[Article] Executive Compensation and Agency Costs in a Family Controlled Corporate Governance Structure -The Case of Italy

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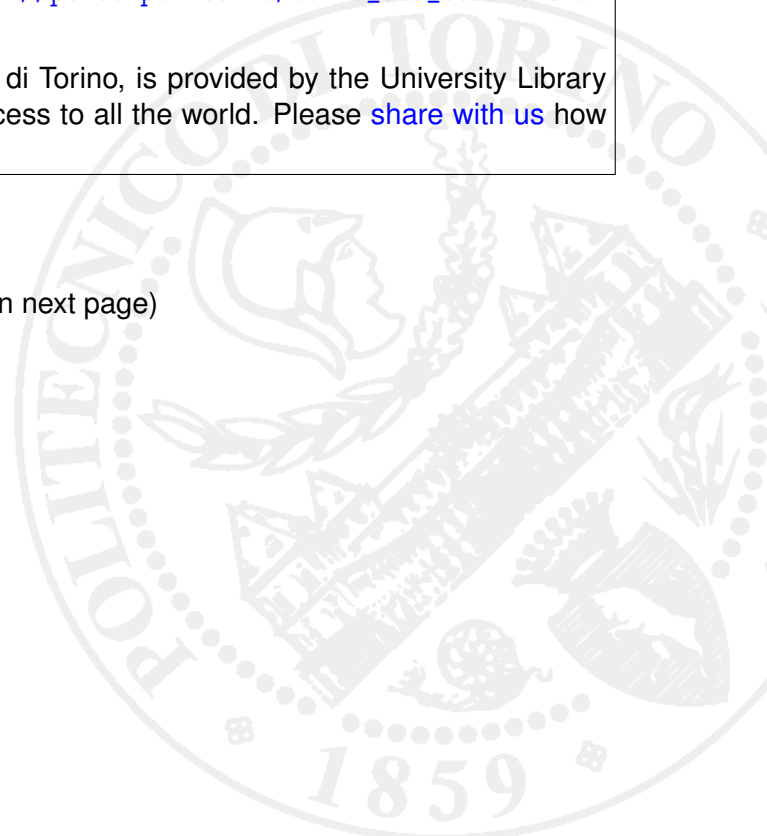
Executive Compensation and Agency Costs in a Family Controlled Corporate Governance Structure -The Case of Italy

Abstract

This paper examines whether dividends are an important mechanism for mitigating agency costs in Italy. Corporate governance in Italy is distinguished by the fact that large number of firms are family controlled. Examining a panel of listed Italian firms from 2000-2007 we find that dividends play a significant role in mitigating agency costs, as they do in many countries. Empirical findings further suggest that increases in family control lead to a higher dividend payout; while higher levels of executive compensation leads to a lower dividend payout. Overall, findings suggest that executive compensation is effective at mitigating agency costs in the environment where family control over corporate governance is prevalent.

Keywords: Dividends, Executive Compensation, Italy, Family Control, Agency Cost

1. Introduction

The finance literature is replete with studies which show that agency costs can be mitigated through executive compensation -specifically through linking executive compensation to dividend policy (La Porta, Lopez-de-Silanes, Shleifer and Vishny (LLSV) [17]). Further, these studies have found that through such linkages, agency costs are mitigated differently in alternative corporate governance structures, which vary by country or institutional environment (LLSV [17]).

In this paper we examine whether such a mitigating mechanism is present in Italy. Corporate governance in Italy is distinguished by the fact that a large number of firms are family controlled with family members often holding such positions as Chief Executive Officer (CEO) of the firm (Volpin [20], Rondi and Elston [18]). The research question we set out to examine is whether the linkage between executive compensation and dividend policy that has been observed in other industrialized countries exists in the Italian family controlled environment.

From a theoretical perspective, the literature suggests that dividend policies may or may not be relevant in mitigating agency costs in a governance environment dominated by family controlled firms. This is because the nature of the agency conflict is somewhat different in market-oriented versus non-market oriented (EU-continental) countries (see Bianchi, Bianco and Enriques [7]). Specifically in market-oriented countries like the US or UK with highly disperse ownership structure, the agency problem arises primarily because of the separation of the ownership and control of the firm. In European continental countries, the agency problem centers more on the expropriation of smaller shareholders by larger or more dominant (family) shareholders (Rondi and Elston [18]). The agency conflict in Italy in particular is one characterized by controlling families which are known to expropriate the wealth of minority investors (Rondi and Elston [18]). Family controlled firms, however, may also experience lower

asymmetries of information, thus reducing agency costs of the firm, so the net impact on agency costs is unclear in this context. The main contribution of this paper is to explore whether dividends are an important governance mechanism to mitigate agency costs in a family controlled environment, such as that found in Italy.

Empirical findings suggest that in Italy 1) family controlled firms pay higher dividends to shareholders and 2) executive compensation is negatively related to the dividend payout, consistent with the idea that more productive managers will reinvest more earnings in the production process. This suggests that the Italian institutional environment with higher degrees of family control is also one where agency costs are at least in part mitigated by the relatively unique corporate governance structure.

This paper is organized in the following manner. In section 2 we detail the characteristics of Italian corporate governance, dividend policy and motivate the paper with a discussion of the underlying theory which informs the model used in this paper. This is followed by section 3 which describes the empirical model used and the definitions of the variables used in our empirical model. Section 4 describes the Italian data, and section 5 presents our empirical results and key findings. Section 6 then concludes the paper and suggests some fruitful directions for future research.

2. The Link between Dividend Policy, Corporate Governance, and Agency Costs

The finance literature provides three paradigms for explaining dividend policy -the clientele theory, the signaling theory and the agency paradigm. Under the clientele theory, investors self sort themselves into clienteles of different payout policies. A change in payout policy will therefore lead to a repositioning of investors into their preferred clientele group. According to signaling theory, dividends act as costly signals of information to the stock market. In the agency paradigm, dividends serve as a mechanism to mitigate the agency costs between managers and shareholders. More recently, Bhattacharyya [3] has advanced a theory based on the agency paradigm in which dividends and earnings are components of screening employment contracts set up by an uninformed shareholder in order to get the managers to reveal their true productivity. In equilibrium, managers of the lowest acceptable productivity are paid the participation wage while managers with higher productivity are paid information rents. This model, has been successful in explaining the link between dividend payout ratios and executive compensations in market-based institutional settings such as the US and Canada, (Bhattacharyya, Mawani, and Morrill (BMM) [5, 6]), and the bank-dominated corporate environment of Germany (Bhattacharyya and Elston [4]). This paper empirically investigates whether dividends retain their importance as the mechanism for mitigating residual agency costs in the Italian family controlled governance environment.

The Italian corporate sector is dominated by family controlled firms (La Porta, Lopez-de-Silanes and Shleifer [16]; Bianchi, Bianco and Enriques [7]; Faccio and Lang [12]). Faccio and Lang [12] find that 65% of large corporations are family controlled in Italy. They also report that the value of corporate assets controlled by the ten largest/leading families measured as a fraction of market capitalization is 20%. Volpin [20] examines family members' participation as CEOs and executives in large Italian corporations, both organized as pyramidal groups and as freestanding (independent) firms, and finds that

50 percent of the top executives are members of controlling families. He also shows that when the controlling shareholder is also the CEO, CEO turnover is not related to firm performance (while the turnover-performance sensitivity is higher when the CEO is not a member of the controlling family). Brunello, Graziano, and Parigi [8] find similar results using a large sample of listed and unlisted Italian firms.

The relationship between family control and agency costs raises a number of interesting issues. Family control is often viewed as a solution of agency costs in that the family, with undiversified interests, has the proper incentives to maximize profits. In the words of Anderson, Mansi and Reeb [1]

> "Founding families are a unique class of investor that have substantial concerns over the firm survival that potentially alleviate agency conflicts. The combinations of undiversified family holdings, the desire to pass the firm onto subsequent generations, and concerns over firm and family reputation suggest that family shareholders are more likely than other shareholders to value firm survival over strict wealth maximization". (page 264)

Favero, Giglio, Honorati and Panunzi [13] find that, after controlling for the appropriate dynamic structure of the market-based measures, Italian family firms outperform widely held firms. Sraer and Thesmar [19] present similar evidence of superior performance of family firms listed on the French stock exchange market, while also finding that family firms tend to pay lower dividends. On the other hand, the separation of cash flow and control rights that is often found in family controlled firms via pyramidal groups, shareholders' agreements (voting coalitions), cross share-holdings or dual class voting structures (see Morck, Wolfenzon and Yeung [15] and, specifically on the Italian case, Bianchi, Bianco and Enriques [7]), allows controlling families, i.e. the insiders, to seek the private benefits of control at the expenses of outside shareholders[1]. Dyck and Zingales [10] estimate private benefits of control measured as block and voting premiums expressed as percentage premium over market value for a large sample of countries and find that in Italy the premiums are as high as 37% and 29% using block and voting premiums respectively (the comparative figure for the U.S. is 2% for both these categories). Barontini and Bozzi [2] examine CEO compensation in Italian family firms and find that CEOs that are members of the controlling family are paid more than professional CEOs. Moreover, higher compensation paid by the controlling family to the CEO (regardless of his/her parental links with the controlling family) is related to lower stock and accounting returns, which can be interpreted as a form of rent extraction, i.e. a premium for the loyalty to the firm and for allowing the family to extract the private benefits of control. Alternatively Gomez-Mejia et. al [13] argue that executive remuneration is lower in firms with family control, because family CEOs are willing to receive lower salary in return for more employment security. This study will provide empirical data to address this conflict in the literature, regarding the relationship between executive compensation and family control within the Italian context. Turning to dividend policy, the combination of family control and ownership concentration often identifies the agency problem as the expropriation of the interests of outside shareholders through low dividend payouts. La

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[1] Faccio and Lang [12] find, for a sample of 193 large Italian listed companies in 1996, that the discrepancy between ownership and control (as measured by the ratio of ownership rights to cash flow rights owned by the largest ultimate controlling shareholder, for corporations with an ultimate owner who owns at least 5% of the shares) is as high as 0.732 (the second highest after Japan, 0.632, amongst the 14 countries examined).

Porta, Lopez-de-Silanes, Shleifer and Vishny (LLSV) [17], for example, find that civil law countries, including Italy, have a lower payout ratio than common law countries do. They also find, however, that within civil law countries, rapidly growing firms (i.e. firms with higher real sales growth rates) appear to pay higher dividends. As it is usually postulated that fast growing firms are more likely to retain larger fractions of earnings to finance growth, this result is interpreted as consistent with an alternative agency view that dividends are a substitute for legal protection (Easterbrook [11]). Paying dividends would thus become a way to establish a reputation "for moderation in expropriating shareholders" (LLSV [17], p. 7) that would enable the firm to raise external funds without leaving too much money on the table. Faccio and Lang [12] look at the dividend policy in relation with pyramidal group affiliation, and find for a sample of Italian companies affiliated to groups that the correlation between the dividend rate and the degree of ownership and control separation (see footnote 1) is positive.

The basic premise of the agency paradigm in our model is the reconciliation of the interests of the shareholders and managers. In a family controlled firm we would expect that the impact of agency costs should be reduced because the distinction between shareholders and managers is blurred considerably. Many of the managers and shareholders are family members, which should reduce informational asymmetries associated with the separation of ownership and control. It is therefore interesting to examine whether, dividends still perform any role in mitigating agency costs in a family controlled environment. Our resulting refutable hypothesis is that managerial compensation is negatively related to dividend payout ratios.

3. The Empirical Model

The theoretical model defines executive compensation as a screening contract offered by uninformed principals to asymmetrically and privately informed managers (Bhattacharyya [3]). The contractible variables are dividends declared and the income generated from a noisy production process. The production function has managerial productivity as one of the factor inputs and shows diminishing marginal output with respect to investment. Managerial productivity is asymmetrically known only to the manager. A screening contract in equilibrium reveals the managerial productivity and determines dividends declared, thereby also determining investment in the noisy production system.

The equilibrium result shows that with higher managerial productivity the dividend payout ratio decreases. The intuition behind this result is that a manager with higher productivity will be induced to invest more in the production process and therefore have less cash to pay out as dividends. The equilibrium result shows that managerial compensation is increasing in managerial productivity. Since managerial productivity is not directly observable, we can focus on the observable components and posit the testable hypothesis that managerial compensations are negatively related to dividend payout ratios. Figure 1 (reproduced from BMM [6]) shows the causal linkages schematically.

<< Figure 1 about here >>

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We start with the basic equation used in BMM [6].The derivation of the econometric relationship is given in the Appendix.[2]

$$\ln\left(1 - PAYOUT\right) = \beta_0 + \beta_1 COMPENSATION + \beta_2 DIVIDEND + \beta_3 LNINCOME + \tilde{\varepsilon} \qquad (1)$$

where PAYOUT is cash dividends declared to common shareholders divided by net income available to common shareholders ; COMPENSATION is base compensation plus bonus compensation; DIVIDEND is cash dividends declared to common shareholders; and LNINCOME is the log of net income available to common shareholders.[3] In order to test our hypotheses regarding the relationship between executive compensation and dividend payout we test our model empirically, with the following predicted signs for the coefficients:

$$\beta_1 > 0$$
$$\beta_2 < 0$$
$$\beta_3 < 0$$

In order to control for other possible determinants of payout ratio we also run regressions with the following additional independent variables. These are:

FAMCON A dummy variable for family controlled firms. In a family controlled firm, family ties and loyalties might serve to mitigate agency costs. Moreover in a family controlled firm, family members have an incentive to establish higher payout ratios as they might prefer to pay out the money to themselves rather than leave it in the coffers of the company. So we expect the sign for the coefficient for this variable to be negative.

DEBTEQUT Debt-Equity Ratio. Higher debt equity means the management will have to retain more cash in the company so as to avoid the possibility of financial distress resulting from excessive debt obligations or financial embarrassment. We would therefore expect the sign for this coefficient to be positive.

MTB Market to Book Ratio. This is often used as a proxy for investment opportunity. More investment opportunity means the company will retain more of its cash flow for investment. We would therefore expect that this variable will have a positive sign.

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[2] The econometric relationship tested is not tautological. We can trivially show that $\dfrac{\partial \ln\left(1 - Payout\ Ratio\right)}{\partial Income} > 0$. So if our econometric equation was tautological then we would have had β_3 > 0. But our prediction is β_3 < 0. Natural logarithm is represented as *ln* per convention in our model.

[3] While the Board generally makes the dividend payout decisions, it is outside the scope of our model to address this process. The main focus of this paper is the mitigation of agency costs in a family controlled environment and not in how this control manifests itself.

Because the dependent variable is a censored variable we have to use Tobit for estimation.

4. Data

Our study uses a panel of publicly traded Italian manufacturing companies. The empirical estimates are run on an unbalanced panel of 77 manufacturing firms listed on the Italian exchange and tracked over the period 2000-2007[4]. This time frame is imposed by the fact that managerial compensation data only became publicly available in Italy in 2000, when CONSOB, (Commissione Nazionale per le Societ`a e la Borsa), the national authority ruling on equity markets (the Italian counterpart of the US Securities Exchange Commission) released a new rule whereby listed companies are required to disclose detailed information on managerial compensation in their annual reports.

The corporate governance structure of the firm is complex, and as such our study focuses on one key variable, executive compensation. The data for this measure were collected from annual end-of-year reports using the classification system required by the CONSOB which includes, inter alia, Base Compensation, Bonuses (Monetary Benefits) and Non-Monetary Benefits. We used the sum of Base Compensation and Bonus as our COMPENSATION variable in estimating the regression coefficients. As a check for the robustness of our results we also repeated the estimates using the sum of Base Compensation, Bonus and Non-Monetary Benefits.

The compensation data is complemented with annual financial and accounting firm-level data taken from the CERIS database[5]. The panel we use in this paper comprises 586 firm-year observations for 77 manufacturing firms from 2000 to 2007. There is a large body of literature which documents the fact that a large majority of Italian listed firms, even the very large mature ones, are ultimately family-controlled (Rondi and Elston [18]; Carpenter and Rondi [9]; Volpin [20]). Further these family owners are often members of pyramidal groups where ownership and control are seemingly separated but members of the founding family keep executive roles. In order to test the impact of family ownership we therefore constructed a dummy variable for Family control/ownership or FAMCOM, based on publically available information from CONSOB which details shareholder information for shareholders with > 2% stakes. In

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[4] Our sample includes the entire Italian market at that time, excluding only those firms which were not appropriate for our study such as those that had less than three continuous years of data, financial firms, service companies, public utilities and objects of major merger and divestiture operations. The final sample totaled 77 out of the original 223 in the Industrial Companies Sector of the Exchange as of 2007, or about 49% of the Italian Exchange in terms of market capitalization.

[5] The database contains extensive information on 1800 Italian manufacturing firms over the period 1977-2007. It was constructed, and updated, at CERIS-CNR using multiple sources. Balance sheet, dividends and stock exchange data are collected from two annual directories, Le Principali Societ`a, Indici e Dati and Il Calepino dell'Azionista, all published by Mediobanca, a large Italian investment bank. Extensive information about the firms' ultimate ownership, group affiliation, location, age, and business activity was obtained from Dun & Bradstreet, company websites, annual reports and other directories.

particular, we matched the individual investors equity shareholding with his/her presence on the board of directors as well as his/her executive (or non-executive) role in the board. Thus, a firm is defined as family controlled if a family member(s) either owns a majority stake in the firm, or are owner-managers of the firm (Rondi and Elston [18]).

In all but two firms, the managing family members also held a controlling (>50%) stake in the firm, so that 44 of 77 firms were categorized as family-controlled in our data.

We started with the total number of firms published in CONSOB, which comprises 77 firms or 586 firm-year observations but excluded three firms for which there was no data on managerial compensation. We then excluded observations with negative net income, because the model requires that we use the logarithm of net income, so net income must be positive.

Descriptive statistics for the data are given in Table A.1. PAYOUT is calculated as the ratio of total dividends to net income. DEBTEQT is the total debt to (book) equity ratio, and MTB is the ratio of the book value to the market value of equity. Industry dummies cover 21 two-digit manufacturing industries of the NACE (EU) classification system.

5. Results

The descriptive statistics for the data are given in Table A.1.

<<Table 1 about here>>

The correlation coefficients for the variables are given in Table A.2.

<<Table 2 about here>>

The results of the regression are shown in Table A.3

<<Table 3 about here>>

We can see from Table A.3 that two of the three predictions of the model are validated by the data. To recapitulate, our prediction was a positive sign for COMPENSATION, and negative signs for DIVIDEND and LNINCOME. Because our predicted signs for the coefficients on equation (1) are one-way, the corresponding one-sided t-tests for these key coefficients show that both the COMPENSATION and DIVIDEND variables are statistically significant and in accordance with predictions of our theory. Recalling that our dependent variable is defined as one minus the dividend payout, the data supports our hypothesis that managerial compensation is negatively related to dividend payout ratios and is consistent with our model, which suggests that higher compensation leads to lower dividend payments because

higher executive compensation is associated with high quality managers with access to positive net present valued projects. In terms of our agency problem, we can also interpret this result in the light that once we have controlled for family controlled firms (FAMCOM), executive compensation reduces the need for dividend payments. This suggests that executive compensation is effective at mitigating agency costs within this family controlled environment. Overall these results are consistent with the findings of LLSV [17] and Easterbrook [11] and with the empirical evidence of superior performance for Italian firms by Favero et al. [13]. From this point of view Italian family firms appear to differ from French family firm, which pay lower dividends, in line with the expropriation hypothesis (Sraer and Thesmar [19]).On examining the Wald χ^2 statistic we see that the equation as a whole is not significant when the FAMCON variable (a dummy variable which captures whether a firm is family controlled or not) is not included as an independent variable. Many firms are family controlled in Italy and this demonstrates that FAMCON is an important explanatory dummy variable and that omitting it in estimates would lead to an omitted variable bias.[6]

We can see that the signs of FAMCON and DEBTEQUT are in accordance with the theory and are significant. The signs of LNINCOME and MTB are different from the predictions of the theory, and fail the one-sided t-tests for significance. One possible reason for this outcome is that the model assumes a linear compensation function and a logarithmic production function. Real life compensation functions are non-linear and a linear compensation function is assumed for reasons of tractability. Similarly it is possible that production functions in Italy depart significantly from the logarithmic production function underlying this model. Future research efforts are suggested towards creating and testing models with non linear compensation functions and non-logarithmic production functions. However, the results of this paper clearly show that even in an environment of family control over dividends still play a significant role in mitigating agency costs.

5.1. Checks for Robustness

In order to ensure the robustness of our results we repeated our analysis using several alternative measures of key variables, for example for compensation we tested our model adding non-monetary benefits to the compensation measure, as well as using the ratio of investment to capital stock and investment to sales as alternative measures of investment, with no substantive change in empirical results. To enhance construct validity instead of using the FAMCON variable we alternatively tested a dummy variable for firms that had complied with the Italian corporate governance best practice code.[7] To control

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[6] In unreported estimates the interaction variable FAMCON*COMPENSATION was not statistically significant in predicting dividends; this indicates that the positive relationship between compensation and retained earnings does not differ between family controlled and non-family controlled firms. We interpret this as providing support for our model which suggests that compensation leads to a reduction in dividends because higher compensation is related to CEOs with higher NPV projects, leaving less cash for dividends.

[7] The dummy variable was set equal to 1 if the firm complied with all norms by the Corporate Governance Self Discipline Code (Preda code) and zero otherwise. This variable uses information from three sections of the code indicating: i) whether the firm's board includes clearly identifiable, non-executive directors, ii) if an auditing committee exists with the required number of independent and non-executive directors, and iii) if the investor relations officer was also appointed to the board. (Rondi and

for holdings by institutional investors, estimates were also run with a dummy variable for firms with institutional ownership of at least 2%. We find that our results are robust. In addition, we also controlled for the level of inflation and for the business cycle by including time dummies in regressions, which strengthened our results. Finally, as a control for unobservable heterogeneity all regressions were run with industry dummies.

6. Conclusion

The results of this paper clearly show that even in an environment of family control, dividends still play a significant role in mitigating agency costs per our model's predictions. Increases in executive compensation (denoting more productive managerial types) appear to reduce the dividend payout to shareholders.

However, we also find that in family controlled firms the dividend payout is higher. This is consistent with the family's attempt to establish a reputation for moderation in expropriating minority shareholders as suggested by (LLSV [17]). One interpretation is that family control may reduce the agency problem, forcing non-family management to pay out dividends rather than find alternative uses for the funds. This suggests that the Italian institutional environment with higher degrees of family control, is also one where agency costs are at least in part mitigated by the relatively unique corporate governance structure.

This paper contributes to the literature ((LLSV [17]), Bianchi, Bianco and Enriques [7]) by providing empirical evidence on the role of dividends and executive compensation in mitigating agency costs in a family controlled environment ---Italy. One would expect that in an environment of family control, agency costs would be mitigated by family relationships. However our research demonstrates that dividends do play a role in mitigation of agency costs even in a family controlled environment. Future research efforts in this area could take several potentially informative directions. First, since real life compensation functions are non-linear and a linear compensation function is assumed only for reasons of tractability, it might be interesting to examine alternative functional forms of compensation. Alternatively, it is possible that production functions in Italy depart significantly from the logarithmic production function underlying this model. Development and testing of alternative models with non-linear compensation functions and non-logarithmic production functions may prove fruitful. In addition, this research suggests it is important to examine the agency costs and dividend behaviors in alternative institutional and governance environments. In particular the literature is minimal for studies on institutional environments for smaller countries and emerging economies which are of increasing importance and interest to the global markets.

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Appendix

This section outlines the derivation of the structural equation used in estimating the Tobit regression. The full derivation can be found in BMM [6].

Consider a linear compensation contract, $\hat{\omega}_j = b_0 + b_D D_j + b_Y \hat{Y}_j$

Where

$\hat{\omega}_j$ is the managerial compensation for the j-th firm. It is a stochastic variable because it is dependent on the stochastic output $\hat{Y}_j$,

D_j is the dividends declared for the j-th firm.

$\hat{Y}_j$ is the stochastic output from a production function given by $\hat{Y}_j = \theta_j \ln\left(C_j - D_j\right) + \hat{\varepsilon}_j$

C_j is the cash available for firm j.

θ_j is the managerial productivity parameter. θ_j is asymmetrically known only to the manager.

$\hat{\varepsilon}_j$ is random noise. Because of this noise it is not possible to infer θ_j by observing $\hat{Y}_j$, C_j and D_j.

b_D, b_Y, b_0 are coefficients.

From the compensation contract, after substituting for $\tilde{Y}_j$ we get,

$$\hat{\omega}_j = b_0 + b_D D_j + b_Y \hat{Y}_j$$
$$= b_0 + b_D D_j + b_Y \theta_j \ln\left(C_j - D_j\right) + \hat{\varepsilon}_j$$
$$= b_0 + b_D D_j + b_Y \theta_j \ln\left(C_j\left(1 - \frac{D_j}{C_j}\right)\right) + \hat{\varepsilon}_j$$
$$= b_0 + b_D D_j + b_Y \theta_j \ln C_j + b_Y \theta_j \ln\left(1 - \frac{D_j}{C_j}\right) + \hat{\varepsilon}_j$$
$$\Rightarrow b_Y \theta_j \ln\left(1 - \frac{D_j}{C_j}\right) = \hat{\omega}_j - b_0 - b_D D_j - b_Y \theta_j \ln C_j - \hat{\varepsilon}_j$$
$$\Rightarrow \ln\left(1 - Payout\ Ratio\right) = \frac{1}{b_Y \theta_j}\hat{\omega}_j - \frac{b_0}{b_Y \theta_j} - \frac{b_D}{b_Y \theta_j}D_j - \ln C_j - \frac{1}{b_Y \theta_j}\hat{\varepsilon}_j \because Payout\ Ratio = \frac{D_j}{C_j}$$

The econometric equation that is suggested by the above is

$$\ln\left(1 - PAYOUT\right) = \beta_0 + \beta_1 COMPENSATION + \beta_2 DIVIDEND + \beta_3 LNINCOME + \tilde{\varepsilon}$$

where PAYOUT is cash dividends declared to common shareholders divided by net income available to common shareholders ; COMPENSATION is base compensation plus bonus compensation; DIVIDEND is cash dividends declared to common shareholders; and LNINCOME is the log of net income available to common shareholders. The predicted signs for the coefficients are:

$$\beta_1 > 0$$
$$\beta_2 < 0$$
$$\beta_3 < 0$$

Table A.1: Descriptive Statistics

Item	N	Mean	Median	Standard Deviation	Minimum	Maximum
PAYOUT	390	0.39	0.36	0.25	0	0.99
COMPENSATION	357	542.26	375.98	830.13	0	6648
DIVIDEND	390	19834	5250	44261	0	509400
LNINCOME	390	9.68	9.61	1.72	3.69	14.49
DEBTEQUT	390	0.54	0.32	0.71	0	6.14
MTB	390	2.15	1.76	1.60	0.29	11.79

PAYOUT is cash dividends declared to common shareholders divided by net income available to common shareholders. COMPENSATION is base compensation plus bonus compensation. DIVIDEND is cash dividends declared to common shareholders. LNINCOME is the log of net income available to common shareholders. DEBTEQUT is the Debt-Equity Ratio. and MTB is the Market to Book Ratio. COMPENSATION, DIVIDEND and INCOME are in thousands of Euros.
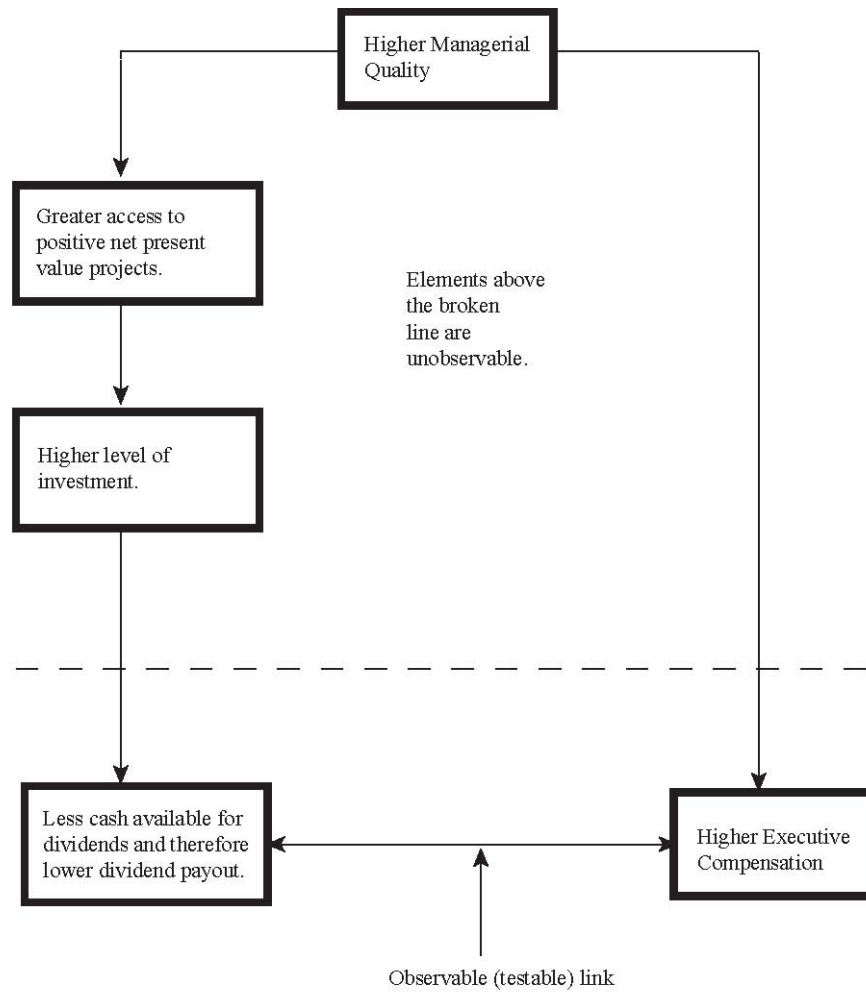
Figure A.1: A Model of Executive Compensation and Dividend Payout-Reproduced from BMM [6]

	PAYOUT	COMPENSATION	DIVIDEND	LNINCOME	DEBTEQUT	MTB
PAYOUT	1					
COMPENSATION	-0.04	1				
DIVIDEND	0.02	0.63	1			
LNINCOME	-0.04	0.46	0.61	1		
DEBTEQUT	-0.17	0.11	-0.06	-0.02	1	
MTB	0.08	0.07	0.05	0.22	-0.33	1

PAYOUT is cash dividends declared to common shareholders divided by net income available to common shareholders.

COMPENSATION is base compensation plus bonus compensation. DIVIDEND is cash dividends declared to common

shareholders. LNINCOME is the log of net income available to common shareholders. DEBTEQUT is the Debt-Equity Ratio.

and MTB is the Market to Book Ratio. COMPENSATION, DIVIDEND and INCOME are in thousands of Euros.

Table A.3: Regression Results

Independent Variables	Predicted Sign	Coefficients (Asymptotic t-Statistics)		
		Model 1	Model 2	Model 3
CONSTANT	?	-0.99*** (-2.58)	-0.97** (-2.52)	-1.19*** (-3.02)
COMPENSATION	+	0.12×10^{-3}* (1.37)	0.14×10^{-3}* (1.56)	0.14×10^{-3}* (1.52)
DIVIDEND	-	-0.23×10^{-5} (-1.27)	-0.35×10^{-5}** (-1.90)	-0.42×10^{-5}** (-2.23)
LNINCOME	-	0.25×10^{-1} (0.6)	0.46×10^{-1} (1.13)	0.74×10^{-1} (1.72)
FAMCON	-		-0.39*** (-3.50)	-0.4*** (-3.51)
DEBTEQUT	+			0.19** (2.18)
MTB	+			-0.61×10^{-1} (-1.67)
Pseudo R^2		0.006	0.028	0.06
Wald χ^2		2.482	14.665*** 357	25.66***
N		357		357

PAYOUT is cash dividends declared to common shareholders divided by net income available to common shareholders. COMPENSATION is base compensation plus bonus compensation. DIVIDEND is cash dividends declared to common shareholders. LNINCOME is the log of net income available to common shareholders. DEBTEQUT is the Debt-Equity Ratio and MTB is the Market to Book Ratio. COMPENSATION, DIVIDEND and INCOME are in thousands of Euros.

The dependent variable is $\ln(1 - PAYOUT)$. PAYOUT is cash dividends declared to common shareholders divided by net income available to common shareholders. COMPENSATION is base compensation plus bonus compensation. DIVIDEND is cash dividends declared to common shareholders. LNINCOME is the log of net income. FAMCON is a dummy variable for family controlled firms. In a family controlled firm, family ties and loyalties might serve to mitigate agency costs. Moreover in a family controlled firm, family members have incentive to establish higher payout ratio as they might prefer to keep the money with themselves rather than in the coffers of the company. So we expect the sign for the coefficient for this variable to be negative. DEBTEQUT is the Debt-Equity Ratio. MTB is the Market to Book Ratio. We would therefore expect that this variable will have a positive sign. COMPENSATION, DIVIDEND and INCOME are in thousands of Euros. We have also used industry dummies covering 21 two-digit manufacturing industries of the NACE (EU) classification system; the coefficients are not reported here for reasons of brevity. Tests for Compensation, Dividend, and Income coefficients per our model are appropriately one-sided t-tests.