

## **CORPORATE DIVIDEND POLICIES AND OWNERSHIP STRUCTURE IN LISTED EGYPTIAN COMPANIES**

***Omneya Abd-Elsalam***

*Aston Business School, Nelson Building, Aston Triangle  
Birmingham, UK*

***Ahmed El-Masry\****

*Plymouth Business School, Drake Circus, Plymouth, Devon, UK*

### **ABSTRACT**

*Purpose: To investigate (provide empirical testing) the effect of ownership structure on corporate dividend policies by top 50 Egyptian companies for the years 1998-2002*

*Design/ methodology / approach: Two dependent variables representing dividend policies; dividend decision and dividend yield are regressed on two test variables and five control variables. The test variables are majority government ownership and free float ratio. The control variables are growth opportunities (market value to book value and earnings per share), size, leverage, return on equity and industry type.*

*Findings: The results confirm that firms with a majority government ownership and hence lower per centage of external ownership (free float) distribute higher levels of dividend. In the transitional period of the emerging market of Egypt, it is found that despite the majority government ownership and the closely held nature of the firms, which imply lower agency costs, the payment of higher dividend is considered necessary to attract capital. Companies with majority government ownership are planning to issue more shares for public subscription as part of the privatization programme. These companies are signalling their quality through higher dividends. No significant association was found between size, profitability or growth opportunities and dividend yield ratio in Egypt.*

*Research limitations / implications: This study is subject to a number of limitations. First, majority government ownership was represented as a dummy variable, due to non-availability of data. However, the free float measure which represents the per centage of free float (per centage owned by outsiders other than founders and government) was used, although less significant. Second, there is no guarantee that the two measures used in this study adequately capture the corporate growth opportunities. However, the measures were used in a number of previous studies.*

*Research Type: Research paper*

*Keywords: Egypt; Free Float; ownership structure; government ownership; dividend policy; emerging market.*

*JEL Classification: G32, 34, 35.*

## I. INTRODUCTION

Dividend policy has attracted a great deal of research for a long time, resulting in intensive theoretical modelling and empirical investigation. A number of conflicting theoretical and empirical models have been suggested to explain the puzzling reality of corporate dividend behaviour. An important body of literature examined the effect of agency costs on dividend policies in developed capital markets, particularly the US, (e.g. Jensen and Meckling, 1976; Rozeff, 1982; Easterbrook, 1984). However, relatively few empirical studies have addressed the relation between agency costs and dividend decisions in emerging capital markets.

Dividend policy behaviour of companies operating in emerging markets is expected to be significantly different from the widely accepted dividend policy behaviour of companies operating in efficient capital markets (Glen *et al.*, 1995 and Adaoglu, 2000).

The main objective of this paper is to examine the association between the ownership structure of the top 50 listed Egyptian companies (CASE 50) and their corporate dividend policy choices. A unique feature of the Egyptian stock exchange is that many listed companies have varying levels of government ownership because they were formerly state-owned enterprises before being restructured and listed on the stock exchange for gradual privatization. Testing the effect of government ownership on firms' dividend policies is a useful contribution to the contracting literature since little evidence currently exists (Gul, 1999).

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

This research covers CASE 50 companies, as they are the main interest of investors and the most liquid companies listed on the Exchange (CASE 50) which, in 2003, accounted for 52 per cent of the value traded, 72 per cent of volume traded and 86 per cent of the number of transactions for the first six months. The questions addressed in the paper are:

1. Is there a significant association between corporate dividend decisions of CASE 50 and their ownership structure?
2. Is there a significant association between corporate dividend payout ratios of CASE 50 and their ownership structure?
3. To what extent does the empirical evidence support the applicability of agency, signalling and free cash flow theories to explaining corporate dividend policies in an emerging capital market in a country in transition?

The organisation of the paper is as follows. Section two includes an overview of the Egyptian stock exchange, followed by an explanation for the relationship between government ownership, growth opportunities and dividend policy in sections three and four. Section five provides a discussion of the variables tested, model development and sample. Section six presents the results, while a discussion and summary of the findings are provided in section seven.

## II. THE EGYPTIAN STOCK EXCHANGE

Egypt's Stock Exchange has two locations: Cairo and Alexandria. Both locations are managed by the same Chairman and Board of Directors. The Alexandria Stock Exchange was

officially established in 1888, followed by Cairo in 1903. The two exchanges were very active in the 1940s and the Egyptian Stock Exchange was ranked fifth in the world. Nevertheless, the central planning and socialist policies adopted in the mid 1950s, led to a drastic reduction in activity on the Stock Exchange, which remained dormant between 1961 and 1992. In 1990/1991, the Egyptian government started its economic restructuring program. The process of deregulation and privatization has stimulated activity in the stock market. The Capital Market Law 95/1992 laid the regulatory framework for the capital market operations. The principal method utilized to activate the stock market was via public offerings of state-owned enterprises and this provided the impetus for its revival (CASE, 2003).

With a Price / Earnings (P/E) ratio of 7.18 times, dividend yield (DY) of 12.7 per cent as of end of December 2002, versus an average P/E ratio of 14.02 times and DY of 3.06 per cent for the Middle East & Africa and a P/E of 17.94 times and DY of 2.27 per cent for the whole International Finance Corporation's Global Index for Emerging Markets (IFCG) Composite, the Egyptian market compares favourably with both the Middle East & Africa and the IFCG Composite. By the end of June 2003, the stock exchange market capitalization reached LE 150.2 billion, compared to LE 10.8 billion in 1992. The traded value of listed securities in 2002 amounted to LE 25.8 billion versus LE 233.9 million in 1992. This research covers CASE 50 companies, as they are the main interest of investors and the most liquid companies listed on the Exchange (CASE 50), which accounted for 52 per cent of the value traded, 72 per cent of volume traded and 86 per cent of the number of transactions for the first six months in 2003. These companies had average P/E, DY and Price/Book value ratios of 8.14 times, 11.77 per cent and 1.21 times respectively in 2002 (CASE, 2003).

In Egypt, no taxes are levied on dividends in the case of individuals, mutual funds and international funds (OBG & ACCE, 2003). This represents a clear incentive for investors to demand higher dividends.

### **III. THEORETICAL BACKGROUND**

The market imperfection of asymmetric information is the basis for three distinct efforts to explain corporate dividend policy, signalling models, agency cost models and free cash flow models (Frankfurter and Wood Jr., 2002). Dividends may be used to signal future prospects of the firm (signalling models) and or to reduce agency costs existing between shareholders and managers (agency cost models). In addition, Jensen's (1986) free cash flow theory suggests that managers are reluctant to pay out dividends, preferring instead to retain resources under their control (Short *et al.*, 2002).

#### **Agency Theory**

The relationship between dividend policy and agency cost focuses on the issue of how dividend policy can be used in reducing the agency cost. Dividend policy can be used by shareholders to guide the managers in the right direction and or to expropriate wealth from debtholders (Adaoglu, 2000). Myers (1977), and Jensen and Meckling (1976) state that shareholders can expropriate wealth from debtholders by receiving unanticipated and excessive amounts of dividend payments (Adaoglu, 2000).

The second way dividend policy affects agency costs is the reduction of these costs through increased monitoring by capital markets. Large dividend payments reduce funds available for perquisite consumption and investment opportunities and require managers to seek financing in capital markets. The efficient monitoring of capital markets reduces investment activity which is less than optimal and hence reduces the costs associated with ownership and control separation (Easterbrook, 1984, Frankfurter and Wood Jr., 2002).

### **Signalling Theory**

The mitigation of the information asymmetries between managers and owners via unexpected changes in dividend policy is the cornerstone of dividend-signalling models. The proponents of signalling theories believe that a corporate dividend policy used as a means of communicating private information and putting the message of quality across has a lower cost than other alternatives (e.g., Bhattacharya, 1979; Miller and Rock, 1985; John and Williams, 1985 and Frankfurter and Wood Jr., 2002). Miller and Modigliani (1961) explicitly suggested that dividend changes could have an informational impact and could lead to share price changes (Watts, 1973). In addition, it is suggested that in emerging markets, where legal protection is limited, the majority shareholders insure minority shareholders by offering them high dividends (LaPorta *et al.*, 2000).

### **Free Cash Flow Theory**

This theory is an ad hoc combination of the signalling and agency costs paradigms (Jensen, 1986). The payment of dividends can decrease the level of funds available for perquisite consumption by corporate managers. Prudent managers working in the shareholders' best interests should invest in all profitable opportunities. The funds remaining after financing all positive net present value projects cause conflicts of interest between managers and shareholders. Dividend payments decrease the free cash flow available to managers to invest in marginal net present value projects and manager perquisite consumption (Frankfurter and Wood Jr., 2002).

From the above three theories, the following research hypotheses are developed in the next section.

## **IV. HYPOTHESES DEVELOPMENT**

### **Majority Government Ownership**

A prediction on the relationship between government ownership and dividends is difficult. In a framework where there is little external control on managers (Jensen and Meckling, 1976), outsiders may prefer a high dividend policy and a high dividend payout helps in minimizing agency costs. However, in firms with large block shareholders that are better able to monitor managerial activities, agency costs are lower (Shleifer and Vishney, 1986). In Egyptian public sector companies, with majority government ownership, managers are well monitored by various government agencies. These agencies ensure that public funds are well managed. According to the agency theory argument, it is expected that this type of company will not have a strong motivation to distribute higher amounts of dividends due to their having lower agency costs.

Another explanation is that companies with majority government ownership have less difficulty in raising funds to finance investments and can therefore afford to pay dividends. On the other hand companies with low government ownership are more likely to have difficulty in raising funds and therefore are likely to rely on retained earnings for investments (Gul, 1999). A third explanation is that the dividend is an ideal device for limiting rent extraction of minority shareholders. The large shareholder, which is the government in this case, by granting dividends to small shareholders, can signal his unwillingness to exploit them (Klaus Gugler (2003). This explanation is particularly important in the Egyptian context. The government is trying to restore investors' confidence in the capital market after 30 years of a socialist era. In addition, in the period covered by the current research, companies with majority government ownership either have issued or have been planning to issue securities for public subscription as part of the privatization program started in the 1990s. These companies are expected to use dividends as a signalling device of the strength of their current and future cash flows.

Gugler (2003) investigated the potential impact of a range of different types of shareholders on dividends for a sample of Austrian companies. He found that companies with majority government ownership had the highest dividend payout and practised dividend smoothing

From the above discussion the following hypothesis is formed:

**H1:** Dividend policy (dividend decision and ratio) of Top Egyptian listed companies (CASE 50) is positively associated with majority government ownership.

### **Free Float**

A central message of asymmetric information models is that dividend payments are important both as a pre-commitment device to reduce agency costs and as a signal of management's expectations of future earnings (Aivazian *et al.*, 2005). However, the viability of both of these mechanisms depends on other aspects of the institutional and contracting environment. For example, in Egypt, for firms which are closely held (with a low free float ratio), agency costs are lower. As a result, there might be easier and less costly ways of communicating information than by paying dividends.

When outside equity holders own a larger share of the equity (high percentage of free float), they will demand a higher dividend as part of the optimum monitoring package (Rozeff, 1982). Jensen *et al.*, (1992) investigated the determinants of dividend policy within a common empirical framework and identified insider ownership as one of the most influential determinants of dividend policy. They hypothesize that if the insider owners hold the major share of the company (low free float ratio) then management usually prefers not to declare more dividends but to increase directors' fees and bonuses *etc.* Klaus Gugler (2003) found that companies with low outsider ownership (family controlled) had lower ratios of dividend and did not smooth their dividends.

From the above discussion the following hypothesis is formed:

**H1:** Dividend policy (dividend decision and ratio) of Top Egyptian listed companies (CASE 50) is positively associated with majority outsider ownership (free float ratio).

## V. METHODOLOGY

This section explains variables tested, sample and model development.

### **Test Variables**

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 1 if the company paid dividends and 0 otherwise. The second variable is the amount of dividend paid (dividend ratio), which is defined in terms of dividend yield (dividend per share / market price per share) (Redding, 1997).

The ownership structure is represented by two variables: majority government ownership and free float. Majority government ownership is a dummy variable, represented as 1 for companies with a majority government ownership and 0 for companies with a minority or no government ownership. Free float represents the per centage of shares held by outsiders other than the founders and/or the government.

### **Control Variables**

The control variables used are growth opportunities, size, profitability, leverage and industry type.

The growth opportunities are measured in terms of two variables that have been used in prior research (Chung and Charoenwong, 1991; Smith and Watts, 1992; Gaver and Gaver, 1993; Skinner, 1993; Gul, 1999). The variables are: market value to book value and earnings per share. According to the signalling argument, firms with growth opportunities have higher dividend policies in order to signal to the market that they have better earnings' prospects or growth opportunities. On the other hand, according to agency theory (Smith and Watts, 1992), firms with more growth opportunities are less likely to pay dividends because of the underinvestment and asset-substitution problem (Gul, 1999). It is argued that by distributing cash to shareholders by paying large dividends, firms reduce the agency costs associated with managers over-investing or investing in non-productive activities and through increased monitoring by capital markets (Easterbrook, 1984). Large dividend payments reduce funds available for perquisite consumption and investment opportunities and require managers to seek financing in capital markets. The efficient monitoring of capital markets reduces less than optimal investment activity.

Size is expected to be positively associated with dividend levels (Gaver and Gaver, 1993) based on the argument of Jensen and Meckling (1976) that large-sized companies have higher agency costs. Size is measured in terms of the log of market capitalisation (Ghosh and Woolridge, 1988; and Eddy and Seifert, 1988).

Profitability is measured by the return on equity ratio (Gul, 1999). Dividends are a function of current and past profit levels and expected future earnings (DeAngelo et al., 1996) and firms with higher profits are able to pay higher dividends and signal their growth opportunities (Miller and Rock, 1985; Ofer and Thakor, 1987; and Gul, 1999).

Leverage, is included as a control variable as it is suggested that firms with high leverage are likely to reduce the cost of external financing and lower their dividends (Rozeff, 1982). Empirical evidence on the relationship between dividend payout and the level of leverage showed a negative association between the two variables (Rozeff, 1982; Bajaj, 1990; Moh'd et al. 1995; Casey and Dickens, 2000).

Two dummy variables were introduced to control for two industry type classifications. The first is MANF1SER, where 1 represents manufacturing companies and 0 represents services. The second is NONF1FIN, where 1 represents non-financial companies and 0 represents financial companies. The systematic relation between industry type and dividend policy reported by Michel (1979) implies that managers are influenced by the actions of executives from competitive firms when determining dividend policies (Frankfurter and Lane, 1992).

**Model Development**

To provide empirical testing to the hypotheses addressed in the study, both pooled and cross-sectional OLS models were run over the period of 1998-2002 to tests the following two models:

$$\begin{aligned}
 DIVDECISION = & \alpha_0 + \beta_1 GOVOWNER + \beta_2 FREEFLOAT + \beta_3 MV / BV + \beta_4 EPS + \\
 & + \beta_5 LMARKETCAP + \beta_6 LEVERAGE + \beta_7 ROE + \beta_8 MANF1SER \\
 & + \beta_9 NONF1FIN + \mu \dots \dots \dots (1)
 \end{aligned}$$

$$\begin{aligned}
 DIVYIELD = & \alpha_0 + \beta_1 GOVOWNER + \beta_2 FREEFLOAT + \beta_3 MV / BV + \beta_4 EPS + \\
 & + \beta_5 LMARKETCAP + \beta_6 LEVERAGE + \beta_7 ROE + \beta_8 MANF1SER \\
 & + \beta_9 NONF1FIN + \mu \dots \dots \dots (2)
 \end{aligned}$$

where:

- DIVDECISION* = Dividend Decision
- DIVYIELD* = Dividend Yield
- MV/BV* = Market value-to-Book Value
- EPS* = Earnings per Share
- GOVOWNER* = Dummy variable (1 for majority government ownership & 0 for otherwise)
- FLOAT* = Per centage of shares held by outsiders other than founders or government.
- LMARKETCAP* = Natural Logarithm of Market Capitalisation
- LEVERAGE* = Financial Leverage
- ROE* = Return on Equity
- MANF/SER* = Dummy variable (1 for manufacturing & 0 for service firms)

*NONFIN* = Dummy variable (1 for non-financial & 0 for financial firms)

### Sample and Data Sources

The study covers the top 50 most active companies in the Egyptian stock Exchange (CASE 50) for the years 1998-2002. These companies accounted for almost 52 per cent of the value traded, 72 per cent of the volume traded and 86 per cent of the number of transactions for stocks, in the Egyptian Stock Exchange, in the first six months of 2003. The data for the five years is then pooled to obtain 250 observations for each variable (CASE, 2002).

**Table 1**  
**Descriptive Statistics of Continuous Variables**

|          | <i>Mean</i> | <i>Std. Deviation</i> | <i>Minimum</i> | <i>Maximum</i> |
|----------|-------------|-----------------------|----------------|----------------|
| DIVYIELD | 0.106       | 0.161                 | 0.000          | 1.390          |
| MV/BV    | 2.610       | 10.171                | -0.610         | 149.680        |
| EPS      | 5.561       | 8.960                 | -20.570        | 53.200         |
| FLOAT    | 0.327       | 0.160                 | 0.020          | 0.8700         |
| LEVERAGE | 0.020       | 0.024                 | -0.140         | 0.1300         |
| ROE      | 0.160       | 0.303                 | -3.300         | 1.400          |

DIVYIELD = Dividend Yield Ratio

MV/BV = Market value -to- Book Value

EPS = Earnings per Share

FLOAT = Per centage of shares held by outsiders other than founders or government.

LEVERAGE = Financial Leverage

ROE = Return on Equity

Table 1 presents a summary of descriptive statistics of the variables used in the analyses. It is interesting to note that the mean dividend yield ratio for CASE 50 firms is 11% with a maximum dividend yield ratio of 139% and a minimum of 0% and a standard deviation of 16%. From CASE 50 firms, 38% have a majority government ownership. The average free float (external ownership) is 33%, which reflects the transitional stage of the emerging market of Egypt. The majority of the firms are owned either by the founders or the government. Concerning the two classifications for industry, 62% of firms are manufacturing and 38% are services whilst 80% are non-financial and 20% are financial.

## VI. RESULTS AND DISCUSSION

The Pearson's correlation matrix (table 2) shows the expected relationship of all the independent variables with the dividend yield ratio. The correlation matrix also 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*. In addition, the collinearity diagnostic statistics (e.g., Tolerance and Variance Inflated Factor 'VIF' and Condition Index) 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



**Table 2**  
**Pearson Correlation Coefficients of All Variables**

|           | DIVDEICI | DIVYIELD | MV/BV  | EPS     | GOVOWNER | FLOAT  | LMARKTCAP | LEVERAGE | ROE    | MANFISER |
|-----------|----------|----------|--------|---------|----------|--------|-----------|----------|--------|----------|
| DIVYIELD  | 0.426**  |          |        |         |          |        |           |          |        |          |
| MV/BV     | 0.036    | -0.058   |        |         |          |        |           |          |        |          |
| EPS       | 0.234**  | -0.056   | 0.070  |         |          |        |           |          |        |          |
| GOVOWNER  | 0.138*   | 0.016    | -0.009 | 0.157*  |          |        |           |          |        |          |
| FLOAT     | 0.035    | -0.072   | -0.010 | -0.008  | -0.120*  |        |           |          |        |          |
| LMARKTCAP | 0.202*   | 0.023    | 0.118* | 0.109*  | 0.027    | 0.003  |           |          |        |          |
| LEVERAGE  | -0.063   | -0.415** | 0.010  | 0.140*  | 0.198*   | 0.012  | 0.069     |          |        |          |
| ROE       | 0.198*   | -0.224** | 0.048  | 0.392** | 0.210*   | 0.047  | 0.141*    | 0.554**  |        |          |
| MANF/SER  | 0.004    | 0.125*   | 0.063  | 0.131*  | 0.219**  | -0.075 | -0.156*   | -0.124*  | -0.070 |          |
| NONF/FIN  | -0.265** | -0.058   | 0.078  | 0.056   | 0.391**  | -0.082 | -0.168*   | 0.100    | -0.013 | 0.612**  |

\*, \*\* is significant at 5% and 10%, respectively.

DIVDECISION = Dividend Decision  
 DIVYIELD = Dividend Yield Ratio  
 MV/BV = Market value-to-Book Value  
 EPS = Earnings per Share  
 GOVOWNER = Dummy variable (1 for majority government ownership & 0 for otherwise)  
 FLOAT = Per centage of shares held by outsiders other than founders or government.  
 LMARKTCAP = Natural Logarithm of Market Capitalisation  
 LEVERAGE = Financial Leverage  
 ROE = Return on Equity  
 MANF/SER = Dummy variable (1 for manufacturing & 0 for service firms)  
 NONF/FIN = Dummy variable (1 for non-financial & 0 for financial firms)

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.

**Table 3**  
**Regression Results of Dividend Decision**

|                                 | <i>B</i> | <i>Std. Error</i> | <i>t</i>       | <i>Sig.</i> |
|---------------------------------|----------|-------------------|----------------|-------------|
| (Constant)                      | 0.699    | 0.282             | 2.478          | 0.014       |
| MV/BV                           | 0.002    | 0.003             | 0.685          | 0.494       |
| EPS                             | 0.006    | 0.003             | 1.702          | 0.090       |
| GOVOWNER                        | 0.309    | 0.064             | 4.809          | 0.000       |
| FLOAT                           | 0.264    | 0.231             | 1.141          | 0.255       |
| LMARKTCAP                       | 0.012    | 0.011             | 1.113          | 0.267       |
| LEVERAGE                        | -5.369   | 1.508             | -3.561         | 0.000       |
| ROE                             | 0.291    | 0.116             | 2.504          | 0.013       |
| MANF/SER                        | 0.224    | 0.072             | 3.099          | 0.002       |
| NONF/FIN                        | -0.642   | 0.199             | -3.227         | 0.001       |
| Dependent Variable: DIVDECISION |          |                   |                |             |
| Adj R <sup>2</sup> = .241       |          | F = 7.475         | PROB>F = 0.000 |             |

|             |   |  |
|-------------|---|--|
| DIVDECISION | = | Dividend Decision  |
| MV/BV       | = | Market value -to- Book Value   |
| EPS         | = | Earnings per Share   |
| GOVOWNER    | = | Dummy variable (1 for majority government ownership & 0 for otherwise)     |
| FLOAT       | = | Per centage of shares held by outsiders other than founders or government. |
| LMARKETCAP  | = | Natural Logarithm of Market Capitalisation                                 |
| LEVERAGE    | = | Financial Leverage   |
| ROE         | = | Return on Equity   |
| MANF/SER    | = | Dummy variable (1 for manufacturing & 0 for service firms)                 |
| NONF/FIN    | = | Dummy variable (1 for non-financial & 0 for financial firms)               |

Table 3 presents the analysis of the dividend payout decision. The overall  $F_{score} = 7.475$  and the adjusted  $R^2 = 0.241$  for the dividend decision pooled regression model, which is significant at 1% level ( $p < 0.000$ ). The results show that dividend is significantly associated with majority government ownership, Return on Equity, leverage and industry (MANF1SER & NONF1FIN). Manufacturing and non financial companies that have majority government ownership, higher return on equity, and a lower leverage ratio, are more likely to pay dividends. Most variables are significant at 1% level. Signalling theory seems to be playing an important role in affecting companies' decisions to pay dividends. However, it is suggested that the level of dividends is the important factor, not the simple decision of whether to pay dividends at all (Redding, 1997). The analysis of dividend payout ratios is presented in table 4.

The overall  $F_{score} = 8.209$  and the adjusted  $R^2 = 0.261$  for the dividend yield ratio pooled regression model, which is significant at 1% level ( $p < 0.000$ ). Majority government ownership, leverage and industry (MANF1SER) were significant at different levels. The coefficient of government ownership is positive, which supports the signalling theory argument. Companies with majority government ownership are expected to issue more shares for public subscription as part of the planned privatization programme. These companies are signalling their quality through higher dividends. Another explanation is that these companies are trying to restore investors' confidence in the capital market after 30 years of a socialist era.

Agency theory arguments were also supported through the significant negative association between leverage and dividend policy. However, various measures of growth opportunities (MV/BV and EPS) and size were not significantly associated with the dividend yield ratio.

**Table 4**  
**Regression Results of Dividend Yield Ratios**

|            | <i>B</i> | <i>Std. Error</i> | <i>t</i> | <i>Sig.</i> |
|------------|----------|-------------------|----------|-------------|
| (Constant) | 0.190    | 0.087             | 2.176    | 0.031       |
| MV/BV      | -0.001   | 0.001             | -0.677   | 0.499       |
| EPS        | -0.001   | 0.001             | -0.697   | 0.486       |
| GOVOWNER   | 0.049    | 0.020             | 2.457    | 0.015       |
| FLOAT      | -0.111   | 0.072             | -1.544   | 0.124       |
| LMARKETCAP | -0.003   | 0.003             | -0.821   | 0.413       |
| LEVERAGE   | -2.585   | 0.468             | -5.527   | 0.000       |
| ROE        | -0.026   | 0.036             | -0.716   | 0.475       |
| MANF/SER   | 0.060    | 0.022             | 2.691    | 0.008       |
| NONF/FIN   | -0.003   | 0.062             | -0.048   | 0.962       |

Dependent Variable: DIVYIELD

$R^2_{Adj} = .261$        $F = 8.209$        $PROB > F = 0.000$

- DIVYIELD = Dividend Yield Ratio
- MV/BV = Market value -to- Book Value
- EPS = Earnings per Share
- GOVOWNER = Dummy variable (1 for majority government ownership & 0 for otherwise)
- FLOAT = Per centage of shares held by outsiders other than founders or government.
- LMARKETCAP = Natural Logarithm of Market Capitalisation
- LEVERAGE = Financial Leverage
- ROE = Return on Equity
- MANF/SER = Dummy variable (1 for manufacturing & 0 for service firms)
- NONF/FIN = Dummy variable (1 for non-financial & 0 for financial firms)

## VII CONCLUSION

This research explored the applicability of established dividend theories on an emerging capital market in a country in transition. Strong support was found for the signalling theory, through the significant association between dividend and majority government ownership. Companies with majority government ownership and hence lower free float ratio are expected to issue more shares for public subscription as part of the planned privatization programme. These companies are signalling their quality through higher dividends. Partial support was obtained for agency theory, from the significant negative association between dividend and leverage, while no association was found between the dividend yield ratio and growth opportunities or size.

In the emerging market of Egypt, it was found that, despite the majority of government ownership and the closely held nature of the firms, which implies lower agency costs, the payment of a higher dividend was considered necessary to attract capital in this transitional period.

This study is subject to a number of limitations. First, majority government ownership was represented as a dummy variable, due to non-availability of data on the exact per centage of

government ownership. However, the free float measure which represents the per centage of free float (per centage owned by outsiders other than founders and government) was used, although less significant. Second, there is no guarantee that the two measures used in this study adequately capture the corporate growth opportunities. However, the measures were used in a number of previous studies (Chung and Charoenwong, 1991; Smith and Watts, 1992; Gaver and Gaver, 1993; Skinner, 1993; Gul, 1999).

However, this research is important to security analysts, portfolio investors, and regulatory bodies, and it is recommended that further research be conducted considering a longer sample period and more emerging markets.

### *References*

- Adaoglu, C. (2002), Instability in the Dividend Policy of the Istanbul Stock Exchange ISE corporations: Evidence from an Emerging Market, *Emerging Markets Review*, 1, 252-270.
- Aivazian, V.A., Ge, Y., and Qiu, J. (2005), The Impact of Leverage on Firm Investment: Canadian Evidence, *Journal of Corporate Finance*, Vol. 11, pp. 277-191.
- Bajaj, M. and Vijh, A.M. (1990), Dividend Clienteles and Information Content of Dividend Changes, *Journal of Financial Economics*, Vol. 26, pp. 193-219.
- Bhattacharya, S. (1979), Imperfect Information, Dividend Policy, and 'the Bird in the Hand' Fallacy, *Bell Journal of Economics*, Vol. 10, pp. 259-270.
- Bryman, A. and Cramer, D. (1997), *Quantitative Data Analysis with SPSS for Window*, London: Routledge.
- Cairo and Alexandria Stock Exchange (CASE), (2002), *CASE 50 Directory*.
- Cairo and Alexandria Stock Exchange (CASE), (2003), *Factbook 2003*.
- Casey, K. M. and Dickens, R.N. (2000), The Effects of Tax and Regulatory changes on Commercial Bank Dividend Policy, *Quarterly Review of Economics and Finance*, Vol. 40, pp. 279-93.
- Chung, K. and Charoenwong, C. (1991), Investment Options, Assets in Place, and the Risk of Stocks, *Financial Management*, Vol. 20, pp. 21-33.
- DeAngelo, H., DeAngelo, L. and Skinner, D.J. (1996), Reversal of Fortune: Dividend Policy and the Disappearance of Sustained Earnings Growth, *Journal of Financial Economics*, Vol. 40, pp. 341-371.
- Easterbrook, F. (1984), Two Agency Cost Explanations of Dividends, *American Economic Review*, Vol. 74, pp. 650-659.
- Eddy, A. and Seifert, B. (1988), Firm Size and Dividend Announcements, *Journal of Financial Research*, Vol. 11, pp. 295-302.
- Frankfurter, G.M. and Lane, W. R. (1992), The Rationality of Dividends, *International Review of Financial Analysis*, Vol. 1, pp. 115-129.
- Frankfurter, G.M. and Wood Jr., B.G. (2002), Dividend Policy Theories and their Empirical Tests, *International Review of Financial Analysis*, Vol. 11, pp. 111-138.
- Gaver, J.J. and Gaver, K.M. (1993), Additional Evidence on the Association between the Investment Opportunity set and Corporate Financing, Dividend and Compensation Policies, *Journal of Accounting and Economics*, Vol. 16, pp. 125-160.

- Glen, J.D. *et al.* (1995), Dividend Policy and Behavior in Emerging Markets: To Pay or Not to Pay, *IFC Discussion Paper No: 26*.
- Ghosh, C. and Woolridge, J. (1988), An Analysis of Shareholder Reaction to Dividend Cuts and Omissions, *Journal of Financial Research*, Vol. 11, pp. 281-294.
- Klaus Gugler, B. B. Y. (2003), Corporate Governance and Dividend Pay-out Policy in Germany, *European Economic Review*, Vol. 47, pp. 731-758.
- Gul, F.A. (1999), Government Share Ownership, Investment Opportunity Set and Corporate Policy Choices in China, *Pacific-Basin Finance Journal*, Vol. 7, pp. 157-172.
- Jensen, M. and Meckling, W. (1976), Theory of Firm: Managerial Behaviour, Agency Costs, and Capital Structure, *Journal of Financial Economics*, Vol. 3, pp. 305-360.
- Jensen, M.C. (1986), The Agency Cost of Free Cash Flow, Corporate Finance and Takeover, *American Economic Review*, Vol. 76, pp. 323-329.
- Jensen, G. R., Solberg, D. P., and Zorn, T.S. (1992), Simultaneous Determination of Insider Ownership, Debt and Dividend Policies, *Journal of Financial and Quantitative Analysis*, Vol. 27, pp. 247-263.
- John, K. and Williams, J. (1985), Dividends, Dilution, and Taxes: A Signalling Equilibrium, *Journal of Finance*, Vol. 40, pp. 1053-1070.
- La Porta, R. *et al.* (2000), Agency Problems and Dividend Policies Around the World, *Journal of Finance*, Vol. 56, pp. 1-33.
- Michel, A. (1979), Industry Influence on Dividend Policy, *Financial Management*, Vol. 8, pp. 22-26.
- Miller, M.H. and Modigliani, F. (1961), Dividend Policy, Growth, and the Valuation of Shares, *Journal of Business*, Vol. 34, pp. 411-433.
- Miller, M.H., and Rock, K. (1985), Dividend Policy and Asymmetric Information, *Journal of Finance*, Vol. 40, pp. 1031-1041.
- Moh'd, M. *et al.* (1995), An Investigation of the Dynamic Relationship between Agency theory and Dividend Policy, *The Financial Review*, Vol. 30, pp. 367-385.
- Myers, S.C. (1977), Determinants of Corporate Borrowing, *Journal of Finance*, Vol. 40, pp. 1031-1051.
- Ofer, A.R. and Thakor, A.V. (1987), A Theory of Stock Price Responses to Alternative Cash Disbursements Methods: Stock Repurchases and Dividends, *Journal of Finance*, Vol. 42, pp. 364-394.
- Oxford Business Group (OBG) & American Chamber of Commerce (ACCE), (2003), *Emerging Egypt 2003*.
- Redding, L.S. (1997), Firm Size and Dividend Payouts, *Journal of Financial Intermediation*, Vol. 6, pp. 224-248.
- Rozeff, M.S. (1982), Growth, Beta and Agency Costs as Determinants of Dividend Payout ratios, *Journal of Financial Research*, Vol. 5, pp. 249-259.
- Shleifer, A. and Vishny, R. (1986), Large Shareholders and Corporate Control, *Journal of Political Economy*, Vol. 94, pp. 461-488.
- Short, H., Zhang, H. and Keasy, K. (2002), The Link between Dividend Policy and Institutional Ownership, *Journal of Corporate Finance*, Vol. 8, pp. 105-122.
- Skinner, D.J. (1993), Asset Structure, Financing Policy, and Accounting Choice: Preliminary Evidence, *Journal of Accounting and Economics*, Vol. 16, pp. 407-445.
- Smith, C. W. Jr. and Watts, R. (1992), The Investment Opportunity Set and Corporate Financing, Dividend, and Compensation, *Journal of Financial Economics*, Vol. 32, pp. 263-292.
- Watts, R. (1973), The Information Content of Dividends, *Journal of Business*, Vol. 46, pp. 191-211.