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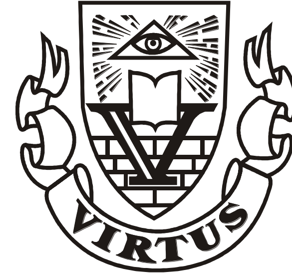

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FIRM COMPLEXITY AND CORPORATE BOARD SIZE: TESTING THE MODERATING EFFECT OF BOARD LEADERSHIP STRUCTURE

Hayam Wahba*, Khaled Elsayed(*)

Abstract

Most prior studies have argued that the relationship between firm complexity and board size is a monotonic one: complex firm tend to have a large board size. Contrary to previous work, it is hypothesized in this study that this relationship is more likely to be moderated by board leadership structure. Using a sample of 92 Egyptian listed firms over the period from 2000 to 2004, we found that firm complexity exerted a positive and significant coefficient on board size when the firm adopts a leadership structure that separates the roles of CEO and chairman. However, the incremental effect of firm complexity on board size was negative and significant for firms that combine the roles of CEO and chairman (i.e., CEO duality). This study provides supportive evidence for the argument that firms are more likely to manipulate their boards' characteristics to attain organizational adaptation at the minimum total cost. Thus, studying of one main characteristic of the board of directors without taking into account the expected effect of other characteristics may lead to inconclusive evidence. This study offers insights to practising managers and policy makers. If practising managers want to maximize the value of their firms, they need to broaden their insight to understand that board characteristics are multidimensional, contingent and dynamic in their nature and differ not only across firms and industry, but also across countries. Moreover, before developing and launching new and additional corporate governance reforms, policy makers need to realize that differences in corporate governance systems cannot be fully explained outside their institutional environments.

Keywords: Corporate Governance; Board Leadership Structure; Board Size; CEO Duality; Firm Complexity

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Introduction

Divergence in interests between shareholders and management has been heavily investigated in the managerial and financial literature. In a corporate governance context, scholars have proposed various internal and external mechanisms to ***align the shareholders'*** objectives with those of the managers. By representing the interests of the shareholders, the board of directors is argued to be an important instrument that helps in governing the CEO's decisions (Dalton, Daily, Johnson and Ellstrand, 1999; Monks and Minow 1995; Yermack 1996). This is more likely to happen as the board of directors is responsible for certain activities, such as hiring, firing, compensating and monitoring the CEO. Additional responsibilities include providing the CEO with needed advice, as well as helping the organization to access more external resources (Johnson, Daily and Ellstrand, 1996).

As a result, to enhance the board of directors' effectiveness, much of existing research in corporate governance has examined its main "usual suspects" (Huse, 2005). Examples of these "usual suspects" include board size (e.g., Coles, Daniel and Naveen, 2008; Lehn, Sukesh and Zhao, 2003; Raheja, 2005; Yermack, 1996), leadership structure (e.g., Boyd, 1995; Brickley, Coles and Jarrell, 1997; Elsayed, 2007 & 2009a), composition (e.g., Dalton, Daily, Ellstrand and Johnson, 1998; Kiel and Nicholson, 2003), and accountability (e.g., Aguilera, 2005; Huse, 2005), and compensation (Holthausen and Larcker, 1993). In exploring the key aspects of the board of directors, scholars have applied various substitutions theoretical perspectives, such as agency theory, stewardship theory, stakeholder theory, managerial

The following paper on pages 331 - 346 was extracted

THE INFLUENCE OF SHAREHOLDER VOTING RIGHTS ON INTERNAL CONTROL MECHANISMS: A COMPARATIVE STUDY OF PUBLICLY TRADED FIRMS IN PORTUGAL AND UNITED KINGDOM

J. Augusto Felício*, Ricardo Rodrigues**

Abstract

This work analyses the role of shareholder voting rights on the adoption of internal control mechanisms by firms from both a small emerging and developed economies. It also studies the influence that sector of activity and company size have on these mechanisms. The sample is comprised of publicly traded companies from Portugal and the United Kingdom. Data analysis using path analysis and multiple linear regression shows that shareholder ownership has a weak influence on control mechanisms. It also reveals that sector of activity and company size have differing influences on control mechanisms in differing contexts.

Keywords: Corporate governance, shareholder voting rights, internal control mechanisms

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1. Introduction

Governance mechanisms are tools owners use to align agents' interests with their own as well as to allow for greater oversight and control. These mechanisms are used to ensure that agents act in the best interest of their principals (Hill and Jones, 2004).

The literature relating to company boards of directors identifies two main categories of control mechanisms, internal and external. Fama (1980) and Fama and Jensen (1983) suggest that agency problems can be resolved by creating a more disperse company ownership structure. Walsh and Seward (1990) found that the board has a crucial role as an internal control mechanism.

Institutional context influences the relative importance of internal and external control mechanisms. Governance mechanisms have significant structural differences in different economic contexts due to divergent traditions and cultures. Take, for example, the duality of CEO versus chairman of the board and the executive majority versus non-executive management.

Do shareholder voting rights have an impact on internal control mechanisms? Do sector of activity and firm size have different effects on these mechanisms? To what degree do the contexts of a developing and developed economy influence the relationship between voting rights and internal control mechanisms? It is believed that board composition (Daily and Dalton, 2003) and the separation of functions (Bhagat and Black, 1999) contribute to assuring owner control over management and «good governance» (Jensen and Meckling, 1976; Fama and Jensen, 1983; Eisenhardt, 1989). Firms with poor corporate governance are incapable of developing or maintaining strategies that increase company value and create value for shareholders (Adjaoud *et al.*, 2007).

Traditionally, the literature distinguishes the Anglo-American model of corporate governance, based on shareholders, and the European Continental and Japanese model, encompassing a larger number of entities (the stakeholders) among which are the shareholders. These models are also known respectively as the outsider and insider models (Aguilera and Jackson, 2003).

Regarding the prevalence of models, different positions and evolutions can be observed. Lane (2003) identified changes in the model in force in German companies, with a convergence towards the Anglo-American model, whereas Armour *et al.* (2003) observed increased pressure on corporate governance systems to consider the interests of stakeholders other than shareholders.

RE-EXAMINATION OF CONNECTIVITY BETWEEN CEO COMPENSATION AND TENURE AT THE HELM AND FIRM PERFORMANCE

Samuel Bulmash*

Abstract

This paper presents empirical evidence related to a CEO's tenure, compensation, and performance. It reviews some generally accepted assumptions that have driven the rationale for CEO compensation packages, performance, and monitoring by the boards in charge of corporate governance. The empirical results of this paper provide only partial support for the underpinning basis of many of the compensation and corporate governance packages in today's corporate world. The paper uses data that was available to management and shareholders prior to the onset of the asset bubble that imploded during 2007-2009 period, and shows that there was already by then room for concern. The empirical findings presented here suggest that there is a mild positive relation between improvement in firm performance and the compensation package but even this is more evident in firms where the CEO service has a longer tenure compared to firms with a shorter tenure serving CEO. The results also support the findings from earlier studies that it is desirable to have an incentive scheme contingent on future returns, not only on the short time horizon. The findings presented here also confirm that CEOs who have passed the "early probation" test of time and skills and gained time to develop experience to lead the firm and its business have a stronger relationship between compensation and firm performance. However, the relatively low statistical relationships between compensation and firm performance for the whole sample overall leave room for concerns about the limited extent of their effectiveness. This paper also raises indirectly also concerns that the theoretical motivations of some compensation packages and the actual practices in the real world were not well aligned despite the large number of studies and efforts aimed at improving the relationship between CEO compensation and firm performance.

JEL classification: G30, G32, G34

Keywords: CEO Compensation, Firm Performance, Agency Theory, Corporate Governance

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1. Introduction

Despite the substantial increase in interest and studies related to improving corporate governance and CEO performance, recent decades continue to witness a serious turmoil in these areas. Corporate boards have tried various incentives to align the interests of shareholders and management. The failure of many of these incentives to prevent disasters that have devastated prominent financial institutions and others in the first decade of the 21st century and in previous decades is blamed on a variety of reasons. The reasons often mentioned include improper monitoring of management's misconduct regarding erroneous and excessive focus on stock options with short-term perspectives. While having merit, many of those explanations still leave unexplained questions as to why the incentives work in some firms and not in others. One of the contributions of this paper is that it demonstrates, both in the theory and in empirical findings, that the dynamics of management's concerns keep shifting as the manager's tenure in the firm is changing. This is further complicated by dynamic exogenous uncertainties that shift over time. Thus, many theoretical models, including the one presented, even when they are supported by empirical various findings, work only partially in the real world due to its shifting dynamic and constantly changing multi-layers that produce suboptimal constraint-optimization solutions. These conclusions support the findings of several studies regarding the relation between the CEO's tenure or age and the firm's performance. Moreover, this paper adds some additional important insights and discussions that can improve our understanding of previous studies' results and remaining challenges. As is indicated in this paper, we need to acknowledge the tenure "multi-layered" complexity in our search for management incentive contracts and to continuously keep in mind the possibility of different outcomes that may occur due to the constrained multi-layered exogenous

always consistent with exogenous contingencies. This may explain why so much turmoil exists in corporate governance and in the literature that studies this area. The summary discussion of the results and their implications is presented in the Summary Section 4.

2. Literature Reviews

Numerous studies have examined ways to align the interests of agents with those of the principals. Jensen and Meckling (1976) define the relation between agents and principals as an agency problem attributed to both parties acting rationally and maximizing their own self-interests. Many studies have followed in finance and economics, as well as in other disciplines (Lane, Cannela, and Lubatkin, 1998; Mueller and Lawrence, 1997; Veliyath, 1999; Mishra, Heide, and Cort, 1998; Barkema and Gomez-Mejia, 1998). Barkema and Gomez-Mejia (1998) report that they find over 300 studies related to various aspects of the principal-agent relationship. There are also some studies seeking to explore the relationship between the board and CEO compensation. Hermalin (2005) argues that the trend of more outside directors sitting on a board is accompanied by higher CEO compensation. Many studies search for the best mechanism to motivate the manager to act in the best interests of the principal. Some of those particularly relevant to this paper are summarized in the next paragraph.

Brookman and Thistle (2009) examine the determinants and effect on a firm’s value of the CEO’s risk of termination. Using survival analysis, they find that the risk of termination increases for about thirteen years before decreasing slightly with CEO tenure; 82% of CEOs have tenure of less than thirteen years. Likewise, in this current study, we also find that tenure increases with performance and compensation and decreases with monitoring by the board, and changes in the risk of termination do not have a significant effect on firm value. Chhaochharia, and Grinstein (2008) find a significant decrease in CEO compensation upon compliance with the board’s requirements. The significant decrease in compensation is due to a decrease in the option-based portion of the compensation. They conclude that board structure is a significant determinant of the size and structure of CEO compensation. Coles, McWilliams, Victoria and Nilanjan (2001) find that while some of the traditional agency variables do impact performance, both individually and as interactions, industry performance is a strong and significant driver of performance for their sample of firms. Nourayi and Mintz (2008) compare the influence of firms' performances on CEOs' cash and total compensation based on the length of tenure. They also examine pay–performance relationships for new CEOs versus those serving their last years in such positions. They find that firm size appears to be a significant explanatory variable for CEOs' cash and factors impacting the effectiveness of management incentives and corporate governance results.

To demonstrate these contingencies and considerations, this paper presents a dynamic three-period agency model that demonstrates how and why the agent's attitude toward risk changes along his/her career life cycle in the firm. Specifically, the model suggests that in the early stages of a CEO's tenure or the tenure of other senior executives, the CEO may be more subject to termination risk (being “on probation”) and may not have had time to develop strong support among the firm’s board of directors. The CEO needs to produce strong results to secure board support and contract longevity. To do so, however, involves taking business risks that can actually bring about the CEO’s termination unless it produces results to the board’s satisfaction. However, the model also suggests that if the CEO has survived “probation” and has an opportunity to serve longer, thus obtaining additional support from board members and feeling more secure in longevity prospects at the firm’s helm, (or alternatively has gained more experience and familiarity with the firm’s challenges), this CEO will become more confident and more risk averse as he/she reaches the end of his/her contract. Alternatively, having gained experience, knowledge, and consistent support, this CEO becomes more capable of improving the firm’s performance, which exposes it to less risk. Therefore, the risk in the pursuit of growth and earnings volatility is more likely to occur in the early stages of the agent's employment in the firm. However, these two different scenarios have different implications for the golden parachutes and stock option contracts. The CEO has survived the “probation” of Period 1 and managed to build additional support from the board, which can allow the CEO to be paid more even if his/her performance diminishes in Period 3, which in the second scenario simultaneously improves performance and gets further support from the board. The implications, however, are different in each scenario. These two varying scenarios also have different consequences for the firm’s performance in the period after the CEO’s departure (retirement or severance), namely in Period 3. A firm that wishes to maintain growth in the periods immediately preceding and following the agent's retirement could devise the agent's contract in such a way as to ensure that this individual will also share in the results of his/her labor during the period subsequent to his/her employment termination. Some recent empirical evidence from firms experimenting with such contingent contracts is still inconclusive.

The paper proceeds as follows. Section 2 of the paper discusses some of the pertinent literature. Section 3 presents the motivation and the details of empirical tests relating age, tenure, compensation, and firm performance. The test results demonstrate that the theory generally supported by the empirical evidence is still not fully conclusive, and hence is not

over the appointments to the Board of Directors, the CEO is likely to enjoy large benefits (e.g., salary, bonuses, and stock options) that are disproportionate to the firm's performance (Bhagat, Carey, and Elson, 1999; Fama and Jensen, 1985; Baker, Jensen, and Murphy, 1998; Fosberg, 1999; Core, Holthausen, and Larcker, 1999; Barkema and Gomez-Mejia, 1998; Mueller and Lawrence, 1997). A recent paper from M. M. Cornett et al. (2008) studies the effects of earnings management on governance and compensation structure and also on the firm's performance. They conclude that governance structure has more influence on the firm's performance than the incentive-based compensation scheme when discretionary earning is removed. Effective monitoring or inclusion of an independent board could make pay-for-performance compensation more effective. They do agree that including stock options in the compensation package could have a negative impact causing agents to consume more discretionary accruals.

While studies like Anderlini and Felli (1998), Banks and Sundaram (1998), and Veliyath (1999) explore the combinations of compensation packages that might succeed in aligning the principal's and agent's interests. Barkema and Gomez-Mejia (1998) suggest looking at new directions and theories altogether. They suggest following Jensen and Murphy's (1990) advice to integrate agency theory with other paradigms as alternatives to agency-based paradigms. The alternatives that Barkema and Gomez-Mejia (1998) suggest (e.g., marginal productivity theory, information processing theory, social compensation theory, and managerial discretion theory) are interesting, but they do not address many issues related to management compensation and alignment with principal-agent interest. Thus, these arguments are not sufficiently compelling to the point where one can fully accept them as theories capable of replacing Jensen and Meckling's (1976) agency theory.

Schleifer and Vishny (1989) suggest that the entrenched CEO seeks to avoid debt since creditors are likely to closely monitor the CEO's behavior; thus, his/her firms are likely to be less leveraged. They also argue that golden parachutes and contingent stock options (which are exercisable only upon the manager's departure) raise the difference between the firm's worth and its value under the next best replacement. Therefore, Schleifer and Vishny (1989) contend that managers entrench themselves by increasing the costs of replacing them. Douglas (2006) studies the conflicts between shareholders and bondholders that make managerial incentive compensation more complicated. He finds that in pay-for-performance and investment opportunities, pay-for-performance and leverage are negatively related consistent with the result of Schleifer and Vishny (1989) even though this is from a different perspective.

total compensation regardless of CEOs' tenure and measure of performance. Additionally, firms' performance is a significant determinant of cash compensation for CEOs during the first three years of their work as CEOs and not significant for those with 15 years or more as the company's CEO. Both market-based and accounting-based performance measures are negatively correlated with CEOs' total compensation regardless of length of experience. Rose and Shepard (2007) find substantial compensation premia for managers of diversified firms. The CEO of a firm with two distinct lines of business averages 10 to 12 percent more in salary and bonuses and 13 to 17 percent more in total compensation than the CEO of a similar-sized but undiversified firm, all else equal. This corresponds to average 1990 salary gains of $115,000 to $145,000 per year for the sample in this study. Diversification may raise pay because the CEO's job requires higher ability, or because it is associated with CEO entrenchment. They conclude that their data supports an ability model over an entrenchment explanation. They also find that the diversification premium is unaffected by tenure, and increasing diversification reduces compensation for incumbent CEOs, all else equal.

Other studies find that performance-related compensation contracts are the best solution to the agency problem. The asymmetry in information observable by the principal with regard to the agent's efforts and risk taking (both of which the agent may want to minimize) makes performance-based contracts necessary. For example, some incentive packages are designed to include stock and options, aiming to align CEOs' personal wealth with shareholders' wealth. Coles, Daniel, and Naveen (2006) find that there is a positive relationship between stock volatility and pay-for-performance sensitivity, providing some basis for the argument that a firm can tie CEOs' compensation to stock or stock options. Other studies find that commonly used performance contracts (e.g., stock options, tournament-based salary increase, golden parachutes, etc.) are not very effective in aligning the interests of shareholders and managers. Jensen (2005) has studied the issues raised by the CEO's tendency to boost short-term stock prices with increased benefits from the options they are holding in their compensation packages. Kadan and Swinkels (2008) contend that bankruptcy risk is highly correlated with more use of stock in the compensation contract. These arguments are different from the very early literature reviews in that by including options in the compensation scheme, principals (shareholders) could align agents' activities with shareholders' interests and increase investment opportunities.

Several studies (Baghat, Carey, and Elson, 1999; Fosberg, 1999) point out that a frequent explanation for such misalignment is that in corporations where the CEO has effective control

significant in explaining the firm's performance. They couldn't identify CEO horizon even if they had the data for age and tenure. This paper overcomes this limitation and makes the empirical tests more complete in the three-period continuous-time model providing a very detailed panel of the CEO horizon in the above empirical tests.

There is disagreement concerning the impact that a board of directors who is "friendly" to the CEO has on the firm's performance as compared to a firm whose board is independent and/or "unobligated" to its leader. It is sometimes implied, but not always clear, from previous studies that the CEO's tenure (or age) may be driving a portion of the performance results. Yet some studies suggest that the length of tenure of the CEO is related to the "friendliness" of the board towards this CEO. This, in turn, may affect the leeway or freedom that the board grants the CEO in his/her pursuit of risk taking and subsequent performance. It is often very difficult to separate one factor from others that may be driving or affecting performance. However, given that boards have a dual role as advisors and monitors, management-friendly boards can be optimal as the CEOs face a trade-off in disclosing information to them: high quality advice and tougher monitoring by furnishing private information (Adams and Ferreira, 2007).

Kadan and Swinkels (2008) argue that agents will be less responsive to stock prices at a higher level because agents will have diminishing marginal utility when the agents accumulate enough wealth. Therefore, it is necessary to find a compensation contract that can motivate CEOs consistently. My model is consistent with He (2008) whose paper recommends dynamic compensation scheme models that are time-continuous and argues that the role of firm size can be very significant in the principal-agent framework. Our paper continues the continuous-time principal-agent model study by exploring the factor of tenure in the CEO compensation scheme.

A contingent golden parachute is necessary in order to create the conditions of continuity that existed in the first period (when the agent took on more aggressive investments and efforts in order to secure employment into Period Two). This has implications regarding the controversy in the literature as to the effectiveness of golden parachutes. The golden parachute should be likened to the consequences of the agent's performance in the employment period prior to departure and to the measurable residual impact that the agent's prior actions had on outcomes after that departure. This would then extend the Period One conditions (where the agent's compensation in Period Two was affected by his/her performance in Period One) to the Period Three conditions (after termination) that are related to performance in Period Two.

However, this does not solve a persistent problem inherent in many such models. Namely, it is difficult for a theoretical compensation model to encompass all

When reviewing the literature, it becomes apparent that there are many issues that are still unresolved despite all the studies that have been done. One of the questions lacking satisfactory explanation so far is "what is the theoretical basis for creating golden parachutes in the first place?" Studies like those of Banks and Sundaram (1998) argue that solutions like a golden parachute are needed as the agent has a short horizon. As such, a long horizon principal (or board) must overcome problems of moral hazard and adverse selection to retain the agent's services. Similarly, Agrawal and Knoeber (1998) find empirical evidence that managers facing takeovers receive higher compensation (e.g., salary, bonuses, and golden parachutes) due to reduced job security compared to those managers who have more job security. Yet, which theory would link the agent's career life cycle dynamics to golden parachutes in the first place? This is where the current paper makes its contribution. This paper provides a dynamic, simplified three-period model and demonstrates that in the second period, the agent, or CEO, who faces voluntary or involuntary termination in the third period will make less risky investments (relative to the optimal scenario for the principal).

Why is there such inconsistency in the compensation scheme and CEO's performance when so many advanced elements such as stock options and debt covenant have been introduced into the incentive package? As yet, most of the aforementioned literature hasn't recognized the role of the CEO's tenure that might account for a large part of the explanation of the principal and agent model. The classical principal-agent models, such as the Hidden Action model, do achieve an equilibrium in which a certain compensation scheme subject to some constraints can induce somewhat expected agent action; however, these models have very weak predictability and are too complicated to be applied to reality. A very important and intuitively correct variable related to the time consistency issue, the CEO's tenure is not added into the model. Due to the unique nature of the CEO's position, this position in some industries might have a high turnover ratio; therefore, it is difficult to design a package to induce the agent to make continuous efforts (a package maximizes shareholders' wealth) for a very short period of time.

Consistent with the classic principal-agent models, this paper introduces a more advanced three-period model to study the effect of tenure in designing compensation structure. Theoretically, our model suggests that a better compensation scheme could be designed by making the incentive factors contingent on previous contributions to future growth deeper into ex post contract periods. Empirically, this paper finds that there is a significantly positive correlation between CEOs' tenure and their performance. M. M. Cornett et al. (2008) do include age and tenure in the empirical tests, but they don't find age and tenure

3.c. *Methodology*

The data are collected for every CEO in ExecuComp for each year from1993 to 2003. The variables are collected or constructed as the following

- Annual R&D expense is obtained from COMPUSTAT.
- SALES represents the net annual sales in millions of dollars as reported by the company. SALECHG is the year-to-year percentage change in SALES.
- ASSETS represents the total assets in millions of dollars.
- ASSETCHG is the year-to-year percentage change in ASSETS.
- OIBD represents the operating income before depreciation in millions of dollars. OIBDCHG is the year-to-year percentage change in OIBD.
- EPS represents the earnings per share excluding extraordinary items and discontinued operation in dollars and cents.
- EPSCHG is the year-to-year percentage change in EPS.
- CEO_AGE is the CEO's age in the year when the CEO takes that position.
- CEO_Tenure is computed as the difference between the year at which the CEO assumes that position and the year in which the CEO steps down.
- R&D expense represents all costs incurred relating to development of new products or services in millions of dollars.
- SALARY and BONUS represent the dollar value of the base salary and a bonus (cash and non-cash) in thousands of dollars earned by the CEO during the fiscal year.
- Total_Compensation represents the total compensation comprised of salary and bonus. Total_Compensation1 is the total compensation for the individual year, comprised of salary, bonus, other annual compensation, the total value of restricted stock granted, total value of stock options (using Black-Scholes), long term incentive payouts, and all other compensation.[1] Total_Compensation2 is the total compensation for the individual year comprised of salary, bonus, other annual compensation, total value of restricted stock granted, net value of stock options exercised, and all other compensation.
- Number_Option_Grants represents the aggregate number of stock options/stock appreciation rights granted in thousands.
- Value_Option_Grants represents the aggregate value of stock options granted to the CEO during the year as valued using S&P's Black-Scholes methodology in thousands of dollars.

possible contingent externalities which may affect the final outcome. The purpose of the next two sections (theory in Section 3 and empirical tests in Section 4) is to demonstrate that we should be cognizant of the added compensation of each of them, but at the same time to avoid the assumption that an optimal, all encompassing solution is at hand. This, however, does not prevent us from continuing the effort to improve and modify solutions on an ongoing dynamic basis.

3. Empirical tests

3.a *Motivation*

As the survey of the literature shows (and that survey covers only part of the vast literature on the subject), much of the literature has investigated how CEO compensation plays a role in improving firm value or performance. However, only a few studies have looked at the CEO's age and/or tenure at the helm of the firm and the firm's performance. Their conclusions are either somewhat inconclusive regarding this relationship or conflict with each other regarding the relationship and its causes if any. The need to resolve this issue is a partial motivation for this paper. Another motivation is the desire to resolve another disagreement regarding the CEO's tenure and its relation to total compensation and firm performance. For example, some studies argue that an entrenched CEO has more opportunities to make a friendly board raise his/her salary. Other studies argue that the board becomes friendlier towards a well performing CEO, hence the compensation package simply reflects a reward for good performance, and the friendliness of the board is just coincidental. Still, a question remains--does a longer tenure (regardless of its causes) indeed have a positive correlation to better firm performance and to the total compensation of the CEO? This paper tries to aid in resolving some of this controversy by demonstrating several possible explanations and suggests new directions for further research.

3.b *Empirical tests and results*

The sample data for our analysis is obtained from the ExecuComp database (1993-2003). From the database, we extract only the data containing age information and then use it as our sample. Panel A and Panel B in Table 1 illustrate that the firm and compensation characteristics of the total sample (16,639) are not significantly different from those of our sample (6,321). Thus, our results have implications that can also be relevant to firms that do not report information about the CEO's age. We find that the CEO's age is reasonable, regardless of how long the individual has been the CEO of that firm.

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[1] For the Black_Scholes Methodology refer to http://umi.compustat.com/docs-mi/help/blk_schol.htm

59.00 (60.48), the median (mean) age of the CEO if the CEO's tenure is between five and ten years is 61.00 (60.62), and the median (mean) age of the CEO if the CEO's tenure is greater than ten years is 65.00 (64.41). However, we find considerable differences in various parameters when we differentiate the sample into four groups. Group One with the CEO serving three years or less, Group Two with the CEO serving over three years and less than five years, Group Three with the CEO serving five to ten years, and Group Four with the CEO serving over ten years.

Insert Table 2 here

We see that the earnings and sales of the firms with short serving CEOs (Group One) have actually been falling relative to those firms belonging to other groups. The first three columns in Table 3 demonstrate the comparison between Groups One, Two, and Three. The differences in the sales and EPS are negatively significant, whereas in Groups Three and Four (with longer serving CEO's), the earnings, assets, and sales are growing more impressively. In Group Two, the result is less deterministic.

The differences are also noticeable with respect to CEO compensation (salary and non-salary components) with the CEO's compensation in the early stage in that position much more dependent on performance incentives. Those with longer tenure with the firm find their salary component and overall compensation increasing relative to those individuals with briefer tenure, although the distinction was not uniform. Table 3 demonstrates these points further.

Insert Table 3 here

The findings presented in Tables 1 through 3 suggest that early in his/her career as the firm's CEO, the executive is still on probation, and his/her employment is likely to be terminated if the firm's performance is weak. Hence, this CEO has not had enough time to build a "friendlier" board that would be more willing to make his/her pay more secure in terms of salary. However, if the CEO has managed to prove himself/herself with better performing earnings and sales growth, his/her tenure will become longer and the additional ability to earn the confidence and support of the board for higher pay and other "non-probationary" components of his/her total package improves. Thus, it is possible that the finding from previous studies that the board that are friendlier to the CEO is more common in firms with stronger performance does actually suggest the reason is that this CEO has served longer by passing the preliminary "probation." Hence, the CEO has proved his/her already and earned shareholders' trust, gaining more ability to change the compositions of the board in his/her favor. It is not clear, however, from our results thus far, whether there is an optimal tenure threshold or benchmark beyond which the CEO gets

- SHROWN represents the aggregate number of shares owned by the CEO excluding stock options in thousands.
- SHROWNPC represents the percentage of the company's shares owned by the CEO.
- SAL_PCT is the year-to-year percentage change in salary.
- RD_RATIO is defined as R&D expense over total expense where total expense is computed as the difference between Net Sales (Item 12 in COMPUSTAT) and Operating Income before Depreciation (Item 13 in COMPUSTAT).
- RD_RATIO1 is defined as R&D expense over total revenue.
- RD_RATIO2 is defined as R&D expense over Earnings before Interest and Taxes (EBIT). RD_RATIO3 is defined as R&D expense over Earnings before Interest (EBITDA).

3.d. *Results*

In Table 1, we see (Panel A) that although the entire sample is much larger (16,639 observations), this is the subsample that has "tenure" data in firm size and performance. We go to further analysis with a subsample that has the tenure data (321 observations. The mean average sales are rather similar in the subsample and the whole sample from which it is taken ($4.7 billion mean and $1.39 billion median in the tenure subsample compared to $3.93 billion mean and $1.07 billion median sales in the whole sample). In the assets categories, the median assets' size in the "tenure" subsample is $1.39 billion and $1.28 billion in the complete "whole" sample. In the age categories, the median age in the tenure subsamples is 63 years, which is higher than the median age of 58 years in the whole sample. Likewise, size (sales and assets) in both groups is rather similar, but in the subsample with information about CEO's, the average age is about 5 years older than the whole sample. Table 2 indicates that the CEO's tenure increases, as do the salary and the total compensation. Yet, interestingly, the firm performance also improves, as demonstrated by the EPS and growth rate of EPS and sales. Not surprisingly, the firm's tendency to grow in asset size increases as well. But these improvements diminish when the CEO's tenure is 10 years or more. The relative ratio of non-salary component to total compensation also demonstrated an increase as the CEO's tenure grows. Finally, EPS that is worse (a mean 0.12, a median 0.63, and a negative growth rate of EPS in Panel A) for "beginner" CEOs at the firm was reported for the group, as the CEO's tenure in the firm is less than 3 years, as shown in Table 1.

Insert Table 1 here

Table 2 reports that the median (mean) age of the CEO if the CEO's tenure is less than three years is 60.00 (59.44), the median (mean) age of the CEO if the CEO's tenure is between three and five years is

It is also interesting that the results for the effect of compensation (in absolute level and the change in TOT COM on the growth in the firm's assets) is positive only for concurrent year assets growth in the firms where the CEO has tenure of more than 5 years but not in the subsequent years. In fact, it remains flat in one year and declines in two years for firms with CEO tenure longer than 10 years. Moreover, in no case is there a significant r-square for any of the compensation size or for any of the percentage Change in total CEO Compensation in any of the groups for any positive impact of the percentage change in the firm's performance as measured either by the change in the EPS (concurrent or 1 or 2 years later) or for predicting the growth rate of the firm's assets. Although the latter is positively linked to the concurrent compensation or to the concurrent change in assets and in EPS growth rate, this is true for the class with longer serving CEO's, and in no class is the r-square statistically significant for any of the compensation categories.

4. Conclusions and summary

As discussed in the literature review, some previous studies suggest that in a firm whose management faces retirement or in which the agent's incentive system is fixed and terminates at the end of employment, stagnation and decline may be predicted. Some studies suggest that there are potential problems in a solution that offers the manager stock options that can be easily exercised during a stock market bubble. This can motivate the manager to take short-term actions to boost the stock price enabling them to make a quick gain from these options. The model presented in this paper offers a better solution. Golden parachutes and incentives that are contingent upon previous contributions to future growth that continue for some time after termination of employment may encourage the agent to invest efforts and maintain growth even when it approaches his/her contract's termination.

The empirical results only partially support the theory that underpins many of the compensation and corporate governance packages in today's corporate world. The empirical results suggest that there is an improvement in firm performance when the compensation package and CEO Service have a longer horizon, supporting the findings from the earlier studies that it is better to have an incentive scheme contingent on future returns. The empirical findings also confirm that CEOs who have passed the "early probation" test of time and skills and gained time to develop experience leading the firm and its business and time for developing a "friendly" relationship with the board, have a stronger relationship between compensation and firm performance. Future studies can contribute by testing explicitly which of the CEO experience factors including experience outside the firm as well as too complacent and if the firm's performance suffers behind such a tenure length threshold for CEOs who serve very long terms. It is also not clear if the CEO has served in a similar position elsewhere prior to coming to the firm. Does prior overall experience of the CEO play a role, or is it only their tenure at this firm that is relevant? As yet, we have not tested for this effect.

The results so far show that the performance of the firm is related to many factors, among which are also the tenure of the CEO at the helm of the firm and the CEO's compensation. These relations have been used in the past as a justification for the Board of Directors to draft compensation contracts that are sometimes criticized elsewhere as being too generous or as being unjustified, given the subsequent performance of the firm. Hence, the following Tables 4 through 7 evaluate the specific relationships between compensation and firm performance where the latter is approximated by the percentage change in the Earnings Per Share (CHANG_EPS) and by percentage growth of the firm's assets. There are many other possible measures of firm performance (many of which were included in Tables 1 through 3 earlier), but for space economy reasons the following tests are focused on those two performance measures that were selected here. However, the tests are also stratified by subsamples that take into account the CEO's tenure already served at the helm of the firm (Tables 4 through 6) in order to see if there are any significant differences in concurrent as well as in future performance of the firm in tests that have more "seasoned" versus less "seasoned" CEOs at the helm of the firm. The motivation for this particular testing methodology is to see if a CEO who has had more time to develop longer experience with leading this specific firm and to develop confidence and familiarity with and from the Board, has exhibited any stronger (weaker) relationship between his/her compensation and the performance of the firm. The tests are repeated again for the whole database without stratifying by the "tenure service time" factor in Table 7.

Insert Tables 4 through 7 here

The results which are presented in Tables 4 through 7 are interesting since they show that the total compensation or the change in compensation has no real significant impact on EPS performance of new CEOs (occasionally even a negative later effect), but the TOPT COM or TCC_PCT has a positive relation on concurrent EPS for firms with CEO serving between 5-10 years and more than 10 years, but one year later the concurrent TOT COM has already a negative effect on the future EPSCHG and no effect is evident for the change in TOT COM in producing stronger EPS one or two years later in any of the tenure categories.

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experience in non-CEO position in the firm are more important for performance and whether those factors were also related to ability to build a friendly relationship with the board. Those are interesting questions but exceed the scope of this paper. However, the empirical results also demonstrate that the reality is not strongly "clear-cut," and the statistical significance between CEO compensation and firm performance is fairly low. Thus, there is a justification for questioning the effectiveness of many existing compensation packages and the levels of CEO compensations (in total as may be also in the composition of the compensation package as a whole), given its inconclusive demonstrated effectiveness. The strong public reactions in early 2010 to the bonuses and compensation packages by many financial institutions while they were still recovering from the massive financial crisis (see Fortune Magazine, January 18,2010) will undoubtedly inspire more future studies on more effective metrics to link CEO performance and their compensation. Some of the metrics described in this paper may eventually become part of future new measures of Economic Value Added (EVA), but further studies are needed to evaluate their effectiveness under different circumstances from those of the past, as firms and their executives learn from past mistakes and set the stage for new ones. that firms encounter. There are likely to remain ambiguities that sometimes complicate the implications and suggestions for better connections between compensation and CEO performance. Hopefully, the empirical findings that are presented here as well as the tests can lead to further studies that would address them and benefit from the current study.

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Appendices

Table 1. Comprehensive summary statistics of firms' performances and CEOs' compensation and tenure in the data sample for this study

The data are collected for every CEO in ExecuComp for each year 1993-2003. Annual R&D expenses are obtained from COMPUSTAT. SALES represents the net annual sales in millions of dollars as reported by the company. SALECHG is the year-to-year percentage change in SALES. ASSETS represents the total assets in millions of dollars. ASSETCHG is the year-to-year percentage change in ASSETS. OIBD represents the operating income before depreciation in millions of dollars. OIBDCHG is the year-to-year percentage change in OIBD. EPS represents the earnings per share excluding extraordinary items and discontinued operation in dollars and cents. EPS is the year-to-year percentage change in EPS. CEO_AGE is the CEO's age in the year when the CEO takes that position. CEO_Tenure is computed as the difference between the year at which the CEO assumes that position and the year in which the CEO steps down. R&D expense represents all costs incurred relating to development of new products or services in millions of dollars. SALARY and BONUS represents the dollar value of the base salary and a bonus (cash and non-cash) in thousands of dollars earned by the CEO during the fiscal year. Total_Compensation represents their total compensation comprised of salary and bonus. Total_Compensation1 is the total compensation for the individual year, comprised of salary, bonus, other annual compensation, total value of restricted stock granted, total value of stock options (using Black-Scholes), long term incentive payouts, and all other compensation.[2] Total_Compensation2 is the total compensation for the individual year comprised of salary, bonus, other annual compensation, total value of restricted stock granted, net value of stock options exercised, and all other compensation. Number_Option_Grants represents the aggregate number of stock options/stock appreciation rights granted in thousands. Value_Option_Grants represents the aggregate value of stock options granted to the CEO during the year as valued using S&P's Black-Scholes methodology in thousands of dollars. SHROWN represents the aggregate number of shares owned by the CEO excluding stock options in thousands. SHROWNPC represents the percentage of the company's shares owned by the CEO. SAL_PCT is the year-to-year percentage change in salary. RD_RATIO is defined as R&D expense over total expense where total expense is computed as the difference between Net Sales (Item 12 in COMPUSTAT) and Operating Income before Depreciation (Item 13 in COMPUSTAT). RD_RATIO1 is defined as R&D expense over total revenue. RD_RATIO2 is defined as R&D expense over Earnings before Interest and Taxes (EBIT). RD_RATIO3 is defined as R&D expense over Earnings before Interest (EBITDA). Panel A reports summary statistics of the full ExecuComp sample while Panel B contains only CEOs with both starting year and ending year as CEO to compute the CEO tenure.

Panel A. Full ExecuComp Sample						
	#of Obs	Mean	Median	Std Dev	Min	Max
SALES	16,639	3,932.96	1,072.18	10,635.09	0.00	244,524.00
SALECHG	16,593	17.98	8.69	82.99	-100.00	6,001.53
ASSETS	16,646	9,256.22	1,277.44	38,585.55	3.43	1,097,190.00
ASSETCHG	16,627	21.45	8.11	104.47	-97.48	6,389.02
OIBD	16,415	720.31	158.15	2,363.99	-5,743.00	61,188.00
OIBDCHG	15,549	31.45	11.11	1,114.73	-10,229.81	125,060.00
EPS	16,616	2.11	1.29	40.24	-231.67	2,795.00

[2] For the Black_Scholes Methodology refer to http://umi.compustat.com/docs-mi/help/blk_schol.htm

EPSCHG	14,096	25.19	10.79	894.83	-23,050.00	42,900.00
CEO_AGE	8,112	57.61	58.00	7.87	31.00	89.00
CEO_TENURE	6,321	10.18	8.33	7.75	0.10	54.61
R&D_EXPENSE	6,586	158.93	21.85	582.16	0.00	8,900.00
SALARY	16,663	581.43	525.00	322.97	0.00	5,294.10
BONUS	16,663	604.36	300.00	1,479.60	0.00	102,015.16
TOTAL_COMPENSATION	16,663	1,185.80	838.83	1,604.33	0.00	102,448.77
TOTAL_COMPENSATION1	16,501	4,187.68	1,816.67	12,091.24	0.00	655,448.00
TOTAL_Compensation2	16,663	3,590.37	1,304.91	12,826.96	0.00	706,119.85
Number_Option_Grants	16,663	188.13	56.00	606.13	0.00	20,664.63
Value_Option_Grants	16,501	2,294.92	487.46	9,937.89	0.00	600,347.36
SHROWN	16,346	2,415.09	214.24	22,789.55	0.00	1,321,271.32
SHROWNPC	8,110	5.87	2.00	8.90	0.002	64.20
SAL_PCT	15,787	22.85	6.25	245.92	-100.00	18,050.51
RD_RATIO	6536	0.09	0.03	0.14	0	1.93
RD_RATIO1	6573	0.20	0.03	3.29	0	237.85
Table1_Panel_A.cont. RD_RATIO2	6585	1.22	0.16	93.72	-756.29	7503.05
RD_RATIO3	6536	-4.57	0.14	328.31	-26,355.60	108.23
Panel B. Sample Used in Analyses						
	#of obs.	Mean	Median	Std Dev	Minimum	Maximum
SALES	6,318	4,716.75	1,390.64	11,931.47	0.00	174,694.00
SALECHG	6,301	17.47	8.33	73.48	-100.00	3,614.50
ASSETS	6,319	9,552.68	1,585.58	35,764.94	3.43	716,937.00
ASSETCHG	6,314	19.68	7.46	80.09	-97.48	3,179.63
OIBD	6,214	831.89	205.80	2,494.15	-5,743.00	42,342.00
OIBDCHG	5,895	41.30	10.78	1,655.37	-4,481.96	125,060.00
EPS	6,307	1.21	1.33	3.94	-231.67	25.29
EPSCHG	5,375	18.34	9.61	826.40	-13,800.00	42,900.00
CEO AGE	1,004	62.39	63.00	7.65	31.00	83.00
CEO TENURE	6,321	10.18	8.34	7.76	0.11	54.62
R&D EXPENSE	2,591	214.50	24.62	732.80	0.00	8,900.00
SALARY	6,321	598.78	541.82	335.80	0.00	4,000.00
BONUS	6,321	566.38	300.00	1,030.08	0.00	15,550.00
TOTAL_COMPENSATION	6,321	1,165.16	855.19	1,215.20	0.00	16,700.00
TOTAL_COMPENSATION1	6,232	3,933.51	1,744.08	11,961.40	0.00	655,448.00
TOTAL_COMPENSATION2	6,321	3,719.58	1,360.69	12,542.96	0.00	655,448.00
Number_Option_Grants	6,321	158.07	48.00	421.37	0.00	10,000.00
BLK_VALUE	6,232	1,919.37	388.79	7,122.05	0.00	244,538.69
SHROWN	6,128	1,939.99	185.05	15,269.06	0.00	787,055.60
SHROWNPC	2,650	5.39	1.90	8.55	0.002	64.20
SAL_PCT	5,857	18.61	5.65	135.64	-100.00	7,140.63
RD_RATIO	2,580	0.08	0.03	0.13	0	1.25
RD_RATIO1	2,583	0.25	0.02	4.89	0	237.85
RD_RATIO2	2,591	3.16	0.18	147.45	-67.25	7,503.05
RD_RATIO3	2,580	-10.04	0.14	518.90	-26,355.60	67.09

Table 2. Descriptive statistics of CEOs and firms by CEO tenure

The data are collected for every CEO in ExecComp for each year from 1993-2003. Annual R&D expenses are obtained from COMPUSTAT. SALES represents the net annual sales in millions of dollars as reported by the company. SALECHG is the year-to-year percentage change in SALES. ASSETS represents the total assets in millions of dollars. ASSETCHG is the year-to-year percentage change in ASSETS. OIBD represents the operating income before depreciation in millions of dollars. OIBDCHG is the year-to-year percentage change in OIBD. EPS represents the earnings per share excluding extraordinary items and discontinued operation in dollars and cents. EPS is the year-to-year percentage change in EPS. CEO_AGE is the CEO's age in the year when the CEO acquires the position. CEO_tenure is computed as the difference between the year at which the CEO acquired the position and the year at which the CEO steps down. R&D expense represents all costs incurred relating to development of new products or services in millions of dollars. SALARY and BONUS represents the dollar value of the base salary and a bonus (cash and non-cash) in thousands of dollars earned by the CEO during the fiscal year. Total_Compensation represents their total compensation comprised of salary and bonus. Total_Compensation1 is the total compensation for the individual year comprised of salary, bonus, other annual compensation, total value of restricted stock granted, total value of stock options (using Black-Scholes), long term incentive payouts, and all other compensation. Total_Compensation2 is the total compensation for the individual year comprised of salary, bonus, other annual compensation, total value of restricted stock granted, net value of stock options exercised, long term incentive payouts and all

other compensation. Number_Option_Grants represents the aggregate number of stock options/stock appreciation rights granted in thousands. Value_Option_Grants represents the aggregate value of stock options granted to the CEO during the year as valued using S&P's Black-Scholes methodology in thousands of dollars. SHROWN represents the aggregate number of shares held by the CEO excluding stock options in thousands. SAL_PCT is the year-to-year percentage change in salary. SHROWNPC represents the percentage of the company's shares owned by the CEO. RD_RATIO is defined as R&D expense over total expense where total expense is computed as the difference between Net Sales (Item 12 in COMPUSTAT) and Operating Income before Depreciation (Item 13 in COMPUSTAT). RD_RATIO1 is defined as R&D Expense over total revenue. RD_RATIO2 is defined as R&D Expense over Earnings before Interest and Taxes (EBIT). RD_RATIO3 is defined as R&D Expense over Earnings before Interest (EBITDA). Panel A contains financial information of the firm and CEO compensation information if the CEO's tenure is less than three years. Panel B contains financial information of the firm and CEO compensation information if the CEO's tenure is between three and five years. Panel C contains financial information of the firm and CEO compensation information if the CEO's tenure between five and ten years. Panel D contains financial information of thefirm and CEO compensation information if the CEO's tenure is greater than ten years.

Table 2. Panel A. CEO Tenure Less Than Three Years

	#of Obs.	Mean	Median	Std Dev	Min	Max
SALES	778	4,228.36	926.22	12,575	0.00	170,064.0
SALECHG	774	23.94	5.22	156.52	-100.00	3,614.50
ASSETS	779	8,251.10	871.16	41,840	5.88	716,937.0
ASSETCHG	779	24.00	4.34	116.62	-96.94	1,853.57
OIBD	761	674.23	104.79	3,024.1	-5,743.00	42,342.00
OIBDCHG	680	7.86	5.84	177.9	-2,275.6	2,281.50
EPS	777	-0.12	0.63	9.00	-231.67	12.32
EPSCHG	564	-36.85	-4.88	500.2	-4,366.7	4,125.0
CEO AGE	79	59.44	60.00	7.42	43.00	75.00
CEO TENURE	780	1.72	1.74	0.76	0.11	2.99
R&D EXPENSE	381	187.48	24.00	732.7	0.00	7,400.00
SALARY	780	514.80	439.08	318.8	0.00	2,007.7
BONUS	780	484.25	178.54	1,035	0.00	11,000.0
TOTAL_COMPENSATION	780	999.05	642.83	1,206.9	0.00	11,464.68
TOTAL_COMPENSATION1	763	4,574.37	1,543.4	12,566	0.00	193,784.1
TOTAL_COMPENSATION2	780	2,670.42	1,010.1	5,363	0.00	70295.92
LTIP	780	88.90	0.00	517.0	0.00	6,189.00
Number_Option_Grants	780	256.39	54.45	742.5	0.00	10,000.0
Value_Option_Grants	763	2,741.50	338.18	11,256.	0.00	182,319.4
SHROWN	718	1,052.39	100.00	3,769	0.00	36,777.56
SHROWNPC	218	4.62	1.33	8.05	0.01	49.4
SAL_PCT	663	71.68	11.40	352.5	-96.51	7,140.63
RD_RATIO	379	0.09	0.04	0.14	0	0.84
RD_RATIO1	380	0.23	0.03	2.09	0	39.84
RD_RATIO2	381	0.22	0.13	4.91	-32.4	74.18
RD_RATIO3	379	-0.42	0.11	13.3	-256.28	17.81

Table 2. Panel B. CEO Tenure Between Three and Five Years (3<= CEO tenure <5)

	#of Obs	Mean	Median	Std Dev	Min	Max
SALECHG	803	14.07	6.83	48.23	-100.00	808.71
ASSETS	812	5,923.7	1,508.1	17,984	6.27	213,016.00
ASSETCHG	810	14.70	5.68	50.09	-97.48	596.63
OIBD	808	591.63	170.29	1,473.5	-653.00	18,228.00
OIBDCHG	760	16.37	9.09	185.31	-1,661.61	3,619.99
EPS	810	0.80	1.03	3.31	-51.40	25.29
EPSCHG	649	-29.25	6.25	577.62	-10,200	6,020.00
CEO AGE	96	60.48	59.00	6.19	46.00	74.00
CEO TENURE	813	4.06	4.03	0.60	3.00	5.00
R&D EXPENSE	374	205.08	20.63	700.85	0.00	5,152.00

Table 2. Panel B. Cont.						
SALARY	813	529.47	500.00	289.99	0.00	3,660.51
BONUS	813	451.14	226.62	828.97	0.00	11,861.65
TOTAL_COMPENSATION	813	980.61	721.02	957.69	0.00	12,961.65
TOTAL_COMPENSATION1	803	3,268.5	1,609.8	6,115.5	0.00	116,091.76
TOTAL_COMPENSATION1	813	2,788.2	1,114.3	7,734.8	0.00	150,817.35
LTIP	813	112.97	0.00	612.30	0.00	11,739.33
Number_Option_Grants	813	154.24	50.00	369.74	0.00	4,907.95
Value_Option_Grants	803	1,634.5	408.16	5,268.3	0.00	114,818.6
SHROWN	783	1,022.7	94.00	3,447.9	0.00	34,796.8
SHROWNPC	259	5.19	1.40	9.70	0.002	61.4
SAL_PCT	758	27.07	6.71	133.8	-100	2,072.21
RD_RATIO	374	0.08	0.03	0.13	0	1.09
RD_RATIO1	369	1.00	0.02	12.69	0	237.85
RD_RATIO2	374	20.36	0.18	387.96	-20.15	7,503.05
RD_RATIO3	374	-70.11	0.14	1,362.8	-26,355	19.68

Table 2. Panel C. CEO Tenure Between Five and Ten Years (5<= CEO tenure <10)

	#of Obs	Mean	Median	Std. Dev	Min	Max
SALES	2,266	5,550.69	1,615.5	14,382.1	0.00	174,694.0
SALECHG	2,265	17.45	7.71	63.66	-100.00	1,550.90
ASSETS	2,266	11,667.3	1,962.5	38,603	3.43	485,014.0
ASSETCHG	2,266	21.45	7.15	99.73	-78.17	3,179.63
OIBD	2,221	1,066.23	244.80	3,053.79	-2,424.4	33,997.00
OIBDCHG	2,132	27.32	10.07	458.59	-4,482	19,886.31
EPS	2,260	1.46	1.52	2.55	-32.35	18.17
EPSCHG	1,967	45.21	8.80	1,125.64	-8,520.	42,900.00
CEO AGE	331	60.62	61.00	7.46	31.00	80.00
CEO TENURE	2,266	7.42	7.50	1.44	5.00	9.99
R&D EXPENSE	826	325.42	35.31	1,016.9	0.00	8,900.00
SALARY	2,266	609.70	555.01	312.84	0.00	2,500.00
BONUS	2,266	577.31	324.96	999.59	0.00	15,550.00
TOTAL_COMPENSATION	2,266	1,187.02	888.55	1,181.2	0.00	16,250.00
TOTAL_COMPENSATION1	2,236	3,698.03	1,784.1	7,638.6	0.00	141675.58
TOTAL_COMPENSATION2	2,266	3,626.20	1,425.5	10,147.6	0.00	170383.28
LTIP	2,266	243.05	0.00	1,005.94	-2,360.9	24,137.03
Number_Option_Grants	2,266	136.78	50.00	324.31	0.00	5,907.16
Value_Option_Grants	2,236	1,751.48	417.08	5,674.84	0.00	113,609.8
SHROWN	2,213	625.75	124.17	1,909.72	0.00	33,130.64
SHROWNPC	794	3.49	1.11	6.66	0.003	56.00
SAL_PCT	2,120	11.51	6.25	54.72	-100.00	1,728.58
RD_RATIO	820	0.08	0.03	0.12	0	1.25
RD_RATIO1	824	0.07	0.02	0.16	0	2.75
RD_RATIO2	826	0.24	0.23	2.39	-40.63	14.38
RD_RATIO3	820	0.19	0.17	2.31	-30.21	39.84

Table 2. Panel D. CEO Tenure Greater Than 10 Years (10 <= CEO tenure)

	#of obs.	Mean	Media	Std Dev	Min	Max
SALES	2,462	4,191.3	1,407.1	9,850.0	0.50	165,013.0
SALECHG	2,459	16.57	10.28	40.32	-90.85	841.09
Table 2. Panel D. Cont. ASSETS	2,462	9,215.1	1,559.5	35,258.8	6.13	642,191.0
ASSETCHG	2,459	18.32	9.49	46.49	-66.55	1,112.57
OIBD	2,424	746.75	227.14	1,931.51	-1,714.00	37,966.0
OIBDCHG	2,323	72.07	12.60	2,596.25	-1,736.92	125,060.0

EPS	2,460	1.55	1.47	1.96	-16.28	14.98
EPSCHG	2,195	22.50	11.90	610.33	-13,800	16,433.33
CEO AGE	498	64.41	65.00	7.55	42.00	83.00
CEO TENURE	2,462	17.42	14.68	7.61	10.00	54.62
R&D EXPENSE	1,010	137.47	19.76	364.52	0.00	3,696.00
SALARY	2,462	638.23	584.89	366.17	0.00	4,000.00
BONUS	2,462	620.39	350.00	1,108.84	0.00	15,000.0
TOTAL_COMPENSATION	2,462	1,258.6	935.05	1,309.72	0.00	16,700.0
TOTAL_COMPENSATION1	2,430	4,168.7	1,816.1	15845.09	28.00	655,448
TOTAL_COMPENSATION2	2,462	4,445.5	1,500.5	16710.38	28.00	655,448
LTIP	2,462	187.92	0.00	1200.41		31,325.0
Number_Option_Grants	2,462	147.78	40.00	368.69	0.00	5,943.65
Value_Option_Grants	2,430	1,909.8	358.30	7,162.94	0.00	244,538.7
SHROWN	2,414	3,706.3	427.71	23,986.7	0.00	787,055.6
SHROWNPC	1,379	6.63	2.60	9.13	0.003	64.20
SAL_PCT	2,316	7.16	4.69	37.53	-100.00	1,020.01
RD_RATIO	1,007	0.08	0.02	0.12	0	0.86
RD_RATIO1	1,010	0.14	0.02	0.75	0	12.30
RD_RATIO2	1,010	0.30	0.16	5.40	-67.25	144.08
RD_RATIO3	1,007	0.31	0.13	2.89	-17.05	67.09

Table 3. Comparison of firm and CEO compensation variables by CEO tenure

The table reports results of t-tests of firm and CEO compensation variables by CEO tenure. The first column displays the mean difference of the variables between the CEO tenure of less than three years and the CEO tenure from three to five years. The second column indicates the mean difference of the variables concerning the CEO tenure of less than three years and the CEO tenure between five and ten years. The third column reports the mean difference of the variables relating to the CEO tenure of less than three years and the CEO tenure greater than ten years. The fourth column represents the mean difference of the variables concerning the CEO tenure between three and five years and the CEO tenure from five to ten years. The fifth column displays the mean difference of the variables from the CEO tenure of less than three years and the CEO tenure greater than ten years. The last column reports the mean difference of the variables concerning the CEO tenure between five and ten years and the CEO tenure greater than ten years. t-statistics appear in parentheses.

	3>CEO Tenure vs. 3<= <5 CEO Tenure	3>CEO Tenure vs. 5<= <10 CEO Tenure	3>CEO Tenure vs. 10<CEO Tenure	3<= <5 CEO Tenure vs. 5<= <10 Tenure	3<= <5 CEO Tenure VS. 10< Tenure	5<= <10 CEO Tenure vs. 10<CEO Tenure
SALES	-222.30	-1,322.00*	37.06	-1,100.00*	259.35	1,359.40**
	(-0.40)	(-2.44)	(0.08)	(-2.51)	(0.69)	(3.76)
SALECHG	9.87	6.49	7.37	-3.38	-2.50	0.88
	(-1.68)	(1.12)	(1.30)	(-1.56)	(-1.33)	(0.56)
ASSETS	2,327.30	-3,416.00*	-964.00	-5,744.00**	-3,291.0**	2,452.10*
	(1.43)	(2.00)	(-0.58)	(-5.59)	(-3.46)	(2.27)

Table 3. Cont.

ASSETCHG	9.30*	2.55	5.68	-6.75*	-3.63	3.13
	(2.05)	(0.55)	(1.33)	(-2.47)	(-1.82)	(1.36)
OIBD	82.60	-392.00**	-72.53	-474.60**	-155.10*	319.47**
	(0.68)	(-3.06)	(-0.62)	(-5.72)	(-2.39)	(4.22)
OIBDCHG	-8.51	-19.46	-64.20	-10.95	-55.70	-44.75
	(-0.89)	(-1.62)	(-1.18)	(-0.91)	(-1.03)	(-0.82)
EPS	-0.91**	-1.58**	-1.67**	-0.66**	-0.75**	-0.09
	(-2.66)	(-4.82)	(-5.12)	(-5.19)	(-6.13)	(-1.33)
EPSCHG	-7.61	-82.07*	-59.36*	-74.46*	-51.75	22.71
	(-0.25)	(-2.49)	(-2.4)	(-2.19)	(-1.92)	(-0.80)

CEO AGE	-1.04	-1.18	-4.97**	-0.14	-3.93**	-3.79**
	(-1.01)	(-1.26)	(-5.44)	(-0.19)	(-5.48)	(-7.11)
R&D EXPENSE	-17.60	-137.90**	50.02	-120.30*	67.61	187.95**
	(-0.34)	(-2.67)	(1.27)	(-2.38)	(1.78)	(5.05)
SALARY	-14.67	-94.90**	-123.40**	-80.23**	-108.80**	-28.53**
	(-0.96)	(-7.27)	(-9.08)	(-6.63)	(-8.66)	(-2.89)
BONUS	33.11	-93.06*	-136.10**	-126.20**	-169.2**	-43.07
	(0.70)	(-2.22)	(-3.04)	(-3.52)	(-4.62)	(-1.4)
TOTAL_COMPENSATION	18.44	-188.00**	-259.60**	-206.40**	-278.00**	-71.60
	(-0.34)	(-3.81)	(-5.13)	(-4.94)	(-6.51)	(-1.98)
TOTAL_COMPENSATION1	1,305**	876.34	405.65	-429.5	-900.2*	-470.7
	(2.59)	(1.82)	(0.73)	(-1.59)	(-2.33)	(-1.31)
TOTAL_COMPENSATION2	-117.8	-955.8**	-1,775**	-838*	-1,657**	-819.3*
	(-0.35)	(-3.33)	(-4.58)	(-2.43)	(-3.83)	(-2.06)
LTIP	-24.06	-154.1**	-99.01**	-130.1**	-74.95*	55.13
	(-0.85)	(-5.49)	(-3.25)	(-4.32)	(-2.32)	(1.72)
Number_Option_Grants	102.15**	119.61**	108.60**	17.46	6.45	-11.00
	(3.45)	(4.36)	(3.93)	(1.19)	(0.43)	(-1.09)
Value_Option_Grants	1,107*	990.01*	831.62	-117.00	-275.40	-158.40
	(2.47)	(2.33)	(1.92)	(-0.53)	(-1.17)	(-0.84)
SHROWN	29.66	426.63**	-2,654.0**	396.97**	-2,684.0**	-3,081.0**
	(0.16)	(2.91)	(-5.22)	(3.06)	(-5.33)	(-6.29)
SHROWNPC	-0.57	1.12**	-2.01**	1.70**	-1.44*	-3.14**
	(-0.71)	(4.38)	(-3.37)	(2.63)	(-2.30)	(-9.21)
SAL_PCT	44.61**	60.18**	64.52**	15.57**	19.91**	4.34**
	(3.07)	(4.38)	(4.71)	(3.11)	(4.05)	(3.06)
RD_RATIO	0.01	0.01	0.01	0.00	-0.003	-0.008
	(1.04)	(1.79)	(0.86)	(0.59)	(-0.42)	(-1.34)
RD_RATIO1	-0.77	0.16	0.09	0.93	0.86	-0.07**
	(-1.14)	(1.54)	(0.88)	(1.41)	(1.30)	(-2.88)
RD_RATIO2	-20.14	-0.01	-0.07	20.12	20.05	-0.06
	(-1.00)	(-0.05)	(-0.26)	(1.00)	(1.00)	(-0.34)
RD_RATIO3	69.69	-0.62	-0.73	-70.31	-70.43	-0.11
	(0.99)	(-0.91)	(-1.07)	(-1.00)	(-1.00)	(-0.92)

Table 4. Comparison of firm and CEO compensation variables by CEO age

The table reports results of t-tests of firm and CEO compensation variables by CEO age. The first column indicates the mean difference of the variables between the CEO age less than 45 years and the CEO age between 45 and 60years. The second column presents the mean difference of the variables between the CEO age less than 45 years and the CEO age over 60 years. The third column reports the mean difference of the variables between the CEO age between 45 and 60 and the CEO age greater than 60 years. LTIP is the amount paid out to the CEO under the company's long term incentive plan. These plans measure company performance over a period of more than one year. t-statistics appear in parentheses.** and * indicate statistical significance at the 1% and 5% tests levels, respectively.

	45>CEO Age vs. 45<= CEO Age <60	45>CEO Age vs. CEO Age <60	45<= CEO Age <60 vs. CEO Age <60
SALES	337.06	-227.3	-564.3*
	(1.76)	(-0.90)	(-2.06)
SALECHG	1.36	4.33**	2.97
	(0.76)	(3.91)	(1.72)
ASSETS	-1,102	-1,227	-124.7
	(-1.45)	(-1.29)	(-0.11)
ASSETCHG	3.21	6.20**	2.98*

	(1.93)	(3.79)	(2.52)
OIBD	11.90	-146.8*	-158.7*
	(0.28)	(-2.37)	(-2.35)
OIBDCHG	19.88	15.89	-3.98
	(1.17)	(0.90)	(-0.64)
EPS	-0.036	-5.82**	-5.78**
	(-0.68)	(-3.01)	(-2.99)
EPSCHG	-34.85	-37.9*	-3.04
	(-1.77)	(-2.18)	(-0.14)
R&D EXPENSE	3.34	35.81*	32.46
	(0.20)	(2.16)	(1.80)
SALARY	1.15	-64.1**	-65.25**
	(0.20)	(-8.82)	(-8.39)
BONUS	-61.8*	-122.3**	-60.49
	(-2.43)	(-4.05)	(-1.97)
TOTAL_COMPENSATION1	-1,244**	-587.6*	656.81*
	(-5.10)	(-2.48)	(2.24)
TOTAL_COMPENSATION2	-414.2	-1,062**	-648*
	(-1.76)	(-4.09)	(-2.11)
LTIP	129.59*	1.10	-33.98
	(2.62)	(0.05)	(-1.67)
Number_Option_Grants	-86.97**	-36.82*	50.15*
	(-6.98)	(-2.49)	(2.76)
Value_Option_Grants	-1,215**	-394.6*	820.89**
	(-5.58)	(-2.03)	(3.07)
SHROWN	-1811*	-1,834**	-23.45
	(-2.95)	(-6.96)	(-0.04)
SHROWNPC	1.12**	-3.17**	-4.29**
	(5.40)	(-10.65)	(-14.05)

Table 5. The Effect of Total Compensation, Total Compensation Change or CEO Tenure on Changes in Earnings per Share

The data are collected for every CEO in ExecuComp for each year 1993-2003.This table presents the results of simple linear univariate regressions of total compensation, total compensation change or tenure on changes in earnings per share. The first column displays the concurrent effect of total compensation, total compensation change or tenure on changes in earnings per share. The second column displays the effect of total compensation, total compensation change or tenure on changes in earnings per share one year later. The third column displays the effect of total compensation, total compensation change or tenure on changes in earnings per share two years later. EPSCHG is the year-to-year percentage change in EPS. Total_Compensation represents CEOs' total compensation comprised of salary and bonus. TCC_PCT is the year-to-year percentage change in total compensation. STAY_YEAR is the CEO's tenure. T-statistics are reported in the parentheses. * and ** denote significance at the 5% and 1% levels, respectively.

Panel A. CEO Tenure Less Than Three Years

	Dependent Variable								
	EPSCHG T0			**EPSCHG T1**			**EPSCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	329	329	329	329	329	329	329	329	329
R^2	0.006	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.003
Intercept	-64.72	-32.71	-44.54	11.97	11.99	44.36	-7.73	-1.48	27.51
Total_Compensation	0.029			0.001			0.006		
	(1.45)			(0.05)			(0.58)		
TCC_PCT		0.006			0.015			0.009	
		(0.11)			(0.34)			(0.32)	
STAY_YEAR			6.742			-17.51			-15.8
			(0.21)			(-0.65)			(-0.9)

Panel B. CEO Tenure Between Three and Five Years

	Dependent Variable								
	EPSCHG T0			**EPSCHG T1**			**EPSCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	449	449	449	449	449	449	449	449	449
R^2	0.006	0.002	0.000	0.002	0.000	0.004	0.008	0.000	0.005
Intercept	-99.89	-52.00	-90.47	-25.32	88.99	-771.2	29.94	-41.8	299.7
Total_Compensation	0.049			0.104			-0.068		
	(1.66)			(0.96)			(-1.87)		
TCC_PCT		0.156			-0.206			0.005	
		(0.94)			(-0.3)			(0.02)	
STAY_YEAR			10.37			209.27			-83.5
			(0.23)			(1.26)			(-1.5)

Table5. Panel C. CEO Tenure Between Five and Ten Years

	Dependent Variable								
	EPSCHG T0			**EPSCHG T1**			**EPSCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	1378	1378	1378	1378	1378	1378	1378	1378	1378
R^2	0.003	0.004	0.000	0.001	0.000	0.000	0.000	0.004	0.001
Intercept	-23.76	30.12	198.4	11.16	18.60	50.76	24.99	11.42	75.96
Total_Compensation	0.062			0.007			-0.005		
	(2.09)*			(1.05)			(-0.52)		
TCC_PCT		1.639			0.109			0.508	
		(2.41)*			(0.69)			(2.4)*	
STAY_YEAR			-19.36			-4.112			-7.7
			(-0.8)			(-0.72)			(-1.0)

Table 5. Panel D. CEO Greater Than Ten Years

	Dependent Variable								
	EPSCHG T0			**EPSCHG T1**			**EPSCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	1527	1527	1527	1527	1527	1527	1527	1527	1527
R^2	0.002	0.012	0.000	0.003	0.000	0.003	0.000	0.000	0.000
Intercept	-9.68	-3.18	26.63	49.02	-0.23	23.17	41.25	26.44	62.24
Total_Compensation	0.020			-0.037			-0.006		
	(1.66)			(-2.)*			(-0.27)		
TCC_PCT		2.013			0.012			0.667	
		(4.28)**			(0.02)			(0.8)	
STAY_YEAR			-0.543			-1.32			-1.65
			(-0.3)			(-0.5)			(-0.4)

Table 6. The Effect of Total Compensation, Total Compensation Change or CEO Tenure on Changes in Assets

The data are collected for every CEO in ExecuComp for each year 1993-2003. This table presents the result of simple linear univariate regressions of total compensation, total compensation change or tenure on changes in assets. The first column displays the concurrent effect of total compensation, total compensation change or tenure on changes in assets. The second column displays the effect of total compensation, total compensation change or tenure on changes in assets one year later. The third column displays the effect of total compensation, total compensation change or tenure on changes in assets two years later. ASSETCHG is the year-to-year percentage change in assets. Total_Compensation represents CEOs' total compensation comprised of salary and bonus. TCC_PCT is the year-to-year percentage change in total compensation. STAY_YEAR is the CEO's tenure. T-statistics are reported in the parentheses. * and ** denote significance at the 5% and 1% levels, respectively.

Table6. Panel A. CEO Tenure Less Than Three Years

	Dependent Variable								
	ASSETCHG T0			**ASSETCHG T1**			**ASSETCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	664	664	664	664	664	664	664	664	664
R^2	0.002	0.000	0.001	0.000	0.000	0.000	0.005	0.000	0.000
Intercept	29.41	25.57	18.63	27.52	25.73	25.95	32.87	26.84	23.72
Total_Compensation	-0.004			-0.002			-0.006		
	(-1.01)			(-0.42)			(-1.85)		
TCC_PCT		-0.005			0.001			-0.002	
		(-0.50)			(0.12)			(-0.3)	
STAY_YEAR			3.68			-0.073			1.644
			(0.59)			(-0.01)			(0.3)

Table 6. Panel B. CEO Tenure Between Three and Five Years

	Dependent Variable								
	ASSETCHG T0			**ASSETCHG T1**			**ASSETCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	752	752	752	752	752	752	752	752	752
R^2	0.002	0.002	0.001	0.002	0.000	0.000	0.001	0.000	0.000
Intercept	12.89	15.13	24.04	17.91	22.88	18.57	19.31	17.31	18.90
Total_Compensation	0.003			0.005			-0.002		
	(1.35)			(1.05)			(-0.87)		
Table 6_ B.cont									
TCC_PCT		0.010			0.001			-0.003	
		(1.07)			(0.03)			(-0.3)	
STAY_YEAR			-2.1			1.07			-0.42
			(-0.67)			(0.14)			(-0.1)

Table 6. Panel C. CEO Tenure Between Five and Ten Years

	Dependent Variable								
	ASSETCHG T0			**ASSETCHG T1**			**ASSETCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	2116	2116	2116	2116	2116	2116	2116	2116	2116
R^2	0.001	0.003	0.000	0.001	0.000	0.000	0.001	0.000	0.000
Intercept	24.34	20.21	28.10	21.09	19.41	23.76	18.02	16.41	18.62
Total_Compensation	-0.003			-0.001			-0.001		
	(-1.54)			(-1.07)			(-1.42)		
TCC_PCT		0.045			0.004			0.004	
		(2.5)*			(0.31)			(0.42)	
STAY_YEAR			-0.946			-0.576			-0.29
			(-0.65)			(-0.55)			(-0.4)

Table 6. Panel D. CEO Greater Than Ten Years

	Dependent Variable								
	ASSETCHG T0			**ASSETCHG T1**			**ASSETCHGT2**		
	1	2	3	1	2	3	1	2	3
Observations	2309	2309	2309	2309	2309	2309	2309	2309	2309
R^2	0.000	0.005	0.001	0.001	0.000	0.000	0.000	0.000	0.002
Intercept	18.18	17.95	22.44	17.98	16.55	18.68	20.12	19.72	27.49
Total_Compensation	0.000			-0.001			0.000		
	(0.67)			(-1.46)			(-0.06)		
TCC_PCT		0.068			-0.003			0.024	
		(3.48)**			(-0.13)			(0.81)	
STAY_YEAR			-0.208			-0.124			-0.43
			(-1.60)			(-0.89)			(-2.0)*

Table 7. The Effect of Total Compensation, Total Compensation Change on Changes in EPS and Changes in Assets, for the whole sample (without segmenting for tenure)

The data are collected for every CEO in ExecuComp for each year 1993-2003. This table presents the result of simple linear univariate regressions of total compensation, total compensation change on changes in EPS and assets for the whole sample. In Panel A, the first column displays the concurrent effect of total compensation and total compensation change on changes in earnings per share. The second column displays the effect of total compensation and total compensation change on changes in earnings per share one year later. The third column displays the effect of total compensation and total compensation change on changes in earnings per share two years later. In Panel B, the first column displays the concurrent effect of total compensation, total compensation change on changes in assets. The second column displays the effect of total compensation and total compensation change on changes in assets one year later. The third column displays the effect of total compensation and total compensation change on changes in assets two years later. EPSCHG is the year-to-year percentage change in EPS. ASSETCHG is the year-to-year percentage change in assets. Total_Compensation represents CEOs' total compensation comprised of salary and bonus. TCC_PCT is the year-to-year percentage change in total compensation. T-statistics are reported in the parentheses. *, **, and ***denote significance at the 10%, 5% and 1% levels, respectively.

	Dependent Variable					
Panel A	**EPSCHG T0**		**EPSCHG T1**		**EPSCHG T2**	
	1	2	1	2	1	2
Observations	3683	3683	3683	3683	3683	3683
R^2	0.003	0.000	0.000	0.000	0.000	0.000
Intercept	-30.058	16.505	30.885	19.018	24.662	15.055
	(-1.37)	(1.06)	(1.39)	(1.21)	(1.24)	(1.07)
Total_Compensation	0.039		-0.010		-0.007	
	(3.12)***		(-0.76)		(-0.64)	
TCC_PCT		0.127		-0.007		0.036
		(1.27)		(-0.07)		(0.40)

Panel B	**ASSETCHG T0**		**ASSETCHG T1**		**ASSETCHG T2**	
	1	2	1	2	1	2
Observations	5841	5841	5841	5841	5841	5841
R^2	0.000	0.000	0.000	0.000	0.001	0.000
Intercept	20.997	19.762	20.610	19.394	20.665	19.124
	(14.57)***	(18.85)***	(14.24)***	(18.42)***	(16.73)***	(21.29)***
Total_Compensation	-0.001		-0.001		-0.001	
	(-1.07)		(-1.14)		(-1.79)*	
TCC_PCT		0.006		0.003		0.000
		(1.17)		(0.55)		(0.08)

MODES OF GOVERNANCE AND THE USE OF COST INFORMATION: A COMPARATIVE STUDY BETWEEN BRAZILIAN AND BRITISH HOSPITALS

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Abstract

Cost information can be considered an important tool to benchmarking, planning and control, improving the management of expenditures, mainly in a public institution that are known by having scarce resources. This study was carried out to investigate different modes of governance within Brazilian and British hospitals and the usefulness of cost information in terms of managerial plannig and control. The research was conducted by cross cultural analysis, using several statistical methods for measuring organisation characteristics, seeking to gain a deeper understanding of the profile of both hospitals and respondents. This study showed the dominance of hierarchy and clan as being the most relevant modes of governance in Brazilian and British hospitals. This discussion is relevant considering the congruence level of goals and the ambiguity level of performance measurement. Also, it defines which form of governance is more predominant. The exploratory and quantitative survey methods were used to test the research questions. After conducting a survey using a structured questionnaire, semi-structured interviews with middle managers at chosen case study hospitals were undertaken. In the cases analyzed, it was possible to identify a significant difference between the use of cost information in hospitals, allowing inferences between different modes of governance. The lack of studies about the use of cost information in planning and control regarding public hospitals impedes any other comparison or assessment considering empirical data. One of the objectives of this paper was to generate initial material for future researchers. Besides, the knowledge about the current scenario of the usefulness of cost information mainly in planning and control is relevant when associated with modes of governance.

Keywords: Modes of Governance, Cost information usefulness, Healthcare system, Cross cultural study

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Introduction

The healthcare system decentralization has been enthusiastically embraced by many health reformers as a goal in itself, a concern to achieve the major goals of health reform, such as improved equity of access and coverage, gains in efficiency in the use of resources, improved quality, and sustained financial soundness (Collins et al., 2000). Specifically, due to being large and diversified organisations, hospitals management should be decentralised as well to achieve some kind of goal. Also, the circumstances have favoured the increase of non-programmed decision-making and problem solving in planning and control. It is well known that a multidivisional structure with increasing non-programmed decision-making and problem solving demands more investment and skills of lower managers in planning and control, and consequently they are more vulnerable to opportunistic behaviour and bounded rationality.

To efficiently carry through the process of decentralization, the contingency theory justifies the use of an appropriate accounting system, which involves the organization's cost information, supporting and matching the structure, technology and

environment (Kim, 1988; Covaleski et al., 1993). Its focus is on an overall view of the organisation. Moreover, transaction costs are concerned with economic transactions being conducted accordingly to markets and hierarchies (see Getz, 2002). It focuses transactions between actors, exploring issues related to bounded rationality and opportunism. From this framework emerges the clan or corporation which will be approached as a mode of governance, given its importance in terms of the public sector and, particularly, hospitals (Lapsley, 1993, 1997; Osborne, 1997).

This study uses some slight assumptions of the theories of contingency and modes of governance to approach the use of cost information within public hospitals. Therefore, considering modes of governance, it sought to investigate and understand to which extent the available cost information supports the planning and control processes that occur within public hospitals in both countries. This study performs this through the 'use of cost information' from the middle management perspective. This is done through the comparison between two countries: Brazil and Great Britain.

The relationship of hospitals management and cost information is discussed, whereas, the environment and the reflex mirrored by hospitals management and structure will be shown. It is a complex and changing environment in both countries, which present, to some extent, no reasonable degree of certainty, stability and predictability. Some situation prompted the following research questions: Do managers use cost information when planning and controlling in terms of human resources, supplies and equipment? To what extent? Do they consider cost information as being useful for benchmarking and improving organizational functions? Is any rationality identifiable? To answer these questions, this study was carried out, in order to investigate the usefulness of cost information in hospital management according to modes of governance within Brazilian and British hospitals.

This study can be divided into four sections. In the first one the literature was chosen based on certain characteristics, quoting the main ideas of contingency theory and modes of governance. Firstly, a comparative study between two countries excludes approaches that could be applicable only to a specific country. Thus, the literature is presented at one level that embraces the core elements of the theory pertaining to environment, organisations and managers irrespective of country. Secondly, posterior data analysis compares occurrences in both countries considering that the social phenomenon is taking place under a common "theoretical umbrella" and not a specific one. The next section shows how this research was conducted followed by the data analysis. Finally, conclusions were drawn considering a common literature background and the effects of the modes the governance in the usefulness of cost information.

Contingency Theory

It is acknowledged that the contingency theory has its roots in the work started in the early 1960s within the Industrial Administration Research Unit at Aston. The Aston Group conducted an empirical research involving 46 organisations both in the private and public sectors. The Group sought to study the relationships between: a) organisational structure and functioning; b) group composition and interaction, and, c) individual personality and behaviour (see Pugh et al., 1986, p. 38).

Summarising what emerged from this 'comparative study of organisations', it poses that "since all organisations have to develop means for channelling their activities towards the achievement of pre-specified aims, a pattern of regularities emerge over time' (Chia, 1997, p. 686). This pattern of regularities is called organisational structure. It is important to say that these authors perceive the activity of organisational analysis as being the continuous study and identification of similarities and differences among and into organisations, mainly the ones involving the structure and the variables that influence organisations, such as environment, technology, size, ownership, strategy, culture, location and others (see Emmanuel et al., 1993; Chia, 1997). Organisations can typically face multiple and possible conflicting contingencies (Child, 1977).

The Aston Studies, with contributions from other authors such as Chandler (1962), Woodward (1965), Lawrence and Lorsch (1967), and Williamson (1970) can be considered having an impact on the direction of organisation theory. Certainly, the most significant contribution of these earlier initiatives in organisational analysis was the development of a 'contingency' approach to the organisational design.

In terms of contingency theory of management accounting, Emmanuel et al. (1993) set out that "the contingency approach to management accounting is based on the premise that there is no universally appropriate accounting system applicable to all organisations in all circumstances." (p. 57). Therefore, the use of cost information is contingent on the circumstances faced by organisations (Drury, 2001). There are no restrictions defining the contingent circumstances that influence the accounting systems and, consequently, the cost information (Drury, 2001).

Contingency theory developed several aspects of uncertainty, including unpredictability of input-output relationship and others (Rayburn and Rayburn, 1991). "Uncertainty is a lack of information about future events so that alternatives and their outcomes are unpredictable" (Rayburn and Rayburn, 1991, p. 58). In the case in point, middle managers of

multidivisional organisations, such as hospitals, located in dynamic and complex environments should experience a large number of different factors and influences in the planning and control processes.

Brignall (1997, p. 326) suggested normative proposals to cost system design considering a wider management information system in services. He noted that "service organisations today compete on a range of dimensions and not just cost and price, so a good planning and control system cannot focus on the financial dimension alone. Consequently, service costing systems must be seen in their wider context, as part of a management information system which would also embrace non-financial information." This author advocates the design of a management information system considering a series of relevant contingent variables such as environmental hostility, organisation's mission and strategy and its service type (see also Fitzgerald et al., 1991).

The contingency approach emphasises that management styles and organisational structures are contingent to the organisation and that a unique universal set of management characteristics does not exist. In hospitals, the contingency fit between organisational context and the design of management accounting system has been measured by the user´s information satisfaction (Kim, 1988, Moore et al. 2009). Although little work has been done in Brazil, and only a very limited amount in public hospitals, these studies provide a useful base for this research.

Modes of Governance

The integration of theories relating to modes of governance and contingency theory aids understanding as to how integration enables hierarchical or structural authority to address individual opportunism. Both theories recognize that decision makers should be influenced by self-interest and yet, to some extent or by variable degree, both frameworks accept that organisational structure and design and the design of accounting systems are influenced by, and influence, the external environment.

Markets, hierarchies and clans are considered forms of organisations, i.e. "an organisation may be thought as any stable pattern of transactions between individuals or aggregations of individuals (see Ouchi, 1980, 140). Therefore, in this definition, "a market is as much an organisation as it is a hierarchy or clan" (op cit., p. 132). Despite the fact that these forms of organisation can be identified in the healthcare systems in a broader meaning in both countries, this paper emphasises their application in the traditional organisation setting, i.e. public hospitals (see Bourn and Ezzamel, 1986, Sigulen and Zucchi, 2009).

The arrangement that defines the mode of governance was built upon the conjugation of a certain group of characteristics described by Williamson (1975, 1978, 1991). He argues that the opportunism and bounded rationality are the two postulated behavioural characteristics that can interfere with contracting and upon which the management style or structure might change. About organizational failures framework, transactions costs as well as the influence of opportunism and bounded rationality see Emmanuel et al (1993), Getz (2002), Macintosh (1994), Drury (2001), Carson et al. (2006) and Bourn and Ezzamel (1986).

As to modes of governance, Bourn and Ezzamel (1986) posed that in case of a high degree of goal incongruence and low degree of ambiguity in performance measurement, the market form emerges and is tolerated. In the opposite situation, i.e. low degree of goal incongruence and high degree of ambiguity in performance measurement, the clan emerges and is tolerated. The above mentioned authors said that the hierarchical form takes place and is tolerated in the case of medium or intermediate levels of goal incongruence and ambiguity in performance measurement. It is important to notice that Bourn and Ezzamel (1986) stated that in the case of high degree of goal incongruence and high degree of ambiguity in performance measurement, a form of organisation and managerial functions does not emerge. In those cases the controls, for example, are more ritualistic/symbolic.

A bureaucratic organisation involves a system of hierarchical surveillance, evaluation and direction. When the ambiguity in performance evaluation increases, the bureaucracies can fail. Also, "when tasks become highly unique, completely integrated, or ambiguous for other reasons, then even bureaucratic mechanisms fail" (Ouchi, 1980, p. 134f). In this case, i.e. "a form of mediation succeeds by minimising goal incongruence and tolerating high levels of ambiguity in performance evaluation", which is the clan (Op. cit., 135). It is also called organic solidarity and organic relationships are considered as the key to coordination (Osborne, 1997). The organic solidarity, i.e. the clan, that exists in the medical profession is well known, particularly in Brazil.

In this case, the clan is composed of the clinicians (professionals) and the hierarchy is the professionalized bureaucracy. The goals of the clan and the hierarchy are not necessarily the same and neither clearly stated (see Bourn and Ezzamel, 1986), particularly in Brazil. These authors posed that "management and control in the National Health System (NHS)... is exercised through a corporate culture, or clan form. In specific terms, this may be described as the hegemony of the medical profession to undertake patient-care through the exercise of clinical freedom" (p. 210f).

The above mentioned authors have stated that one mode, market, hierarchy or clan, does not exclude another and even the three models can appear simultaneously (Ouchi, 1980; Bourn and Ezzamel, 1986; Osborne, 1997). Osborne set out that there should be one dominant type. Hospitals can be

considered organisations where more than one type will appear, mainly the hierarchy and clan. There are reasons to believe that the clan formed by the medical profession within hospitals (or sub-culture, see Bourn and Ezzamel, 1986) in Brazil are dominant or try to be dominant. Because traditions are implicit, rather than explicit rules that govern behaviour (see Ouchi, 1980), the clan which permeates the Brazilian hospitals are expected to be, due to the market tradition, motivated by self-interest and they tend to maximise their well-being or clan objectives. This can be conflicting with the hierarchical model. In Great Britain this situation can be different. Osborne (1997) studying public institutions admitted, in organisations within the clan, not vertically integrated and loosely coupled and the existence of explicit organisational missions of its own.

The concept of corporate or 'clan' pretends to be an answer to conceptual frailties (Ouchi, 1977, 1979, 1980; Ouchi and Price, 1978; Williamson and Ouchi, 1981). Where the clan concept does not fit the network or other forms arise (see Table 1). Thompson et al. (1991) proposed four approaches to modes of governance based on the unit organisational form (independent or hierarchical) and the approach to relationships (competitive or cooperative). The British health system has just moved between theses 'extremes', i.e. from competition to cooperation or from the internal market to co-operative networks. In general terms, a network structure is proposed as being a more accurate form to characterise special kinds of alliances rather than joint ventures among hierarchical firms (Powell, 1990).

Table 1. Modes of governance

		Approach to Relationships	
		Competitive	Cooperative
Unit Organisational **Form**	Independent	Classic Market	Network Structure
	Hierarchical	Bureaucracy	Clan

Source: Thompson et al., 1991, p. 244.

"The 'clan' control system relies on social controls rather than the legal or economic sanctions of the bureaucratic organisation" (Lapsley, 1993, p.385) or on reciprocal relationships (Osborne, 1997). The 'clan' or corporate culture has been used to explain governance modes within organisations. It means that the 'clan' mechanism emerges due to the frailties brought about by 'soft contracting' between parties and the opportunism as well. This mode of governance would have answers to illuminate obscure points present in incomplete contracts and an 'elaborate governance apparatus' (Williamson and Ouchi, 1981). In terms of health care and, consequently, hospitals, the presence of this mode of governance is discussed by authors such as Ouchi (1977), Lapsley (1993), Ashmos et al. (1998) and Osborne, (1997). Stiglitz (1991) and Lapsley (1993) defend the shift from market to hierarchy. This shift is causing strong interest on changing boundaries between organisations and the market and, for instance, theories of behaviour within organisations.

It is important to understand and highlight how to apply and identify such modes of coordination. Osborne (1997) summarised and presented a group of valid characteristics under which it is possible to identify the main mode that governs entities within the health system (see Table 2). He defends the presence of more than one mode of governance but with one of them more pre-eminent.

Table 2. Characteristics of the modes of governance

Mode of Governance	**Determinant Characteristics**
Clan, **Corporation**	1. Clans are determined by reciprocal and ongoing relationships. 2. Clans have as a key feature: the interdependence of their members contrasting with markets - interactions of independent organisations - and hierarchies - with some dependent ones. 3. Clans do not have to be vertically integrated as a hierarchy. They "would rather be loosely coupled, which would allow them to retain their autonomy whilst sharing decision-making and risks." (Osborne, 1997, p. 324). 4. Clans do not mean an egalitarian society. There would be differences determined by the scarcity of resources. 5. Clan membership determines the acceptance of normative values and statements about the conduct of the clan members. They can be implicitly or explicitly stated.
	1. Hierarchy will promote the accountability of contracted service due to the fact that the lines of authority would be clearly specified and consequently known. 2. There is a high degree of stated tasks and their specificity in terms of the desired product and the obtained one, providing that they were built around specialist expertise. 3. Hierarchy threatens itself with its own excesses and lack of flexibility.

Hierarchy	4. Hierarchies have costs that can be compared to the transaction costs of the market: time taken for decision-making and slowness in responding to changes.
Market	1. Price competition is the unique relevant mechanism present. Managers cannot exercise influence on it providing that it is a natural result from the operation of the forces of demand and offer. 2. The market condition determines that all organisations or groups can participate. The contracting situation is free for all. 3. Markets are not ever perfect; there would be failures to be dealt with, e.g. monopoly, monopsony or length[3]. 4. Purchasers and service providers would need to deal with the transaction costs imposed by the market, e.g. the costs of the tendering and the performance-monitoring process.

Source: adapted from Osborne, 1997.

[3] This is controversial. It is possible to have different interpretation of the same phenomenon according to different theories, i.e. monopoly is not a failure considering neo-Austrian position (Osborne, 1997).

Key points in analysing market and hierarchies in the context of health organisations, public general acute hospitals in particular, are: 1 – the ambiguity of the measurement of individual performance; and, 2 – the coherence of goals, of the individuals, the clan and hierarchy and of the organisation. Ouchi, Lapsley, Ellwood consider the former more challenging than the latter. Based on the exposed circumstances, every organisation has to work on the reduction of the ambiguity of the measurement of individual performance, in order to access an acceptable level of opportunism. The same thought can be applied to the coherence of goals between individuals and the organisation. Ouchi (1980) suggests that market relations are acceptable and efficient when there is a low level of ambiguity over performance evaluation, and bureaucratic relations will be efficient when both performance and goals are ambiguous and incoherent. In terms of tolerating high levels of ambiguity in performance evaluation and low levels of goal incoherence the clan form prevails (see Lubatkin et al. 2007).

To reduce transaction costs, to become more competitive or to survive, organisations have tended to reproduce or even 'artificially' create the market situation. This creates 'independent' internal areas, sectors or groups that simulate a market within the organisation (see Bourn and Ezzamel, 1987). Hospitals in Great Britain have lived this experience since Management Budgeting (Boyle, 2008). Brazilian hospitals have just started a process of hierarchy and decentralization with the SUS.

Therefore, according to the discussion above, hospitals internal environment is divided essentially into two areas of knowledge or management reflecting the hierarchy and the clan, administration and health group respectively. Such a combination, and its decision-making process, reinforces internal complexity for hospitals. This complexity is built upon multiple issues, sometimes conflicting ones, considered by managers. Planning and control within hospitals require the meeting of the two areas because the clinicians are those who have knowledge about the performance of their tasks (Weisbord, 1976; Freidson, 1985; Lapsley, 1993).

The clinical group, mainly doctors, is the major professional and informational supplier and is also the major influence on decision-making process. There is a lack of communication between managers and clinicians, and also there are different lines of actions adopted in similar circumstances. Ashmos et al., (1998) argues that these professionals essentially internalise models of problem solving and knowledge so that they can act more or less autonomously on the job, they control their own work, and they make decisions in accordance with their respective professions standards. This work is neither known nor understood by hospital managers with administrative background.

Therefore, contingency theory explains and supplements the study of healthcare structure and modes of governance within hospitals. However, it does not involve the explanation of transactions between organisational actors, opportunism and bounded rationality, which is fundamental to discussion of the presence of certain structures or modes of governance within hospitals such as the clan and the hierarchy. Therefore this part used modes of governance to cover this situation. It was also used to reach a position to discuss and justify the analysis of modes of governance as an agent that permeate and interferes with managerial action in public hospitals.

Methodological design and researc phases

This is an exploratory study because it is defensible that little is known in terms of comparative hospital management, and much less is known when it is referring to the British and Brazilian hospitals middle management. Thus, this work is considered an exploratory research in essence even though some perspectives closer to the descriptive approach are going to be used.

As seen, this research was defined as eminently quantitative. However, it can be said that this research indicates the direction of a combined survey and case study, meaning that techniques that induce to a qualitative classification are used (Miller, 1991). The qualitative perspective is considered as illustrative and an enrichment of the results, i.e. a category of triangulation.

The use of quantitative or qualitative techniques is also linked to the research's objective. Thus, this work uses quantitative survey methods to test the research questions but further understanding is gained through the use of case study interviews. The survey enables the research findings to be generalised but the interviews improve the internal validity and understanding of the findings. After conducting a survey using a structured questionnaire, semi-structured interviews with middle managers at chosen case study hospitals were undertaken.

The research was conducted in four main phases in Great Britain and Brazil. In the first phase the main survey was conducted using the structured questionnaire seeking to answer the working questions and test the hypotheses. Also, a documentary analysis took place to provide a wide view of hospitals. This phase was also responsible for elements of generalisation and external validity. In the second phase, two hospitals were chosen in each country, based on available official sources or judgement of experts, data processing, and indicators as being representative of best practice and/or high performance level. In the third, the qualitative approach was carried through to visits to these hospitals and using a semi-structured instrument to interview several managers involving decision making, planning and control processes. This phase

enhances internal validity. In the last phase, the discussion of the questions and the test of the hypotheses considering the data gathered in phases 1 and 3. Data were processed, analysed and interpreted. This phase consolidated the elements for generalization, reliability and validity.

Sampling in Great Britain and Brazil

The research was undertaken in hospitals of the West Midlands Region and Minas Gerais State. These organisations were considered public and also, possessed common and compatible characteristics with the intended results.

Seeking sample and data collection equivalence, public hospitals were determined using secondary data and general criteria to produce equivalent groups in both countries. As general criteria, the following were excluded from the study:

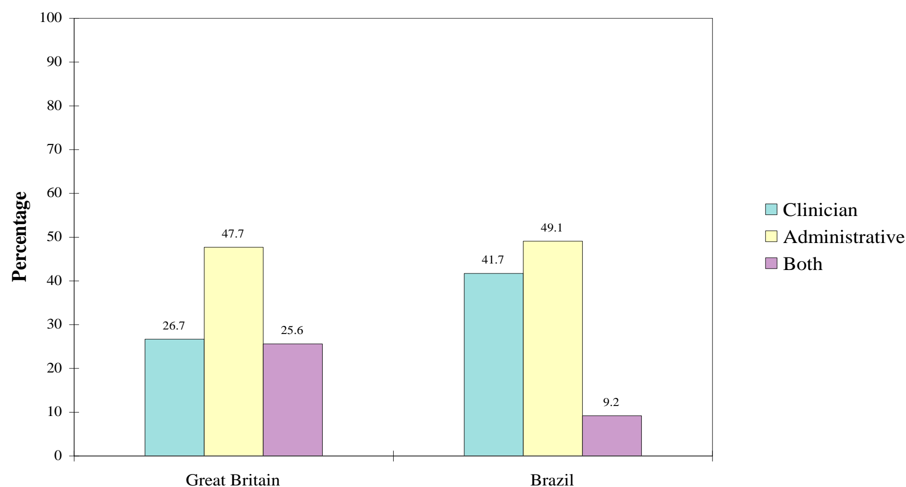
- specialised hospitals (i.e., geriatric, psychiatric, and rehabilitation).
- Hospitals with fewer than 100 beds.
- Hospitals without an available and official information (system) about costs.
- Hospitals with average length of stay of longer than 30 days.

Hence, 26 hospitals in Great Britain and 22 in Brazil were detected as eligible and 150 intermediate level managers were randomly selected as unit of research in each country. The process in Brazil started in January and finished in April. Following table gives a general view of the whole process.

This research has used several statistical measures of organisation characteristics seeking to gain a deeper understanding of the profile of both hospital and respondents.

	Great Britain	Brazil
Region	West Midlands Region	Minas Gerais State
Type of Organisation	Public	Public
Phase 1		
Number of Organisations	26 NHS trusts	22 Public Hospitals - SUS
Questionnaires sent out	150	150
Questionnaires returned	90	120
Phase 3		
Number of Interviews	10 middle managers	22 middle managers

Figure 1. Background of the respondents (Q1)



Examining the general profile of the public hospital managers, the first managerial factor corresponds to the respondent's background. It is not enough but it can be considered as the main characteristic that defines the association of the respondent as a member of the organisation and is, consequently, linked with the mode of governance. As shown in Figure 1, 47.7% of the British respondents had an 'administrative'[4] background, whereas 26.7%

[4] Inverted commas are used to detach extracts from the questionnaire.

of the respondents were 'clinicians' and respondents with 'both' backgrounds presented 25.6%.

Brazil presented a similar distribution in terms of the administrative background and the other two categories. It is important to notice that the difference between the 'both' background categories is inherent to more clinicians receiving management training in Great Britain than in Brazil. This will favour future analysis in terms of a possible integration of both modes of governance, i.e. the clan and the hierarchy in British hospitals. It is not a surprise: British clinicians have been involved in management and being accountable for their administrative actions since the Management Budgeting in 1980s (see, for example, Llewellyn, 1999). Brazil presents a distribution of about 50% administrators and 50% clinician staff. There is a balanced distribution of respondents in terms of the different forms of organisation in hospitals in both countries.

General results and analysis

Hospital Structure Relation Specific Factors

Cost and resource information currently available in both countries for middle managers constitute the group of items or questions which represents the hospital structure relation specific factors. According to Table 3 the information currently available for managers can be considered as extensive. Any comparison in terms of content or similarity between this information is dangerous due to elements that could bring about enormous technical problems or differences involving mechanisms and techniques applied amid hospitals in both countries as well as among countries. This study is concerned with the use of cost information or its perceived usefulness in terms of planning and control. Therefore, this does not demand the judgement of the techniques involved or any technical mechanism employed to generate cost information. Budget or case-mix was used to illustrate the idea of cost information and as a referential for planning and control, when it was made necessary during the interviews, due to their considerable diffusion among middle managers of both countries. See Table 3.

Table 3. Information currently available for hospital managers: Great Britain

Cost information			
Great Britain	%	Brazil	%
Case-mix costing system	64.4	Monthly costing spreadsheet – case-mix	65.0
Budget statements – integrated with patient activity data	67.8	Budgeting directives – monthly	46.7
Budget statements	88.9	Budgeting directives – annual	30.0
HRG (reference) costs	55.6	-	-
HRG prospective cost/price	35.6	-	-
Staff costs	95.6	Staff costs	50.0
Drug costs	87.8	Drug costs	55.0
Laboratory costing system	44.4	Laboratory cost	39.2
Radiology cost	54.4	Radiology cost	35.8
Theatre cost	54.4	Theatre cost	18.3
Resource information (uncosted)			
Case-mix systems	31.1		
Nursing dependency	33.3	Storeroom supplies level	63.3
Pharmacy issues	57.8	Pharmacy supplies level	58.3
Theatre usage	53.3		
Pathology relative value system	34.4	Quantity of pathological exams	42.5
Radiology relative value system	32.2	Quantity of radiological exams	40.8

It is possible to note that British managers have accessed considerably more cost information than their counterparts in Brazil. Figures presented in Table 3 show that the information currently available for hospital managers in Great Britain is expressive and reaches the majority of hospital managers. 'Staff costs' and 'Drug cost' seem to reach every manager within hospitals, 95.6% and 87.8% respectively. One can highlight 'Budget statements', 'Budget statements integrated with patient activity data' and 'Case-mix cost system', being accessed for more than 60% of the managers. 'Budget statements' is reached by almost 90%. It is a fact that British hospitals have greater budgetary control since the Management Budgeting in the 1980s. This may explain this high figure.

DRG and case-mix accounting are both used as control mechanisms of environmental bodies and as a balance of power between administrators and physicians (see, for example, Covaleski et al., 1993). Case-mix accounting lost importance for contracting in Great Britain (see, for example, Ellwood, 2000), this may be related with the lack of effort within the clan to give away the power. Case-mix allows external comprehension and auditing of the 'transformation' processes or 'product' lines involved in hospitals (Covaleski et al., 1993).

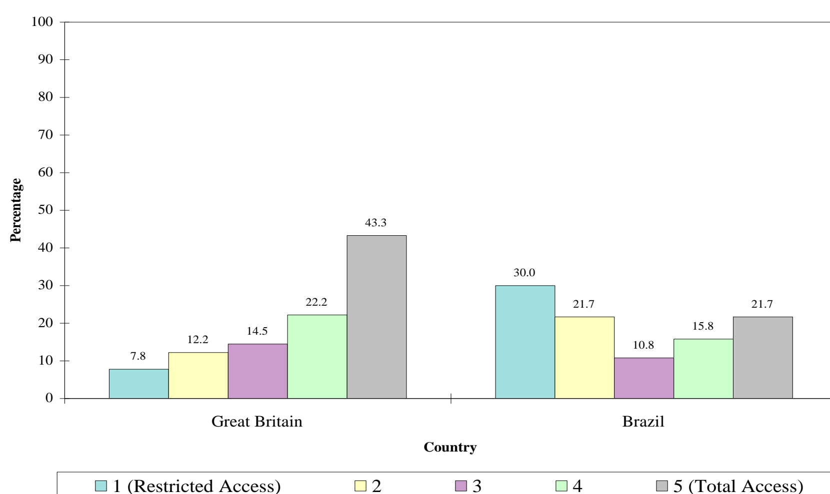
In Brazi1, 65% of managers stated access to 'Monthly costing spreadsheet – case-mix', which represents the highest figure. In this case, managers perhaps see the opportunity for gaining certain power

within Brazilian hospitals. This managerial instrument is something new, and it raises a mixture of curiosity and interest among middle managers. The curiosity is due to the fact that middle managers were not usually informed about costs of treatments. The interest is raised because managers have seen this situation as an opportunity to identify and negotiate certain issues with clinicians that were not possible before, e.g. drugs used in certain treatments. It was also observed around 50% of access of 'Drug costs' and 'Staff costs', see Table 3.

The profile of both samples showed a certain balance between respondents within and between countries; however, the information available and the access ration present considerable difference in favour of British managers.

According to Figure 2, more than 65% of British managers have a considerable level of access to information about cost. In terms of Brazilian managers the percentage is considerably lower, 37.5%. Taken together with the data contained in Table 3 it is possible to assert that British managers have superior access to cost information than their Brazilian counterparts. Cost information should reduce uncertainty (Choo, 1996). Extensive cost information availability associated with high accessibility improves the decision-making process. Therefore, British managers enjoy a privileged position to reduce or eliminate opportunism and to encourage the programmed decision-making and structured problem solving.

Figure 2. Access to information about cost and resource consumption (Q9)



Note: $p < 0{,}001$ and Cramer's V = 0,341

Cost Information Perceived Usefulness and Attitudes

In terms of 'involvement of cost information in decision-making/problem solving process' one can note that British managers tend to be more concrete users than their counterparts in Brazil, see Figure 2. The percentage of British managers using cost information with reasonable frequency in decision-making and problem solving processes are about 70% whereas the figures in Brazil are just 50.8%. This supports the fact that British managers are more concerned about cost information and the role it plays in decision-making and problem solving. The use of cost information means uncertainty reduction and supports resource allocation. It is important to observe that 15% of Brazilian managers use cost information 'very rarely' in the decision-making/problem solving processes. Table 4 shows means of involvement of cost information in decision-making assigned by managers of both countries. Means can be considered high in both countries.

Table 4. Cost Information perceived usefulness: Decision-making/problem solving

Items		Means		Chi-Square	p
		Great Britain	Brazil		
Q13	In decision making/problem solving process	3.99	3.88	8.647	0.00

When testing the usefulness of cost information in terms of certain managerial dimensions, both countries assumed the same order regarding the applicability of cost information. 'Planning' is posed first and it is followed by 'control' with highest scores, see Table 5. It is not surprising that planning and control were ranked first. According to the literature, the multidivisional structure in a complex

environment demands investment in both managerial dimensions (see, for example, Ouchi, 1980; Emmanuel et al., 1993; Otley, 1994). In British organisations this can be explained by the market mechanisms involved. Hospitals have experienced a scenario that suggests the divisional structure since management budgeting. Ranked in third and fourth place in both countries with high means were prediction and surveillance. This is a surprise due to the fact that prediction should be closer to planning given the close relationship between them.

Table 5. Cost Information perceived usefulness: Managerial dimensions

Items	Means		Chi-Square	p
	Great Britain	Brazil		
Surveillance	3.80 (4th)	4.68 (4th)	58.082	0.00
Prediction	3.90 (3rd)	4.71 (3rd)	63.917	0.00
Control	4.00 (2nd)	4.76 (2nd)	58.554	0.00
Planning	4.01 (1st)	4.88 (1st)	81.386	0.00

The extent to which cost information facilitates optimal managerial procedures was investigated (Table 6). British managers presented the facilitation of 'resource control' as the highest mean, i.e. 3.93. Placed second was that assured cost information facilitates 'adequate or optimal decisions', with a mean of 3.84. They were followed by 'adequate planning' with a mean of 3.70, problem solving with a mean of 3.50, and 'uncertainty reduction' with a mean of 3.19. The variable 'uncertainty reduction' that establishes a connection between organization and environment was ranked in last place in this country (see, for example, Mak, 1989). This could suggest a weak link between the use of cost information for planning and control and the environment (internal and external). Mak (1989) related perceived environmental uncertainty and internal systems of planning and control in manufacturing companies. He expected that the higher the environmental uncertainty the higher the sophistication of top control processes and therefore the perceived usefulness of information would be higher. In this case usefulness of information did not interfere, as expected, with the environmental uncertainty. The same thing happened in hospitals. Hospitals, mainly the Brazilian ones, are inserted in a highly complex environment and demand an elevated degree of sophistication in control processes, therefore, it would be expected a higher mean for cost information usefulness in terms of uncertainty reduction. This did not happen for both countries. Resource control was well positioned, reinforcing the presence of objective rationalism in planning and control.

Table 6. Cost Information perceived usefulness: Managerial procedures

Items	Means		Chi-Square	p
	Great Britain	Brazil		
Adequate decisions	3.84 (2nd)	4.63 (3rd)	54.577	0.00
Adequate planning	3.70 (3rd)	4.74 (1st)	73.558	0.00
Problem solving	3.50 (4th)	4.33 (5th)	35.281	0.00
Resource control	3.93 (1st)	4.68 (2nd)	47.817	0.00
Uncertainty reduction	3.19 (5th)	4.49 (4th)	74.229	0.00

Brazilian managers also presented high means, see Table 6. Placed first is that cost information 'facilitates adequate planning' with a mean of 4.74. This is followed by 'resource control' with a mean of 4.68. Ranking next is that cost information facilitates 'adequate or optimal decisions' with a mean of 4.63, 'uncertainty reduction' with a mean of 4.49, and finally 'problem solving' with a mean of 4.33.

Table 7. Cost Information perceived usefulness: Control

Items	Means		Chi-Square	P
	Great Britain	Brazil		
Resource consumption	3.76 (1st)	4.59 (1st)	51.56	0.00
Clinical activity	3.10 (3rd)	4.46 (3rd)	71.276	0.00
Administrative activity	3.22 (2nd)	4.55 (2nd)	86.866	0.00

When asked about the usefulness of cost information for control/surveillance, British and Brazilian managers gave the same order of importance, see Table 7. Placed first was the usefulness 'for control on resource consumption' with a mean of 3.76 and 4.59 for British and Brazilian managers respectively. Placed second was its usefulness for control/surveillance of 'administrative activity' with mean of 3.22 for British managers and 4.55 for Brazilian managers. In third place came 'control on clinical activity' with mean of 3.22 for British managers and 4.55 for Brazilian managers. These means favour a positive analysis of the usefulness of cost information for control. In this case the control of 'clinical activity', which, as discussed earlier, involves clan members, is ranked third in both countries. The form of knowledge involved with this activity can be considered, to some extent, responsible for this result (see, for example, Lapsley, 1993; Tsoukas, 1995; Cabrezio et al., 2009). Tsoukas (1995), for example, supports that the knowledge involved in clinical activities has a narrative part due to practice, for example. This means that part of the knowledge is descriptive, as an experience, and the situations are shared and dispersed within the group or community, which is able to understand its meaning or content. However, the knowledge involved in managerial activities is more propositional, i.e. documented and systematised. Therefore, it sounds adequate that planning and control of clinical activity are the last placed, given the above characteristics. British hospitals have involved clan members with the hierarchy, as this mitigates barriers posed by the narrative form of knowledge, for example.

Table 8. Cost Information perceived usefulness: Benchmarking

Items	Means		Chi-Square	P
	Great Britain	Brazil		
Resource consumption	3.61 (1st)	4.43 (1st)	37.07	0.00
Clinical activity	3.06 (3rd)	4.40 (3rd)	64.113	0.00
Administrative activity	3.11 (2nd)	4.42 (2nd)	68.057	0.00

The same phenomenon occurred in terms of the consideration of the usefulness of cost information for benchmarking. British and Brazilian managers established the same order, i.e. 'benchmarking on resource consumption' was ranked first in both countries, with a mean of 3.61 and 4.43 for British and Brazilian managers respectively (Table 8). 'Benchmarking administrative activity' was placed in second, with the mean of 3.11 for British managers and 4.42 for Brazilian managers. Finally, 'benchmarking clinical activity' was placed in third, with mean of 3.06 and 4.40 for British and Brazilian managers naturally. This reinforces the preceding analysis and gives some empirical evidence to the influence of differences in knowledge pressuring planning and control, therefore, this is not a surprise. The hierarchy, due to the presence of more propositional knowledge, can be tested more and have its degree of ambiguity in performance measurement reduced. The same does not occur in terms of benchmarking of clinical activities because the fraction based on narrative knowledge is considered so that only clan members are able to understand it. Therefore, unless the clan members get involved with the hierarchical organisation and, consequently, the line of command, the middle management mediation role involving clinical activities should be considered irrelevant or unproductive.

Table 9 presents managerial perception about the use of cost information for items related to organizational objectives. Some of these objectives are environmental expectations for control cost and encourage planning as posed by Covaleski et al., 1993. It is possible to identify more clearly the presence of rationality and complex rationality to reach some of these objectives as well. The use of cost information for managerial activities such as 'cost reduction' or to 'reduce resource consumption' involves standardised and structured forms of control, such as routine and expert (Hofstede, 1981). This is due to the presence of objectives/goals congruence, completeness of knowledge about the 'transformation' process and a smaller degree of change of the predictive model. In this case, more programmed decision-making and objective rationality take place and, consequently, opportunistic behaviour is strongly restrained. However, a more complex and less deterministic model is demanded, for example, in terms of the benchmarking of clinical activities or the provision of clinical activity progress. These activities involve some narrative knowledge and, consequently, the clan members. Therefore, a complex rationality (more individual, subjective or collectivist) can be detected in this case.

Table 9. Cost Information perceived usefulness: Planning and control objectives

Items	Means		Chi-Square	p
	Great Britain	Brazil		
Benchmarking of clinical activities	4.00 (1st)	4.45 (3rd)	17.682	0.00
Clinical activity progress	3.71 (4th)	4.36 (6th)	25.249	0.00
Improve clinical treatments	3.42 (6th)	4.45 (4th)	50.353	0.00
Reduce resource consumption	3.88 (3rd)	4.51 (2nd)	39.814	0.00
Cost reduction	3.92 (2nd)	4.64 (1st)	56.6	0.00
Provide training clinic professionals	3.22 (7th)	4.34 (7th)	49.103	0.00
Provide training administrative professionals	3.52 (5th)	4.43 (5th)	47.927	0.00

Table 9 shows that British managers assigned the highest score to the item which presents the use of cost information in planning and control capable of providing 'benchmarking of clinical activities'. This supports the non-programmed decision-making British managers are involved in. It can be observed that the Labour policy has introduced a competition based on comparison of costs between hospitals and a benchmarking process. Therefore, cost information has served and has been contingent on external variables. This current position reflects this. This suggests that the message from the British Government has been understood and is borne in mind by managers. This emerged from the imposed managerialism. It can be said that there is evidence that the British Government has obtained what it has intended to and, at the same time, has kept a respectful coherence with hospital managers thought and practices. Going further, it is possible to understand and identify that clan members are getting involved with the bureaucratic planning and control processes.

According to Table 9, British managers scored 'cost reduction' as the second highest item and ranked 'reduce resource consumption' third, which means that pure programmed decision-making and objective rationality came second. Brazilian managers, in contrast, ranked 'cost reduction' as the first highest item and 'reduce resource consumption' as second. Despite being commonsensical use of cost information, 'cost reduction' and 'reduce resource consumption' can be considered as mechanical and functionalist supporting an objective rationalist point of view. Brazilian managers ranked 'benchmarking of clinical activities' third. It cannot be considered a complete surprise because Brazilian managers present high means for the use of cost information in general circumstances.

Because of the degree of complexity involved, one can assert that benchmarking is an evolved way of using cost information. Regarding this research, it can be said that British managers have an enriched perspective about the use of cost information because 'benchmarking' was ranked first. External and internal benchmarking can be considered a more complex managerial technology. Literature (see, for example, Emmanuel et al., 1993) has explained that, due to the growing environmental complexity, organisational systems should gain complexity as well and this is supported by this research.

The other two items 'clinical activity progress' and 'improve clinical treatments' were presented with alternating scores in Great Britain and Brazil. British managers ranked 'clinical activity progress' fourth and 'improve clinical treatments' sixth; Brazilian managers vice-versa. It is important and coherent to note that, to some extent, cost information can contribute to clinical treatments. This can curb opportunistic behaviour and decrease the degree of ambiguity in performance measurement, what favours the hierarchical form of organisation. This is the expectation of the British Government. In Brazil, it can be said that managers are aware of this by other means, because there is no governmental policy emphasising the use of cost information in association with clinical activities. Also, according to the discussed findings, the forms of organisation in Brazilian hospitals are not integrated and, consequently, opportunistic behaviour thrives.

Table 9 shows that managers of both countries ranked fifth and seventh, therefore at the bottom, 'training administrative professionals' and 'training clinic professionals' respectively. The importance given to those items is lower than the importance given to the others reflecting certain incoherence with the increase of complexity of internal systems. An explanation for such incoherence can be that, even though ranked lowest, they still have high means, i.e. over three in both countries.

Table 10. Managerial Planning characteristics: Influences and similarity of goals when planning

Items	Means		Chi-Square	p
	Great Britain	Brazil		
(Influencing capacity) of background when planning	3.98 (4th)	3.58 (5th)	7.515	0.01
(Influencing capacity) of organizational objective when planning	4.28 (1st)	3.95 (3rd)	4.561	0.03
(Influencing capacity) of public objectives when planning	3.70 (5th)	4.09 (2nd)	8.752	0.00
(Influencing capacity) of objective of the area/sector when planning	4.03 (3rd)	4.27 (1st)	4.734	0.03
(Influencing capacity) of clinical objective when planning	4.19 (2nd)	3.69 (4th)	7.005	0.01

Table 10, shows the scores of the items' influence in the planning process. It is possible to see that British managers have the 'organisational objective' as the prime influencing item. In turn, their Brazilian counterparts rated 'objective of the area/sector' as the highest. It is not surprising that British managers make a vision of the whole when planning because, as discussed before, they presented elements to consider that they are more coherent in terms of complex rationality (objective, subjective, individual or collectivist) involvement in processes than their Brazilian counterparts. This characteristic supports the fact that British managers have general directives and a more organizational perspective. This is coherent in the case of clan or hierarchical form of organisation, i.e. an intermediary (medium) degree of goal incongruence. In this case non-programmed decision-making follows the general idea of behaviour congruence. General goals or ends will drive the process involving complex rationality (objective, subjective, individual or collectivist). Therefore, the modes of governance within British hospitals share congruent organisational objective/goals. The clan form should negotiate a decrease on the degree of ambiguity in performance measurement, which makes it get closer to the hierarchy (see Ouchi, 1980).

Brazilian managers, when assigning the 'objective of the area/sector' as the first one, showed coherence with some other contingent characteristics already described. They are less involved with scientific rationalism and they are involved in a mutable environment with internal clan dominance. Table 10 provides evidence of a fragmented structure with strong local force and particular interests. Sectors assume their own identity on behalf of themselves superseding the organisation and appear to be stronger than the modes of governance. However, the resultant fragmentation seems to be convenient and the opportunism, which emerges in the Brazilian context, is much more evident than in Great Britain. In this situation non-programmed decision-making does not follow any objective or behaviour congruence. Due to opportunism and environmental complexities the ambiguity of performance measurement is kept high, which is a characteristic of the clan form of organisation. It is important to notice that high degree of goal incongruence is a characteristic of the market form of organisations. Therefore, considering the analysis and discussions so far, Brazilian hospitals present a mosaic in terms of modes of governance. Surely, this keeps the internal environment highly vulnerable to opportunistic behaviour.

It is important to recognise that the managers' 'background' was scored as one of the last items to be considered in terms of influencing planning, i.e. fourth in Great Britain and fifth in Brazil. It was suggested by the theory that background would be expected to exert stronger influence in managerial planning. Thus, evidence shows that, rules posed by managerialism or collectivism should restrain opportunism at the structure level.

The characteristic 'public objectives' assumes an almost opposite degree of importance in both countries, i.e. fifth in Great Britain and second in Brazil. There is no apparent reason for this. What can be said is inferred from the preceding discussion with regards to rationalism and complex rationalism. British managers should see or be more involved with individuals. Brazilian managers should treat the public as an entity rather than individuals. British managers assigned clinical objective in second. It can be said that this is coherent with what has been discussed in terms of behavioural congruence related to complex rationality and non-programmed decision-making.

Conclusion

This study showed the dominance of the hierarchy and clan as the most relevant modes of governance in Brazil. This discussion is relevant because the level of goals congruence and the level of ambiguity of performance measurement defines which form of governance is more predominant. In the cases analyzed, it was possible to identify a significant difference between the use of cost information in hospitals, allowing important inferences between modes of governance.

In this case it was possible to identify that the use of cost information is important for hospital management in both countries. The information currently available for managers is extensive and this

study was focused on their perceived usefulness in terms of planning and control.

It is important to understand the way in which cost information i used. In the British case it was identified that cost information is used to the achievement of organizational goals, while in Brazil it was felt that there was a concern for sector ones. This showed that in the Brazilian case there is a predominance of the clan, i.e. the hegemony of the physicians (clinicians). Which, in defending its own interests, make it difficult for information to be passed on to managers. This creates incongruence between the goals, as well as a difficulty to measure performance by the managers, which raises the scenario of uncertainty and opportunism.

Cost information should reduce uncertainty and extensive cost information availability associated with high accessibility improves the decision-making process. Therefore, British managers enjoy a privileged position to reduce or eliminate opportunism and to encourage the programmed decision-making and structured problem solving.

In terms of the 'involvement of cost information in decision-making/problem solving process' one can note that British managers tend to be more concrete users than their counterparts in Brazil. When testing the usefulness of cost information in terms of certain managerial dimensions, both countries assumed the same order regarding the applicability of cost information. 'Planning' is posed first and it is followed by 'control' with highest scores.

The lack of studies about the use of cost information in planning and control with respect to public hospitals impedes any other comparison or assessment considering empirical data. One of the objectives of this paper was to generate initial material for future researchers. Besides, the knowledge about the current scenario of the usefulness of cost information mainly in planning and control is relevant when associated with modes of governance. The hospitals manager should avoid situations which increase opportunism in decision-making process by using cost information to control clan activities. Cost information could be an important starting point for benchmarking, planning and control, improving the management of consumed resources.

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RULING SELF-DEALING IN A GLOBAL MARKET: A REASSESSMENT OF THE CONVERGENCE VS. PATH-DEPENDENCY DEBATE

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Abstract

Self-dealing refers to all kinds of transactions and operations whose aim is to divert value from a company to corporate controllers. In order to tackle self-dealing, scholars and regulators have emphasised the importance of legal tools. However, although the *pro-regulatory* approach prevails on a wide scale in the academic arena, there still exists a marked divergence between theoretical positions supporting the existence of a benchmark model towards which to converge (*convergence hypothesis)* and those that underscore the importance of socio-economic factors on the efficacy of governance rules (*path dependency view*). The aim of this paper is to join in the *convergence* vs. *path dependency* debate by adding some considerations on the *efficiency* of mandatory rules to the well-known investigations on the effectiveness of legal frameworks. Specifically, considering the current market integration and associated opportunities and threats, the traditional cost-benefit analysis has been extended in order to embrace *direct* and *indirect* costs specifically associated to the issue of domestic rules in a global scenario. Such an economic analysis on self-dealing introduces new variables that may support the *convergence* view and encourage at least a partial and gradual adjustment of national legislations towards the Anglo-Saxon model. To test our hypothesis, an examination of the self-dealing rules adopted in Germany, Italy and UK has been conducted. In particular, spatial and temporal comparisons of conflict of interests and self-dealing legislations have been carried out in order to appreciate trends, differences and similarities of some of the most important European legal frameworks.

Keywords: legal framework, Europe, corporate governance

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1. Introduction

One of the most important corporate governance issues caused by the separation between ownership and control concerns the risk of asset diversion by the corporate controller (manager or dominant shareholder). The label of *self-dealing* has been introduced to underline the threat stemming from business choices adopted by the *agent* in a situation of potential conflict of interests, and both researchers and regulators have focused their attention on legal tools able to constrain or punish wealth expropriation. In actual fact, the role played by governance mechanisms in explaining the development of stock markets is intuitively understandable and empirically demonstrable (SHLEIFER, VISHNY, 1997; LA PORTA *et al.,* 1997; SHLEIFER, WOLFENZON, 2002). Legal frameworks and monitoring systems able to detect outright theft or to appreciate the economic soundness of equity operations and transactions with related parties enhance the opportunities of an efficient resource allocation and have a positive impact on social welfare (COOTER, ULEN, 2004).

As "law matters", all jurisdictions provide stakeholders with a set of rules aiming to protect outside investors. Shareholders and board approval, independent director ratification, disclosure or periodic releases, legal instruments, planned to ease shareholder litigation or even to ban self-dealing transactions, are often required by regulators and overseers where a conflict of interests exists. The academic literature has long since focused its attention on their effectiveness, questioning in particular the existence of a benchmark model to implement. Nonetheless, a unique answer to this problem is still far from being reached.

According to the seminal papers referable to the *Law & Finance* approach, the legal frameworks adopted by Common Law countries offer better shareholder protection than those governed by Civil Law and, as such, a convergence process towards an Anglo-Saxon approach should be encouraged (LA PORTA *et al.,* 1998; 1999; DJANKOV *et al*., 2008). A *path dependency* view, instead, disproves the above conclusions, stressing the peculiarities of the different socio-economic environments and the ownership structure of firms operating there. Governance protections working effectively in one case might fail in another one (COFFEE, 2005) and the

(MARKARIAN *et al.,* 2007) provide clear evidence of an already widespread awareness by market participants and as such an implicit approval of Anglo-Saxon rules. Therefore, the need to minimize the *switching costs* associated to new conflict of interests rules appears to favour the necessary adoption of legislation consistent with the Anglo-Saxon model.

To test this assumption, the paper provides a picture of the legal frameworks of some of the most important European countries by examining doctrines and remedies on self-dealing adopted by Germany, Italy and UK. Spatial and temporal comparisons of the conflict of interests legislations will then be carried out in order to increase understanding of the issue and appreciate trends, differences and similarities among the European regulations.

The article proceeds as follows. The next part briefly summarizes the current debate on the topic, comparing the proposed solutions referable to the *Law & Finance* approach with the theoretical outcomes of the *path-dependency* thought. The third part carefully describes the economic consequences associated to a self-dealing legislation, focusing in particular on *direct* and *indirect* costs due to a lack of convergence among national rules in a global market. A detailed examination of self-dealing legislations adopted in each of the above-mentioned European countries is then developed in the fourth part. Some concluding remarks are finally put forward.

2. Convergence vs. Path-Dependency: a brief review of the current debate on self-dealing

Since the publication of the seminal article by Bearle and Means (1932), the need for regulatory intervention to protect outside investors has been highlighted. The risk that corporate controllers (director or dominant shareholder) might maximize their own benefits to the detriment of the other stakeholders (JENSEN, MECKLING, 1976; PRATT, ZECKHAUSER, 1985) and the inability of the minority shareholders to monitor the agent are frequently described as the main factors justifying the issue of mandatory rules (RIBSTEIN, 2002).

In actual fact, although in theory shareholders might incorporate the perceived risk of expropriation in the securities price, the high information and transaction costs due to the inefficiency of the market make such a hypothesis hardly verifiable (GORDON, 1989; GOSHEN, 2003a) ([1]). Moreover, corporate contracts are affected by an inevitable contractual incompleteness. In order to leave the corporate controller his managerial discretion, the contracts between the *agent* and the *principal* are characterized by an unavoidable partial vagueness, allowing the former to renegotiate, for his/her own benefits, the terms previously arranged with the latter (BRATTON, MCCAHERY, 2001).

implementation of a common set of rules could be loose and ineffective (GOSHEN, 2003b).

This paper aims to contribute to the *convergence* vs. *path dependency* debate by introducing some considerations on the mobility opportunities offered by the current globalization process and the consequent impact on the *efficiency* of domestic self-dealing rules.

In fact, while an assessment of corporate laws' effectiveness in preventing opportunistic behaviour of local insiders is quite common, their actual efficiency in a global market is rarely examined and this assessment neglects the overall effects on the shareholders' wealth.

As is known, the introduction of stricter rules on self-dealing – although justifiable in the light of narrowing the corporate controller's actions whenever a conflict of interests condition is detected – may reduce the net present value of non-controlling shareholders' investment. Such a circumstance has been firstly ascribed to the costs *directly* associated to the actual implementation of a new rule, and then *indirectly* connected to the loss of profitable opportunities due to the consequent managerial discretion constraint (ENRIQUES, 1998; PACCES, 2009). However, with increasingly integrated markets for capital, products and human resources, a cost-benefit analysis cannot neglect the *direct* and *indirect* costs deriving from the responses that global economic players would give to domestic conflict of interests legislations (MILHAUPT, 2003). First of all, differences among national legislations introduce substantial expenses, forcing globalized firms to become acquainted with several governance systems and also affect firms' hiring policy of foreign managerial talents and their internationalization plans. Moreover, the option to choose self-dealing rules to comply to by selecting quoting markets or countries where to incorporate, could be opportunistically exploited by corporate controllers to the detriment of outside investors. The *agent*'s personal benefits deriving from the adoption of less demanding corporate governance systems might lead to carry out sub-optimal internationalization strategies whose costs would finally affect minorities and creditors' wealth. We label such a particular category of *indirect costs* as *induced costs.*

A deeper investigation on the above-mentioned costs allows us to point out the potential benefits associated to more intense cooperation between domestic institutions and to support a convergence process. In particular, we hypothesize and suggest, at least, a gradual and partial adjustment away from national conflict of interests rules towards the Anglo-Saxon model. Indeed, either the mandatory adoption of financial reporting standards (IAS/IFRS), whose theoretical framework clearly originates from an Anglo-Saxon perspective (MARKS, 2004), or the existing voluntary global convergence of codes of best practices towards the Anglo-Saxon system

methodology developed by La Porta *et al.* seems to be seriously invalidated by the "home bias problem" (SIEMS, 2005). In drawing up their indexes, *Law & Finance* scholars have been indirectly influenced by their knowledge of the US legal system. The Anglo-Saxon rules on self-dealing represent the yardstick for assessing other countries and no effort is made to appreciate the actual effectiveness of alternative solutions (COOLS, 2004; CONAC *et al.,* 2008) ([4]). Finally, these researchers seem to undervalue the impact of the cultural, social and economic features of each country (COFFEE, 2005; ENRIQUES, VOLPIN, 2007). In particular, differences in share ownership might shape the nature of self-dealing. In a dispersed ownership system, concerns on self-dealing operations could rise because of a conflict of interests between powerful controlling managers and small shareholders (*managerial self-dealing*) (BERLE, MEANS, 1932; JENSEN, MECKLING, 1976). In concentrated ownership structures, however, an agency relation has to be identified between the controlling shareholders and the outside investors (*dominant shareholders' self-dealing*) (DEMSETZ, LEHN, 1985; SHLEIFER, VISHNY, 1997). Although managerial and dominant shareholders' self-dealing partially overlap, legal tools able to tackle opportunistic behaviour could differ (CONAC *et al.,* 2008). For this reason, identical rules might have different effects on the conflict of interests issue as influenced by the context which they are implemented in (GOSHEN, 2003b). A "one-best-way" is an unsuitable solution and a *path-dependency* view could be the only effective strategy in ruling self-dealing (BEBCHUCK, ROE, 1999).

These founded criticisms on the research methodology adopted by *Law & Finance* scholars and the deductive considerations on the impact of socio-economic factors on the efficacy of conflict of interests legislations have strongly weakened the "convergence thesis" and neglected any deeper examination of the benefits associated to more intense cooperation among national institutions. However, as the globalisation process proceeds, a reassessment of the conclusions reached so far is required. Indeed, because of market integration, the negative effects on shareholders' wealth due to the imposition of domestic legislations on global actors become greater and greater and oblige the effectiveness analysis on self-dealing regulations to be joined to an investigation of their efficiency.

For this reason, in the next part an examination of self-dealing regulation costs is undertaken, thereby widening the traditional cost figures with those *directly* and *indirectly* provoked by the lack of cooperation in the actual globalized world. Such an economic analysis enables us to take an important step forward in the *convergence* vs. *path-dependency* dispute and highlights some of the reasons supporting the convergence hypothesis.

On the other hand, strong empirical evidence supports the *pro-regulatory* approach about self-dealing. Countries with weaker investor protection and ineffective legal enforcement show less developed financial markets (LA PORTA *et al.,* 1997, 2006), while a higher cost of capital is frequently associated with poorer legislation on insider trading and conflict of interests (BHATTACHARYA, DAOUK, 2002). Since efficient debt and equity markets are a fundamental factor for economic growth (KING, LEVINE, 1993; LEVINE, ZERVOS, 1997; RAJAN, ZINGALES, 1998), a positive correlation between the strength of the legal system and economic development is expected.

Several strategies can be pursued to tackle self-dealing. Traditionally, the possible regulation tools are classified into two broad categories: "property protection rule" and "liability protection rule" (CALABRESI, MELAMED, 1972; GOSHEN, 2003a, 2003b). The former requires operations potentially detrimental to the outside investors' claims to be directly or indirectly approved by the disinterested party. A "liability protection rule", on the other hand, allows corporate controllers to impose conflict of interests transactions on minorities, requiring different instruments though, in order to reassure the disinterested party about their fairness ([2]).

Both the existence of the best mix of the above-mentioned legislation tools and the need for domestic institutions to converge towards such an ideal set of rules have always been important topics in the corporate governance literature.

By developing quantitative indexes in order to measure the strength of different self-dealing legislations ([3]), *Law & Finance* scholars have collected empirical evidence supporting the *convergence* hypothesis. In fact, according to such a research stream, legal frameworks characterizing Common Law countries apparently show greater concern on minorities and creditors' claims, embodying more effective instruments to manage conflict of interests (LA PORTA *et al.,* 1998; JOHNSON *et al.,* 2000). Specifically, a combination of ex-ante disclosure and disinterested shareholder approval is described as the proper strategy in managing conflict of interests (DJANKOV *et al.,* 2008). For this reason, the implementation of such a protection system is implicitly suggested, and underscores the need for convergence towards the Anglo-Saxon legislation.

Although they are key contributions in the self-dealing discussion, *Law & Finance* papers have been strongly criticized, because of the normative considerations following their empirical outcomes (BRAENDLE, 2006).

First of all, evaluation of the quality of shareholder protection by using numerical indexes leads to excessively crude conclusions, and gives way to misrepresentation of the relative effectiveness of the different legal frameworks (SIEMS, 2005; BAUMS, SCOTT, 2005). Moreover, the comparative law

manager when applying local governance rules will be higher than those supported by native directors. Consequently, stricter and different self-dealing rules might decrease the percentage of foreign board members and negatively affect the correlated firms' international propensity. At the same time, they might limit the positive consequences - in terms of higher transparency and stronger investor protection - generally associated to a top management team diversity (RUIGROK *et al.,* 2007; RANDOY, OXELHEIM, 2001) ([5]).

An important category of indirect costs lies in the negative impact on the *principal*'s wealth which is provoked by the ability of the *agent* to take advantage from differences among national legislations (*induced* costs). The existence of several domestic regulations and the inability of outside investors to immediately assess corporate controllers' incorporation or quoting choices allow the latter to orientate these internationalization plans towards less demanding governance systems and, in so doing, maximize their own benefits by pursuing sub-optimal strategies whose costs are finally borne by minorities and creditors.

A deeper analysis of the *induced* costs is carried out in the next section.

3.2 A special category of indirect costs: induced costs

The current globalization process offers new advantageous opportunities to companies. Legal deregulation on incorporation decisions and market for capital integration do affect the firms' equity value.

A deregulated environment, for example, favours countries' competition for attracting businesses through the issue of effective legal rules (FISCHEL, 1982; WINTER, 1989). The choice of the State of incorporation can be exploited by corporate controllers in order to introduce governance mechanisms that are able to minimize agency costs and, consequently, increase shareholders' wealth. For example, when observing the US market – where investors' protection system differs across the States – it has been demonstrated that firms incorporated in the Delaware State are worth more than firms incorporated elsewhere, thereby showing a positive and significant association between the quality of governance rules and the equity value (ROMANO, 1985; DAINES, 2001; SUBRAMANIAN, 2004) ([6]).

A different internationalisation strategy is also represented by a cross-listing choice. Firms listed in foreign countries experience lower cost of capital and increase their ability to fund their business operations and make their stocks more visible and liquid (MITTOO, 1992; FANTO, KARMEL, 1997; KAROLY, STULZ, 2001; LICHT, 2004; KAROLY, 2006). Indeed, a "cross-listing premium" is generally granted to foreign companies whose stocks are quoted on the

3. The Efficiency of Self-Dealing Regulations in a Global Market

3.1 Direct and indirect costs

Issuing a new rule on self-dealing should always be subject to a cost-benefit analysis where *direct* and *indirect* costs are assessed and compared with the expected benefits in order to appreciate the overall economic effects of the legislation.

"Out-of-pocket compliance costs" (*direct* costs) is the first figure traditionally considered in a cost-benefit analysis. In fact, a new rule on conflict of interests requires changes in internal control systems, whose design and implementation costs are directly borne by shareholders (ZHANG, 2007). Given the current global dimension of many companies, differences among the various jurisdictions clearly increases compliance costs. Firms with several administrative and production units settled in different countries are forced to invest a substantial amount of money in obtaining, translating and analyzing national legal frameworks (GEIGER, 1997) and in adopting internal administrative and control procedures. For this reason, the greater the degree of internationalization of a firm, the higher the costs *directly* incurred by shareholders to meet self-dealing rules and to adapt internal control and governance systems to domestic requirements.

Poor cooperation among national institutions also increases the burden of *indirect* costs. These usually refer to the negative effects indirectly associated to the loss of profitable business opportunities. Indeed, a corporate controller's attention could be diverted from doing business to ensuring full compliance with the imposed governance legislation (SOLOMON, BRYAN-LAW, 2004). Moreover, a stricter rule would probably expose managers and controlling shareholders to greater litigation risks and heavier penalties, narrowing the managerial discretion and consequently reducing the firm's value (RIBSTEIN, 2002; PACCES, 2009).

However, in the current global scenario, issuing a domestic self-dealing rule, when not consistent with internationally prevailing ones, could negatively impact on firms' value also by discouraging foreign directors from accepting company board appointments. It is reasonable to expect that greater litigation risks and penalties following stiffer self-dealing legislation will not only limit the managerial discretion of existing directors, but will also hinder the implementation of strategies whose purpose is to raise the degree of internationalization towards a higher top management team (TMT) diversity (ONADO, 2009), and this assumption may still be kept regardless of how rigorous the rules may be, when further differences are introduced. Because of cultural differences and a negligible awareness of the political and legal framework, the costs borne by a foreign

decision. The higher compliance costs presumably introduced by the new SEC regulation have often been pointed out as one of the main reasons for the observed firms' emigration. However, the *agent*'s effort to maximize its own wealth by exploiting the freedom offered by the globalization of choosing the desired level of mandatory disclosure could be an equally important factor (COFFEE, 1984; EASTERBROOK, FISCHEL, 1984). In actual fact, market inefficiencies cause a mismatch between private and social costs/benefits of disclosure. In particular, because of "proprietary" or "inter-firm" costs associated to a more detailed disclosure ([8]), the marginal costs of additional disclosure borne by the corporate controller will be higher than the relative social costs. At the same time, information asymmetry and transaction costs will prevent the potential social benefits associated to higher transparency from being fully reflected in the share price (FOX, 1999). Therefore, the financial and corporate governance information that the corporate controller is willing to deliver will probably not be as significant as the optimal social disclosure level. The corporate controller is likely to emigrate towards less demanding countries, imposing on outside investors the associated negative effects (MARKS, 2004).

These considerations lead to the conclusion that the same reasons justifying the *pro-regulatory approach* to discipline conflict of interests conditions legitimise the issue of mandatory rules, thus boosting the need for convergence among national legislations. Because of high transaction and information costs, differences among self-dealing regulations are a source of private benefits for corporate controllers. For this reason, public intervention that encourages more effective cooperation among domestic institutions could replace market inefficiencies and decrease the probability of opportunistic behaviour.

However, suggesting a convergence process among national legislations is only part of the story. In order to complete our economic analysis on self-dealing, an examination of the model to be adopted by domestic legislations has to be carried out, selecting the governance system whose adoption is able to curtail the costs referable to the convergence process (*switching* costs).

3.3 The efficiency of self-dealing: which model to converge towards?

An examination of the *direct, indirect* and especially *induced* costs driven by domestic self-dealing rules in a global market points out the role that international cooperation could play in order to achieve the most efficient and protective solution.

However, the process of convergence, justified to decrease costs introduced by the different national legislations, is itself a costly activity. This is why in an economic analysis on self-dealing, the type of major U.S. Stock Exchanges (DOIDGE *et al.,* 2004). This positive financial effect is attributed to a lower liquidity-risk (FOERSTER, KAROLYI, 1999; LOMBARDO, PAGANO, 1999), a more detailed disclosure (FUERST 1998; MOEL, 1999) and an enhanced investor protection system (COFFEE, 2002; REESE, WEISBACH, 2002). More generally, a cross-listing choice is probably also perceived as a signal of strong commitment by the corporate controllers to limit their expropriation activity and to use the raised capital in order to exploit growth opportunities (CANTALE, 1998) ([7]).

The positive effects on firm value and investor protection systems associated with the globalization process help to explain the nature of *induced* costs potentially caused by a self-dealing regulation.

In the current economic scenario, where a more and more intense market integration, deregulation and international competition for equity capital prevail (KAMAR, 2006), every normative intervention carried out by a domestic institution may influence business decisions, inducing corporate controllers to carry out potentially sub-optimal strategies (GEIGER, 1997).

For example, stricter local legal rules on self-dealing could lead corporate managers and blockholders to change the State of incorporation, moving it towards countries with less demanding governance systems (CARY, 1974), and/or move some business or transactions to countries with more lax systems or with more legal loopholes. High information costs prevent outside investors from carrying out an intense examination on the reasons behind incorporation choices, and increase the probability of opportunistic behaviour by corporate controllers (GEIGER, 1997). On the other hand, it has been empirically proved that countries whose legislation seems to shelter the private benefits of managers and controllers show great attractiveness, while no particular penalization – in terms of a firms "emigration" – has been discovered for States adopting governance rules widely viewed as harmful to minorities and creditors (BEBCHUK, FERREL, 1999; BEBCHUK, COHEN, 2003). For this reason, a lack of coordination among national institutions could cause a "race to the bottom" phenomenon, neutralizing the theoretical effectiveness of a self-dealing rule and imposing higher costs on outside investors (BAR-GILL, 2006).

By affecting a firm's cross-listing strategy, unilateral intervention by a national securities commission on the conflict of interests topic can be considered a further source of *induced* costs. An analysis of the economic consequences associated to the Sarbanes-Oxley Act puts forward some evidence supporting this opinion (ZHANG, 2007). In 2002 the passage of SOX Act has reduced the number of foreign firms quoted on the NYSE (MARKS, 2004; BERGER *et al.*, 2005; ZINGALES, 2007), causing the loss of previously examined financial and corporate governance opportunities associated to a cross-listing

of Continental European countries self-dealing disciplines towards the Anglo-Saxon systems.

In order to test our hypothesis and to assess the degree of convergence, a detailed examination of the *scope* of national legislations is firstly carried out, followed by a comparison among the designed *authorization/monitoring* mechanisms. Some concluding remarks are finally developed.

4.1 Discipline scope

Since 2005 listed companies in the three countries under examination have been adopting IFRS; thus the IAS 24, *Related Party Disclosures*, has been applied too. This process of accounting harmonization has clearly introduced a common definition of *related party*, pointing out persons or organizations whose relation of control/significant influence towards the reporting entity might lead to unfair transactions ([10]).
However, as will be discussed further, the aim of IAS 24 focuses only on the disclosure that has to be periodically delivered whenever a *related party transaction* (RPT) occurs. Moreover, the IASB documents are only a specific source of financial reporting rules, as several domestic legislations concerning self-dealing and conflict of interests are still operative.

For these reasons, besides the common framework represented by IAS/IFRS, listed companies also have to comply with local rules and codes, where some differences may be found in terms of discipline scope:

- In Germany, the current Corporate Governance Code focuses only on the "conflicts of interest" issue: members of the Management Board (*Vorstand*) and of the Supervisory Board (*Aufsichstrat*) are bound by the enterprise's best interests; they may not pursue personal interests in their decisions or use business opportunities intended for the enterprise for themselves. Conflict of interests between a corporation and its controlling shareholders and the fairness problem concerning intra-group transactions are dealt with only in a specialized area of German corporation law (*Actiengesetz*) ([11]);
- Italy, unlike Germany, explicitly points to the question both in terms of "interests of directors" and RPT ([12]). The local framework lacks an autonomous definition of RPT, referring for that to the IAS 24;
- in UK, the rules on self-dealing transactions handles the issue either in terms of "conflicts of interest" ([13]) or in terms of RPT, providing an autonomous definition of the latter.

Therefore, while Germany focuses only on directors and controlling shareholders, Italy and UK concentrate on a wider category of *related party*. However, whereas the meaning attributed to the word "directors" is common to all countries, no convergence may be found for the term *related party*. Indeed, as already mentioned before, the UK Listing governance model that reduces the inevitable *switching* costs has to be privileged.

The Anglo-Saxon legal framework might well represent such a model.

The instruments and knowledge deemed useful to implement this governance system are already widely known by market participants. A constant and voluntary convergence of disclosure and governance practices towards the Anglo-Saxon model has been empirically demonstrated (MARKARIAN *et al.,* 2007). Because of the active role played by US and UK institutional investors (GILLAN, STARKS, 2000; NESTOR, THOMPSON, 2000; CARLETON *et al.,* 1998; KARPOFF *et al.,* 1996), non Anglo-Saxon organizations have partially shaped their governance and corporate communication according to the Common Law system (CHANDLER, 1990) ([9]). Moreover, some earlier evidence about a convergence of European firms' corporate governance towards regulatory regimes associated with an Anglo-Saxon system has already been gathered (MILLMAN *et al.,* 1999; BRANDLE, NOLL, 2005). In addition, the mandatory accounting harmonization recently instituted in the EU zone with the adoption of the IAS/IFRS has introduced a common body of disclosure standards whose origins are clearly referable to the Anglo-Saxon financial reporting tradition (MARKS, 2004).

In such a scenario, the introduction of European conflict of interests regulations would imply an important step towards a significant convergence in corporate governance systems, and would also take advantage of the possible synergy between accounting standards and self-dealing guidelines.

The next part focuses on the rules adopted in Germany, Italy and UK. By carrying out a temporal and spatial comparison of their national legislations, the strength of the convergence process in Europe is evaluated and our hypothesis of a gradual and partial approach of continental European countries towards the Anglo-Saxon legal framework is tested.

4. A Comparative Overview and Analysis of European Self-Dealing Regulations

This section investigates how self-dealing is tackled in Italy, UK and Germany, and highlights differences and similarities in governance codes and legal rules addressed to listed companies. In the last 15 years European countries have enacted significant corporate law reforms aimed at strengthening corporate governance mechanisms, empowering shareholders and enhancing disclosure requirements. If the efficiency considerations put forward in the previous paragraphs really play a role in shaping domestic legislations, such a renewal process should have led to higher harmonization among self-dealing rules. In an attempt to minimise the unavoidable switching costs, we hypothesize at least a partial and gradual approach

disclose the nature of the related party relationship as well as information about the transactions and outstanding balances ([14]). Then, as already suggested before, the process of accounting harmonization has considerably boosted convergence among self-dealing rules, forcing entities to deliver a common disclosure through periodic financial statements.

However, entities also have to provide *further disclosure* and/or comply with procedures of *authorization/monitoring* in order to meet the requirements of their local codes.

In terms of disclosure, as a consequence of the latest CONSOB proposals and reform of the Civil Code, Italy has acquired a very detailed discipline, even more articulated than the German and UK ones. As already mentioned in the previous section the Italian framework addresses the broad category of RPT suggested by the IAS 24. Moreover, unlike UK and Germany, the Italian listed companies have to convey disclosure in all circumstances in which a director has an interest of his/her own or on behalf of a third party, even though this operation is not in conflict with the interests of the company .

In focusing our attention on the disclosure required when parties other than directors are involved, some differences among the three countries concern *type*, *detail* and *timing* of information.

With regard to these aspects, Italian companies have to:

- prepare a release ("*documento informativo*") with general information regarding the transaction ([15]);
- for relevant transactions ([16]), in the interim financial report they have to disclose information concerning transactions that have occurred in the first six months, show their impact on the periodic performance, and describe the consequent risks and uncertainties with regard to the second half of the year. In addition, they also have to disclose: any weaknesses reported by experts, the evaluation methods adopted, and the sources used by the experts to assess the adequacy of the amount due. Finally, they also have to certify the consistency of the delivered information with the experts' opinion.
- for transactions not considered relevant , they have to provide: full disclosure to the Board of Directors, at least on a quarterly basis; external disclosure, at least quarterly, of the operations approved against the advice of the independent directors.

UK discipline also distinguishes between relevant and non-relevant transactions, specifying that Chapter 11 of the Listing Rules does not apply to "small transactions" ([17]) and "transactions that do not have any unusual features". When a relevant RPT occurs, according to the UK Listing Rules, companies must:

- provide notification to the Regulatory Information Service (RIS), showing the name of the

Rules have adopted a peculiar definition of *related party*, considering as such:

- a person (a company) who (which) is the *substantial shareholder* or someone exercising a significant influence;
- a *director* or *shadow director* of the listed company or of any other related company;
- an *associate* of the above mentioned related parties.

Moreover, according to the UK discipline, a transaction involving these subjects is considered an RPT even if it is carried out by persons who were *related party* within the 12 months before the date of the transaction or arrangement (*former* director/substantial shareholder).

Notwithstanding this broad definition of *related party*, the scope of the UK Listing Rules appear to be narrower than the IAS 24 one. In the latest versions of the International Accounting Standard, the category of the *directors* has been replaced with the wider definition of *member of the key management personnel*. In addition, *joint ventures* or *post-employment defined benefit* are not explicitly considered by the UK Listing Rules, whereas they constitute important *parties* according to the IAS 24. Moreover, by introducing the category of the "shadow director" and extending the focus of attention to *former* directors/substantial shareholders, the UK discipline - devised to emphasise the importance of the economic substance of relations – is characterized by a higher degree of vagueness than the international discipline.

This brief examination of the scope of national legislations though highlighting differences among national rules, points out a convergence pattern mainly driven by the International Accounting Standards. In actual fact, compliance with IAS n. 24 has narrowed Continental European legislations to the Anglo-Saxon one, introducing a common framework that will probably influence the domestic regulators' acts. The adoption by the Italian Stock Exchange Commission of the IASB definition of *related parties* can be interpreted as a clue to this process which involves, as will be shown in the next section, not only the discipline scope, but also control mechanisms.

4.2 Regulatory frameworks: disclosure and authorization/monitoring mechanisms

The presence of one of the above-mentioned *related party transactions* obliges the entity to disclose information required by IAS/IFRS and local codes, and to comply with the authorization/monitoring mechanisms specifically considered by domestic legislations.

As is well-known, whenever an RPT occurs separately for each category of related parties, German, Italian and UK listed companies have to

themselves or for any other person, nor grant third parties unlawful advantages. *Supervisory Board Members,* now required to consist of an adequate number of independent directors, need the Supervisory Board's approval to take on advisory and other service agreements and contracts for the company. They, as well as their relatives, cannot receive loans from the company unless there has been prior approval from the Supervisory Board and they have to resign when conflicts are of a material nature or are not merely temporary. As Supervisory Board Members, *employees* ([19]) may not, in connection with their work, demand nor accept from third parties payments or other advantages for themselves or for any other person nor grant third parties unlawful advantages. German laws also deal with self-dealing between controlling shareholders and their company by qualifying such transactions as "concealed distributions" whenever carried out at unfair conditions ([20]). In other terms, operations carried out with a shareholder on unfavourable terms are automatically regarded as "substantial distribution" to that shareholder and, as such, considered illegal since they are not conducted according to the rules for dividend distribution.

Looking at RPT, according to the UK Listing Rules, listed companies have to comply with the following procedures to be launched *ex-ante*:

- they must obtain the shareholders' approval before entering into the transaction/arrangement; or, if the transaction or the arrangement is expressly conditioned by this approval, before it is completed;
- they must ensure that the related party does not vote on the relevant resolution and that it takes all reasonable steps to ensure that not even the related party's associates vote on the relevant resolution.

In Italy the regulation is much more detailed. In accordance with the Audit Committee (*Comitato Controllo Interno*) the Board of Directors, has to ensure that transactions carried out with related parties are performed in a transparent manner, observing the criteria of substantial and procedural fairness. For this purpose, the Italian Code of Best Practices suggests the following procedures: Board approval for the more important transactions; a prior opinion by the Internal Control Committee; involvement in the transaction of one or more independent directors; recourse to external appraisers. Moreover, the CONSOB draft requires the following procedures to be applied differentiating between RPT and "relevant RPT" in order to prevent unnecessary costs and guarantee an adequate level of managerial discretion):

- for transactions not defined relevant: non-binding opinion from a committee of independent directors who are entitled to receive timely, ex-ante, adequate information; the possibility for independent directors to apply for independent advice at the company's expense; a thorough and documented examination, both in the preliminary investigation and related party and the details of the nature and extent of the related party's interest;
- send a circular to its shareholders describing in detail the major aspects of the transaction; if the transaction involves an acquisition or a disposal of a social asset, where any percentage ratio is 25% or more and appropriate financial information is not available, the circular will also include a statement through which disinterested directors certify that the transaction is consistent with the social interest as verified by a qualified and independent consultant.

In Germany, listed companies have principally to perform the obligations required by the IAS n. 24, as local codes only discipline the case partially. Indeed, according to German corporate law, the management board of a controlled company has to prepare a report (the "dependency report") describing all intra-group transactions, within the first three months of the year. However, it is important to note that such a report is disclosed to the supervisory board only and not directly to the shareholders or to the market ([18]).

With regard to authorization/monitor mechanisms, German discipline is the most demanding of the three, although it applies only to directors and controlling shareholders, while Italy and UK rules provide a framework regulating the wider category of RPT.

Insofar as the interests of directors are concerned, the Italian framework only obliges the Board of Directors to take measures in order to ensure that transactions in which a director is conveying an interest (for him/herself or for third parties) are appropriately managed.

In UK, companies may not enter into the following transactions with their directors or with their holding company's director unless they have been approved by a resolution of the company's members: employment contract longer than two years; transaction concerning "substantial non-cash assets"; loan, quasi-loan transactions or give a guarantee or provide security in connection with such operations made by any person to the director; credit transaction as creditor for the benefit of a director of the company or of its holding company.

In Germany, *Management Board Members,* as well as persons they are close to or companies they have a personal association with, cannot undertake transactions with the company unless made at conditions consistent with current industry standard; they cannot hold other positions (especially Supervisory Boards' mandates outside the enterprise) and cannot receive loans from the company, unless approval has been given from the Supervisory Board. During their employment, *Management Board Members* are subject to a comprehensive non-competition obligation. Specifically, they may not, in connection with their work, demand nor accept from third parties payments or other advantages for

convergence process of domestic self-dealing legislations towards the Anglo-Saxon model.

Indeed, the endorsement by the European Commission of the International Financial Reporting Standards obliges listed companies in all three countries to draw up their financial statements according to the IAS/IFRS, adopting accounting standards whose theoretical foundations are closer to the UK GAAP than the Italian or German ones. With regard to self-dealing and conflict of interests, this accounting harmonization process has implied the implementation of IAS n. 24, with the introduction of a common definition of *related party* and the requirement of a periodic and detailed *related party disclosure*.

The increasing attention given to the role played by "independent directors" in preventing corporate controllers' opportunistic behaviour is another important factor signalling a gradual approach of German and Italian self-dealing rules towards the UK discipline. According to the latest versions of the German Code, the Supervisory Board shall now include "what it considers an adequate number of independent directors"; the Chairman of the Audit Committee - set up by Supervisory Board members - must be an independent director too. Meanwhile, to carry out an RPT, the Italian Security Exchange Commission not only demands a favourable opinion by independent directors, but it also suggests the direct involvement of outside directors in negotiations and preliminary investigation phases.

The distinction between a relevant and non-relevant RPT, as well as the introduction of a *self-enforcing system* that provides for an *ex-ante* approval by independent directors or shareholders can be regarded as further evidence of the strong influence exercised by the UK regulatory framework on the Italian one.

For these reasons, it is possible to conclude that the differences concerning a firm's ownership structure together whit the socio-economic conditions of the three countries examined do not seem to prevent more and more intense cooperation between national regulatory agencies. In other words, our hypothesis of the centripetal effects exercised by the positive economic consequences (in terms of lower *direct* and *indirect costs*) associated to the rise of a common legal framework in a global market is at least partially verified. And this provides encouragement for further analysis of the factors leading to the development of European self-dealing regulations.

In particular, a deeper investigation into the nature of direct and indirect costs borne by the market participants, as a consequence of poor cooperation among national regulators, has to be carried out. Above all, a more detailed assessment of *induced costs* is required in order to better appreciate the corporate controller's behaviour and his ability to take advantage of market imperfections and legal divergences. Obviously, the wider the sample of in the deliberation phase, of the reasons behind the transaction and of the adequacy and accuracy of its material conditions; if the terms of transaction are defined equivalent to those of the market (or standard), elements of confirmation have to be attached to the prepared documents;

- for relevant transactions, the draft suggests providing more monitoring/authorization mechanisms: exclusive competence of the Board of Directors in the approval phase (after a favourable opinion from a committee of independent directors); involvement in negotiations and in the preliminary investigation of independent directors; in the event of unfavourable opinions from independent directors, the possibility (where provided by the company's statute and upon justification of the choice) that the transaction is fulfilled through shareholders approval ([21]).

The overlapping area among the monitoring mechanisms provided by national legislations becomes broader and broader. In particular, the Italian discipline is clearly moving towards that of the UK with regard to either the required disclosure or the implemented control systems. On the other hand, although the German legislation shows a slower pace in that direction, the increasing role played by the independent directors in carrying out the *Supervisory Board* functions also testifies to the strong influence of the Anglo-Saxon system over the Rhine one.

However, this overview of the European self-dealing rules supports the convergence hypothesis even through differences between countries whose legal and economic frameworks, according to the path dependency view, should have lead to a common legislation on self-dealing. In actual fact, although the ownership structure of most German entities is not distant from that of Italian firms, and both countries are characterized by a strong Civil Law tradition, the conflict of interests discipline adopted in Germany diverges considerably from the Italian one. If these findings are interpreted as a clue to a weak relationship between self-dealing legislations and the economic and legal conditions of the countries in which they operate, it is reasonable to assume that the efficiency reasons described in the previous sections (decreasing *direct* and *indirect* costs and minimizing *switching* costs) will be strong enough to encourage a convergence process towards the Anglo-Saxon model.

5. Discussion and Conclusions

The European legal scenario concerning self-dealing and conflict of interests is still fragmented. The previous sections have stressed differences either in the *discipline scope* or in the *monitoring/authorization* mechanisms. However, notwithstanding these documented divergences, the brief analysis developed above has also highlighted several variables supporting the existence of a gradual

testified by smaller boards, more independent directors, more independent audit, nominating and remuneration committees. Moreover, a more detailed disclosure on governance matters is delivered.

10. According to the IAS n. 24, paragraph n. 9, (a) a person or a close member of that person's family is related to a reporting entity if that person: (i) has a control or joint control over the reporting entity; (ii) has a significant influence over the reporting entity; or (iii) is a member of the key management personnel of the reporting entity or of a parent of the reporting entity. (b) An entity is related to a reporting entity if any of the following conditions applies: (i) the entity and the reporting entity are members of the same group; (ii) one entity is an associate or joint venture of the other entity; (iii) both entities are joint ventures of the same third party; (iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity; (v) the entity is a post-employment defined benefit plan for the benefit of employees of either the reporting entity or an entity related to the reporting entity; (vi) the entity is controlled or jointly controlled by a person identified in (a); (vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).

11. See German Corporation Law, § 311 Aktiengesetz.

12. See art. 2391 and 2391-bis, Italian Civil Code; art. 71-bis Regolamento Emittenti; "Codice di Autodisciplina", Borsa Italiana, 2006.

13. The Companies Act 2006 contains specific provisions governing the procedures for the approval or ratification of "conflicts of interest". The discipline contained in this document is broadly in line with that of the previous version of 1985.

14. According to the IAS 24, pars. 18 – 19, the following information has to be disclosed separately for each category or related parties: a) the amount of the transactions; b) the amount of outstanding balances, including terms and conditions and guarantees; c) provisions for doubtful debts related to the amount of outstanding balances; d) expense recognised during the period in respect of bad or doubtful debts due from related parties.

15. This information concerns: risks related to potential conflicts of interest of related parties involved in the transaction; characteristics, rules, terms and conditions of the transaction; nature of the related party relationship and of their interests in the transaction; economic opinion of the company for the implementation of the transaction; methods for determining the transaction price and assessments regarding its adequacy compared to market values of similar transactions (indicating any assessments conducted by professionals in support of the fairness of that price, whether such assessments have been specially commissioned by the issuer); economic and financial effects of the transaction; reward of the board's members of the company and/or of its subsidiaries whether the amount of the reward is likely to vary as a result of the transaction. Regolamento Emittenti, CONSOB, article 71-bis.

16. According to the CONSOB Exposure Draft, a transaction is considered to be relevant whenever at least one of the following ratios is higher than 5%:

- price ratio: price exchanged / average market capitalisation over the last 6 months;
- assets ratio: net asset value of the exchanged good / total asset value of the involved company;

European countries involved in any future analysis, the more robust will be the outcomes achieved.

Notes

1. In actual fact, the *non-intervention approach* assumes that outside investors are able to price securities according to the effectiveness of the protections offered by firms whose stakes they hold. However, the high costs associated to the process of gathering and evaluating all relevant information useful in an appreciation of the quality of governance systems could discourage market participants from carrying out such a deep examination and eventually lead to a market failure situation.

2. Shareholder approval (the "majority of the minority vote") and independent directors/external appraisal ratification fall within a property-type protection. On-going disclosure and the enforcement of supervisory agencies and criminal sanctions are a direct expression of such a liability-protection rule.

3. We specifically refer to the well known "anti-director rights" (La Porta *et al.,* 1997, 1998) and "anti-self dealing" indexes (Djankov *et al.,* 2008).

4. On the other hand, recent scandals involving companies subject to Anglo-Saxon legislation offer some anecdotal evidence contrasting such a position and encourage a more careful examination of the rules rooted in Civil Law systems.

5. Previous researches have pointed out a positive association between the top management team (TMT) diversity and the firm's internationalisation process (Ruigrok *et al.,* 2007; Barkema, Shvyrkov, 2007; Lee, Park, 2006). A significant impact of foreign board membership on the firm's value has also been proved, ascribing such a correlation either to a stronger international posture or to a more demanding corporate governance mechanism that generally characterizes firms with a high TMT diversity (Randoy, Oxelheim, 2001).

6. An increasing corporate mobility is also expected in the European Union. Indeed, since the end of the 20th century, the European Court of Justice (ECJ) has repealed the so-called "real-seat rule", allowing companies to incorporate in countries different from those which they operate in (Ryan, 2005; Becht et al., 2008). Firms can now freely choose where to incorporate, balancing between the quality of the proposed governance rules and the costs associated to similar legal systems (Kamar, 2006; Becht et al., 2008).

7. Although U.S. markets are the main target for dual-listing firms (Pagano et al., 1999), European ones have also widely increased their attractiveness for cross-listing activity. As a consequence of Stock Exchange mergers and the adoption of a common body of accounting standards, the implementation of cross-listing strategy into EU borders has become more feasible, and have positively affected shareholders' wealth and minorities' protection.

8. The "proprietary" or "inter-firm" costs concern the negative effects of a more detailed disclosure that the corporate controller has to bear because of the consequent disadvantages relative to its competitors, major suppliers or major customers. Outside investors will not be affected by similar costs because the "inter-firm" disadvantages to the issuer are counterbalanced by the advantages it confers on the other firms.

9. In particular, with respect to the governance mechanisms adopted in the last few years, non Anglo-Saxon firms show stronger independent mechanisms of control as

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- earnings ratio: gross earning referable to the exchanged good / company's gross earning;
- liabilities ratio: total liabilities referable to the exchanged good / company's total assets;
- sales ratio: price exchanged / company's revenues.

17. According to the Listing Rule n. 11 Annex, par. 1.1., a small transaction is defined as a transaction or arrangement where each of the applicable percentage ratios is equal to or less than 0.25%.

18. See German Corporation Law, § 311 Aktiengesetz.

19. In companies with more than 2,000 employees, the supervisory board must consist of equal numbers of shareholder-elected and employee-chosen members (so-called "co-determination). To break ties, the shareholder-selected chairman has a second vote.

20. Stock Corporation Act (Aktiengesetz), art. 57.

21. In this case, the deliberation mechanisms have to be devised in order to prevent the vote being determined by shareholders who are a related party in the transaction (*whitewash*, though conditional on the presence of a minimum share capital owned by minorities).

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