THE RELATIONSHIP BETWEEN EXECUTIVE COMPENSATION AND DIVIDEND POLICY, PERFORMANCE, AND CORPORATE GOVERNANCE IN CLOSELY-HELD FIRMS

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Abstract

This paper examines how profitability, dividend policy and the corporate governance of closely-held companies are related to executive compensation. The main finding is that that in spite of the fact that controlling shareholders, and the executives they nominate to represent them, have the ability to exploit firms' resources at the expense of minority shareholders, their incentive to do so is lower when their ownership exceeds 75% of the voting power. Specifically, in closely-held firms in which the controlling shareholders hold more than 50% and less than 75%, the incentive to prefer higher compensation and avoid paying dividends is greater than that in companies in which major shareholders hold more then 75% of the firm's equity. For the latter, since they the vast majority of firm's shares is held by them, the firm is to a large extent more private than public. In such case, the incentive to exploit minority shareholders is small. Indeed, in companies in which the voting power of controlling shareholders exceeds 75%, their profits are higher, the compensation paid to their executive is lower, and they appear to have the tendency to share more dividends in comparison with other companies.

Keywords: executive compensation, dividend policy, firm performance

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1. Introduction

To what extent executives' compensation of public companies is related to economic principles that ensure the interests of all their shareholders? This issue has been addressed in many papers but only few papers addressed this issue in closely-held firms *(Closely-held firms in this paper are those in which major shareholders hold more then 50% firm's equity. 90% of the firms whose shares are listed on the TASE are closely-held firms. This phenomenon is the norm in most capital markets such as: Hong Kong, Taiwan, New-Zealand and many others, and in many small firms in developed capital markets including the USA, Japan and Germany. See also Ang, Hauser and Lauterbach (1997, 1998), Hauser and Lauterbach (2004)).*

The purpose of this paper is to examine the relationship between profitability, dividend policy, corporate governance and executive compensation of closely-held firms. During the last three decades, most studies have argued that the ability to explain what drives executive compensation is related to accounting and stock prices measures (see e.g., Jensen and Meckling (1976), Myers (1977), Easterbrook (1984), Morck, Shleifer and Vishny (1988), Gaver and Gaver (1993), and Smith and Watts (1992)).

In this paper we add to this analysis the corporate governance characteristics of closely-held firms. The main hypothesis examined here is that the compensation paid to executives is affected by their ability and their and incentive to exploit firm resources at the expense of minority shareholders. This hypothesis is examined using unique and comprehensive data on public firms listed on the traded on the Tel Aviv Stock Exchange (TASE). The unique characteristic of these firms is being closely-held by a small group of controlling shareholders that own more then 50% of firm's equity. This means that in most of these companies, the ability of these controlling shareholders to push for corporate decisions as they please, to their own benefit, is at least seemingly, almost unlimited which enables them, for example, to withdraw unjustifiably high salaries and benefits that might result in lower profitability and dividend payments. In contrast, what is really the

incentive of these executives to do so, given the fact that inappropriate corporate manners may refrain investors from investing in these firms causing share prices to decline. For example, the need to raise additional capital in the future and to sustain the value of their own shares might lead the controlling shareholders to adopt corporate manners consistent with economic principles to the benefit of the entire body of shareholders. In other words, the ability of controlling shareholders to exploit firm resources at the expense of shareholders might be refrained by their incentive to avoid it.

The main finding of this study is that there appear to be some relationship between executives' compensation and firm's performance and that this relationship is related to the corporate governance structure of the firm. Specifically, in firms whose controlling shareholders hold between 50% to 75%, executives' incentive to exploit firms resources at the expense of minority shareholders is significantly higher than that in firms whose controlling shareholders hold over 75% of firm's equity *(See for example, Morck, Shleifer and Vishny (1988), Smith and Watts (1992), Gaver and Gaver (1993).* Accordingly, it appears that executives' compensation are considerably higher in companies that refrain from paying dividends, than those that do pay dividends.

Most of the studies published to date have focused on the relationship between executive compensation and firms' performance. Some of these studies focused on Executives' compensation and agency costs stemming from the fact that their interests are not necessarily aligned with all other shareholders. For example, if executive compensation determined by firm performance, they may avoid investment that may have some risk in spite of the fact that the expected returns for the firm worth the risk taken.

Other studies dealing with this topic, argue that such relationship may be more significant if executive contracts are based on accounting and market prices performance measures (for example, Lambert and Larker (1987), Sloan (1993), Kim and Suh (1993), Healy (1985), Dechow and Sloan (1991), Jensen (1989), and Rappaport 1990). The quest for such relationship relies on the search for contracts with executives that might lead to greater alignment of executives' interests with those of minority shareholders. In such case, a stronger link between the interests of all shareholders is expected that will lead to an efficient resource allocation in firms (see Jensen and Murphy (1990), and Coughlan and Schmidt (1985)).

The paper consists of five sections. Section 2 discusses the main factors affecting the executive's compensation and presents the research hypotheses. Section 3 describes the data used. Section 4 presents and discusses the empirical results. Section 5 presents the summary and conclusions.

2. Factors Affecting Executives Compensation

2.1 Background

In most of companies listed on the TASE, a small group of controlling shareholders retains above 50% of the company's voting power and equity[1]. This may create situations in which the interests of controlling shareholders may not be aligned with those of external minority shareholders resulting with agency costs increase. Baumol (1967), For example, claimed that executives usually operate in favor of shareholders, but might sometimes seek for the 'minimal' net profit that pleases them, and beyond that, use any additional profits for their own personal gain.[2]

Hence, the question raised by a number of studies is, what should be the driving force in contracts of executives' compensation to ensure a grater alignment of interests between external shareholders and controlling shareholders that nominate the executives. One possible is through outside directors from the public that monitor managerial decisions. One of the concerns with this solution was raised by Hermalin and Weisbach (1991) who argue that managerial involvement in selecting these directors frequently leads to a lack of public directors that properly represent external shareholders. They claim that the fact that some studies found a significant relationship between the structure of the directorate and the company's performance (See for example, Brickley and James (1987), Mace (1971)) while other studies found no significant relationships (see Baysinger and Butler (1985)), implies that additional factors should be considered. One such

[1] For comparison, a sample of 370 companies taken from the "Fortune 500" list showed that in more then 90% of the companies, controlling shareholders hold less then 50% (See Morck, Shleifer and Vishny (1988)).

[2] In Paragraph 1 of the "Securities Act" 1968, an "interested party was defined, among other things, as someone who retains, directly or indirectly, five percent or more of share capital or of voting power. An interested party is also someone who is authorized to nominate director(s) or a general manager. This clause also defines control as the power to direct operations of the corporation. Paragraph 37 of the act states that public corporations must include also details in their report about the securities (bonds) retained by the interested party. According to paragraph 123a dealing with the Company Ordinance, a company whose securities are held by the public and were offered according to a forecast, must report annually about benefits for chief executives. Notably, recent restrictions were applied concerning conflicts of interest of controlling shareholders who also served as company employees, in accordance with Amendment No. 4 of the Company Ordinance. In addition, in Paragraph 56d of Amendment No. 11 of the Securities Act, approval was given to set amendments concerning the restrictions on conflicts of interest between controlling shareholders and the companies under their control that are listed for trading.

factor is the corporate governance structure. Hermalin and Weisbach (1991) reported that the directorate structure had no effect on company's performance.

Some recent studies have focused on detecting the relationship between executives' compensation and firms' performance. The majority focused on seeking objective measures of firm's performance, particularly accounting and market measures that are based on share returns. Among other things, they examined the relative importance of accounting measures in comparison to market ones under the assumption that an executive contract that includes such performance measures might contribute to the alignment of interests between executives and all shareholders. [3]

2.2 Hypotheses

Our study is based on unique and comprehensive data of closely-held firms listed on the TASE. We raise three hypotheses:

Hypothesis 1 – Executives compensation depends only to a limited extent on firm's performance. The Examination of this hypothesis is problematic due to the difficulty in evaluating the complexity of managerial functions on the one hand, and their effect on the business performance, on the other hand. Namely, even if their compensation is determined in accordance with their contribution to company's performance, a problem still remains in measuring their specific contribution to the company, particularly when one takes into account that the performance of these firms is largely affected by external economical factors in the capital market.

A number of accounting and market-based measures have been proposed in economic literature to evaluate the business results of a company. A survey conducted by Gibbons and Murphy (1990) found that more than 50% of chief executives believed that it is necessary to base the salary contract in accordance with accounting results since market-based measures rely on share prices that depend on uncontrollable external forces. O'Byrne (1990) and Lambert (1993) claimed that share prices reflect only the expectations for the firms' performance, and therefore a salary contract should be based on accounting measures that represent both expected and unexpected earnings[4]. In contrast to these claims, Kim and Suh (1993) argued that optimal contracts specifically depend on how much benefit is linked to market-based measures.[5] Kim and Suh (1993), Holmstrom (1982), Jensen and Murphy (1990) and others, show a high correlation between the salary levels of chief executives and excess returns.

Hypothesis 2 - Executives nominated by controlling shareholders holding more then 50% of the equity, have the ability to exploit firms resources at the expense of external shareholders. Yet, the higher the rate of equity owned by controlling shareholders, the lower will be their incentive to do so, to their own benefit, at the expense of external shareholders. According to this hypothesis there are a few contradictory forces that may affect the relationship between executives' compensation and firms' performance. On one hand, the higher is the ownership rate held by controlling shareholders, the more able they are to exploit firm's resources for their own benefit at the expense of external shareholders. On the other hand, the higher is the ownership rate held by controlling shareholders, the more aligned their interests with those of external shareholders, and therefore their incentive to do so would diminish. This hypothesis is consistent with Morck, Shleifer and Vishny (1988) finding that the relationship between firm performance and insiders holdings is not monotonic. They are also consistent with the findings of Jarrel and Poulson (1998) that in companies with managerial holdings of 30% to 50%, firm's performance is lower then in other firms.

Hypothesis 3 - In closely-held firms, executives' compensation is lower in companies that share dividends than with those that do not. This stems from the fact that while cash dividends is paid to all shareholders in the company's earnings, compensation to executives via bonuses, options and alike, enables controlling shareholders to avoid the partaking of the entire group of shareholders in the earnings. Support for this claim is given by Gaver and Gaver (1993) who found that for companies with a relatively high growth rate, the dividend rate is relatively low and the salary level is relatively high, in comparison to those of long-standing companies. Moreover, Mace (1971), Easterbrook (1984), Rozeff (1982) and Smith and Watts (1992) claimed that all costs in contract agreements, such as salaries of chief executives, depend on general financial policies, such as: the capital structure of the company, dividend policy, salary, etc. Consequently, there are two contradictory factors that may affect the relationship between firm's performance and executives' salary. On one hand, high-growth firms, which are in many cases relatively younger and smaller, would reduce dividend payments in order to use the funds for additional investments in the company. This would lead to a future growth in earnings. Such companies would seek qualified

[3] See Bushman and Indjejikian (1993), Lambert and Larker (1987), Banker and Datar (1989), Kim and Suh (1993), Healy (1985), Dechow and Sloan (1991), Jensen (1989), Gibbons and Murphy (1990), and others.

[4] See Bushman and Indjejikian (1993), Banker and Datar (1989), Kim and Suh (1993), Healy (1985), Dechow and Sloan (1991), Jensen (1989), Gibbons and Murphy (1990) and others.

[5] See also discussion in Diamond and Verrecchia (1982), Jensen (1982), Rappaport (1990), Stewart (1989) and others.

executives and would be prepared to pay relatively high salaries for the success of their investment policy. On the other hand, under the prevailing governance structure of closely-held firms, avoiding payout of cash dividends increases the ability of controlling shareholders to exploit firm's resources at the expense of the external shareholders.

3. Data and Methodology

3.1 Data

The sample includes all companies traded on the TASE, for which full data are available. The data were collected during the years 1992-1994 and are based on the companies' reports in accordance with Paragraph 123a of the Company Ordinance and according to Paragraph 64, Securities Regulations, 1993 (keeping of financial statements). Data include the following: the highest salary in the company, the average salary of the company's top five earners (as reported according to Paragraph 123a of the Company Ordinance), operating profit, net profit, return on equity, capital structure, annual rates of return on stocks, rates of return on market indexes, total assets and percent of equity owned by controlling shareholders, by the general manager and chairman of the board-of-directors, dividends payout, and the total compensation to executives, including options and other benefits.

After excluding companies with incomplete data, 463 companies remained in the sample. In 60 of them the compensation included options or shares. Finding the value of stock options is problematic since in many cases, the options are not tradable and in some cases, information such as the exercise price, time to maturity were not reported. In cases where the time to maturity was absent, a period of 3 years was assumed, as this is the most common period for options in Israel. For all other cases, information concerning options and shares was excluded. We also gathered information of the market value of these companies as published by the TASE. The options' worth was calculated as the viable minimum value for Call options: $Max(O,S\text{-}Xe^{-rT})$ where S is stock price, X is exercise supplement for the option, r is interest rate, and T is time to maturity; and according to the model of Black and Scholes (1973).

3.2 Definition of Variables

The list of variables is based on the following four groups: accounting and market indexes to measure the business results used in literature; variables that describe the chain of command in the company; variables that describe financial policy; and other variables that might affect the results (Confounding Factors).

The first group includes five variables that were calculated based on information provided by financial statements and aimed at measuring business results. The first variable is return on equity (NI/EQUITY). The second variable is the change in return on equity between the years 1993 and 1994 (%NI/EQUITY). The third variable is the gross return on equity (OI/EQUITY) defined as the ratio between operational income, and changes in gross return on equity (%OI/EQUITY). The fifth variable is earning per share (EPS). In addition, excess rates of return on shares according to the following market-model:

$$ER_i = R_i - \alpha - \beta R_m$$

Where R_i measures the rate of return on share i, R_m is the market rate of return (the general stock index). Similar measure were proposed by Murphy (1985), Gibbons and Murphy (1990), Coughlan and Schmidt (1985).

The second group of variables describes the ownership structure within the company. The first variable is the total voting percentage of the controlling shareholders (%INSIDE), that include all interested parties. Due to the fact that almost all companies are closely-held firms, we assume that there is no distinction between the group of controlling shareholders and the executives nominated by them. In order to examine the latter assumption we include also two additional variables: the rate of equity owned by the manager and/or the chairman of the board (%CEO), and the second is the holding rates of all directors (%DIREC).

The third group of variables includes those that represent the financial policy of the company. Three policy variables were used. The first variable is related to dividend policy represented by a dummy-variable that was set to 1 for a company that paid dividends and 0 for a company that did not (DIV). This variable was used since only 180 of the companies in our sample paid cash dividends. The second variable is dividend per share (DPS). The third variable is the financial leverage that represents the capital structure of the company and is calculated as the ratio between debt and total assets (D/V). The importance of the company's capital structure stems from that high financial leverage, as well as dividend payout, sends signals to investors related to company's performance by way of its ability to pay their debts, and forecast its growth (See Smith and Watts (1992)).

The forth-variable group includes a list of variables that were found in many studies to affect the relationship between executives' compensation and firms performance. The first is the size of the firms (SIZE). For example, Gaver and Gaver (1993) found that in young growing companies, the dividends are lower and the salary level is higher, in comparison to other companies. However, once the size effect is eliminated, these differences disappear. The second variable is *risk* as measured by the standard deviation

of the excess rates of return The need to distinguish between these two variables is important, particularly since it was found that smaller companies are usually riskier (higher standard deviation). The third variable is a dummy-variable set to 1 for an old company and to 0 for a new company (OLDNEW). An old company is one whose shares were listed for trade before 1992, i.e., companies whose shares have been traded for at least three years. This variable is important since the number of traded companies on the TASE has virtually doubled during these 3 years and since relatively high growth rates are expected during the first years of such companies (see the findings of Gaver and Gaver (1993)). Thus salaries and dividend policy of new companies are expected to differ from old companies.

3.3 Methodology

In order to examine the research hypotheses, a number of tests were conducted. In the first test we examined the effect of size and risk on the various variables. Due to the high variability in company size, we divided the sample companies into smaller companies (2/3) and larger companies (1/3). Lager companies are those that their assets for 1994 over 100 million NIS. In light of the findings of this test, as to the dependency between company size and executive salary levels, and in order to neutralize the size effect, the ratio between executive salaries and book value of equity was calculated. The following two tests are based on that ratio.

In the second test, we compare companies in which controlling shareholders hold less then 75% of the voting power with companies whose controlling shareholders hold more then 75% of the voting power. This division was made after examining the relationship between executive executives compensation policy and the ownership rate by controlling shareholders in intervals of 5% (i.e., up to 50%, 55%, 60%, 65%, etc.). In all cases we find a non-monotonic relationship between these variables. To assess if it is possible to define a specific range of ownership rates that enable to identify any meaningful systematic relationship between salary levels and controlling structure, the groups were assembled into larger intervals of share holding rates – up to 75% and more than 75%. Similarly, we conducted a test that uses another division of the sample of voting power in the hands of the general manager and chairman of the board-of-directors with one group having up to 10% of the voting power and the other group having above 10% of the voting power. The comparison between the groups was carried out using one-way analysis of variance.

In the third test, the comparison was carried out using a one-way analysis of variance in which variables of policy, profitability and prevailing ownership structure between companies that paid dividends and companies that did not.

The forth test aimed at examining the relative effect of each variable on executive compensation is conducted in a few stages. In the first stage we examine the correlation between variables that represent executives' salaries of the chief executive and the top 5 chief executives, and various variables. In each group, variables having a significantly non-zero correlation coefficient with a significant level of 5% were selected. In the second stage, due to the finding that the size variable could be correlated to most of the independent variables, the following regression was executed:

$$SIZE = a_0 + a_1(\sigma) + a_2(\text{NI/EQUITY}) + a_3(ER_{94}) + a_4(DIV) + a_5(DPS) + a_6(OLDNEW) + a_7(INSIDERS) + a_8(\%CHAIR) + a_9(D/V) + \eta_t.$$

The residuals of this regression, η_t, are not correlated with all the variables and therefore represent the size variable beyond its effect on other variables, where SIZE signifies the natural logarithm of total assets.

Stepwise regression was implemented in the third stage in order to examine the relative contribution of each single variable to the explanation of variability of the chief executive salary. Finally, we analyze the contribution of each group of variables to explaining the variance of executives' compensation using a procedure proposed by Theil (1972) that enables examination of the marginal effect of each group of variables. Specifically, measuring the effect of firm's performance which are measured using market and accounting parameters, the effect of a group of variables that describes the ownership structure, the effect of the group of variables that describe dividend policy, capital structure policy, and the effect of other factors that include: size, risk and seniority of the company.

According to Theil (1972), the first stage is evaluated by estimating the following equation:

$$SALARY = a_0 + \sum_{i=1}^{n} a_i X_i + \varepsilon_i,$$

where R^2_n, is based on n variables, X_i,. Then, the following equation is estimated:

$$SALARY = b_0 + \sum_{i=1}^{n-h_j} b_i X_i + e_i,$$

We estimate $R^2_{n-h_j}$, where h_j represents the number of independent variables in group j. The regression parameter estimation in this way was conducted for each of the groups of variables mentioned above, in order to calculate the difference:

$$R^2_n - \sum_j R^2_{n-h_j},$$

Finally, we measure common effects, for all independent variables.

4. Empirical Results

The empirical results are presented in three sections. Tthe first section describes findings regarding executives' compensation, including stock options and other benefits. In the second section, we examine the proposed hypotheses using the differences between various groups of companies that differ from each other by their ownership structure, financial policy, size, risk, industry sector, etc. The third section examines the effect of group of variables on executives' compensation, and particularly its relationship to policy variables, such as: dividends, capital structure, etc.

4.1 Description of Variables

Table 1 provides some summary statistcs. The salary of top executives, including related benefits, was on average, around 630,000 NIS per year. The growth in top executive salaries during this year was around 14% compared to the previous year. The average salary of the top five executives was around 408,000 NIS with a growth rate of around 17%. During this period, profitability and share prices of the companies dropped. We also find that the return on equity dropped by an average rate of around 1.5*% (the median was raised by 1.7%)* and share prices fell by a rate of around 40%.

Table 1. Average Salary and Related Benefits for Chief Executives, Return of Capital and Return on Shares

Compensations for chief executives include salary and benefits in accordance with Paragraph 123a of the Company Ordinance, as well as the value of share options calculated by $max(O,S-Xe^{-rT})$, which represents the minimum value of an option and according to the Black and Scholes model of 1973. S spot price; r is the interest rate, and T is the time to maturity.

	Standard Deviation	Median	Average
Salary of Top Executive	630,260	527,000	442,250
Rate of Growth	0.139	0.138	0.340
Salaries of the Top Five Executives	408,269	340,667	261,411
Rate of Growth	0.168	0.138	0.380
Options and Shares (NAIV Model) [A]	198,834	101,990	417,555
Options and Shares (Black and Scholes Model)	379,571	203,200	669,918
Capital Return	-0.015	0.027	0.231
Rate of Change in Capital Return	-0.680	-0.690	1.109
Rate of Return on Shares During year t	-0.398	-0.086	0.382
Rate of Return on Shares During year t-1	0.370	0.071	0.214

[A] The calculation is based companies, which provided complete data relating to options presented to chief executives, excluding one company with abnormal values - around 10,000,000 NIS according to the model of Black and Scholes, and around 3,500,000 NIS according to using the lower bound of options value.

In addition, we find that while around 43% of the companies experienced a drop in profitability, salaries were raised in about 82% of them. In 60 firms executives received options as part of their compensation. The value of these options benefit package in these companies averaged around 200,000 NIS more than other companies.

Table 2 presents the differences in salary levels and changes in salary for various Sectors. According to these findings, it appears that the salary level of chief executives in commercial banks and insurance companies are significantly higher, than those in other sectors. It also appears that salaries vary a lot among companies. This may explain the difficulties to relate salaries to firms' performance.

.**Table 2.** Compensation for Chief Executives by Industry Sector
(Reporting in Accordance to Paragraph 123a of the Company Ordinance)

	Industrial sector [A]							
	1	2	3	4	5	6	7	KW [B]
Number of Companies	7	6	50	13	102	89	194	
Top Executive Salary Average	783,066	602,724	655,257	953,659	566,095	643,534	626,970	11.91*
Standard Deviation	382,335	232,092	636,631	495,785	278,249	368,318	480,427	
Median	832,383	601,487	471,000	999,650	488,500	580,545	517,500	
Growth Rate	0.219	0.204	-0.019	0.213	0.136	0.156	0.168	9.460*
Top Five Executives' Salary Average	860,814	455,181	428,913	642,422	382,830	371,844	400,420	26.59*
Standard Deviation	415,156	145,811	351,922	262,527	216,464	175,408	266,402	
Median	824,365	399,437	355,591	597,826	318,300	361,946	334,499	
Growth Rate	0.180	0.172	0.062	0.288	0.140	0.221	0.180	5.27*

[A] 1- Commercial banks.
2- Mortgage banks and other financial institutions.
3- Investments and maintenance companies.
4- Companies and insurance agencies.
5- Commercial and services.
6- Real estate, construction, development and agriculture.
7- Industrial companies

[B] KW represents the statistics of the Kruskal-Wallis, non-parametric one way analysis of variance. "*" signifies significant differences in salary between the various industrial sectors at 5% significance level.

4.2 Factors Affecting Executives Compensation

In this section, we examine the effect of a number of factors presented in literature and found to have significant effect on executives' compensation. Table 3 presents the effect of company size on executive salary policy. As expected, we find that the total compensation paid to executives is significantly higher in large companies compared to that in small companies. On possible explanation is that in large companies, the complexity of management is higher and therefore, executives in these companies, may be faced with more complicated problems than those found in smaller companies, and hence entitled to higher salaries and benefits. Unexpectedly, we find that the change in salary level in small companies is insignificantly from that seen in larger companies. This point is further discussed below.

Furthermore, Table 3 also implies that the discernment between large and small companies is important for the comparison of other variables used in this work. For example, return on equity and earnings per share, are significantly higher in large companies compared to small companies. Also, it appears that in large companies, the financial leverage and the dividends payout are significantly higher than those in small companies. In addition, the percentage of equity held by the controlling shareholders as a group, the holding rate by the general manager and chairman of board of directors, and the risk measured by the standard deviation, are lower for small companies in comparison to larger ones. These findings suggest, among other things, that examination of what affects executives' compensation should take into account the size effect.[6]

In order to account for the size effect, the salary of chief executives was divided by the equity (in millions NIS. Table 4 shows the differences between chief executive salaries in companies where controlling shareholders hold up to 75% of the voting power, and those in companies where they hold above 75% of voting power. The results show that executives' salaries are significantly lower in companies where the voting percentage of controlling shareholders exceeds 75% of the voting power.

[6] Many studies have shown that when neutralizing the size effect, differences become blurred (For example see Gaver and Gaver (1993)).

Table 3. A Comparison of Executive Salaries, Company Profitability, Ownerships Structures, and Dividend policies - By Size

The return on equity is the ratio between net profit and equity. Excess rates of return shares are based on the market model. The financial leverage is calculated using the ratio between long-term kiabilities and total assets according to the balance. The F-test is a test for comparing the mean of each variable using one-way analysis of variance.

	Small Companies	Large Companies	F
Top Executive Salary	522,177	847,129	62.93*
Top Five Executive Salaries	330,033	565,250	101.27*
Return on equity	-0.042	0.039	12.46*
% change in return on equity	-0.833	-0.395	14.18
Operating return on equity	0.006	0.020	2.12*
% change in return on equity	-0.021	0.049	10.39*
Excess Rate of Return – year t	-0.060	0.049	19.94*
Excess Rate of Return – year t-1	0.423	0.032	3.41*
Earning per shares	-0.060	1.238	2.65*
Financial Leverage	0.265	0.674	113.71
% Companies sharing Dividends	0.263	0.418	13.31*
Dividend Per Share	0.136	0.308	7.07*
% Voting held by controlling shareholders	76.75	77.23	0.13
% Voting held by General Manger + Chairman	27.41	12.36	37.54*
Risk (Standard Deviation of rate of stocks return	0.100	0.083	30.40*

Table 4. Chief Executive Salaries - By Controlling Structure

In this table, executives' salaries were calculated as the ratio between salary and firm's equity (in million NIS). F-test compares the mean of each variable using one-way analysis of variance.

	According to Voting % held by controlling shareholders			According to Voting % held by General Manager and Chairman		
	Up To 75%	75% And Up	F	Up To 10%	10% And Up	
Chief Executive Salary	23.05	17.43	10.88*	13.90	24.55	46.
Top Five Chief Executive Salaries	14.85	11.30	9.99*	9.40	15.51	35.
Return on Equity	-0.037	-0.007	1.71**	0.010	-0.037	4.
% Change Return on Equity	-0.754	-0.654	0.81	-0.449	-0.938	19.
Operating Return on Equity	0.006	0.006	0.00	0.011	0.094	0.
% Change In Operating Return on Equity	0.011	-0.015	2.19*	-0.001	0.000	0.
Excess Rates of Return on Shares at t	0.005	-0.036	2.68*	0.018	-0.059	9.
Excess Rates of Return on Shares at t-1	0.176	0.092	0.64	0.051	0.153	1.

A similar result was also found in a comparison of companies in which the general manager and the chairman hold less then 10% of firm's equity, with companies in which the general manager and the

chairman hold more then 10%. Note, however, there is a significant difference between these two results. The first, relates to the hypothesis concerning ability versus the incentive of controlling interests and executives to exploit firms resources at the expense of the external shareholders. According to these results, it appears that in spite of their ability to do so, their incentive to do so is lower, the higher is the percentage of voting power held the controlling shareholders. In such case, there is a greater similarity of interests between the controlling shareholders and external shareholders. On the other hand, the second result relates to argument raised by Jensen and Meckling (1976) and others, that when executives hold a small percentage of ownership, the interests of all shareholders is more aligned. Combining these two findings suggests that the relationship between executives' compensation and firms' performance is not monotonic. Moreover, similar to Morck, Shleifer and Vishny (1988), when holding rates of the general manager and chairman are relatively low, the similarity of interests between them and the external shareholders is higher. However, when their holdings increase, the extent to which their interests and those of external shareholders is aligned, diminishes. One explanation for the different results is that in closely-held firms managers are almost always part of the controlling shareholders group (see, for example, Ang, Hauser and lauterbach (1997)). The results presented in Table 4 indicate that there seems to be relatively higher agency costs in companies where the chief executive and chairman of the board retain less than 10% of the voting power. In such firms, the performance measured by the net income and by the excess rates of return is relatively higher than in firms in which they hold more than 10% of the voting power.

Table 5. Executive Salaries - by Dividend Policy and Company's Age

This table compares executives' salaries, firm's performance, and ownership structure, according to the dividend policy of the company and its age. Company's age is used as an index for growth vs. non-growth companies (see also Gaver and Gaver (1993)). The return on equity represents the ratio between net income and equity. The excess rates of return on shares represent the rates of return on shares net of market return in accordance with the Market model. Financial leverage is calculated using the ratio between long-term liabilities and total assets. Executive salaries here presented as the ratio between salary and equity (in Million NIS). F-test compares the means of each variable using one-way analysis of variance.

	Cash Dividends Payout		F	New and Old Companies		
	Yes	No		NEW	OLD	
Chief Executive Salary	13.30	22.76	26.96*	23.06	64.16	15
Rate of Growth	0.177	0.121	1.98*	0.229	0.091	13
Top Five Chief Executive Salaries	8.47	14.52	28.76*	14.79	10.89	13
Rate of Growth	0.150	0.177	0.41	0.192	0.154	0
Return on Equity	0.091	-0.062	46.13*	-0.042	0.007	9.
% Change Return on Equity	-0.426	-0.799	10.03*	-0.915	-0.502	13
Operating Return on Equity	0.021	0.006	2.33*	0.006	0.016	0
% Change In Operating Return on Equity	-0.010	0.003	0.42	-0.020	0.014	3.
% Voting held by controlling shareholders	80.89	74.95	20.79*	80.40	74.30	25
% Voting held by General Manger&Chairman %	14.64	25.64	18.49*	29.02	17.25	24
Voting held by Directors	9.31	12.37	1.62**	17.39	8.39	16
Excess Rates of Return on Shares at t	0.022	-0.038	4.95*	-0.083	0.011	13
Excess Rates of Return on Shares at t-1	0.086	0.147	0.32	-0.292	0.130	0

Addition support to these findings for is found in the results presented in Table 5, when we compare executive salaries in companies that pay dividends to those that do not. Specifically, these results support the hypothesis that executives in companies that do not pay dividends get significantly higher salaries, than those in companies that do pay dividends. Similarly, we also find that the net income and excess rates of return are considerably higher in companies that paid dividends, and that ownership structure has a significant impact on executive salaries. Another important result, which relates to the findings of Gaver and Gaver (1993), is that salaries, dividend policy and ownership structure differ significantly between new

companies and older ones. In new companies, characterized by higher growth rates, the rate of ownership held by controlling shareholders, executives and chairmen of the board are higher than those found in older companies. However, new companies tend not to pay dividends and pay relatively higher salaries than in older companies.

4.3 Effect of Profitability, Dividend Policy and Ownership Structure on Executive Compensation Policy

To examine the effect of each variable, three tests were carried out. In the first test, the correlation coefficient between each if the independent variables and parameters that represent salary was calculated. The results, presented in Table 6, indicate that these correlation coefficients are significantly non-zero for the following parameters: dividend policy represented by dividend per share and a dummy variable that receives the value of 1 if the firm pays dividend and 0 otherwise, EPS, return on equity and excess rates of return in 1994, voting power held by controlling shareholders, chief executives and chairman of the board, financial leverage and additional variables representing size, risk and company seniority.

Table 6. Correlation Coefficients between Factors Affecting Executives' Compensation and Executives' Salaries

Factors Effecting Salaries	Correlation Coefficients of Salaries with factors affecting them:			
	Chief Executive Salary	Change in Executive Salary	Mean of Top 5 Executive Salaries	Change In Mean of top 5 Executives Salaries
	0.280*	0.017	0.324*	0.010
1. Size [A]	0.249*	0.033	0.273*	-0.052
2. Risk (standard deviation for rate of return on share)		0.143*	0.063	0.135*
3. Earnings per Share	0.031			
4. Net Profit per Share	0.115*	0.070	0.100*	0.080
5. Change in Return of Capital	0.077	-0.023	0.124*	0.006
6. Operating Profit of Capital	0.030**	0.018	0.010	-0.050
7. Change in Operating Profit of Capital	0.002	-0.038	-0.003	-0.041
8. Surplus Return for 1994	0.136*	-0.032	0.116*	0.034
9. Surplus Return for 1993	-0.056	-0.092	-0.049	-0.063
10. Dividend Sharing	-0.249*	-0.077	-0.209*	0.033
11. Dividend per Share	0.158*	0.076	0.056	-0.093**
12. New - Old Company	0.227*	0.194*	0.257*	0.049
13. % Voting of interest groups [B] (dummy-variable)	-0.049	0.103*	0.065	-0.054
14. % Voting of interest groups				
15. % Voting of executive and chairman	-0.092*	-0.067	-0.091*	0.065
16. %Voting of Executive and Chairman [C] (dummy-variable)	-0.074**	0.097**	-0.112*	0.011
17. % Voting of Directors	-0.088	0.058*	-0.123*	0.005
18. Financial Leverage	0.016	0.013	-0.003	0.067
	0.104*	0.008	0.128*	0.028

[A] "*" and "**" denote that the correlation coefficient significantly differs from 0 at 5% and 10%, respectively.

[B] The dummy-variable for voting power held by controlling shareholders is set to 0 in companies which hold less then 75% and set to 1 in companies which they hold above 75%.

[C] The dummy-variable of the voting percentage of the general manager and chairman of the Board of Directors is set to 0 in companies in which the general manager and chairman hold less then 10% of the voting power and set to 1 in companies which the general manager and chairman hold above 10%.

Based on these findings, variables that were found to have a significant correlation coefficient with executives' salaries were chosen to be examined in the second test for their relative contribution in explaining the variance of salary policy, using stepwise regression. Findings in Table 7 represent the results for those variables in order of contribution to explaining the variability of salaries.

Table 7. Contribution of Independent Parameters According to Importance, Using Stepwise Regression

$$SALARY = a_0 + \sum_{i=1}^{n} a_i X_i + \varepsilon_i .$$

Stepwise regression was carried out between the dependant variable, executive salaries, and the following independent variables: size, risk, return on equity, excess rates of return on shares, dividend payout, dividends per share, company seniority, voting power held by controlling shareholders, voting power held the chief executive and chairman of the board, and financial leverage.

	Stages:					
Variable	1	2	3	4	5	6
	Dependent Variable - Chief Executive Salary					
Constant						
Dividends	-0.424*	-0.424*	-0.337*	-0.362*	-0.343*	-0.335*
Size	0.179*	0.179*	0.179*	0.179*	0.179*	
Risk		-3.600*	-3.600	-3.770*	-3.630*	
Financial Leverage			0.381*	0.350*	0.320*	
Excess Rates of Return	0.260*	0.230**				
Company's age	0.098**					
R^2	10.37	17.74	21.90	24.11	25.74	26.21
	Dependent Variable - Mean Salary of 5 Chief Executives					
Constant	13.34*	13.24*	13.76*	13.58*	13.49*	-13.50
Risk	-5.72*	-5.72*	-4.47*	-4.22*	-4.26*	-4.38*
Size		0.196*	0.196*	0.196*	0.196*	0.196*
Dividends			-0.317*	-0.301*	-0.323*	-0.312
Company's age				0.207*	0.102*	0.168*
Financial Leverage					-0.29*	-0.28*
Excess Rates of Return						0.17**
R^2	13.74	24.26	30.42	33.51	35.03	35.69

The most important and significant parameter is the policy of dividend payout. This finding supports the two central hypotheses of this. Absence of parameters describing the ownership structure may be explained by the correlation between control structure and dividend policy (-0.244), which is significantly non-zero.

The next two variables (according to importance) are size and risk. As stated, size is a proxy used to represent managerial complexity. Risk was found to have a negative correlation with executives' salaries. Specifically, executive salaries were lower in less risky companies. This may have a number of explanations. The first being is that the standard deviation of shares rates of return is not a suitable proxy for risk estimation. The second possible explanation is that small firma are riskier than large ones (see Table 3). Indeed, we find that the correlation

coefficient between size and risk is -0.339. The third possible explanation is that executives receive compensation for their ability to stabilize company profits and thus reduce the risk involved in investing in these companies.

The fourth-most important factor is financial leverage of a company, which represents firm's capital structure policy. The fifth parameter is company's age. These findings can also be related to that of Gaver and Gaver (1993), who found that in growth-companies, executive pay was relatively higher and dividend sharing was relatively lower than in non-growth companies. This result conforms to the findings of Gaver and Gaver (1993).

The last variable is excess rates of return on shares, which is one of the parameters that enable the creation of the required link betweens executive compensation and firm's performance. The advantage of this parameter over accounting ones is that when the latter are used executives may refrain from optimal long-term investment decisions that may raise doubts on firm's performance in the short term. That is, assuming that share prices reflects market expectations regarding the company's success, a rise in share value may serve as a good proxy to the direct contribution of executives to the wealth of the general shareholders. However, it should be noted that the use of share prices is also problematic, specifically due to the fact that rates of return account for risk taken and they tend to equal out according to market conditions. In such case, executives would be inclined to avoid the possibility that external financial forces not under their control, would affect their salaries. The way to overcome this problem is by measuring excess rates of return on shares which measures company's specific risk and return.

Our findings appear to indicate that despite the fact that excess rates of return was found to be more significant than accounting parameters, it is relatively less important than, dividend policy and capital and structural policy.

Finally, in the third test, whose results are presented in Table 8, the relative contribution of each group of variables was examined using the Theil procedure (1972). The results indicate that the most significant group of parameters that explains what determines salaries is that of size, risk and company seniority. The second most important group is policy variables. The third group includes parameters that measure firms' performance. The forth-most important group is that of parameters representing the corporate governance structure. We emphasize, however that the role of corporate governance is a lot more pronounced vis-à-vis the fact that there is significant correlation between ownership structure and dividend policy. Specifically, we find that in closely-held firms, salaries and accompanying bonuses are lower in companies that paid cash dividends to shareholders, compared to those that do not. This result supports the first hypothesis, that executive salaries are related to firms performance, to a limited extent and the second hypothesis according to which the incentive of executives to exploit firms resources at the expense of external shareholders lessens the higher is the holdings rates of controlling shareholders (over 75%), despite their ability to do so.

Table 8. Analysis of Variance Using the Theil Procedure

This table analyzes marginal contribution of each variable to describe the contribution of each group of variables to the explanation of salaries using the Theil procedure (1972). Lines 1 to 5 are the contribution rate of a group of variables to the description of the total variance in salary and benefits, excluding the effect of all other independent factors. The calculation was performed in three stages: (1) Calculating R^2_n using linear regression between the dependent variable and all independent variables. (2) Calculation of $R_{n\text{-}hj}$ by using linear regression between the dependent variable and all independent variables apart from the variable group h_j; (3) Calculation of the relative contribution of a group of variables by subtracting R_{hj} from R^2_n. Line 7 is the R^2_n of the linear regression between the level or change in salary and benefit, as an independent variable, and between all independent variables. Line 6 is the difference between line 7 and the sum of proportions from line 1 to 5 (See Theil (1972)).

Variable Group		Relative Marginal Contribution of Each Variable Group in Describing the Salary Policy of:	
		The Chief Executive	Mean Top 5 Executives
1.	Accounting Indexes (Return and Rate of Return of Capital)	0.2%	0.1%
2.	Excess rates of Returns)	1.1%	0.6%
3.	ownership (% controlling shareholders. G. M. & Chairman)	0.8%	0.3%
4.	Policy Variables (Dividend and Financial Leverage)	6.7%	6.0%
5.	Other Factors (Size, Risk and Compan's age	12.4%	19.2%
6.	Common Effects	5.6%	9.8%
7.	R^2	26.81%	36.0%

5. Summary

This study raises the hypothesis that in closely-held firms, executives' compensation is affected by the ability and the incentive of executives to exploit resources at the expense of shareholders. According to this hypothesis, the ability of controlling shareholders in general, and especially of chief executives, to make investment decisions as they please in closely-held firms, when they control over 50% of the voting power, is theoretically almost limitless. This allows them, among other things, to draw high salaries and benefits in a way that is not based on the economic principals that may benefit external shareholders as well. As a result, controlling shareholders and managers tend to refrain from paying dividends and increase compensation instead. In contrast, their incentive to do so if one takes into account their long-term considerations, such as the need to raise additional capital in the future and the preservation of the value of their shares, causing controlling shareholders to adopt corporate manners that will signal to external shareholders that they have similar interests at stake.

The main findings are: (1) executives compensations depend only to a limited extent on the company's performance; (2) in spite of their ability to exploit firms resources at the expense of external shareholders, their incentive to do so is relatively small. Specifically, we find that in companies where controlling shareholders hold less than 75% of firm's equity, the ability motive dominates the incentive motive. But, it is the other way around when the controlling shareholders hold more than 75% of voting power; (3) in large companies, chief executive salaries and accompanying benefits are higher than in small companies; (4) in older companies, executive salaries are smaller than in younger companies, and there is a greater tendency to payout dividends;(4) companies in which controlling shareholders hold more than 75% were more profitable, the rates of return on their shares were higher, executive salaries were lower and the tendency to payout cash dividends was greater in comparison to other companies.

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