

Agency Issues in a Family Controlled corporate governance—The case of Italy

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AGENCY ISSUES IN A FAMILY  
CONTROLLED CORPORATE  
GOVERNANCE STRUCTURE

THE CASE OF ITALY

Nalinaksha Bhattacharyya, Julie Ann Elston  
Laura Rondi

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# Agency Issues in a Family Controlled Corporate Governance Structure

## The Case of Italy

Nalinaksha Bhattacharyya<sup>†</sup>

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Laura Rondi<sup>§</sup>

February 22, 2011

**ABSTRACT.** This study provides empirical evidence on the relationship between dividend payout ratios, executive compensation and agency costs in Italy. Corporate governance in Italy is distinguished by the fact that a large number of Italian firms are family controlled, which may theoretically reduce asymmetry of information and associated agency costs. Using a panel of listed manufacturing firms we find evidence that family control plays a significant role in resolving agency issues, i.e. that increases in family control of the firm lead to a higher dividend payout. Nevertheless, as we also find that managerial compensations are negatively related to dividend payout ratios, even in this family controlled environment, dividends do play their role in mitigating agency problems.

JEL CLASS.: G32, G35

**KEYWORDS:** Corporate Governance, Managerial Compensation, Dividends, Family Firms, Italy

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# Agency Issues in a Family Controlled Corporate Governance Structure

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**NON-TECHNICAL SUMMARY.** Agency issues arise when there is a separation between ownership and management. The central problem in agency issues is how to align the interest of the shareholders with those of the managers. One of the mechanisms to resolve agency issues is through executive compensation, specifically through linking executive compensation to dividend policy. Many studies have found that through such linkage agency issues are mitigated in corporate set ups. These studies have been done in US, Canada and Germany. 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 Italian firms are family controlled and with family members often holding such positions as Chief Executive Officer (CEO) of the firm. Using an unbalanced panel of 77 manufacturing firms listed on the Italian exchange and tracked over the period 2000-2007 we examine whether the linkage between executive compensation and dividend policy that has been observed in other industrialized countries exists in a family controlled corporate governance environment as found in Italy. We find that even in an environment of family control over corporate governance, dividends still play a significant role in resolving agency issues. We also see that increases in family control of the firm lead to a higher dividend payout. This result suggests that family control does indeed impact the dividend decision of the firm, and reveals that the Italian institutional environment with higher degrees of family control, is also one where agency costs are in part mitigated by their relatively unique corporate governance structure. Nevertheless, as we also find that managerial compensations are negatively related to dividend payout ratios, even in this family controlled environment, dividends do play their role in mitigating agency problems.

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# Agency Issues in a Family Controlled Corporate Governance Structure—The Case of Italy

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February 22, 2011

## 1 Introduction

Agency issues arise when there is a separation between ownership and management. The central problem in agency issues is how to align the interest of the shareholders with those of the managers. One of the mechanisms to resolve agency issues is through executive compensation—specifically through linking executive compensation to dividend policy. Many studies have found that through such linkage agency issues are mitigated in corporate set ups. These studies have been done in US, Canada and Germany. 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 Italian firms are family controlled and with family members often holding such positions as Chief Executive Officer (CEO) of the firm (Volpin, 2002; Elston and Rondi, 2009). 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 a family controlled corporate governance environment as found in Italy.

From a theoretical perspective, we posit that dividend policies may be relevant in resolving agency issues even in a governance environment dominated by family controlled firms. Earlier research has found that in more market based systems such as the US and Canada, dividends are in fact instrumental in solving agency issues. Prior empirical research has also found that dividends have a role in mitigating agency conflicts in a bank-dominated corporate environments like that in Germany (Elston and Goldberg, 2003). This paper extends the findings of earlier research by empirically investigating whether dividends retain their importance as the mechanism for resolving

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residual agency issues in a family controlled governance environment like Italy

This paper is organized in the following manner. In section 2 we describe the characteristics of Italian corporate governance 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 dataset used, and section 5 presents our results and discusses our findings. Section 6 concludes.

## **2 Motivating the Paper: Italian Corporate Governance and Dividend Policy**

Understanding dividend policy has been a long standing financial puzzle. At the start of the last quarter of the Twentieth century, Black (1976) wrote :

“ the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just dont fit together” (page 5)

The answer to the dividend puzzle still eludes researchers in the first decade of the twenty first century. Baker and Wurgler (2004) wrote:

“Despite much study, researchers still do not have all the answers to the dividend puzzle.” (page 16)

There are 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 policy. A change in payout policy will will therefore lead to a repositioning of investors into their preferred clientele group. According to signalling theory, dividends act as costly signals of information to the stock market. In the agency paradigm, dividends serve as a mechanism to resolve the agency issues between managers and shareholders.

More recently, Bhattacharyya (2007) 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 the 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 the US, Canada, and Germany. [Bhattacharyya, Mawani, and Morrill, 2008a and 2008b, (BMM), and Bhattacharyya and Elston (BE) 2009]. The Italian corporate governance structure and alternative institutional environment in Italy provide an opportunity to examine the role of dividends in the potential mitigation of agency problems in a family controlled corporate governance set up.

The Italian corporate sector is dominated by family controlled firms (La Porta, Lopez-de-Silanes, Shleifer and Vishny, LLSV 1999; Bianchi, Bianco and Enriques, 2001, Faccio and Lang, 2002). Faccio and Lang (2002) 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 (2002) 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 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 (2003) find similar results using a large sample of listed and unlisted Italian firms.

The relationship between family control and agency problems raises a number of interesting issues. Family control is often viewed as a solution of agency problems in that the family, with undiversified interests, has the proper incentives to maximize profits. In the words of Anderson, Mansi and Roebb (2003)

”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)

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-shareholdings or dual class voting structures (see Bianchi, Bianco and Enriques, 2001; Morck, Wolfenzon and Yeung, 2005), allow the controlling families, i.e. the insiders, to seek private benefits of control at the expenses of outside shareholders<sup>1</sup>. Dick and Zingales (2004) 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 (2009) 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, the 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 and this is interpreted as a form of rent extraction, i.e. a premium for the loyalty to the firm and for allowing the family to extract private benefits of control.

<sup>1</sup>Faccio and Lang (2001) 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).

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. LLSV (2000) 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, 1984). Paying dividends would thus become the way to establish a reputation “for moderation in expropriating shareholders” (LLSV, p. 7) that would enable the firm to raise external funds without leaving too much money on the table. Faccio and Lang (2001) 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 issue should be less because the distinction between shareholders and managers is blurred considerably. It is therefore interesting to examine whether under such a family controlled governance scenario, dividends still perform any role in resolving agency issues.

### 3 The Empirical Model

The theoretical underpinning for this paper was developed in Bhattacharyya (2007), which models executive compensation as a screening contract offered by uninformed principals to asymmetrically and privately informed managers. 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 dividend payout ratio decreases. The intuition behind the result is that a manager with higher productivity will be induced to invest more in the production process and thereby having 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) shows the causal linkages schematically.

<< *Figure 1 about here* >>

We start with the basic equation used in BMM. The derivation of the econometric relationship is given in the Appendix.<sup>2</sup>

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

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. In order to test our hypotheses regarding the relationship between executive compensation and dividend payout we test our model empirically, with the predicted signs for the coefficients:

$$\begin{aligned} \beta_1 &> 0 \\ \beta_2 &< 0 \\ \beta_3 &< 0 \end{aligned}$$

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 issues. 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** 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 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.

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

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<sup>2</sup>The econometric relationship tested is not tautological. We can trivially show that  $\frac{\partial \ln(1 - PayoutRatio)}{\partial Income} > 0$ . So if our econometric equation was tautological then we would have had  $\beta_3 > 0$ . But our prediction is  $\beta_3 < 0$ .

tracked over the period 2000-2007<sup>3</sup>. 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 Società 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 compensation in their annual reports.

Managerial or executive compensation is the key variable in our study. 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 repeated the estimate 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<sup>4</sup>. 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, 2009, Carpenter and Rondi, 2006, and Volpin 2002). 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 for Family control/ownership or FAMCOM, based on publically available information from CONSOB which details shareholder information for shareholders with  $> 2\%$  holdings.

We started with the total number of firms with published data 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 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.

<sup>3</sup> Our sample includes the entire Italian market at this 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.

<sup>4</sup>The database contains extensive information on 1800 Italian manufacturing firms over the period 1977-2007. It is constructed, and updated, at CERIS-CNR using multiple sources. Balance sheet, dividends and stock exchange data are collected from two annual directories, *Le Principali Società, 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.

## 5 Results

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

<<Table 1 about here>>

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

<<Table 2 about here>>

The results of the regression are shown in Table 3

<<Table 3 about here>>

We can see from Table 3 that the two of the three predictions of the model are validated by data. To recapitulate, our prediction was a positive sign for COMPENSATION, and negative signs for DIVIDEND and LNINCOME. Regression results using the one-sided t-tests for these key coefficients show that the COMPENSATION and DIVIDEND variables are statistically significant and in accordance with predictions of our theory.

On examining the Wald  $\chi^2$  statistic we see that the equation as a whole is not significant when 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 omitting it will lead to the omitted variable bias.

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 departs significantly from logarithmic production function underlying this model. Future research would be directed towards creating models with non linear compensation functions and non-logarithmic production functions. However, the results of this paper clearly shows that even in an environment of family control over corporate governance dividends still play a significant role in resolving agency issues.

### 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 results of 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 FAMCON we alternatively tested a dummy variable for firms that had complied with the PREDA or Italian best practices code<sup>5</sup>. To control 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 included time and industry dummies in regressions, which strengthened our results.

## 6 Conclusion

The results of this paper clearly shows that even in an environment of family control over corporate governance dividends still play a significant role in resolving agency issues. This is consistent with the Bhattacharyya (2007) model for explaining dividend behavior. We also see that increases in family control of the firm lead to a higher dividend payout. This result suggests that family control does indeed impact the dividend decision of the firm, and reveals that the Italian institutional environment with higher degrees of family control, is also one where agency costs are in part mitigated by their relatively unique corporate governance structure. Nevertheless even in this family controlled environment dividends do play their role in mitigating agency issues. Future research efforts could look into alternative institutional and governance structures and its impact on dividend policy.

## 7 References

- Anderson, Ronald C., Sattar A. Mansi, and David M. Reeb, (2003), Founding Family Ownership and the Agency Cost of Debt. *Journal of Financial Economics*, 68(2): 263-285
- Baker, Malcolm. and Wurgler, Jeffrey., "A Catering Theory of Dividends", *Journal of Finance*, 59(3), (2004), 1125-1165.
- Barontini R., Bozzi S. (2009), CEO Compensation and Performance in Family Firms, unpublished manuscript, Milan, September.
- Bhattacharyya, Nalinaksha, "Good Managers Invest More and Pay Less Dividends: A Model of Dividend Policy," *Advances in Financial Economics*, 12, (2007), 91-117.

<sup>5</sup>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 firms 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 Elston, 2009)

- Bhattacharyya, Nalinaksha, Mawani, Amin & Morrill, Cameron K. J., (2008a), "Dividend Payout and Executive Compensation: Theory and Evidence," *Accounting and Finance*, 48(40), 521-541.
- Bhattacharyya, Nalinaksha, Mawani, Amin & Morrill, Cameron K. J., (2008b), "Dividend Payout and Executive Compensation: Theory and Canadian Evidence", *Managerial Finance*, 34(8), 585-601.
- Bhattacharyya, Nalinaksha, & Julie Ann Elston, (2011) Dividends, Executive Compensation, And Agency Costs: Empirical Evidence From Germany," Forthcoming in *Journal of Accounting & Finance*.
- Bianchi, M. and Bianco, M., & Enriques, L. (2001). Pyramidal Groups and the Separation Between Ownership and Control in Italy, in: Barca F. and M. Becht, (eds.), *The Control of Corporate Europe*, Oxford University Press.
- Black, Fischer, "The Dividend Puzzle", *Journal of Portfolio Management*, 2(2), (1976), 5-8.
- Brunello, G., Graziano, C. & Parigi B. (2003), J, CEO Turnover in Insider Dominated Boards: The Italian Case, *Small Business Economics*, 27, pp. 1027-1051.
- Carpenter R. E., Rondi L. (2006), Going public to grow? Evidence from a panel of Italian firms, *Small Business Economics*, December, 27 (4-5), pp. 387-407.
- Dick, A. & L. Zingales (2004), Private Benefits of Control: An International Comparison", *Journal of Finance*, 59 (2), pp. 537-600.
- Easterbrook, Frank (1984), Two Agency Cost Explanations of Dividends, *American Economic Review*, September 1984, 74(4), pp.650-659.
- Elston, Julie Ann & Goldberg, Lawrence G., (2003), "Executive Compensation and Agency Costs in Germany", *Journal of Banking and Finance*, 27(7), 1391-1410.
- Faccio, M. and Lang, L. H. K. (2001), Dividends and Expropriation, *American Economic Review*, 91, pp. 54-78.
- Faccio, M., and Lang, L. H. P. (2002), The Ultimate Ownership of Western European Corporations, *Journal of Financial Economics*, 65(3), pp. 365-95.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., (1999), Corporate Ownership Around the World, *Journal of Finance* 54, pp. 471-517.
- Morck, R., Wolfenzon, D. & Yeung, B. (2005), Corporate Governance, Economic, Entrenchment, and Growth, *Journal of Economic Literature*, vol. XLIII, September, pp. 655-720.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny (2000), Agency Problems and Dividend Policies Around the World, *Journal of Finance*, February 55(1), pp.1-33.

Rondi L., and Elston J. A. (2009), Corporate Governance and Capital Accumulation: Firm level Evidence from Italy, *Scottish Journal of Political Economy*, 56(5), pp.634-661.

Volpin F. (2002), Governance with Poor Investor Protection: evidence from top executive turnover in Italy, *Journal of Financial Economics*, 64, pp. 61-90.

## A Appendix

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

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

Where

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

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

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

$C_j$  is the cash available for firm j.

$\theta_j$  is the managerial productivity parameter.  $\theta_j$  is asymmetrically known only to the manager.

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

$b_D$ ,  $b_Y$ ,  $b_0$  are coefficients.

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

$$\begin{aligned}
 \tilde{\omega}_j &= b_0 + b_D D_j + b_Y \tilde{Y}_j \\
 &= b_0 + b_D D_j + b_Y \theta_j \ln(C_j - D_j) + \tilde{\epsilon}_j \\
 &= b_0 + b_D D_j + b_Y \theta_j \ln\left(C_j \left(1 - \frac{D_j}{C_j}\right)\right) + \tilde{\epsilon}_j \\
 &= b_0 + b_D D_j + b_Y \theta_j \ln C_j + b_Y \theta_j \ln\left(1 - \frac{D_j}{C_j}\right) + \tilde{\epsilon}_j \\
 \Rightarrow b_Y \theta_j \ln\left(1 - \frac{D_j}{C_j}\right) &= \tilde{\omega}_j - b_0 - b_D D_j - b_Y \theta_j \ln C_j - \tilde{\epsilon}_j \\
 \Rightarrow \ln(1 - \text{PayoutRatio}) &= \frac{1}{b_Y \theta_j} \tilde{\omega}_j - \frac{b_0}{b_Y \theta_j} - \frac{b_D}{b_Y \theta_j} D_j - \ln C_j - \frac{1}{b_Y \theta_j} \tilde{\epsilon}_j \\
 \therefore \text{PayoutRatio} &= \frac{D_j}{C_j}
 \end{aligned}$$

The econometric equation that is suggested by the above is

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

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:

$$\begin{aligned}
 \beta_1 &> 0 \\
 \beta_2 &< 0 \\
 \beta_3 &< 0
 \end{aligned}$$

Table 1: Descriptive Statistics

| Item         | N   | Mean   | Median | Standard<br>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       | 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.

Table 2: Correlation Coefficients

|              | PAYOUT | COMPENSATION | DIVIDEND | LNINCOME | DEBTEQUOT | MTB |
|--------------|--------|--------------|----------|----------|-----------|-----|
| PAYOUT       | 1      |              |          |          |           |     |
| COMPENSATION | -0.04  | 1            |          |          |           |     |
| DIVIDEND     | 0.02   | 0.63         | 1        |          |           |     |
| LNINCOME     | -0.04  | 0.46         | 0.61     | 1        |           |     |
| DEBTEQUOT    | -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. DEBTEQUOT is the Debt-Equity Ratio. and MTB is the Market to Book Ratio.

Table 3: Regression Results

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

The dependant 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 available to common shareholders. FAMCON is a dummy variable for family controlled firms. In a family controlled firm, family ties and loyalties might serve to mitigate agency issues. 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. Higher debt equity means the management will have to retain more cash in the company so as to avoid the possibility of financial embarrassment. We would therefore expect the sign for this coefficient to be positive. MTB is the 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. We have also used industry dummies covering 21 two-digit manufacturing industries of the NACE (EU) classification system. Coefficients for the industry dummies are not reported here for reasons of brevity.

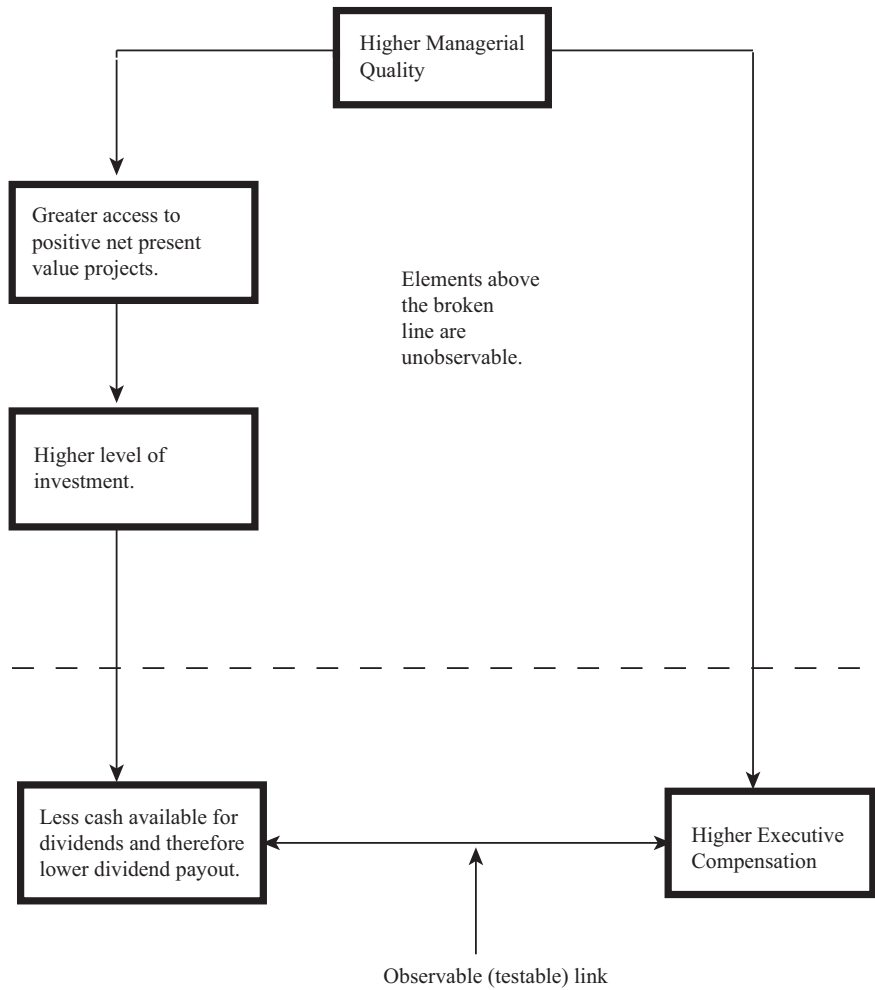


Figure 1: A Model of Executive Compensation and Dividend Payout-Reproduced from BMM

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