Corporate Governance Progress and the Pay Premium of Owner CEOs: Evidence from Israel

by

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Abstract

Research Question/Issue: Can progress in corporate governance trim the pay premium of owner CEOs (CEOs that are members of the control group) over professional non-owner CEOs?

Research Findings/Insights: We examine CEO pay in 201 concentrated-ownership companies traded on the Tel-Aviv Stock Exchange during 2008-2015, and compare it to earlier evidence from 1994-2001. We find that following the significant advance in Israeli corporate governance since the beginning of the 21st century, including some specific CEO pay regulation, the owner CEO pay premium dropped by almost three-quarters, primarily in partnership-controlled firms (firms controlled by a coalition of business partners).

Theoretical/Academic Implications: In some concentrated ownership firms controlling shareholders extract private benefits by appointing themselves as CEOs and receiving an excessive owner CEO pay. The problem of owner CEO pay premium appears much milder in partnership-controlled relative to family-controlled firms, perhaps due to the more cohesive nature of the family control group.

Practitioner/Policy Implications: Measures such as establishing an independent compensation committee on the Board, and, more directly, requiring a periodic (say once every three years) approval of owner CEO pay by a majority of the minority shareholders vote, are effective in cutting owner CEOs' excess pay.

Keywords: Corporate Governance, CEO Compensation; Concentrated Ownership; Private Benefits of Control; Owner CEO; Family Firms.

INTRODUCTION

Extant evidence on the pay of owner CEOs (CEOs who are also members of firm's control group) is mixed. Studies of large family firms in the U.S. and Europe (e.g. Gomez-Mejia et al., 2003; Croci et al., 2012) find a negative pay premium for owner CEOs, i.e., that owner CEOs earn less than CEOs in non-family firms. One possible interpretation of these findings is that family CEOs are more emotionally attached to their firms than professional CEOs; thus they need less pay incentives to serve as firm stewards (Davis et al., 1997).

However, other studies, examining circumstances in which controlling shareholders are relatively powerful and/or economies where investor protection is relatively weak, find a significantly positive pay premium for owner CEOs and interpret it as evidence of private benefits extraction by controlling shareholders. In the U.S., Masulis et al. (2009) find that owner CEOs in dual class firms receive a significant pay premium, and Combs et al. (2010) find that when there exists a "lone" individual that controls the firm (i.e., no other family members are in control), the lone owner CEO extracts on average a significant (over 50%) pay premium. In Israel, where controlling shareholders typically hold over half of the public company shares, Cohen & Lauterbach (2008) find that owner CEOs receive an about 52% higher total compensation than professional CEOs in similar firms, and in Korea, Kim & Han (2018) document that CEOs who are family members receive approximately 60% higher total compensation than professional CEOs. The phenomenon of a positive pay premium for owner CEOs, when it exists, may indicate a non-trivial corporate governance problem.

Our purpose is to examine whether progress in corporate governance can trim the pay premium of owner CEOs. We study CEO pay in closely held public firms in

Israel because of two reasons: (i) there exists earlier (eve of the 21st century) evidence on owner CEO pay premium in Israel, and (ii) Israeli corporate governance has advanced markedly since the beginning of the 21st century. This progress encompassed a new and modern Israeli Corporate Law enacted in 2000, regulation of CEO pay disclosure in 2008, the establishment of a specialized economic court in 2010, Amendments 16 and 20 to the Israeli Corporate Law fortifying minority shareholders rights, and various precedent-setting court rulings protecting small public shareholders. It is interesting to explore the cumulative impact of this continuous corporate governance progress on owner CEO compensation.

We study the owner CEO pay premium in Israel during 2008-2015, and find a 14% pay premium in owner CEO's total compensation, primarily in the form of a higher salary. The total pay premium is significantly lower than the approximately 52% owner CEO total pay premium documented in Israel (by Cohen & Lauterbach, 2008) on the eve of the 21st century (during 1994-2001). We interpret this evidence as suggesting that improvements in corporate governance trim the excessive pay of owner CEOs.

We further examine the effects of the two key CEO pay law reforms within our sample period – the 2011 Amendment 16 and the 2012 Amendment 20 to the Israeli Corporate Law. These amendments establish a compensation committee (with a majority of independent directors) within the Board of Directors, and require a periodical approval (once every three years) of owner CEOs pay in the General Shareholders Meeting allowing only "non-interested" (minority) shareholders to vote on owner-CEO pay. This "majority of the minority" vote approval condition (that unlike a "Say on Pay" provision cannot be over-ruled by the Board) appears as a real hurdle for excessive owner-CEO pay. We find that these intra-sample law reforms had a non-trivial effect - in the post-reform period (years 2013-2015) the owner-CEO pay

premium dropped to almost half of its pre-reform (years 2008-2010) level. Evidently, the process of corporate governance reforms cutting owner-CEO pay premium continued within our sample period as well. In sum, the major contribution of our study is novel evidence consistent with the theses that some owner CEOs extract private benefits in the form of excessive pay and that corporate governance reforms are capable of restraining this excess pay problem. Our evidence should provide some valuable information and insights to scholars, practitioners, and regulators alike.

Interestingly, the pay premium of owner CEOs in partnership-controlled firms (firms controlled by several business partners that do not have family ties) evident in Cohen & Lauterbach (2008) evaporated completely following the corporate governance advance preceding our sample period – we do not find any evidence of pay differences between owner and non-owner CEOs in partnership-controlled firms. On the other hand, family-controlled firms preserve a smaller yet economically significant pay premium for their owner CEOs even at the end of our sample period. It appears that among closely held firms, family control groups pose a bigger challenge to regulatory authorities. This is the second contribution of our study to the literature.

The remainder of this paper is organized as follows. Section 2 overviews the basic theoretical approaches to executive compensation in closely held firms, reviews the corporate governance progress in Israel and presents the research hypothesis. Section 3 describes the data and sample, and Section 4 reports our empirical results. Section 5 discusses the results, and Section 6 concludes.

CORPORATE GOVERNANCE AND OWNER CEO COMPENSATION

General Theoretical Approaches to Executive Compensation

Executive compensation is one of the most hotly-debated topics in corporate governance. It draws great attention and interest among academics, regulators, shareholders and even the general public. All seek to understand and advocate different explanations for the level and composition of CEO pay.

There exist at least four theoretical approaches to executive compensation. The traditional approach of labor economics proposes that each worker (including the senior executives) earns according to her marginal contribution to the firm. This approach focuses on CEOs' skill and ability and on the potential influence of executives on their organizational outcomes (Hambrick & Finkelstein, 1987). Finkelstein & Boyd (1998) define the managerial discretion as the latitude of actions executives have in making strategic choices. They find that high discretion contexts increase the potential marginal product of CEOs, i.e., their impact on firm performance. In sum, basic labor economics predicts that CEOs with greater skills and more discretion earn more.

The main modification of this classic labor economics theory is termed "agency theory". It focuses on the conflicts of interest between publicly traded firm shareholders and firm's senior executives. In most cases, shareholders do not have the ability to observe if and when the CEO deviates from their interests as shareholders. Shareholders have two options: 1) to obtain more information about the CEO's actions and efforts through monitoring the CEO; and 2) to offer the CEO incentives to alleviate the existing conflicts of interest. According to this approach CEO pay arrangements are also "optimal contracts" designed as (a partial) remedy to agency problems (e.g., Core & Larcker, 2002). The optimal contract theory is primarily relevant to non-owner CEOs.

The third competing theory is the "managerial power" approach. According to it, the executive compensation contract is not a remedy to agency problems, but rather a serious agency problem by itself (Bebchuk & Fried, 2003, 2004, 2005; Morse et al., 2011). CEOs and in particular owner CEOs have power and are able to influence their pay level and extract "rents", and the greater is CEOs' power, the greater are their rents (pay premiums). This theory is particularly pertinent to owner CEOs in closely held firms.

Another theory with particular relevance to owner CEOs focuses on the non-monetary compensation of such CEOs. Owner CEOs derive utility also from their status and identification with the firm. For example, family CEOs continue the family successful operation (the firm) where they also preserve family values and philosophy, and to a relatively large extent see the firm as part of their identity. Thus, the honor and socio-emotional wealth awarded by the CEO status is larger for owner CEOs, particularly in the case of family CEOs (e.g. Deephouse & Jaskiewicz, 2013). This non-trivial socio-emotional "compensation" of an owner CEO may compromise her monetary remuneration. A recent study (Mueller & Flickinger, 2021) examines family firms included in the S&P 500 index, and lends support to the hypothesis that when a family CEO identifies more strongly with her family firm, her monetary remuneration tends to be lower. Mueller & Flickinger (2021) also provide a comprehensive summary of this strand of the literature.

Pay Premiums of Owner CEOs

Owner CEOs may utilize their power to extract excessive pay from their firms at the expense of public shareholders. The extra pay is essentially part of the controlling shareholder private benefits of control. Atanasov et al. (2011) define the various forms of private benefits, describing excess CEO pay as a form of cash-flow tunneling.

Higher compensation is, however, not a proof of agency problems. Traditional labor market theory also predicts higher compensation to owner CEOs. According to it, owner CEOs have more discretion and impact on their firm performance (relative to professional non-owner CEOs in closely held firms). Professional non-owner CEOs' discretion in closely held firms is limited, as they are continuously monitored by the firm controlling shareholders (Core et al., 1999).

Masulis et al. (2009) and Amoako-Adu et al. (2011) document pay premiums for owner CEOs in dual class firms, and Combs et al. (2010) identify pay premiums for owner CEOs when they are the lone owners (with no family partners). However, more general U.S. and continental Europe studies such as Gomez-Mejia et al. (2003) and Croci et al. (2012) find that owner CEOs in family firms earn less than non-owner CEOs. It appears that a pay premium for owner CEOs is associated with cases of weaker corporate governance and stronger managerial power.

Studies of economies with weaker investor protection also identifies an owner CEO pay premium. Cohen & Lauterbach (2008) compare owner and non-owner CEO pay in 124 Israeli closely held firms during 1994–2001. They find that in closely held firms CEOs who belong to the family or the partnership that owns most of the firm shares receive significantly (about 52%) higher pay than professional CEOs who serve in similar firms and do not belong to the control group. Kim & Han (2018) examine Korean family business groups (Chaebols), and find that family CEOs receive a 60% pay premium relative to professional non-owner CEOs. Given that the corporate governance in Israel and Korea is weaker (and private benefits are higher) than in the U.S. (e.g. Dyck & Zingales, 2004), our conclusion is that the pay premium of owner CEOs also depends on the corporate governance quality of the economy and the firm.

Last, the pay of owner CEO depends also on “softer” factors such as their socio-emotional relations and identification with the firm. CEOs who are more emotionally-tied to their firms are paid lower monetary compensation (Mueller & Flickinger, 2021). We lack data that can monitor and account for such ties, hence in our study the socio-emotional impact is part of the residual.

The Corporate Governance Advance of Israel and our Research Hypothesis

Over the past two decades Israel has made considerable progress in its corporate governance, designed to cut the agency costs of executives and controlling shareholders. The first major corporate reform was launched in 2000 with the adoption of a modern Israeli Corporate Law, replacing the old Corporations Ordinance. One of the main objectives of the Corporate Law was to strengthen minority shareholders’ protection and to restrain controlling shareholders' power. The new law included stricter restrictions on self-dealing with controlling shareholders and on external (independent) directors’ nominations. During the first decade of the 21st century the courts interpreted the new law and established many precedents, including administrating jail sentences to several fraudulent controlling shareholders.

At the same time, the Israeli Securities Authority (Israeli SEC) targeted the transparency of firm’s top-five-executives' pay reports, issuing in 2008 explicit formats and tables for standard reporting of public firm’s top-five-executives' pay. The new detailed compensation tables, including also information on various pay components such as bonuses and equity pay, afford comparison of CEO pay in different firms. Before that regulation, each firm used its own interpretation of what is included in “compensation”, and some firms did not name the executive whose pay is reported or

provided aggregate figures for their top five executives' compensation. The 2008 regulation afforded more informed public debates on CEO pay.

At the beginning of the second decade of the 21st century, a second corporate governance reform-wave took place, following the Great Recession of 2008. On December 2010 the "Economic Court" of Israel was established as a special department within the Tel Aviv District Court, to adjudicate corporate and securities law violations. This led to a significant surge in private enforcement of the law, boosting the use of the derivative claim and class-action mechanisms by minority shareholders. As a result, the economic court (and additional courts in other districts) set a large number of important legal precedents, most of which aim to improve the protection of minority shareholders.

On May 14, 2011, Amendment No. 16 to the Companies Law came into effect. This Amendment implemented most of the recommendations of the committee for the review of the Israeli corporate governance code, headed by Professor Zohar Goshen. The primary purpose of Amendment No. 16 was to increase the power of minority shareholders in closely held firms and to cut private benefits consumption by controlling shareholders. The Amendment stipulated that the Audit Committee, in which external directors appointed by the minority shareholders have a majority, would discuss and decide on transactions with controlling shareholders. The Amendment further demands that: 1) the pay terms of owner CEOs would be approved by the Audit Committee and Board of Directors once every three years; and 2) a majority of the minority (shareholders) would approve any significant transaction with controlling shareholders, including the pay contract of owner CEOs, once every three years.

Amendment 16 was followed by Amendment 20 that became effective on December 12, 2012. The objectives of Amendment 20 were to regulate the compensation setting process for senior executives in public firms and to introduce the

use of the "Say on Pay" practice for non-owner CEOs. (Note that owner-CEOs' pay approval remains subject to the stricter regulation standards of Amendment 16.) According to Amendment 20 a public company must establish a Compensation Committee that formulates the general compensation policy of the firm and practically negotiates CEO's and other top executives' compensation contracts. The general compensation policy has to be approved at least once every three years by a majority of the minority shareholders. This amendment lead to a more structured and thorough process for setting CEO's pay.

The above-reviewed Israeli record lets us examine

Hypothesis 1. Improvements in corporate governance cut the total compensation premium of owner CEOs (relative to non-owner CEOs).

If confirmed this hypothesis implies that: 1) part of owner CEO's pay is excessive pay that the owner manages to extract (tunnel out of the firm) at the expense of minority shareholders; and 2) excessive pay may be curtailed via regulatory reforms.

Our test methodology will be based on comparing the owner CEO pay premium in our sample period (2008-2015) with earlier pre-reforms findings on Israeli owner-CEO's pay premium (Cohen & Lauterbach, 2008). Further, we will run within-sample tests that will explore the effect of the two key pay reforms within our sample period.

SAMPLE COLLECTION AND DESCRIPTION

The sample comprises all publicly-traded companies in Israel whose stocks belong to the Tel Aviv 100 (=large cap) and Tel Aviv Yeter (= small cap) sections of the Tel Aviv Stock Exchange (TASE) in the years 2008 through 2015. We start in 2008 because on that year the Israel Securities Authority (ISA) added Article 21 that requires

public companies to disclose (and defines exactly how to disclose) the total compensation of each of the firm's five top-compensation executives.

Our initial sample includes 1,771 firm-year observations. However, we exclude: 1) 286 observations of dually-listed companies that report according the rules of the foreign exchange at which they also list, and where corporate governance standards may correspond better to those of the foreign exchange; 2) 81 observations of partnerships in the oil and gas sector (where standard compensation data is unavailable); 3) 88 observations of firms from the regulated banking and finance industry; 4) 209 observations of firms that replaced their CEO during the year (where CEO compensation is for part of the year only); 5) 50 observations where CEO pay is not separable (management fees for a group of executives is reported); 6) 39 observation with no available CEO compensation data (their CEOs were not among the five highest-paid executives of the company); 7) 15 observations of part-time CEOs; 8) 11 observations with unclear compensation tables; and 9) 17 observations of "other" cases such as CEOs who did not receive compensation, and CEOs of companies with no available financial reports (companies in distress).

Since we are interested in closely-held firms we further drop: 1) 101 observations of dispersed ownership firms; 2) 106 observations of firms with non-standard ownership structures (mainly companies that are owned by a collective group such as a Kibbutz, and companies where the ultimate control group is a dispersed ownership entity); and 3) 32 observations where the firm control group structure changed during the year. Notably, all our exclusion criteria are identical to those of Cohen & Lauterbach (2008), the earlier-period study that we are going to compare our findings to.

Our final sample consists of an unbalanced panel of 201 concentrated-ownership companies with 736 firm-year observations. Admittedly, this number of observations is small and hinders reliable statistical inference in some of our tests. However, given that most of our data are hand-collected, and some of our data (like categorizing ownership structure and CEO type) require careful deliberation, the relatively clean final data set appears adequate.

The composition of the sample by year and sector is summarized in Panels A and B of Table 1, respectively. As shown in Panel A, the observations are distributed almost uniformly across the sample years. Panel B shows close resemblance between the proportions of a sector in TASE and in our sample.

[Insert Table 1 about here]

All our data are collected from the TASE web site (www.tase.co.il). The CEO name, age, gender, and compensation and firm's financial data (total assets, return on assets and leverage) are retrieved from the companies' annual reports. Variables that require calculations such as the percentage of outside directors and all variables describing the company ownership structure are also constructed based on information from the annual reports – see further details below. Last, historical stock prices as well as the industry classification of the sample companies are extracted from the TASE online database.

Our ownership structure classification is based on Article 24 of the company's annual reports. When controlling shareholders possess 25% or more of the voting rights, we classify the firm as closely held. (According to the Israeli Corporate Law, a person, group of individuals or entity is considered as a controlling shareholder if they hold 25% or more of the voting rights.) Further, we distinguish between family-controlled and partnership-controlled companies. Family firms are firms that are controlled by a

single individual ("lone owner") or a group of several individuals belonging to the same family. Partnership firms are firms where two or more individuals (that do not belong to the same family) form a coalition to control the firm. Last, within each firm type (family or partnership) we distinguish between owner and non-owner CEOs. Owner CEOs belong to the family or partnership that controls the firm, while non-owner CEOs are professional managers without any family ties to the control group.

Table 2 presents descriptive statistics for our sample, including the mean, median, standard deviation, minimum and maximum values, and number of observations for each variable. The mean (winsorized) annual total compensation of CEOs in our sample is 3,232 thousand New Israeli Shekels (NIS), and the median is 2,502 thousand NIS. (During the sample period the average exchange rate was about 4 NIS per U.S. Dollar.)

Slightly more than 50% of CEO's pay was in the form of salary whose mean is 1,646 thousand NIS per year. About two-thirds of the sample firms pay cash bonuses while equity compensation is customary in less than half of the firms. We combine these two components in our analysis, and essentially divide total compensation into two main components: salary ("fixed pay") and bonuses + equity ("performance pay"). The mean sum of bonuses and equity awards is 1,511 thousand NIS per year. (There is also an "other pay" component in total compensation that we ignore due to its minute and erratic level – its annual mean is 58 thousand NIS only, less than 2% of total pay.)

The mean (median) total assets of our companies is 6,346 (1,400) million NIS. The standard deviation of the company daily stock returns over the preceding three year period is our proxy for firm risk, and it has a mean (median) of 0.028 (0.024). Financial leverage is defined as book debt over total equity, and it has a mean (median) of 2.65 (1.85). Firm profitability over the sample period is relatively poor, with a mean Return on Assets (defined as net profits divided by total assets) of 1% per year (median is 3.5%

per year). The mean (median) logarithmic annual stock return is 4.6% (10%). The sample period includes both the Great Global Recession (years with negative stock returns) and the following years of recovery.

The mean and median CEO age is 54 years, 97% of the CEOs are males, and about 89% of the CEOs have academic degrees. Further, the sample firms are closely held – the mean and median control group holdings are 60% of firm's equity, and the mean and median outside directors' proportion on the Board of Directors is only 29%. The sample is almost balanced between family and partnership firms, with family firms comprising 54% of the sample. Owner CEOs govern in about a third of our sample. Specifically, of our 736 firm-year observations, 126 belong to owner CEOs in family firms, 136 are owner CEOs in partnership firms, 275 are non-owner CEOs in family firms, and 199 are non-owner CEOs in partnership firms.

[Insert Table 2 about here]

Last, the increase in CEO compensation over the sample years (2008-2015) is modest. The median CEO total compensation increases from 2.25 million NIS in 2008 to 2.68 million NIS in 2015, a rate of about 2.5% per year. Inflation rate over the sample period averages 2% per year, while sample firm size remains fairly stable.

EMPIRICAL RESULTS

A simple comparison of owner- and non-owner-CEO total compensation in our sample reveals that the mean annual compensation of a non-owner CEO is 3.40 million NIS, whereas the mean annual compensation of an owner CEO is 2.94 million NIS only. However, this is a misleading simple-comparison result because professional non-owner CEOs serve primarily in relatively large closely-held firms. In such large firms the control group resorts to the services of skilled professional managers to run the

company. Indeed, in our sample, the mean total assets of firms with non-owner CEOs is 8,601 million NIS, almost four folds the mean total assets of firms with owner CEOs. Given this finding and existing evidence that CEO pay increases with firm size, a simple comparison of the mean total compensation of owner and non-owner firms is worthless.

We have also examined the variation over time of the owner and non-owner CEOs' total compensation. The median owner CEO pay increases slightly from 2.24 million NIS in 2008 to 2.31 million NIS in 2015, whereas the median non-owner CEO pay increased more significantly, from 2.43 million NIS in 2008 to 2.83 million NIS in 2015. This is a preliminary indication that the owner CEOs pay premium shrunk along our sample. However, again, several other factors that affect pay might have changed across the sample period. Thus, a more-elaborated and controlled examination of the pay differences between owner and non-owner CEOs is warranted and offered next.

Estimating the Benchmark Model for CEO Compensation

We employ the following benchmark model for the level of CEO total compensation in closely held firms:

$$
\begin{aligned}
(1)\ \mathrm{Ln}(\text{CEO total compensation}_{i,t}) &= \alpha_0 + \alpha_1(\text{Stock return}_{i,t}) + \alpha_2(\text{Stock return}_{i,t-1}) + \alpha_3(\text{ROA}_{i,t}) \\
&+ \alpha_4(\text{ROA}_{i,t-1}) + \alpha_5\mathrm{Ln}(\text{Total assets}_{i,t}) + \alpha_6\mathrm{Ln}(\text{Risk}_{i,t}) \\
&+ \alpha_7\mathrm{Ln}(\text{Financial Leverage}_{i,t}) + \alpha_8(\text{Education}_{i,t}) + \alpha_9(\text{Age}_{i,t}) \\
&+ \alpha_{10}(\text{Gender}_{i,t}) + \alpha_{11}(\text{Outside Directors}_{i,t}) + \alpha_{12}(\text{IndustryDum}_i) \\
&+ \alpha_{13_t}(\text{YearDum}_t) + e_{i,t}
\end{aligned}
$$

The dependent variable is the natural logarithm of CEO's total compensation in year t. Among explanatory variables, the logarithmic stock returns and ROA in years t and t-1 are firm's performance indicators; total assets proxies firm's size; firm's risk is

approximated by the standard deviation of the daily stock returns in the thirty-six months preceding the end of the firm's fiscal year; financial leverage is measured as the ratio of book value of debt to total equity; age, gender and education represent CEO's personal traits; and outside directors' proportion on the Board of Directors represents Board's independence.

Equation (1) closely resembles the model used by Cohen & Lauterbach (2008). The purpose is to facilitate comparison of our results to earlier-period results on CEOs in Israel. Relative to Cohen & Lauterbach (2008), we omit institutional investors' holdings, an explanatory variable that we could not find data on and that scored an insignificant coefficient in their analysis, and we add CEO gender and ROA.[1]

Some econometrically-motivated adjustments of the variables of equation (1) are adopted when we run regressions. First, to mitigate the effects of outliers, CEO's total compensation is winsorized at its 2.5% and 97.5% levels, and some of the explanatory variables (total assets, leverage and risk) that manifest high skewness and kurtosis are transformed into their natural logarithm. For example, leverage that has a skewness of 18.7 and a kurtosis of 436 was transformed into Ln (leverage) that has a skewness of -0.5 and a kurtosis of 1.1 only. Next, to avoid severe multicollinearity problems, the transformed risk and leverage are regressed on the transformed total assets, and the residuals of these regressions serve as explanatory variables in the pay regression specified in Equation (1) above. Last, we add industry and calendar-year fixed effects to the pay regression.

Table 3 reports the results of estimating Equation (1) and a parsimonious form of it. Consistent with existing evidence on the relation between CEO compensation and firm size (Tosi et al., 2000; Cohen & Lauterbach, 2008; Gabaix et al., 2014; Edmans et al., 2017) the coefficient of Ln (Total assets) is positive and highly statistically

significant. Firm size is always the most important determinant of CEO pay, and its positive coefficient may indicate that the managerial talent and skills needed for running larger and more complex firms are scarce and command a higher compensation.

The coefficients of stock return and lagged stock return in Table 3 are positive and statistically significant at the 1% and 10% levels, respectively. This illustrates that the CEO is rewarded (punished) for good (poor) stock performance. Accounting performance is rewarded as well. The coefficient of ROA is positive and significant at the 10% level. The significant relation between CEO pay and firm performance is extensively documented in previous research - see the survey of Edmans et al. (2017).

The negative coefficient of firm's risk appears in previous studies - see Cohen & Lauterbach (2008) and Faulkender & Yang (2012), for example. It implies that CEOs in risky firms earn less. Lambert et al. (1991), Beatty & Zajac (1994) and Meulbroek (2001) suggest that for risky firms lower total compensation with lower pay performance sensitivity may be optimal. Finally, similarly to some previous studies (Amoako-Adu et al., 2011), we find that CEO's total compensation is significantly negatively correlated with the proportion of outside directors on the Board, suggesting that independent boards restrain CEO's pay.

[Insert Table 3 about here]

The Owner CEO Pay Premium Following Corporate Governance Advances

We examine the difference in total compensation between owner and non-owner CEOs by adding an "Owner CEO" dummy variable for to our parsimonious benchmark compensation model (regression 2 of Table 3). The results are presented in Column (1) of Table 4. The coefficient of the "Owner CEO" dummy variable is positive and statistically significant (*p*-value of 0.006). According to the fitted coefficient, 0.13,

owner CEOs earn on average 14% more than non-owner CEOs ceteris paribus. (Note that here and in the rest of the paper the pay premium is assessed as the exponent of the fitted coefficient.)

[Insert Table 4 about here]

The results in Column (1) can be compared to the earlier-period evidence of Cohen & Lauterbach (2008). Note that in order to afford such a comparison we followed the same sample extraction and cleaning rules and almost the same empirical methodology as Cohen & Lauterbach (2008). The comparison reveals that the pay premium of owner CEOs plunged from approximately 52% in 1994-2001 (Cohen & Lauterbach, 2008) to approximately 14% in 2008-2015 (our sample), an economically significant drop of about 73%.

We formally test the hypothesis that the owner CEO pay premium coefficient in Table (4) column (1) equals 0.42 (the pay premium coefficient reported by Cohen & Lauterbach, 2008). This conservative "no-change over time in owner CEO pay premium" hypothesis is strongly rejected by our data (t-statistic of 6.0, *p*-value lower than 0.0001). The conclusion is that in our sample period (2008-2015) the pay premium of Israeli owner CEOs was markedly lower than that in the Cohen & Lauterbach (2008) sample period, 1994-2001. This evidence is consistent with our Hypothesis 1 prediction that following the corporate governance advance of Israel, owner CEO's pay premium would be cut.

Columns (2) and (3) of Table 4 extend the analysis to the components of CEO compensation. We find that the bonuses plus equity compensation component is slightly and insignificantly higher for owner CEOs. In contrast, ceteris-paribus, the salary of owner CEOs is 25% higher than that of non-owner CEOs. Evidently, almost

all of the pay premium of owner CEOs is paid in the form of salary. Owner CEOs apparently prefer to receive their pay premium in a sure way, i.e., as an increase in the non-risky component of their pay, salary. This finding is somewhat striking because it shows that owner CEOs secure their pay premium in advance.

Within-Sample Tests of the Effects of Regulatory Reforms on CEO Pay

We can further test our research hypothesis by examining the effect of the major regulatory changes within our sample period on the owner CEO pay premium. Two major pay reforms occurred in 2011 and 2012. The first required approval of the owner CEO pay contract by a majority of the minority shareholders at the General Shareholders Meeting once every three years, and the second established a Compensation Committee (with a majority of outside directors) to negotiate senior executives' pay contracts. These direct pay reforms are expected to trim owner CEO's pay premium.

The exact prediction of our research hypothesis is that in the post-reform period, years 2013-2015, the owner CEO pay premium would be lower than in the pre-reform years, 2008-2010. Essentially, we run here an event study to test our hypothesis.

Table 5 presents the results. Comparing Columns (1) and (2) we observe a large drop in owner CEO's total pay premium. The Owner CEO coefficient decreases from 0.18 in the pre-reform period (2008-2010) to 0.10 in the post-reform period (2013-2015). Columns (3) through (6) complement the picture. The salary pay premium of owner CEO was cut dramatically following the pay reforms while the bonuses plus equity pay premium of owner CEO evaporated completely.

To test the statistical significance of these findings we combine the 2008-1010 and 2013-2015 subsamples, construct a dummy variable for the later subperiod

(Later_Subperiod), and add to the CEO pay regression the explanatory variable: Owner CEO * Later_subperiod. The coefficient of this new explanatory variable estimates the difference between our two subperiods in owner CEO's pay premium.

[Insert Table 5 about here]

The *p*-value of the added explanatory variable is reported in Table 5 in the row below the Owner CEO coefficients. Only the cut in the salary pay premium of owner CEOs is statistically significant (*p*-value of 0.07). Despite the large drops in owner CEO's total pay premium and in the bonuses plus equity pay premium, they remain statistically insignificant. Thus, we conclude that Hypothesis 1 is weakly supported by our within-sample event-like tests. The coefficients of Owner CEO fall dramatically between the pre- and post-reform subperiods, yet probably because of our small sample size this drop is statistically significant only for the salary component of pay.

Differences in Owner CEO Pay between Family and Partnership Firms

The owner CEO pay premium may vary across different forms of closely-held firms. For example, in family firms, the control group (the family) appears relatively cohesive and well-coordinated, which may facilitate private benefits extraction in the form of an owner CEO pay premium. Relative to family firms, firms controlled by a coalition of business partners, may find it more difficult to agree on a pay premium for owner CEO.

The literature about coalitions of control (partnership-controlled firms in our terms) reveals that there might exist internal tensions and mutual monitoring within a controlling coalition, reducing private benefits extraction. While extant research has not addressed the owner CEO pay premium explicitly, Maury & Pajuste (2005), studying the valuation (Tobin's Q) of concentrated-ownership firms in Finland argue that

"Consistent with our model, … some coalitions (e.g., two families) can make profit diversion easier. Meanwhile in other coalitions, expropriation can be more difficult." (ibid. p. 1815). According to Maury & Pajuste (2005) the effect of controlling coalitions depends on whether or not firm control is contestable and on the fit between the controlling partners.

We expect to find a lower owner CEO pay premium in partnership-controlled firms. This is because of the relatively tense relations and mutual monitoring within some partnership-control groups. To examine this prediction, we add two explanatory variables to our CEO pay regression. The first, Family, is a dummy variable equal to 1 when the firm is a family firm, and equal to 0 when it is controlled by a partnership. The second is Family multiplied by the dummy variable for an owner CEO.

In the regression summarized in Column (1) of Table 6 there are three important coefficients. First, the coefficient of Owner CEO is close to zero and statistically insignificant. Given that the baseline of the regression (the intercept) is the compensation level of non-owner CEOs at partnership-controlled firms, the close to zero coefficient of Owner CEO implies that in our sample period owner CEOs at partnership-controlled firm receive no pay premium over professional non-owner CEOs in similar firms. This finding illustrates that all the pay premium of owner CEOs in partnership firms found in Cohen & Lauterbach (2008)'s study of Israel evaporated over time, presumably due to the significant corporate governance reforms and advance at beginning of the 21st century.

Next, the coefficient of Family is negative, -0.097, and statistically significant at the 10% level. This suggests that professional non-owner CEOs in family firms earn less than professional non-owner CEOs in partnership-controlled firms. One possible reason for such a finding is that in family firms the professional CEO's discretion is

lower, as the family monitors the firm activity more closely. In partnership firms the professional CEOs may have more latitude for action and a higher impact, thus their pay is higher than their counterparts at family firms.

[Insert Table 6 about here]

Last and most important, the coefficient of the interaction term between Family and Owner CEO is positive, 0.21, and statistically significant at the 5% level. It implies that owner CEO's pay in family firms is about 23% higher than professional CEO's pay at such firms. This pay premium of owner CEOs at family firms is less than half of the pay premium of about 53% for owner CEOs in family firms recorded in Table 4 (Model 2) of Cohen & Lauterbach (2008). Thus, consistent with our research hypothesis, the pay premium of family CEOs shrunk over time. Yet, whereas the pay premium of owner CEOs in partnership-controlled firms dissipated entirely over time, Israeli family firms and their owner CEOs managed to preserve a non-trivial pay premium.

Some perspective may be gained from our within sample analysis, summarized in Columns (2) through (5) of Table 6. In partnership-controlled firms the owner CEO pay premium was zero both before and after the reforms. Evidently, the pay premiums of owner CEOs in partnership controlled firms were eradicated before our sample period. In contrast, in the family firm regressions, we find that the Owner CEO coefficient drops markedly from 0.36 in 2008-2010 to 0.22 in 2013-2015. This non-trivial drop in family owner CEO pay premium is statistically insignificant, probably due to our small sample size, yet it lends support to our research hypothesis.

DISCUSSION

We study concentrated ownership public companies. In such companies the members of the control group may extract private benefits (at the expense of public

shareholders) in many ways, including in the form of excessive compensation for themselves when they serve as senior executives in the firm. We estimate the pay premium of owner CEOs (CEOs that are members of the control group) over professional non-owner CEOs in similar firms. We are careful to control for some firm and personal characteristics that were shown to impact CEO pay.

The research hypothesis is that regulatory reforms and advances in corporate governance trim the pay premium of owner CEOs. Our test field is Israel, an economy with above-median private benefits (e.g. Dyck & Zingales, 2004), for which we could find pre-2000 evidence on owner CEOs' pay premium. Israel is attractive also because of its considerable advance in corporate governance since the beginning of the 21st century, including some bold explicit CEO-pay reforms.

Our main finding is that the owner CEO's pay premium in our sample period (2008-2015) is significantly lower than that found by Cohen & Lauterbach (2008) who studied 1994-2001 using an almost identical methodology as us. We estimate an owner CEO pay premium of approximately 14%, much lower than the 52% owner CEO pay premium estimated by Cohen & Lauterbach (2008) in the pre-2000 period. We also show that almost all of the owner CEO pay premium is in the form of a higher salary.

We attribute the drop in owner CEO's pay premium to the advance in corporate governance of Israel. However, we do not prove causality. Instead, we present additional evidence that is consistent with this thesis and complements the story. We study the effects of two major regulatory CEO pay reforms enacted in 2011 and 2012. In this framework of an event study we find that the pay premium of owner CEO was cut almost by half following these reforms – the salary pay premium declined significantly and the bonuses and equity components of owner CEO's pay became indistinguishable from that of professional non-owner CEOs. This is our most direct

evidence that pay reforms trim the owner CEO pay premium, yet only the salary premium analysis scores statistical significance. Statistical inference suffers from our limited sample size.

Theoretically, our findings tend to support the view that the owner CEO pay premium is (at least partly) a form of private benefits, as predicted by the "managerial power" approach of Bebchuk & Fried (2003, 2004, 2005). We are the first to examine the variation of the owner CEO pay premium over time, and to associate its decline with corporate governance reforms. If the owner CEO pay premium decreases following regulatory corporate governance reforms, it is (largely) excessive pay.

Smaller findings also support the "managerial power" view. For example, we find that the premium in our sample is predominantly a salary pay premium - owner CEO's salary is 25% higher than that of non-owner CEOs at similar firms. Apparently, owner CEOs receive their pay premium by increasing salary, their "sure" component of pay, as we would probably expect of rent-seeking agents. Further, consistent with the "managerial power" view, in unreported tests we find that the owner CEO pay premium is higher when the control group holdings in firm's equity (a proxy for controlling shareholders' power) is higher.

The extraction of private benefits requires co-operation within the control group. Such co-operation is presumably easier in family-controlled firms than in partnership-controlled firms where several business partners have to coordinate their "tunneling" or exploitive moves. It is clear that in general the relations and trust within a family are better than between business partners who are more likely to "contest control" and monitor each other. Consistent with this view, we identify pay premiums for owner CEOs only in family-controlled firms. In partnership-controlled firms the owner CEO pay premium is minute and indistinguishable from zero. In unreported tests

we find that when the firm is controlled by a single person ("lone owner"), i.e., when co-ordination and cooperation are not an issue, the owner CEO pay premium is slightly higher than in regular family firms.

In sum, the details of the owner CEO pay premium - its cash salary form and its increase when control group has more power (higher holdings) and/or is more cohesive (family firms and "lone owners"), also point at and uphold the "managerial power" view.

The practical implication of our study is that corporate governance progress can cut private benefits. There are other Israeli findings consistent with it. Blum et al. (2021) study the value of control in Israeli closely-held firms, as reflected by the prices of large-block control-transfer transactions. They use the Barclay & Holderness (1989) and Barak & Lauterbach (2011) methodologies, and conclude that the value of control in Israeli firms has decreased by about two-thirds since the beginning of the 21st century, a similar trimming rate to that of the owner CEO's pay premium in our sample.

Of the regulatory reforms of Israel, the most interesting and perhaps unique pay reform is the corporate law amendment requiring that owner CEO's pay must be approved by three organs: 1) the Audit committee, 2) the Board of Directors, and 3) a majority of minority shareholders (shareholders who do not belong to the control group). Obtaining an approval of the majority of the minority shareholders in the General Shareholders Meeting is a non-trivial task, especially since some of the minority shareholders, the institutional investors, are knowledgeable. Note that the minority vote is not advisory as an ordinary "Say on Pay" vote; it is abiding. Last, the owner CEO's pay contract must be re-approved once every three years, which possess a further hurdle. We compare owner CEO's pay before and after this amendment and find that it cut the pay premium. Thus, it appears to us that a similar measure might

contribute in curtailing the owner CEO pay premium (or at least the unjustified portion of that pay premium) in other economies as well. We are aware of the failure of CEO pay regulation in the U.S. (Jensen & Murphy, 2018). However, comprehensive corporate governance reforms including empowering the minority in decisions regarding the owner CEO pay contract, appear prudent to us.

Last, our finding that despite of the harsh owner CEO pay regulation, at the end of our sample period there still exists a smaller yet non-trivial pay premium for owner CEOs at family firms might imply that other measures such as public opinion and the media must be mobilized to further curtail the family CEO pay premium. Alternatively, given the relatively high authority and impact of family-firm owner CEOs on their firms, the remaining pay premium may be justified and consistent with classic labor economics' theory and the managerial discretion approach (Finkelstein & Boyd, 1998).

CONCLUSIONS

This study examines how the owner CEO pay premium in closely held firms changes following extensive reforms and progress in corporate governance. We find that the pay premium of owner CEOs in Israel was drastically cut following the advance in Israeli corporate governance since the beginning of the 21st century: from approximately 52% in 1994-2001 to about 14% in 2008-2015. Even within our sample period we document a considerable decline in the owner CEO pay premium following some regulatory pay reforms.

Our evidence suggests that the owner CEO's pay premium is a form of private benefits, as predicted by the managerial power approach of Bebchuk & Fried (2003, 2004, 2005). The findings that most of the pay premium is paid as salary, the pay premium increases with controlling shareholders' holdings, the pay premium is much

larger in family firms (compared to firms controlled by a coalition of business partners), and the pay premium drops following corporate governance reforms, are all consistent with the managerial power view. Perhaps even more important, our evidence suggests that corporate governance progress and explicit regulation of the owner CEO pay premium may prove successful in curtailing it.

NOTES

[1] Some of the tests of Cohen & Lauterbach (2008) add to their regression variables intended to estimate pay performance sensitivities, and find that the owner CEO pay performance sensitivity is (insignificantly) lower than that of the non-owner CEO. When we replicate our tests allowing for differences in pay performance sensitivities, all of our conclusions remain intact, and the differences in pay performance sensitivities are small and statistically insignificant.

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TABLE 1

Sample Composition by Year and Sector

The sample comprises 736 firm-year observations between 2008 and 2015. Firm's sector classification is based on the Tel Aviv Stock Exchange (TASE) classification.

Panel A
Composition by year

Year	2008	2009	2010	2011	2012	2013	2014	2015	Total
Frequency	97	99	104	91	71	91	91	92	736
Percentage	13.18%	13.45%	14.13%	12.36%	9.65%	12.36%	12.36%	12.50%	100.00%

Panel B
Composition by sector

Sector	Observations	Percentage (in our sample)	Percentage (of firms traded on the TASE)
Biomed[a]	18	2.45%	5.36%
Technology[a]	37	5.03%	7.68%
Investment and Holdings	119	16.17%	16.63%
Commerce and Services	158	21.47%	21.38%
Real-Estate and Construction	198	26.90%	22.84%
Industry	206	27.99%	26.11%
Total	736	100.00%	100.00%

[a.] The Biomed and Technology sectors were first launched by the TASE in 2012.

TABLE 2

Sample Descriptive Statistics

The sample period is 2008–2015. *CEO Total compensation* is the sum of salary, bonus, equity awards and other annual compensation in thousands NIS; All compensation measures are winsorized at the 2.5th and 97.5th percentiles. *Annual stock return* is the change in Ln(stock price) from the calendar year's beginning to its end; *Return on Assets* is calculated as the ratio of net income to total assets; *Total assets* is the book value of firm's total assets in millions NIS (New Israeli Shekels); *Risk* is the standard deviation of the daily stock returns in the thirty-six months preceding the end of the year; *Financial leverage* is total debt divided by the book value of equity; *Gender* is a dummy variable equal to 1 (0) when the CEO is a female (male); *Education* is a dummy variable equal to 1 when the CEO has an academic degree and 0 otherwise; *Family firm* is a dummy variable equal to 1 for family firms and 0 for partnership-controlled firms; and *Owner CEO* is a dummy variable equal to 1 when the CEO belongs to the control group and 0 otherwise; *Control group proportion in equity* is the percentage of equity held by the control group; *Outside directors' proportion* is the proportion of outside directors on the firm's Board.

	Mean	Standard deviation	Median	Minimum	Maximum	Number of observations
Compensation:						
CEO total compensation in thousands NIS	3,232	2,392	2,502	498	12,416	736
CEO salary in thousands NIS	1,646	769	1,458	402	4,043	736
CEO bonuses and equity awards in thousands NIS	1,511	2,001	794	0	13,062	736
Firm characteristics:						
Annual stock return	0.046	0.66	0.10	-2.44	2.40	724
Return on Assets (ROA)	0.010	0.22	0.035	-2.78	0.35	727
Total assets in millions NIS	6,346	15,496	1,400	7	131,177	727
Risk	0.028	0.061	0.024	0.010	1.62	724
Financial leverage	2.65	5.20	1.85	0.019	125.56	716

TABLE 2 (Continued)

	Mean	Standard deviation	Median	Minimum	Maximum	Number of observations
CEO characteristics:						
CEO age in years	54.4	8.4	55.0	34.6	80.0	736
Gender (=1 for females, 0 for males)	0.03	0.17	0	0	1	732
CEO education (=1 for academic degree, and 0 otherwise)	0.89	0.31	1	0	1	736
Control structure:						
Family firm (=1 for a family firm, and 0 for a partnership-controlled firm)	0.54	0.50	1	0	1	736
Owner CEO (=1 for owner CEO, and 0 for non-owner CEO)	0.36	0.48	0	0	1	736
Control group proportion in equity	0.60	0.12	0.60	0.25	0.90	736
Outside directors' proportion	0.29	0.09	0.29	0	0.60	736

TABLE 3

Determinants of CEO Compensation

The table reports regression estimates of our benchmark compensation model (Equation 1). The dependent variable is the *natural logarithm of CEO total compensation*, where total compensation is in thousands of New Israeli Shekels (NIS) and is winsorized at the 2.5th and 97.5th percentiles. *Stock return* (logarithmic) is the change in Ln(stock price) over the calendar year; ROA is the return on assets calculated as the ratio of net income to total assets; *Ln(Total assets)* is the natural logarithm of total assets in thousands NIS; *Ln(Risk)* is the natural logarithm of the standard deviation of the daily stock returns in the thirty-six months prior to the end of the year; *Ln(Financial leverage)* is the natural logarithm of the ratio of total debt to the book value of equity; *Ln(Risk)* and *Ln(Financial leverage)* are first regressed on *Ln(total assets)*, and the residuals are used as the risk and leverage independent variables in the regression; *Education* is a dummy variable equal to 1 when the CEO has an academic degree and 0 otherwise; *Age* is CEO's age (in years); *Gender* is a dummy variable equal to 1 (0) when the CEO is a female (male); *Outside directors' proportion* is the proportion of outside directors on the firm's Board. Robust standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Ln (CEO total compensation)	
Model	(1)	(2)
Intercept	4.53***	4.54***
	(0.44)	(0.41)
Stock return (logarithmic)	0.12**	0.13***
	(0.05)	(0.05)
One-year lagged stock return (logarithmic)	0.095*	0.11**
	(0.05)	(0.05)
ROA	0.34*	0.21**
	(0.19)	(0.10)
One-year lagged ROA	0.01	
	(0.15)	
Ln(Total assets)	0.20***	0.20***
	(0.02)	(0.02)
Ln(Risk)	-0.19**	-0.21**
	(0.09)	(0.08)
Ln(Financial leverage)	-0.012	
	(0.028)	
Education	-0.11	
	(0.07)	
Age	0.0027	
	(0.0025)	
Gender	-0.13	
	(0.10)	
Outside directors' proportion	-1.09***	-0.89***
	(0.32)	(0.32)
Industry and year fixed effects	Yes	Yes
Number of observations	678	693
Adjusted R-squared	0.316	0.310

TABLE 4

The Pay Premium of Owner CEOs

The table reports regression results. The dependent variables are the *natural logarithms of CEO total compensation*, *CEO salary*, and *the sum of CEO bonuses and equity awards*. The dependent variables are in thousands of New Israeli Shekels (NIS) and are winsorized at the 2.5th and 97.5th percentiles. *Stock return* is the change in Ln(stock price) over the calendar year; *ROA* is the return on assets calculated as the ratio of net income to total assets; *Ln(Total assets)* is the natural logarithm of total assets in thousands NIS; *Ln(Risk)* is the natural logarithm of the standard deviation of the daily stock returns in the thirty-six months prior to the end of the year; *Ln(Risk)* is first regressed on *Ln(total assets)* and the residuals are used as our risk measure; *Outside directors' proportion* is the proportion of outside directors on the firm's Board; *Owner CEO* is a dummy variable equal to 1 if the CEO belongs to the control group and 0 otherwise. Robust standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Ln (CEO total compensation)	Ln(Salary)	Ln(Bonuses and equity awards)
Model	(1)	(3)	(4)
Intercept	4.24***	5.51***	1.65*
	(0.44)	(0.31)	(0.90)
Stock return (logarithmic)	0.14***	-0.063*	0.46***
	(0.05)	(0.034)	(0.12)
One-year lagged stock return (logarithmic)	0.11**	-0.002	0.26**
	(0.05)	(0.035)	(0.11)
ROA	0.19*	0.14**	0.59**
	(0.10)	(0.068)	(0.26)
Ln(Total assets)	0.22***	0.11***	0.33***
	(0.02)	(0.013)	(0.038)
Ln(Risk)	-0.22**	-0.11**	-0.33**
	(0.09)	(0.056)	(0.16)
Outside directors' proportion	-0.84***	-0.76***	-1.78***
	(0.32)	(0.22)	(0.63)
Owner CEO	0.13***	0.22***	0.053
	(0.05)	(0.036)	(0.10)
Industry and year fixed effects	Yes	Yes	Yes
Number of observations	693	693	547
Adjusted R-squared	0.317	0.236	0.305

TABLE 5

The Decline in Owner CEO Pay Premium Following the Main CEO Pay Reforms in Israel

The table reports regression results. The dependent variables are the *natural logarithms of CEO total compensation*, *CEO salary*, and *the sum of CEO bonuses and equity awards*. The dependent variables are in thousands of New Israeli Shekels (NIS) and are winsorized at the 2.5th and 97.5th percentiles. *Owner CEO* is a dummy variable equal to 1 if the CEO belongs to the control group and 0 otherwise. Robust standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Ln (CEO total compensation)		Ln(Salary)		Ln(Bonuses and equity awards)	
Model	(1) 2008-2010	(2) 2013-2015	(3) 2008-2010	(4) 2013-2015	(5) 2008-2010	(6) 2013-2015
Intercept	3.29***	5.03***	4.65***	6.18***	1.69	2.28**
	(0.72)	(0.52)	(0.48)	(0.46)	(1.43)	(0.91)
Owner CEO	0.18**	0.10	0.30***	0.17***	0.17	-0.007
	(0.08)	(0.07)	(0.06)	(0.06)	(0.18)	(0.13)
p-value of the difference across time[a]	0.62		0.07		0.29	
Other explanatory variables as the parsimonious regression in Table 3	Yes	Yes	Yes	Yes	Yes	Yes
Industry and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	281	259	281	259	208	213
Adjusted R-squared	0.289	0.355	0.281	0.167	0.274	0.351

[a] To test the differences in the owner CEO coefficient between the two sub-periods, we combine the data of the sub-periods, construct a dummy variable for the later sub-period, and add to the CEO pay regression an explanatory variable defined as Owner CEO multiplied by the later-subperiod dummy variable. The *p*-value of this added explanatory term is reported in this row.

TABLE 6

The Pay Premium of Owner CEOs in Family Firms

The table reports regression results. The dependent variable is the natural logarithm of CEO's total compensation, where total compensation is in thousands of New Israeli Shekels (NIS) and is winsorized at the 2.5th and 97.5th percentiles. *Owner CEO* is a dummy variable equal to 1 if the CEO belongs to the control group and 0 otherwise; *Family* is a dummy variable equal to 1 for family firms and 0 for partnership-controlled firms; *Owner CEO*Family* is the interaction term between *Owner CEO* and *Family*. Robust standard errors are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Ln (CEO total compensation)				
	Whole sample	Family firms [a]		Partnership firms	
Model	(1) 2008-2015	(2) 2008-2010	(3) 2013-2015	(4) 2008-2010	(5) 2013-2015
Intercept	4.27***	3.41***	4.98***	2.68***	3.70***
	(0.44)	(1.05)	(0.61)	(0.81)	(0.66)
Owner CEO	0.025	0.36**	0.22**	0.007	0.005
	(0.056)	(0.13)	(0.10)	(0.09)	(0.09)
Family	-0.097*				
	(0.052)				
Owner CEO*Family	0.21**				
	(0.085)				

TABLE 6 (Continued)

	Ln (CEO total compensation)				
	Whole sample	Family firms [a]		Partnership firms	
Model	(1) 2008-2015	(2) 2008-2010	(3) 2013-2015	(4) 2008-2010	(5) 2013-2015
Other explanatory variables as the parsimonious regression in Table 3	Yes	Yes	Yes	Yes	Yes
Industry and year fixed effects	Yes	Yes	Yes	Yes	Yes
Number of observations	693	140	167	141	92
Adjusted R-squared	0.32	0.17	0.36	0.49	0.53

[a] The *p*-value of the difference in the Owner CEO coefficient between the two subperiods is 0.22.