

## EXECUTIVE BOARD MEMBERS' REMUNERATION: A LONGITUDINAL STUDY

*Themistokles Lazarides\**, *Evaggelos Drimpetas\*\**, *Koufopoulos Dimitrios\*\*\**

### Abstract

Remuneration is considered to be closely connected with financial performance (positively), firm size (positively), the organizational structure (negatively) and corporate governance mechanisms (negatively). Furthermore, a connection of ownership structure and executives' remuneration has been well established (theoretically and empirically) in the literature (agency theory). The paper examines if these relationships are valid in Greece. Greece hasn't the characteristics of an Anglo-Saxon country. Overall the study has shown that remuneration levels in Greece are defined by a different set of factors than the ones that are prominent in an Anglo-Saxon country. Notably, fundamental financial measures of performance are more widely used. The age of firms and corporate governance quality have a catalytic impact on remuneration levels.

**Keywords:** board members, remuneration, corporate governance

*\*Department of Applied Informatics in Administration and Economy,, Technological Institute of West Macedonia, Grevena, Greece, themis@themis.gr, tlazarides@teiko.gr*

*Grevena, 51100, Greece, Tel.: +302462087691, Fax: +302462087692, tlazarides@teiko.gr, themis@themis.gr*

*\*\*International Economic Relations and Development, Democritus University of Thrace, Komotini, Greece, e.drimpetas@helix.com.gr*

*\*\*\* Brunel University, Dimitrios.Koufopoulos@brunel.ac.uk*

### Introduction

Remuneration levels of executive directors and managers is the corner stone for the alignment of interests between executives and shareholders (Grossman, and Hart, 1982), the verification of the value of managers (Petra, 2005), managers' and directors' contribution to financial performance (Letza and Kirkbride et al., 2008; Conyon et al., 1995; Gregg et al., 1993; Hassan, Christopher, Evans, 2003) and the overall value of the firm (Habib and Ljungqvist, 2005; Stulz, 1990). Remuneration – compensation is the incentive for better managers' performance and better financial performance (Jensen, 1986). Some researchers (i.e. Petra, 2005) argue that it is necessary to enforce managers in order to enforce productivity. Remuneration control is exerted by the Annual Shareholders Meeting, the Board of Directors or by any committee that has been introduced to control and evaluate executive managers and their performance. The efficiency of these mechanisms has been the focal point of many studies (Petra, 2005; Conyon and Peck, 1998).

Remuneration has been seen by the agency theorists as a (partial) remedy of the agency problem (Bebchuk and Fried, 2003). The Board of Directors (BoD) is responsible for providing a remuneration scheme that will direct executive managers to align their interests with the shareholders' interests (Minow and Bingham, 1995; Muth and Donaldson, 1998). A characteristic of the BoD in Anglo-Saxon countries is

that directors typically have only nominal equity interests in the firm (Baker, Jensen, and Murphy, 1988; Core, Holthausen, and Larcker, 1999).

Some research findings (Bebchuk and Fried, 2004, p. 2) showed that managerial power has dominated the process of negotiation for remuneration levels. BoD is responsible for determining these levels and the schemes of remuneration. "In light of the historically weak link between non-equity compensation and managerial performance, shareholders and regulators wishing to make pay more sensitive to performance have increasingly looked to, and encouraged, equity-based compensation—that is, compensation based on the value of the company's stock" (Bebchuk and Fried, 2004, p. 7).

The theory that executives and directors should be motivated to align their interests with the shareholders' interests, has led to a quintuple (Cassidy, 2002) of executive remunerations in a decade (1991-2001) and the disclosure of frauds. On the other hand executives are willing to invest free cash flows ineffectively, to retain the capital assets within the firm, rather than to distribute them to shareholders (Hellwig, 1998). The basic motive for the executives is the dominance in corporate power game. Dominance guarantees high remuneration and entrenchment.

Agency theory addresses the issues that arise from organizational structure of firms that follow the Anglo-Saxon firm characteristics. There are major

differences, relevant to remuneration, between the Anglo-Saxon system and the one in the Continental Europe (Weimer and Pape, 1999) are: a) markets for corporate control, capital and labor market for directors are more active and effective (although there is a growing discussion about how efficient they are). Furthermore, executive managers may entrench themselves in their positions, making it difficult to oust them when they perform poorly (Shleifer and Vishny, 1989), b) As Shleifer and Vishny (1997) argue in Anglo-Saxon countries, capital providers need specialized human capital and executives need capital providers, because they do not have enough capital themselves. On the contrary, in Continental Europe countries executive directors are capital providers and in many cases, members of the dominant group of stakeholders and c) The presence of a large shareholder is likely to result in closer monitoring and reduce of executive directors' power to impose the pursuit of their interests (Shleifer and Vishny, 1986).

In Continental Europe countries the fact that major shareholders are members of the BoD, CEOs and Presidents of the BoD, reduces the possibility of monitoring and transparency. These members have triple attributes or roles (major shareholder - part of the dominant group, member of the BoD and CEO – President of the BoD). Greece is a typical Continental Europe system's country.

### **Corporate Governance status in Greece**

Greek firms are mainly family or controlled by a group of stockholders (Mavridis, 2002). Free float is relatively small in percentage (20-50%) and the ability to achieve control through the capital market is limited. The members of the family or the controlling group are actively involved in management and normally, there is no distinction between management and ownership. The Board of Directors can be characterized as one tier. Managers that are not members of the family or the controlling group are closely connected with these groups and their decisions are subject to their control and monitoring. Institutional investors, although the catalyst for the adoption of CG mechanisms, have not actively been involved in management or in controlling and monitoring the decisions and actions of the controlling group.

Greece's legal framework constitutes a mixture of German and French law. According to La Porta, et al. (1998), countries with English Law (common law) tradition have the strongest legal protection for minority investors while French law provides the weakest protection. Countries with German law fall in the middle in terms of protection for shareholders. Anti-director rights measure how strongly the legal system favors minority shareholders against managers and dominant shareholders. La Porta, et al. (1998) believe that a strong legal enforcement system could substitute for weak rules since an effective judiciary

can step in and save minority shareholders from exploitation by the management. So, eventually, Greece has these characteristics as well.

Mertzanis (2001) (before the new law for the CG in Greece was enacted) noted: "the prevailing framework of corporate governance in Greece is not simply considerably outdated, but may cause potential problems, due to inadequate transparency and accountability, regarding the provision of cost-efficient finance that is required to increase investment and raise national competitiveness". So the Hellenic Capital Market Committee (2000) and the Committee on Corporate Governance<sup>28</sup> have made 44 basic recommendations (compiled in seven main categories: rights and obligations of shareholders; the equitable treatment of shareholders; the role of stakeholders in corporate governance; transparency, disclosure of information and auditing; the board of directors; the non-executive members of the board of directors; Executive management. They have also proposed the adoption of IAS (now IFRS)). Only a small number of these recommendations have been adopted and introduced.

Spanos (2005) notes that "the majority of medium and small capitalization (family-owned) companies have adopted the minimum mandatory requirements and lack further efficient CG mechanisms. As long as the competition for capital is increasing, listed companies have to realize that proper CG is a prerequisite in order to attract international capital. Moreover, corporate governance may meet one of the most significant challenges that family-run businesses face: management succession". The need for CG mechanisms is identified by all market participants as a substitute for trust (as a bonding and problem solving element) among the major stockholders or family members, but they cannot agree on what the mechanisms/processes will be. Also, there are strong resistive forces mainly by the major stockholders/family members who are not willing to pass power and information to "non-trust worthy" stockholders or professional executive managers. As a result the governing/administrative bodies do not function according to statutes or laws and the process that they provide, but according to the common will of the family members. Furthermore, an effective market for corporate control does not exist.

The board is mostly acting as a passive body in the company where it follows the decisions of the management. Non-executive board members, rather than act as shareholders' agents, do not efficiently supervise the management (Schulze et al., 2003). This is the case in the majority of (family) public companies in Greece, where significant costs result from bias in favouring family interests over the firm's interests (such as non-family shareholders), because of loyalty toward the family (Schulze et al., 2003). Even though the rules mandate specific requirements regarding board independence, it's difficult in practice to identify whether the board meets these rules (Spanos (2005). In countries with concentrated

ownership structure (continental Europe, Japan and other OECD countries), large dominant shareholders usually control managers and expropriate minority shareholders, in order to extract private control benefits. The question is therefore posed as how to align the interests of strong block-holders and weak minority shareholders (Spanos, 2005, p. 16; Becht, 1997).

On the other hand, investors usually use their exit options if they disagree with the management or if they are disappointed by the company's performance, signaling – through share price reduction – the necessity for managers to improve firm performance (Spanos, 2005, p. 16; Hirschman, 1970). The lack of market liquidity creates problems in the effectiveness of the shareholders exit option and governing problems (since the main governing body is the general shareholders meeting, but participation is not an easy task). The cost of involvement with management and control for the minor stockholder is greater than the cost of exit and so they may easily choose to sell their stock (“they vote with their feet”) if they are not content with the managements' choices. The shareholders encirclement does not necessarily mean participation in the company administration. Moreover, family firms disclose less narrative information than non-family corporates, where family-firms may disclose more information than non-family corporates in some selected areas of interest, such as data information about share price policy and number of diagrams used in the interim report (Mavridis, 2002). In countries where business has traditionally been based on relationship and trust, corporate information is thought of as secret; and it is accepted practice to keep different sets of books, e.g. one for taxes, one for outside investors, and one for the majority shareholder (Fremond and Capaul, 2002, p. 18). There is a vicious circle whereby managers consider secrecy as imperative so that shareholders do not vote with their feet and through it they can cover up their lack of efficiency or impotence; minority shareholders (major shareholders already have the information because they are members of the BoD, management or the relevant cost for them is not too high) do not actively demand information because the cost of acquiring and processing it is too high for them.

The proposition of the study is that the agency theory is not valid in a Continental Europe's system country. Remuneration is considered to be closely connected with financial performance (positively), firm size (positively), the organizational structure (negatively) and corporate governance mechanisms (negatively). Furthermore, a connection of ownership structure and executives' remuneration has been well established (theoretically and empirically) in the literature (agency theory). The paper sets out the methodological approach adopted for this study by discussing the sample frame and the measurement issues of the various constructs of the study. Then the analysis of the data is presented through descriptive

and regression analysis. Finally conclusions are drawn.

## Methods

### Sample

The study's time horizon is from 2001 to 2006. Sixty firms, that are ranked in the two major stock indexes (FTSE-20 and FTSE-40) of the Greek Capital market and they are considered to be the biggest firms in terms of capitalization and with the highest free float, are used. Their annual reports are the basic source for the data collection. The data was supplemented by information collected by the corporate web sites. Total sample size is 303 observations. Although remuneration disclosure is mandatory, from the 303 available annual reports only 109 contain information about the executive board members. This is a strong indication of the trend to conceal “sensitive” information. As Bebchuk and Fried (2003) argue that executives have an incentive to “camouflage” their remunerations, in order to minimize the “outrage” of outsiders. In this case it's the major shareholders that conceal information.

### Measurements

A panel data study is the most appropriate method to determine the factors that formulate the executive's director remuneration level. There are a number of methodologies that can be used in a panel study. If the Fixed Effects (FE) models are proved to be statistically better, then firms have an identifiable and steady trend and do not differ one from the other, but only at the intercept level. On the contrary, if Random Effect (RE) models are proved to be statistically better, then there is a more dynamic situation, where groups (stratum) and time affect firm's behavior, and this behavior is statistically different among the firms of the sample. In RE models the estimators and the intercept are considered to be equal within the stratum and time. An advantage of the RE model is that if they are statistically better, then the hypothesis that the sample is representative to a greater population, has merit.

Finally, for the study of time effect the Two Way (TW) model is used. Hence the paper used three types of models. Four (4) variables are used to stratify the sample:

- Binary variable of law (LAW). The variable takes the value of 1 if the year is greater or equal to 2003 and the value 2 if it is smaller. It is used to detect the effect of the law on remuneration levels and financial performance
- Binary variable of Index (INDEX). The variable takes the value of 1 if the firm is ranked at the FTSE-20 index and the value 2 if it is ranked at the FTSE-40. It is used to detect the effect of firm's size and ownership diffusion on remuneration levels.
- Binary variable of activity sector (FIN). The variable takes the value of 1 if the firm's activity is financial and the value 2 if it is not. The third variable

is used to detect the effect of activity sector on the remuneration levels.

- Binary variables OWN\_B (the sum of the percentages of equity capital of the five biggest shareholders) and HERF\_B (the square of the sum of the percentages of equity capital of the five biggest shareholders). These variables have been calculated. If the value of the observation is smaller than the

median the variable takes the value 1 and if it is greater the value 2. This variable is used to detect the effect of ownership diffusion to remuneration.

Every stratifying variable splits the sample into two strata. Finally, the variable YEAR is used to detect the effect of time. The independent variables that are used in the study are presented below.

**Table 1. Variables**

Variable	Type	Description
Panel (stratifying) variables		
Index	Binary	Participation in FTSE-20 (1) or in FTSE-40 (2)
Law	Binary	Prior to 2003 (1), after 2003 (2)
Financial	Binary	Financial firm (1), Non financial firm (2)
Own_G	Binary	< median of Own (1), > median of Own (2)
Herf_G	Binary	< median of Herf (1), > median of Herf (2)
Year	Number	Year
Independent Variables		
Ownership variables		
Own	Percentage	Sum of ownership percentages of the biggest five shareholders
Herf	Percentage	Square of the sum of ownership percentages of the biggest five shareholders
Performance variables		
ROA	Continuous	Return on Assets
TQ	Continuous	Tobin's Q
Other independent variables		
CG	Ordinal	Quality of CG
MERGER	Binary	M-A (1), no M-A (0)
INVP	Continuous	Investments as a percentage of assets
DE	Continuous	Debt Ratio (Debt / Equity)
Main independent variables		
OWNCEO	Binary	Main shareholder is the CEO (1), No (0)
CEOCHAIR	Binary	CEO is the President of the Board of Directors – duality of roles (1), No (2)
AUDITC	Binary	An Audit Committee exists (1), No (2)
BOD	Ordinal	Number of members in the Board of Directors
BEXEC	Ordinal	Number of executive Board members
BPS	Ordinal	Number of firms that the Board members participate as Members of their Board of Directors
BDIS_P	Ποσοστό	Secessions – Resigns of board members to the total number of board members
BDISI_P	Ποσοστό	Secessions – Resigns of board independent members to the total number of board members
Control variables		
TA	Continuous	Total assets
SMCAP	Continuous	Stock market capitalization
EMPL	Continuous	Number of employers
OC_S	Continuous	Own Capital to Sales
OC_S2	Continuous	Square of Own Capital to Sales
YEARF	Continuous	Foundation year

**Model construction**

What has been recorded in the study is the cash – salary payments made to the executive directors. No other way of remuneration (e.g. stock options) could be tracked through annual reports. This may result to the omission of some of the remuneration

mechanisms. The omission of these mechanisms, although is important in the Anglo-Saxon countries, in countries like Greece these mechanisms are not widely used. In Greece the majority of executive directors are major shareholders.

The model is:

$$E\_REM_{it} = \alpha + \beta_1ROA_{it} + \beta_2TQ_{it} + \beta_3CG_{it} + \beta_4M\text{ERGER}_{it} + \beta_5DE_{it} + \beta_6HERF_{it} + \beta_7OWN\text{CEO}_{it} + \beta_8BOD_{it} + \beta_9BEXEC_{it} + \beta_{10}BPS_{it} + \beta_{11}BDIS\_P_{it} + \beta_{12}BDISI\_P_{it} + \beta_{13}PROSPAG_{it} + \beta_{14}TA_{it} + \beta_{15}EMPL_{it} + \beta_{16}SMCAP_{it} + \beta_{17}OC\_S_{it} + \beta_{18}OC\_S2_{it} + \beta_{19}YEARF_{it} + u_{it} \quad (1)$$

Where:  $i = 1 \dots N, t = 1 \dots T$

Remuneration should be positively related with the variables of financial performance (ROA, TQ). Agency theory argues that, in order for the interests of executives and shareholders to align, executives

should be paid according to their performance. Hence, the sign should positive.

On the contrary the variables of CG quality index (for the construction of the index see Lazarides and

Drimpetas, 2008) and the binary value of mergers and acquisitions are negatively related with remuneration levels. Monitoring, control and market for corporate control reduce the possibility of managers to impose the remuneration level that they wish. BoD's size (BOD, number of members) is a measure for the determination of the monitoring efficiency. On the contrary, high numbers of executive members (BEXEC) of the BoD and secessions – resigns of board members (BDIS\_P), to the total number of board members may lead to higher remuneration levels.

Firms depended heavily on debt to finance their operations, present high uncertainty and risk for future returns. This, in turn should lead to reduced remunerations. Firm size (EMPL, TA) is positively related with the remuneration levels. Bigger firms have the capacity to pay more

Concentrated ownership (variables OWN and HERF) is a remedy for the reliance on the skills and knowledge that the professional executives possess. The lack of reliance minimizes the bargaining power of managers and therefore the relation is negative. The same conclusions can be drawn for the variance OWNCEO (the biggest shareholder is the CEO).

Investments (INVP) are positively related with remuneration levels, if the assumption that investment can lead to better short-term financial results. Otherwise, the relation is negative. Younger firms tend to present higher risks and hence firms are reluctant to have relatively high remuneration levels.

Firm age (YEARF) is a critical component in remuneration. As the firm grows old it loses the initial family characteristics due to diffusion of shares

(through IPO's, capital increases and succession) and so as firm's grow older there is a higher reliance on professional managers, rather than dominant stakeholders. Firms that were founded in the last twenty five years have 61% ownership concentration percentage (OWN), when in older firms ownership concentration is 53%. Younger firms present higher risk factor and the firm is reluctant to have large remuneration levels. Younger firms (<25 years) pay on average half (0,66 million) the amount the older firms pay (1,24 million). Executive members in Greek firms are also major shareholders and their tenure is long. Long tenures counterbalance the expectation for higher remuneration.

### Findings

Statistical results Remuneration descriptive statistics are shown in Table 1. The sample was divided in two main categories. The first one is the observations of the firms that are ranked in the FTSE-20 index (the biggest 20 firms in terms of capitalization) of the Athens Stock Exchange and the second is the observations of the firms that are ranked in the FTSE-40 index (the next 40 firms in terms of capitalization).

Two ratios were calculated to relate remuneration with fundamental firm size variables: E\_REM\_EQ is the ratio of remuneration and equity and E\_REM\_SM is the ratio of remuneration and stock market value. Table 1 shows that remuneration levels are different from one index to the other (FTSE-20 mean is 2,04, instead the mean for FTSE-40 is 0,68). FTSE-40 remuneration level presents smaller standard deviation from the FTSE-20 observations.

**Table 2.** Executives Directors Remuneration by Index (2001-2006)

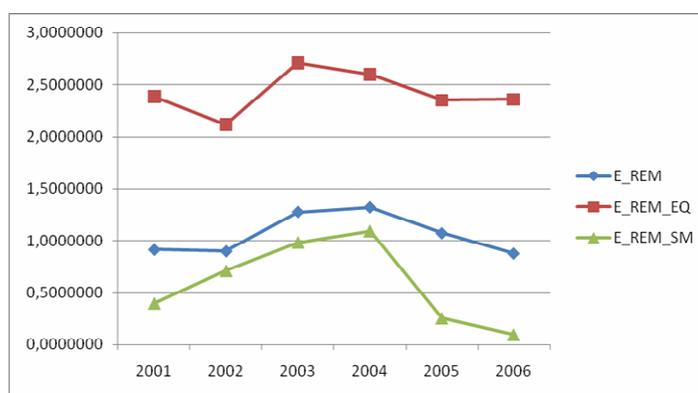
	Mean	Standard Deviation	Min	Max
FTSE – 20: Observations 32				
E_REM	2.04078	1.92586	.257000	8.15700
E_REM_EQ	.198524E-01	.206993E-01	.588672E-03	.724860E-01
E_REM_SM	.133671E-02	.130430E-02	.158162E-03	.696350E-02
FTSE – 40: Observations 77				
E_REM	.680747	.478294	.830000E-01	2.33200
E_REM_EQ	.261985E-01	.218827E-01	.146686E-02	.946160E-01
E_REM_SM	.890263E-02	.269559E-01	.000000	.177612
Total Sample: Observations 109				
E_REM	1.08002	1.26994	.830000E-01	8.15700
E_REM_EQ	243354E-01	.216422E-01	.588672E-03	.946160E-01
E_REM_SM	.668144E-02	.228866E-01	.000000	.177612

Remuneration variance through time presents a peculiar behavior (see Table 2). While in 2002 remuneration levels are reduced in absolute terms, this is not the case for the remuneration ratios. This may be caused by the lack of relation between remuneration and share price premiums. In 2003-2004

stock market prices fell, while the remuneration levels increased. When stock market prices increased (2004-2006), remunerations decreased. Many firms have adopted complex incentive schemes with the use of stock options.

**Table 3.** Executives Directors Remuneration by Year (2001-2006)

	Mean	Standard Deviation	Min	Max
2001: Observations 20				
E_REM	.910525	1.10713	.830000E-01	5.02100
E_REM_EQ	.238433E-01	.160083E-01	.128053E-02	.613824E-01
E_REM_SM	.394517E-02	.810327E-02	.158162E-03	.368509E-01
2002: Observations 21				
E_REM	.896310	1.11897	.127000	5.40200
E_REM_EQ	.211610E-01	.154454E-01	.209451E-02	.514464E-01
E_REM_SM	.707724E-02	.163597E-01	.312346E-03	.769415E-01
2003: Observations 20				
E_REM	1.27491	1.66174	.145000	7.71000
E_REM_EQ	.271230E-01	.220311E-01	.159222E-02	.885706E-01
E_REM_SM	.980991E-02	.317564E-01	.411541E-03	.144361
2004: Observations 24				
E_REM	1.31988	1.61353	.177000	8.15700
E_REM_EQ	.259800E-01	.262013E-01	.972797E-03	.946160E-01
E_REM_SM	.109078E-01	.357221E-01	.290133E-03	.177612
2005: Observations 13				
E_REM	1.06934	.675756	.190000	2.47600
E_REM_EQ	.235146E-01	.223470E-01	.104863E-02	.577701E-01
E_REM_SM	.250801E-02	.266340E-02	.000000	.781936E-02
2006: Observations 11				
E_REM	.873900	.642492	.190000	2.40900
E_REM_EQ	.236038E-01	.308050E-01	.588672E-03	.729348E-01
E_REM_SM	.923911E-03	.744573E-03	.000000	.221930E-02



**Graph 1.** Executives Directors Remuneration by Year (2001-2006)

Disclosure levels are higher in the Non Financial sector (see Table 3). Non Financial firms seem to disclose more information than the financial firms.

**Table 4.** Disclose frequency of remuneration in relation with the activity sector

	Non Financial	Financial	Total
Disclosed remuneration	96 (37,1%)	13 (29,5%)	109 (36%)
Non Disclosed remuneration	163 (62,9%)	31 (70,5%)	194 (64%)
Total	259 (100%)	44 (100%)	303 (100%)

As Table 4 depicts firms with higher ownership concentration, better corporate governance level (Lazarides and Drimpetas, 2008) and better Tobin's Q, seem to disclose more information.

**Table 5.** Disclose frequency of remuneration in relation with other variables (2001-2006)

Disclose	2001	2002	2003	2004	2005	2006	Total
Ownership concentration (OWN) – Mean							
No	0,53	0,53	0,53	0,48	0,48	0,47	0,50
Yes	0,59	0,60	0,54	0,55	0,61	0,52	0,57
Total	0,55	0,56	0,53	0,51	0,51	0,48	0,52

Table 5 continued

Corporate Governance Index (CGC) – Mean							
No	2,16	2,11	2,28	2,93	3,00	3,03	2,64
Yes	3,35	3,76	4,40	4,13	3,92	4,42	3,97
Total	2,69	2,83	3,10	3,47	3,22	3,35	3,13
Return on Assets (ROA) – Mean							
No	0,08	0,06	2,87	2,32	0,07	0,09	0,88
Yes	0,10	0,07	0,08	0,08	0,07	0,10	0,08
Total	0,08	0,06	1,80	1,31	0,07	0,10	0,59
Tobin's Q (TQ) – Mean							
No	2,39	1,23	1,26	1,22	1,69	1,82	1,60
Yes	1,87	1,52	3,62	1,54	1,52	1,98	2,02
Total	2,16	1,36	2,17	1,37	1,65	1,86	1,75

The LM statistics, in all cases, is small (see Table 6). This indicates that the classical OLS model may be better suited for the analysis of the constructed models (Greene, 2000). The models with stratifying variables seem to have little significant statistical importance. The H statistic indicates that Random Effects models are preferable to Fixed Effects. Due to the fact that the stratifying variables LAW, OWN\_G present a higher LM statistic, a decision to further analyze these models using a smaller set of independent variables (the ones with statistical significance). The coefficient of determination ( $R^2$ )

and the Adjusted  $R^2$  (see Table 7) is in all case satisfactory ( $> 0,34$ ).

The use of White's method to correct the heteroscedasticity problem (statistic LM  $X^2$  for the B-P-G has the value 510,91 (14 degrees of freedom) (possibility of homoscedasticity: 0,00). Heteroscedasticity is common in panel studies. There is no autocorrelation problem ( $d=1,9795$  and  $r=0,0102$ ).

Table 8 suggests that from seventeen independent variables, seven are statistical significant. Three variables have the opposite than expected sign.

Table 5. Regression model selection statistics

Stratifying Variable - Time	LM	H
INDEX	0,73	0,00
INDEX - YEAR	0,73	0,00
FIN	0,10	0,00
FIN - YEAR	0,11	0,00
LAW	0,99	0,04
LAW - YEAR	0,99	0,00
OWN_G	0,91	0,00
OWN_G - YEAR	0,91	0,00
HERF_G	0,29	0,00
HERF_G - YEAR	0,29	0,00

Table 6. Coefficient of determination

Stratifying Variable - Time	$R^2$	$R^2$ Adj.
None	0,445	0,3424
INDEX - YEAR	0,7722	0,7106
FIN - YEAR	0,842	0,7992
LAW - YEAR	0,771	0,709
OWN_G-YEAR	0,7724	0,7108
HERF_G-YEAR	0,7826	0,7237

Table 7. Statistical significance test (Stratification: None)

Variable	$\beta$	Standard Error	$\beta$ / Standard Error	Statistical significance	Theoretical Confirmation
ROA	-311.91	184.93	-1.687	.0951 ***	No
TQ	12.740	5.0218	2.537	.0129 **	Yes
CG	7.9785	5.8004	1.376	.1723	No
MERGER	-12.117	14.870	-.815	.4172	Yes
HERF	-101.82	143.96	-.707	.4812	Yes
DE	-2.3035	1.3594	-1.695	.0935 ***	Yes
OWNCEO	-13.684	28.722	-.476	.6349	Yes
BOD	-6.6545	5.7545	-1.156	.2505	Yes
BEXEC	7.9342	6.3132	1.257	.2120	Yes
BPS	1.6664	2.2070	.755	.4521	Yes

Table 8 continued

BDISI_P	-745.35	367.98	-2.026	.0457 **	Yes
BDIS_P	43.473	47.775	.910	.3652	Yes
INVP	99.892	58.070	1.720	.0888 ***	Yes
YEARF	.3737	.4382	.853	.3960	No
OC_S2	-7.6742	3.5992	-2.132	.0357 **	Yes
TA	.0038	.0020	1.823	.0716 ***	Yes
EMPL	-.0003	.0038	-.099	.9215	Yes

\* p< 0,01  
 \*\* p< 0,05  
 \*\*\* p< 0,10

Final model Model (1) has been further analyzed to clear all non statistical significant variables. OLS did not produce any significant results. Using panel data methods and the stratifying variables of LAW-

YEAR, OWN\_G-YEAR the models were regressed. The model with LAW as a stratifying variable has given good statistical results.

$$E\_REM_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 CG_{it} + \beta_3 TA_{it} + \beta_4 YEARF_{it} + u_{it} \quad (2)$$

Where:  $i = 1 \dots N, t = 1 \dots T$

Even though the LM statistic for Model (2) was bigger than 3,8 the possibility to opt FE / RE models

is more than 90%. The H statistic indicates that RE models are better suited for model (2).

Table 8. Statistical significance test (Stratification: None)

Stratifying Variable - Time	LM	H
All independent variables		
LAW	0,99	0,04
LAW - YEAR	0,99	0,00
Smaller set of variables		
LAW	3,82	0,00
LAW - YEAR	4,77	0,00

The test for the determination of the statistical difference of the two stratum has been conducted with the X<sup>2</sup> and F statistic (see Table 10). The F statistic test shows that the model with the combined effect of the stratifying variable and time does not differ from the OLS model ( $F_{0,05, 1,107} = 3,98 < 6,861$ ). The F statistic test for the

model with the use of LAW as stratifying variable illustrates that in this model the two stratum statistically differ on from the other ( $F_{0,05, 7,99} = 2,15 > 1,172$ ). The methodology that is selected is RE model with LAW as stratifying variable.

Table 9. Determination Test for between the two stratum

Stratifying Variable - Time	X <sup>2</sup>	Prob.	F	P - value
LAW	7,029	0,00802	6,861	0,01014
LAW - YEAR	8,765	0,26996	1,172	0,3257

Coefficient of determination has been marginally reduced from 0,77 to the 0,7293 (Adj. R<sup>2</sup> = 0,70168). Four variables have been proven to be statistical

significant. All of them have the sign that is theoretically correct.

Table 10. Statistical significance test (Stratification: LAW)

Variable	$\beta$	Standard Error	$\beta$ / Standard Error	Statistical significance	Theoretical Confirmation
ROA	2.03865	.60838	3.351	.0008*	Yes
CG	-.10251	.04268	-2.401	.0163**	Yes
YEARF	-.00822	.00409	-2.008	.0446**	Yes
TA	.000088	.000013	6.706	.0000*	Yes

\* p< 0,01  
 \*\* p< 0,05  
 \*\*\* p< 0,10

**Conclusions**

One major finding of this study is that only 36% (109/303), breaking the law because disclosure is

mandatory, of the firms have disclosed in their annual reports the remuneration levels of their executive members. The selection of non disclosure is conscious. Major shareholders, groups of shareholders

and families are the dominant stakeholders in the firm. They are unwilling to release information that may shake the status quo or question their power to make decisions.

The use of RE methodology denotes that every firm has its own policies about remuneration of executive members and that the sample is representative of a larger population. Stratifying variables, except the variable of LAW, have no statistical significant results. Its striking that the coefficient of determination has doubled when the model was better specified. Law seems to have an impact on remuneration. The fact that the LAW binary variable is based on the time of enactment, this variable measures the effect of time hence the overall market's influence on remuneration.

The relation between financial performance and remuneration as literature suggests is confirmed in this study. The study used three variables. Two of them are based on accounting measures (ROA, TA) and the third is Tobin's Q, which is based mainly on stock market value. Tobin's Q is the only variable that in the final model is not statistical significant. This indicates that there is no connection of share premiums and remuneration. This is contrary to what in the Anglo-Saxon countries is the norm and the remuneration is based mainly on share premiums.

The negative sign of variable YEARF confirms the descriptive statistics and the theory that younger, with more concentrated ownership and quite possibly family firms have the trend to pay less. CG quality index has a negative effect on remuneration. This fact is consistent with the notion that better monitoring and control minimizes the ability of executives to dictate remuneration levels.

Overall the study has proven that remuneration levels in Greece are defined by a different set of factors than the ones in an Anglo-Saxon country. Fundamental financial measures of performance are more widely used. The age of firms and corporate governance quality have a catalytic impact on remuneration levels.

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