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Board composition, ownership structure and dividend policies in an emerging market

Further evidence from CASE 50

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Abstract

Purpose – The purpose of this study is to examine dividend policies in an emerging capital market, in a country undergoing a transitional period.

Design/methodology/approach – Using pooled cross-sectional observations from the top 50 listed Egyptian firms between 2003 and 2005, this study examines the effect of board of directors' composition and ownership structure on dividend policies in Egypt.

Findings – It is found that there is a significant positive association between institutional ownership and firm performance, and both dividend decision and payout ratio. The results confirm that firms with a higher return on equity and a higher institutional ownership distribute higher levels of dividend. No significant association was found between board composition and dividend decisions or ratios.

Originality/value – This study provides additional evidence of the applicability of the signalling model in the emerging market of Egypt. It was found that despite the high institutional ownership and the closely held nature of the firms, which imply lower agency costs, the payment of higher dividend was considered necessary to attract capital during this transitional period.

Keywords Egypt, Corporate governance, Corporate ownership, Dividends, Emerging markets

Paper type Research paper

1. Introduction

An important body of literature examined dividend policies in developed capital markets – mainly the USA (e.g. Jensen and Meckling, 1976; Rozeff, 1982; Easterbrook, 1984). However, relatively few empirical studies have addressed the determinants of dividends in emerging capital markets (Smith and Watts, 1992; Adaoglu, 2000). An increasing volume of literature (Glen *et al.*, 1995; Adaoglu, 2000) is suggesting significant differences in dividend policy behaviour between developed countries and developing countries.

Several theoretical models are used to explain corporate dividend policy. Signalling models are based on the assumption that managers have more information about the firm's future cash flows than do individuals outside the firm, and they have incentives to signal that information to investors (Gugler, 2003). Unexpected changes in dividend policy are used to mitigate information asymmetries between managers and owners (Frankfurter and Wood Jr., 2002). The Agency model uses dividend policy to better align the interests of shareholders and corporate managers. The free cash flow model is

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based on the assumption that the payment of dividends can decrease the level of funds that managers can use at their discretion (Jensen, 1986). The current study tests the applicability of these models to the emerging capital market of Egypt.

The main objective of this study is to examine the effect of both board of directors' characteristics and ownership structure, on corporate dividend policies of a sample of top Egyptian listed companies. After a decade of an extensive privatization program, a unique feature of the Egyptian stock exchange is that many listed companies have varying ownership structure because many of them were formerly state-owned enterprises, before being restructured and listed on the stock exchange for the purpose of gradual privatization.

Testing the effect of ownership structure and board of directors' composition on firms' dividend policies in an emerging capital market is a useful contribution to the literature since little evidence currently exists on emerging capital markets.

This study provides evidence from the Egyptian Capital Market (Cairo and Alexandria Stock Exchanges: CASE), a recently revitalized emerging capital market after 30 years of inactivity and illiquidity during the socialist era.

The questions addressed in the paper are:

(1) Is there a significant association between corporate dividend decisions of the 50 most active companies in the CASE (CASE 50) and the composition of their board of directors?

(2) Is there a significant association between corporate dividend payout ratios of CASE 50 and the composition of their board of directors?

(3) Is there a significant association between corporate dividend decisions of CASE 50 and their ownership structure?

(4) Is there a significant association between corporate dividend payout ratios of CASE 50 and their ownership structure?

(5) To what extent does the empirical evidence support the applicability of various dividend theories in explaining corporate dividend policies in an emerging capital market, in a country in transition?

The organization of the paper is as follows: section 2 includes an overview of the Egyptian stock exchange followed by ownership structure in Egypt in section 3. Section 4 presents for hypotheses development and offers an explanation of the relationship between board of directors' composition, ownership structure and dividend policy. Section 5 provides a discussion of the variables tested, model development and sample. Section 6 presents a discussion and summary of the findings. Section 7 concludes the study.

2. The Egyptian stock exchange

Egypt has a developing economy whose stock exchange dates from 1882. This exchange grew until it was considered the fifth most active market in the world in the 1950s (ACCE, 1995). In the late 1950s, there began a process of nationalization in various economic sectors which led to a socialist era. As a result, the activities of the stock exchange decreased dramatically. Thereafter, the stock exchange remained inactive for 30 years. In the early 1990s, as part of its privatization programme agreement with the IMF and the World Bank, the Egyptian government decided to revitalize its capital market by improving its reputation and the confidence of

investors. The principal method utilized to activate the stock market was via public offerings of state-owned enterprises. According to the Ministry of Public Enterprise, since the advent of the program in 1994 and up until the end of June 2003, approximately 62 per cent of the original portfolio has been privatized. The sales proceeds from these companies stood at LE 16.6 billion, as of June 2003 (Berg and Capaul, 2004).

The CASE broke new records in 2005, outperforming both developed and emerging markets as per Standard & Poor's and Morgan Stanley indices. CASE was considered by *Newsweek* magazine as one of the ten best stock markets in the world in 2005 (AMCHAM, 2006). Trading indicators during the year showed record-breaking levels, with trading figures reaching LE 2 billion by the end of 2005. At the end of September 2005, there were 765 CASE-listed companies. During the same period, market capitalisation more than tripled to US$ 67 billion, from US$ 21 billion. Investors mainly invested in the 50 most liquid companies listed on the exchange (CASE 50), which accounted for 80 per cent of the trading volume in 2005 (Kelly, 2006). In June 2008, CASE has been renamed the "Egyptian stock exchange".

Concerning taxation of dividend in Egypt, in the case of individuals, mutual funds and international funds, no taxes are levied on dividends, capital gain and interest on bonds. Furthermore, the corporate tax law abolished the capital gains tax levied on the Egyptian corporate entities that were previously subject to such taxes.

3. Ownership structure in Egypt

Egyptian companies have one tier boards comprised of an odd number of members, with a minimum of three. The board of directors of a joint stock company should include a majority of non-executive members with an appropriate mix of skills, technical, or analytical experience (Bahaa El Din and Shawky, 2005). For the current sample; CASE 50, the independence ratios ranged from 20 to 90 per cent. Frequently, the board's chairman or the managing director (or Chief Executive Officer (CEO)) is the same person. For the current sample; CASE 50, on average, 48 per cent of the companies have a chairman with dual role. According to the legislative and regulatory framework, the Annual General Meeting (AGM), board of directors, internal and external auditors, and government authorities monitor management. The board of directors is the ultimate body governing the corporation and responsible for monitoring the implementation of the company's objectives set by the AGM. In companies with more than 25 per cent state ownership, the Central Agency for Accounting audits the company. The board is accountable *vis-à-vis* shareholders and the company, and is liable for any misrepresentation or falsification. The Capital Market Authority (CMA) requests companies to submit annually a list of the names, nationalities and other pertinent details of board members and senior management. CMA must be immediately notified of any change (Bahaa El Din and Shawky, 2005).

One of the main features of the ownership structure in Egypt involves considerable controlling stakes of some families, financial and industrial institutions, and the government. For the current sample; CASE 50, the average individual shareholding ranged from 0 to 42 per cent, institutional shareholding ranged from 0 to 91 per cent and governmental shareholding ranged from 0 to 92 per cent.

Concerning ownership disclosure, companies should make available an updated shareholder list at the AGM, but not to the level of ultimate beneficial ownership and not in the annual report, according to Egyptian regulations. Shareholders have the

right to inspect the minutes of the AGM, which include an attachment containing the names of all registered owners and the amount of shares held by each. CASE recently started to request that CASE 50 companies disclose their ownership structure of 5 per cent or more to CASE. However this is not mandatory by law or by current regulations. The new Capital Market Law as well as the new listing requirements seek to reinforce ownership disclosure (Fawzy, 2003).

4. Hypotheses development

4.1 Board composition

Corporate boards play an important role in monitoring and disciplining management. Independent directors are desirable because of their breadth of knowledge and experience, as well as their independence from corporate management (Farinha, 2003). Fama (1980) argues that the viability of the board might be enhanced by the inclusion of outside directors (Ghosh, 2006) and the separation between the roles of chairman and CEO.

Rozeff (1982) argues that dividend policy is a mechanism to reduce agency costs. In the absence of any other monitoring, shareholders would need the agency monitoring element of dividend policy. On the other hand, independent non-executive directors may act as a monitoring device on the firm's managers, thus dampening in principle, the need for higher dividend payouts. If independent directors are an effective monitoring device, then board independence and dividend policy should be substitutes in the monitoring of agency problems. However, if the monitoring of outside directors is insufficient, it is possible that NEDs may influence higher dividend payouts by a company, to enhance managerial monitoring by external capital markets (Farinha, 2003).

There are two competing views in the literature about the effect of board size. One view is that large boards allow directors to specialise. Greater specialisation can lead to more effective monitoring (Klein, 2002), and hence lower dividends are needed for the monitoring role. The other view is that large boards are less effective than small boards due to the difficulties of coordinating large groups (Jensen, 1993).

In this study, three board characteristics are tested. These are board independence (Fama, 1980; Farinha, 2003), dual role and board size. From the above discussion, the following hypothesis is formed as follows:

H1. Dividend policy (dividend decision and ratio) of top Egyptian listed companies is significantly associated with board of directors' composition.

4.2 Ownership structure

Distribution of stock among shareholders has a significant impact on corporate actions that are dependent on shareholder voting. Majority control gives the larger shareholders considerable power and discretion over key decisions, like dividends' decisions and payout ratios (Gugler, 2003). Easterbrook (1984) argues that dividends play a role in controlling equity agency problems, by facilitating primary capital market monitoring of the firm's activities and performance (Farinha, 2003).

Agency theory suggests that outside shareholders have a preference for dividends over retained earnings, because insiders might misuse cash retained within the firm (see, e.g. Easterbrook, 1984; Jenson, 1986; Myers, 2000). This preference for dividends may be even stronger in emerging markets with weak investor protection, if

shareholders perceive a greater risk of expropriation by insiders in such countries (Mitton, 2004).

In the presence of other monitoring mechanisms such as large institutional blockholders, dividends are likely to play a lesser role in resolving agency costs (Easterbrook, 1984). However, it is possible that institutions may influence higher dividend payouts by a company, to enhance managerial monitoring by external capital markets, especially if they believe their own direct monitoring efforts to be insufficient or too costly (Farinha, 2003). Since government ownership is a form of, or at least similar to, institutional ownership, it is likely that the arguments above may also apply (Gul, 1999b). The expected sign for this coefficient may be either positive or negative.

Managerial share ownership aligns the interests of managers with those of shareholders, as managers are less likely to engage in actions which are not in the interest of shareholders. In addition, Easterbrook (1984) emphasized that in the presence of other monitoring mechanisms, such as a large blockholder, dividends are likely to play a lesser role in resolving agency costs (Filbeck, 1999). However, empirical testing of this proposition has produced mixed results (e.g. Aggarwal and Samwick, 1999; Hermalin and Weisbach, 1991). From the above arguments, the following hypothesis is formed:

H2. Dividend policy (dividend decision and ratio) of top Egyptian listed companies is significantly associated with ownership structure.

5. Methodology and data sources

This section explains variables tested, sample and model development.

5.1 Model

The dividend policy is represented by two variables. The first is dividend decisions of companies, which is the prediction of the model concerning whether a company chooses to pay dividends or not. The variable DIVDECISION is a dummy variable, therefore, set to one if the company paid dividends. The second variable is the amount of dividend paid (DIVRATIO), which is defined in terms of dividend yield (dividend per share/market price per share) (Redding, 1997). Board of directors' composition is measured by three variables: board size (BOARDSIZE), board independence (INDEPENDENCE) and dual role (DUALROLE). Board size is measured as the total number of directors sitting on the board. Board independence is measured as the ratio of independent members to the total number of directors. Ownership structure is measured by four variables: managerial ownership ratio, blockholder ownership ratio, institutional ownership ratio and free float ratio.

Profitability is included as a control variable since a firm's recent accounting performance may be correlated with its growth opportunities (Skinner, 1993), and firms with higher profits are able to pay higher dividends and signal their performance (Miller and Rock, 1985; Ofer and Thakor, 1987; Gul, 1999a). Price earnings and return on equity ratios are tested as measures of performance.

To provide empirical testing to the hypotheses addressed in the study, the following two models are constructed:

$$\begin{aligned}\text{DIVDECISION} = {} & \alpha_0 + \beta_1\text{INDEPENDENCE} \\ & + \beta_2\text{DUALROLE} \\ & + \beta_3\text{BOARDSIZE} + \beta_4\text{MANOWN} \\ & + \beta_5\text{BLOCKOWN} + \beta_6\text{INSTOWN} \\ & + \beta_7\text{FREEFLOAT} \\ & + \beta_8\text{ROE} + \beta_9\text{EPS} + \mu\end{aligned} \tag{1}$$

$$\begin{aligned}\text{DIVRATIO} = {} & \alpha_0 + \beta_1\text{INDEPENDENCE} \\ & + \beta_2\text{DUALROLE} + \beta_3\text{BOARDSIZE} \\ & + \beta_4\text{MANOWN} \\ & + \beta_5\text{BLOCKOWN} \\ & + \beta_6\text{INSTOWN} \\ & + \beta_7\text{FREEFLOAT} \\ & + \beta_8\text{ROE} + \beta_9\text{EPS} + \mu\end{aligned} \tag{2}$$

where DIVDECISION, dividend decision; DIVRATIO, dividend yield; INDEPENDENCE, ratio of independent directors; DUALROLE, dual role; BOARDSIZE, board size; MANOWN, ratio of directors' ownership; BLOCKOWN, ratio of block ownership; INSTOWN, ratio of institutional ownership; FREEFLOAT, percentage of shares held by outsiders; ROE, return on equity; EPS, earnings per share.

5.2 Sample and data sources

The study covers the 50 most active companies in the egyptian stock exchange (CASE 50) for the years 2003-2005. These companies accounted for almost 80 per cent of the trading volume for stocks in the Egyptian stock exchange in 2005. The data for the three years is then pooled to obtain 150 observations for each variable. The main advantage of pooling is that it is possible to increase the number of observations, especially in cases where each individual cross-section sample is so small in size that it could affect the degrees of freedom adversely (Adaoglu, 2000).

Table I presents a summary of the descriptive statistics of the variables used in the analyses. The average dividend ratio for CASE 50 firms for the years 2003-2005 is 4.3

Table I.
Descriptive statistics of the study variables

Variables	Mean
Dividend yield (%)	4.34
Independence ratio	0.55
Board size	19.00
Managerial ownership ratio (%)	6.51
Individuals' block ownership ratio (%)	2.27
Institutional ownership (non-governmental) (%)	19.43
Governmental ownership ratio (%)	29.97
Return on equity (%)	15.73

per cent, ranging from 0 to 100.2 per cent. For CASE 50 firms, 48 per cent have a chairman with dual role. The average size of the board of directors of CASE 50 companies is 19 members, ranging from a minimum of five members to a maximum of 44. The average independence ratio of the boards is 55 per cent, ranging from a minimum of 20 per cent, and a maximum of 90 per cent. The average of return on equity ratio is 15 per cent, ranging from a minimum of −98.6 per cent to a maximum of 75.2 per cent. The averages of share ownership by top management, individuals, government and institutions, are 6.5, 2.27, 30 and 19 per cent, respectively. The average free float (external ownership) is 50 per cent, which reflects the transitional stage of the emerging market of Egypt.

6. Results and discussion

The Pearson's correlation matrix (Table II) shows that the degree of correlation between the independent variables is either low or moderate, which suggests the absence of multicollinearity between independent variables. As suggested by Bryman and Cramer (1997), the Pearson's r between each pair of independent variables should not exceed 0.80; otherwise, independent variables with a coefficient in excess of 0.80 may be suspected of exhibiting multicollinearity. Correlations coefficients in the sample are within an acceptable range (0.01-0.53). In addition, the collinearity diagnostic statistics (e.g. tolerance (TOL) and variance inflated factor (VIF) and condition index (CI)) support the Pearson's correlation coefficients and provide no proof of a multicollinearity problem in the regression model. The tests for the serial correlation of the residuals are well specified in terms of serially uncorrelated residuals, and support the null hypothesis, i.e. there is no serial correlation of the error terms, and overall, the results are valid with 95 per cent confidence[1].

Table III presents the regression analysis of the dividend payout decision, using binary logistic procedure. The explanatory power of the model is 0.26. The results show that dividend payout decision is positively associated with institutional non-governmental (sig = 0.04) ownership. Firm performance represented by return on equity was also a significant variable with a positive sign, but at sig = 0.09. Companies with higher return on equity and higher institutional non-governmental ownership were more likely to take a decision of distributing dividends. No significant association was found between board composition and dividend decisions.

Table IV presents the analysis of the dividend payout ratio (adj $R^2 = 0.22$). The results show that dividend payout ratio is also positively associated with institutional non-governmental ownership (sig = 0.01) and firm performance (return on equity) (sig = 0.00). No significant association was found between board size or independence, and dividend payout ratio. For a sample of top 50 Egyptian listed companies, the more profitable firms with higher percentage of institutional ownership decided to pay dividends at the highest ratios. One explanation could be that more profitable firms distributed more dividends to signal to the market their higher quality, especially in an emerging market in a transitional period, in which companies are competing for external capital (Gul, 1999b; Adaoglu, 2000). The empirical results support *H2* and confirm the association between ownership structure and dividend policies in Egypt. Another explanation is that the institutional blockholders voted for higher payout ratios to enhance managerial monitoring by external capital markets (Farinha, 2003).

Table II.
Correlation coefficients of the variables used in the study

	DY	DD	DROLE	BSIZE	INDDIR	PE	ROE	MANOW	INDOW	GOVOW	INSOW	FFLOAT
DD	0.18											
DROLE	−0.16	0.17										
BSIZE	0.11	0.04	0.16									
INDDIR	0.28	0.02	0.17	0.62								
PE	0.01	−0.12	−0.04	0.17	0.06							
ROE	0.49	0.07	−0.15	0.25	0.18	0.22						
MANOWN	−0.12	−0.10	−0.07	0.04	−0.15	0.07	0.18					
INDOWN	−0.06	−0.05	−0.10	−0.02	0.00	0.18	−0.07	0.05				
GOVOWN	−0.14	0.27	0.19	0.12	0.20	−0.17	−0.18	−0.40	−0.13			
INSOWN	0.20	−0.07	−0.33	−0.14	0.04	−0.06	0.15	−0.26	−0.02	−0.39		
FFLOAT	−0.02	−0.01	−0.02	0.15	−0.01	0.10	−0.05	0.24	0.24	−0.37	−0.24	
INDRATIO	0.27	0.06	0.15	−0.13	0.62	−0.07	0.06	−0.14	0.00	0.14	0.10	−0.11

Notes: DY, dividend yield (%); DD, dividend decision; DROLE, dual role; BSIZE, size of the board; INDDIR, independent directors; PE, P/E ratio; ROE, return on equity (%); MANOWN, top management ownership; INDOWN, individual's ownership; GOVOWN, governmental ownership; INSOWN, institutional ownership; FFLOAT, free float; INDRATIO, independence ratio

	B	SE	Wald	df	Significance	Exp (B)
INDEPENDENCE	−0.494	0.353	1.959	1	0.162	0.610
BOARDSIZE	−0.287	0.288	0.993	1	0.319	0.751
MANOWN	0.804	0.520	2.390	1	0.122	2.235
BLOCKOWN	−0.162	0.335	0.233	1	0.629	0.851
GOVOWN	0.837	0.440	3.618	1	0.057	2.310
INSTOWN	1.046	0.509	4.216	1	0.040	2.846
FREEFLOAT	0.248	0.363	0.467	1	0.495	1.281
ROE	0.528	0.313	2.854	1	0.091	1.696
PE ratio	−0.278	0.282	0.975	1	0.323	0.757

Notes: INDEPENDENCE, ratio of independent directors; BOARDSIZE, board size; MANOWN, ratio of directors' ownership; BLOCKOWN, ratio of block ownership; INSTOWN, ratio of institutional ownership; GOVOWN, government ownership; FREEFLOAT, percentage of shares held by outsiders; ROE, return on equity; PE RATIO, price earnings ratio

Table III.
Regression results of dividend decision

	Coefficients	*t*-value	Significance
INDEPENDENCE	0.127	1.191	0.238
DUALROLE	−0.082	−0.678	0.500
BOARDSIZE	0.043	0.376	0.708
DUALROLE	−0.017	−0.143	0.887
MANOWN	−0.108	−0.999	0.322
BLOCKOWN	−0.073	−0.682	0.497
INSTOWN	0.270	2.561	0.013
FREEFLOAT	0.121	1.119	0.267
ROE	0.407	3.862	0.000
PE RATIO	−0.008	−0.079	0.938
Adjusted R^2	0.224		
F	11.080		
Significance	0.000		

Notes: INDEPENDENCE, ratio of independent directors; DUALROLE, dual role; BOARDSIZE, board size; MANOWN, ratio of directors' ownership; BLOCKOWN, ratio of block ownership; INSTOWN, ratio of institutional ownership; FREEFLOAT, percentage of shares held by outsiders; ROE, return on equity; PE RATIO, price earnings ratio

Table IV.
Regression results of dividend ratio

7. Conclusion

This study provides insight into the dividend policies by top Egyptian-listed companies. We additionally extend the current literature linking governance factors and dividend policies to specifically address an emerging capital market in a country undergoing a privatization program. Prior work in this area has primarily focused on developed capital markets.

This research explored the applicability of established dividend models on an emerging capital market in a country undergoing a transitional period. Strong support was found for the signalling model, from the significant association between dividend and firm performance. Partial support was obtained for agency theory, from the significant positive association between dividend and institutional ownership. In the emerging market of Egypt, top performing Egyptian listed companies with higher

block institutional ownership, which implies lower agency costs (Easterbrook, 1984), paid higher dividends to attract capital during the transitional period of Egypt.

Our research suffers from some limitations. The sample of top fifty companies was selected because investors mainly invested in the 50 most liquid companies listed on the exchange (CASE 50), which accounted for 80 per cent of the trading volume in 2005. Despite these limitations, the current study provides a contribution to understanding dividend policies of companies listed on the Egyptian stock exchange, and is especially relevant given recent changes in the institutional environment in which Egyptian-listed companies operate. Our study provides a springboard for future research in the area of dividend policies in emerging capital markets.

Note

1. Hair *et al.* (1998), Studenmund (2001) and Gujarati (2003) argue that the VIF, TOL and CI are accepted measures of multicollinearity. Bowerman and O'Connell (1990) and Myers (1990) suggest that if the largest VIF value is greater than 10, then there is cause for concern over multicollinearity. However, Studenmund (2001) states that if the VIF value is greater than 5, this could be an indication of a multicollinearity problem. Menard (1995) mentions that TOL below 0.2 indicates a potential multicollinearity problem. The CI is used along with the regression coefficient variance-decomposition matrix. This matrix shows the proportion of variance for each regression coefficient (and its associated variable) attributable to each condition index. To determine if there is collinearity, the condition indices over a threshold value (typically 15) must be determined. Belsley *et al.* (1980) claim that a CI greater than 15 indicates a possible problem and if it is more than 30, it is an indicator of a serious problem with collinearity. In this study, the multicollinearity diagnostic is undertaken using different measures and the results reveal that multicollinearity is not a serious problem since all the reported VIFs are less than three, TOLs are over 0.2 and CIs are around 15. The tests of multicollinearity and serial correlation are available from the authors upon request.

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