - E_{(t-1)i})$$

Assuming a possible difference in payout ratio for firms with institutional and managerial ownership, the reduced form becomes:

$$D_{it} - D_{(t-1)i} = \alpha d + cdr E_{it} + cdr_I E_{it} \times INST + cdr_C E_{it} \times CONC + cdr_M E_{it} \times M + (1-d-c) D_{(t-1)i} - (1-d)(1-c) D_{(t-2)i}$$

Also, we include control variables. Therefore, this model will be as follows:

$$D_{it} - D_{(t-1)i} = \alpha d + cdr E_{it} + cdr_I E_{it} \times INST + cdr_C E_{it} \times CONC + cdr_M E_{it} \times M + (1-d-c) D_{(t-1)i} - (1-d)(1-c) D_{(t-2)i} + r_S SIZE + r_L LEV + r_M MTBV + r_O FCF + \epsilon \quad (3)$$

Variables are defined as in the full adjustment model.

### Earnings trend model (ETM)

The earnings trend model is represented by Fama and Babiak (2001). It is a modified partial adjustment model. It assumes that:

$$E_{it} = (1+j) E_{(t-1)i}$$

$j$  is an earnings trend factor. Assuming a possible difference in the earnings trend factor for firms with institutional and managerial ownership, the model becomes:

$$E_{it} = E_{(t-1)i} + j E_{(t-1)i} + j_I E_{(t-1)i} \times INST + j_C E_{(t-1)i} \times CONC + j_M E_{(t-1)i} \times M$$

Target dividends is given by:

$$D_{it}^* = r E_{it}^*$$

It is assumed that there is full adjustment of dividends to the expected change, that is:

$$j E_{(t-1)i} + j_I E_{(t-1)i} \times INST + j_C E_{(t-1)i} \times CONC + j_M E_{(t-1)i} \times M$$

and partial adjustment to the reminder. The resulting reduced form is:

$$D_{it} - D_{(t-1)i} = \alpha + c[r(E_{it} - j E_{(t-1)i} - j_I E_{(t-1)i} \times INST - j_C E_{(t-1)i} \times CONC - j_M E_{(t-1)i} \times M) - D_{(t-1)i}] + r j_I E_{(t-1)i} \times INST + r j_C E_{(t-1)i} \times CONC + r j_M E_{(t-1)i} \times M$$

Arranging, the reduced form becomes:

$$D_{it} - D_{(t-1)i} = \alpha + r c E_{it} + r j (1-c) E_{(t-1)i} + r j_I (1-c) E_{(t-1)i} \times INST + r j_C (1-c) E_{(t-1)i} \times CONC + r j_M (1-c) E_{(t-1)i} \times M - c D_{(t-1)i}$$

Also, we include control variables. Therefore, this model will be as follows:

$$D_{it} - D_{(t-1)i} = \alpha + r c E_{it} + r j (1-c) E_{(t-1)i} + r j_I (1-c) E_{(t-1)i} \times INST + r j_C (1-c) E_{(t-1)i} \times CONC + r j_M (1-c) E_{(t-1)i} \times M - c D_{(t-1)i} + r_S SIZE + r_L LEV + r_M MTBV + r_O FCF + \varepsilon \quad (4)$$

Variables are defined as in the full adjustment model.

In four models, the coefficients  $r_I$ ,  $r_C$  and  $r_M$  denote the respective impacts of institutional ownership, concentrated institutional ownership and managerial ownership on dividend payout.

### Sample selection

The sample for this study is comprised of all firms listed in TSE excluding financial firms. We collected ownership structure and financial and accounting data directly from annual reports and TSE reports on CDs and web.

In this study, sample period is from 2000 to 2007. We selected firms, which their fiscal years end is the end of calendar year, and excluded the firms with insufficient data.

To mitigate the effect of outliers for all variables, we deleted observations that had values three standard deviations from their respective means. Finally, our sample consists of 427 firms-years observations.

## RESULTS

### Descriptive statistics

We represent the results of four regression models. Table 1 describes sample firms' characteristics in our sample. The table shows that institutional ownership averagely includes 45% of ownership structure in the sample companies and this ownership is relatively concentrated. Moreover, managerial ownership includes very little percentage from ownership structure in the Iranian companies.

The mean long-term debt is approximately 8% of total assets. This means that Iranian companies have few long-term liabilities. It may be interpreted Iran is Islamic country and companies have few long-term liabilities because of forbiddance of bonds. Market value is averagely 4.53 fold of book value of stockholders equity. The mean size is approximately 25. Finally, free cash flow is averagely 18% of assets.

### Empirical results

Table 2 shows the results of model (1). The table shows that the level of institutional investment is negatively associated with distributed dividend (coeff. = -9.03, p-value = 0.000). Concentrated institutional ownership variable is positively associated with distributed dividend (coeff. = 13.52, p-value = 0.000). However, managerial ownership is not significantly associated with distributed dividend (coeff. = -4.35, p-value = 0.840).

The table also shows a direct relationship between earnings and dividend payout while the control variables (Size, LEV, MTBV and FCF) do not have a significant relationship with the dividend payout. Table 3 shows the results of model (2). Institutional ownership is negatively associated with distributed dividend (coeff. = -2.51, p-value = 0.000). A significant positive relationship exists between dividend payments and concentrated institutional ownership (coeff. = 3.89, p-value = 0.056). Managerial ownership is not significantly associated with distributed dividend (coeff. = -1.48, p-value = 0.763).

The table also shows that a positive relationship exists between earnings and dividend payments. There is significantly positive association between size and dividend payments. However, LEV, MTBV and FCF are not significantly relating to dividend payments. Table 4 shows the results of model (3).

Concentrated institutional ownership is positively associated with the dependent variable (coeff. = 3.57, p-value = 0.000). While the table shows institutional ownership is negatively associated with distributed dividend (coeff. = -2.17, p-value = 0.000), managerial ownership is not significantly associated with distributed dividend (coeff. = -1.64, p-value = 0.715). Firm earnings, size are positively associated with distributed dividend. Other control variables are not significantly associated

**Table 1.** Descriptive statistics.

Variable	MIN	MAX	MEAN	SD
D <sub>t</sub> i – D (t-1) i	-5289126.30	-2907157.00	1004.45	374646.05
INST	0.00	0.99	0.45	0.31
CONC	0.00	0.88	0.17	0.19
M	0.00	0.52	0.02	0.5
E <sub>t</sub> i – E(t-1)i	-443360.00	2889601.00	35911.22	216458.29
(E <sub>t</sub> i – E(t-1)i) × INST	-147296.00	682812.70	10336.07	57025.01
(E <sub>t</sub> i – E(t-1)i) × CONC	-111420.00	99169.84	2246.94	14092.08
(E <sub>t</sub> i – E(t-1)i) × M	-6647.68	7254.45	52.82	759.54
E <sub>t</sub> i	-95468.00	6814114.00	184101.51	683834.65
E <sub>t</sub> i × INST	-72555.70	1875926.00	64898.05	172636.66
E <sub>t</sub> i × CONC	-28583.10	278896.60	18915.01	36570.18
E <sub>t</sub> i × M	-32.40	14618.40	684.11	1729.14
E(t-1)i	-95468.00	5338834.00	148190.29	512544.36
E(t-1)i × INST	-76269.40	1475120.00	54561.97	138250.38
E(t-1)i × CONC	-28647.40	217755.70	16667.57	32465.96
E(t-1)i × M	-32.54	19391.32	631.29	1730.64
D (t-1) i	0.00	5353892.00	142239.62	511718.60
D (t-2) i	0.00	5353892.00	124057.46	461895.25
Size	19.94	31.59	25.23	2.19
LEV	0.00	0.41	0.08	0.07
MTBV	0.31	38.73	4.53	5.47
FCF	-0.96	24.66	0.18	1.21

**Table 2.** The results of model (1).

Model (1)	Coefficient	t- statistic	P-value
constant	-170827.11	-0.88	0.382
(E <sub>t</sub> i – E(t-1)i)	2.41	8.21	0.000***
(E <sub>t</sub> i – E(t-1)i) × INST	-9.03	-6.38	0.000***
(E <sub>t</sub> i – E(t-1)i) × CONC	13.52	5.49	0.000***
(E <sub>t</sub> i – E(t-1)i) × M	-4.35	-0.20	0.840
Size	5545.16	0.71	0.477
LEV	-10119.02	-0.04	0.966
MTBV	1553.63	0.50	0.618
FCF	2308.56	0.17	0.865
Adjusted R square	21.40%		
F	15.50		

\*\*\*, \*\*, \* denote significance at 0.001, 0.05, and 0.10 levels, respectively, based on t-tests (two-tail).

with distributed dividend.

Table 5 shows the results of model (4). Concentrated institutional ownership is positively correlated with dividend (coeff. = 5.20, p-value = 0.000) while institutional ownership is negatively associated with distributed dividend (coeff. = -3.22, p-value = 0.000) and managerial ownership is not significantly associated with distributed dividend (coeff. = 1.55, p-value = 0.731). Firm size is positively associated with distributed dividend but other

control variables are not significantly associated with distributed dividend.

## CONCLUSIONS AND SUGGESTIONS

This paper contributes to the ongoing debate about the role of ownership structure, as one of corporate governance mechanisms, in firm policies. It examined the

**Table 3.** The results of model (2).

Model (2)	Coefficient	t- statistic	P-Value
constant	-403792.22	-3.93	0.000
Eti	1.12	22.73	0.000***
Eti × INST	-2.51	-11.10	0.000***
Eti × CONC	3.89	8.25	0.056*
Eti × M	-1.48	-0.30	0.763
D (t-1) i	-0.88	-36.49	0.000***
Size	0.95	4.04	0.000***
LEV	-111010.98	-0.90	0.368
MTBV	2625.75	1.58	0.114
FCF	5429.12	0.77	0.441
Adjusted R square	79.00%		
F	177.73		

\*\*\*, \*\*, \* denote significance at 0.001, 0.05, and 0.10 levels, respectively, based on t-tests (two-tail).

**Table 4.** The results of model (3).

Model (3)	Coefficient	t- statistic	P-value
constant	-346331.97	-3.67	0.021
Eti	1.15	25.44	0.000***
Eti × INST	-2.17	-10.33	0.000***
Eti × CONC	3.57	8.24	0.000***
Eti × M	-1.64	-0.36	0.715
D (t-1) i	-0.95	-39.21	0.000***
D (t-2) i	-0.22	-8.97	0.023**
Size	14552.05	3.86	0.000***
LEV	-86667.71	-0.77	0.443
MTBV	1709.84	1.12	0.262
FCF	3414.04	0.53	0.597
Adjusted R Square	82.40%		
F	198.757		

\*\*\*, \*\*, \* denote significance at 0.001, 0.05, and 0.10 levels, respectively, based on t-tests (two-tail).

relationship between ownership structure and dividend policy in Iran, a country with unique environmental characteristics.

In this study, four regression models were used. The results demonstrated evidence on a negative association between institutional ownership and dividend payout. It showed that the presence of institutional investors results in less usage from dividend as signal for good firm performance. This result is in line with Jain (2007), and Barclay et al. (2006). Also, in all four models, positive relationship was founded between dividend payout and concentrated institutional ownership. In other word, firms are forced to distribute more dividends for decreasing the agency costs when big institutional investors exist in ownership structure. This result was in line with Kouki and Guizani (2009).

Based on findings, managerial ownership was not

significantly associated with dividend payout. It is because managers-owners have a little percentage of ownership in the Iranian firms and they can't affect on dividend payout. Moreover, in most of the models, a positive relationship was found between size and dividend payments. It showed that larger firms distribute more dividends. It indicates that managers of big firms are politically more sensitive and they prefer to decrease political costs by distributing dividend.

Findings from this study are useful to regulators for future directions in TSE. Moreover, the results may be helpful to investors for predicting firms' dividend payouts and consequently, valuation of their stocks. Future research might consider the relationship between dividend policy and other corporate governance mechanisms, such as characteristics board of directors, auditors, internal control and so on, which might influence dividend



**Table 5.** The results of model (4).

Model (4)	Coefficient	t- statistic	P-Value
constant	-315326.97	-3.30	0.001***
Eti	0.97	1.55	0.122
E(t-1) i	0.10	1.34	0.047**
E(t-1) i × INST	-3.22	-13.15	0.000***
E(t-1) i × CONC	5.20	10.53	0.000***
E(t-1) i × M	1.55	0.34	0.731
D (t-1) i	-0.88	-32.70	0.000***
Size	13244.80	3.46	0.001***
LEV	-112619.85	-0.99	0.323
MTBV	1109.80	0.74	0.459
FCF	7982.69	1.23	0.220
Adjusted R Square	82.10%		
F	194.60	t- statistic	P-Value

\*\*\*, \*\*, \* denote significance at 0.001, 0.05, and 0.10 levels, respectively, based on t-tests (two-tail).

payout decisions.

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