

Silence is not Golden: Corporate Governance Standards, Transparency, and Performance

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Silence is not Golden: Corporate Governance Standards, Transparency, and Performance*

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Abstract

We examine the association between firm performance and corporate governance in a regulatory setting where corporate governance is not mandated by law and where companies can endogenously choose their governance structure. Given that companies must disclose the reasons for deviating from the governance standards, we are able to separate companies that adopt good corporate governance in the shareholders' best interest from bad companies that pursue self-maximizing goals. We find that companies with a dominant shareholder or growth opportunities are more likely to deviate from the standards because of their different monitoring needs, but the reasons for deviating are often undisclosed or uninformative. The positive association between performance and corporate governance appears to be limited only to those firms with the highest levels of corporate governance standards or disclosure. Our findings suggest that companies less transparent in their corporate governance practices are associated to entrenchment and to an inefficient allocation of company resources.

JEL Classification: G34, G38, K22

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Non-Technical Summary

Despite the existence of numerous academic studies, the empirical evidence on the link between corporate governance and firm performance is mixed or inconclusive. In particular, when we observe different governance structures that may appear to be poor, we need to ask why that structure was chosen. In fact, companies adopt distinctive corporate governance arrangements in light of their specific circumstances because different companies have different incentives and characteristics (one-size-does-not-fit-all).

Regulatory requirements are another aspect that makes the investigation difficult. In countries like the US where corporate governance is mandated by law (Sarbanes-Oxley), companies for which the corporate governance arrangements are not optimal are pushed to go private, thus making the analysis of the optimal corporate governance more difficult. On the contrary, in the UK companies can choose the corporate governance structure that best suits them because corporate governance is not mandated by law and companies can deviate from governance standards.

The UK pioneered a flexible approach to corporate governance based on standards, which consists of a Code containing generally accepted principles and provisions of good governance mainly related to board characteristics. The UK system is characterized by voluntary compliance coupled with mandatory disclosure: companies for which it is not optimal to comply with corporate governance standards can deviate, but in this case they must provide an informative explanation of why deviating is optimal in light of their own particular circumstances ("Comply or Explain"). The main premise of this approach is that good corporate governance is not just a matter of complying with rules, but allowing flexibility to the companies' varying circumstances: a company, which has considered its circumstances and optimally decided against compliance with the standards for valid reasons cannot be classified as badly governed because it has weighed the pros and cons of specific corporate governance structures. In this paper, we analyze the determinants of the different corporate governance choices and their impact on performance.

The data for this analysis comes from corporate governance statements contained in the annual reports of UK companies. We construct a unique dataset by hand collecting details of both compliance with the corporate governance provisions contained in the UK Code of best practice and explanations given for non compliances for the FTSE350 non-financial companies between 1998 and 2004.

The analysis of the corporate governance structure shows that companies with dominant shareholders and those with growth opportunities are more likely to deviate from corporate governance standards. Such companies tend to have a lower proportion of non-executive and independent directors and a less clear division of powers among the various members and board committees. This is consistent with theoretical arguments related to the cost of monitoring insiders. This could also explain why dispersed shareholders prefer full compliance with the corporate governance standards because monitoring is delegated to the board and it is less costly to monitor if all the corporate governance boxes are ticked.

Further based on the level of information provided by companies, we are able to separate companies that diverge from governance standards for good reasons in the shareholders' interest from those that diverge for bad reasons related to self-maximizing goals. We use this information to construct a corporate governance measure which takes into account both the level of compliance with the Code provisions and the level of informativeness provided when departing from the standards. Thus, our approach allows us to fine-tune the identification strategy for well-governed companies and to detect whether companies deviate from governance standards because of different monitoring characteristics or entrenchment purposes.

Firstly, we find that companies with a dominant shareholder are more likely, in addition to complying less with governance standards, to give less informative explanations or omit the reasons and specific circumstances that have lead to their departing from governance standards. Such companies thus do not communicate to minority shareholders the reasons why commonly considered good practices in corporate governance are not optimal for them.

Secondly, we also find that companies that deviate from corporate governance standards and do not disclose informative explanations for deviating are associated with lower performance, which highlights the existence of an association between poor governance disclosure, bad corporate governance and lower performance. On the other hand, more governance transparency (adhering with the governance standards or deviating and disclosing valid reasons) is reflected in better performance. These results are consistent with the literature showing that the commitment to higher governance standards or to higher levels of disclosure will reduce management's consumption of private benefits of control. Our evidence also suggests that deviating from corporate governance standards is not necessarily a sign of bad governance if it is not related to self-maximizing purposes but to the company's unique characteristics.

Our paper adds to the literature in at least three ways. First, we contribute to the literature on corporate governance and performance. Our study tackles the joint-endogeneity problem in a novel way, by investigating the reasons why the endogenous corporate governance structure has been chosen and consequently separating well-governed companies from poorly-governed ones: in particular, our finding builds on the recent debate on the structural differences across boards as a solution to the constrained optimization problems. Our results also suggest that the positive association between performance and one-size-does-not-fit-all governance structures appears to be limited to those firms with the highest levels of governance transparency, thus contributing to the literature on the quality and discretion in corporate governance disclosure. Finally, our findings also have policy implications: corporate governance regimes which are not mandated by law may be less efficient in countries where companies are less inclined to transparency but more likely to take advantage of the allowed flexibility for entrenchment purposes.

1 Introduction

Despite the existence of numerous academic studies, the empirical evidence on the link between corporate governance and firm performance is mixed or inconclusive. Joint-endogeneity and causation issues create problems for the estimation, detection and interpretation of the relationships among the variables (Hermalin and Weisbach, 2003). In particular, when we observe different governance structures that may appear to be poor, we need to ask *why* that structure was chosen (Adams, Hermalin and Weisbach, 2008). In fact, companies adopt distinctive corporate governance arrangements in light of their specific circumstances because different companies have different incentives and characteristics (one-size-does-not-fit-all) (Boone, Field, Karpoff, and Raheja, 2007; Harris and Raviv, 2008; Coles, Daniel, Naveen, 2008).

Regulatory requirements are another aspect that makes the investigation difficult. In countries like the US where corporate governance is mandated by law (Sarbanes-Oxley), companies for which the corporate governance arrangements are not optimal are pushed to go private (Zingales, 2007; Engel, Hayes, and Wang, 2007), thus making the analysis of the optimal corporate governance more difficult. On the contrary, in the UK companies can endogenously choose the corporate governance structure that best suit them because corporate governance is not mandated by law and companies can deviate from governance standards. The UK corporate governance system is therefore a natural experiment that introduces exogenous variation into the governance design where companies have an additional degree of freedom. This allows us to appropriately tackle the joint endogeneity problem by analyzing how companies optimally deviate from corporate governance practices.

The UK pioneered a flexible approach to corporate governance based on standards, which consists of a Code containing generally accepted principles and provisions of good governance mainly related to board characteristics (size, board members, independence, committees, CEO/Chairman separation, executive contracts terms). The UK system is characterized by voluntary compliance coupled with mandatory disclosure: companies for which is not optimal to comply with corporate governance standards can deviate, but in this case they must provide an informative explanation of

why deviating is optimal in light of their own particular circumstances ("Comply or Explain"). The main premise of this approach is that good corporate governance is not just a matter of complying with rules, but allowing flexibility to the companies' varying circumstances: a company, which has considered its circumstances and optimally decided against compliance with the standards for valid reasons cannot be classified as badly governed because it has weighed the pros and cons of specific corporate governance structures. In this paper, we analyze the determinants of the different corporate governance choices and their impact on performance.

The data for our analysis comes from corporate governance statements contained in the annual reports of UK companies. We construct a unique dataset by hand collecting details of both compliance with the corporate governance provisions contained in the UK Code of best practice and explanations given for non compliances for the FTSE350 non-financial companies between 1998 and 2004. Most of the academic papers on UK regulation typically limit their analysis to one or two corporate governance provisions only (Conyon and Peck, 1998; Dedman, 2003; Dahya, McConnell and Nikolaos, 2002; Dahya and McConnell, 2007). Importantly, existing studies focus on the the consequences following the adoption of certain corporate governance standards. In contrast, our analysis includes multiple governance provisions and it takes into account companies' heterogeneity and varying circumstances, without limiting to a one-size-fits-all approach.

The analysis of the corporate governance structure shows that companies with dominant shareholders and those with growth opportunities are more likely to deviate from corporate governance standards. Such companies tend to have a lower proportion of non-executive and independent directors and a less clear division of powers among the various members and board committes. This is consistent with theoretical arguments related to the cost of monitoring insiders. On one hand, companies have different monitoring and advising needs generally related to operational characteristics and industrial environment (Raheja, 2005; Adams and Ferreira, 2007). For instance, companies with future growth potential may optimally have friendlier boards that do not monitor the manager too intensively when the manager has firm specific knowledge, and they may also need to offer special compensation contracts to attract and retain qualified executives. On the other hand, the presence

of concentrated shareholders alleviates free-riding problems (Shleifer and Vishny, 1986; Bolton and Von Thadden, 1998). Because large shareholders have the incentive to collect information and the power to monitor the manager, the large shareholder substitutes the monitoring role of the board, chooses her preferred project and formal authority prevails (Aghion and Tirole, 1997). However, a principal who is not informed loses control and the subordinate has thus real authority (effective control). This could explain why dispersed shareholders prefer full compliance with the corporate governance standards because monitoring is delegated to the board and it is less costly to monitor if all the corporate governance boxes are ticked.

If in principle deviations from corporate governance standards should not be necessarily considered as bad governance because one-size-does-not-fit-all, not embracing governance standards could potentially lead to entrenchment issues. For instance, studies have shown that deviations from governance practices are related to private benefits of control and expropriation (Gompers, Ishii and Metrick, 2003; Bebchuk, Cohen, and Farrell, 2004), although this evidence is often mixed (Core, Guay, and Rusticus, 2006). Nevertheless, the lack of explanations for deviating is suspicious since poor governance transparency can hide self-maximizing decisions that may not necessarily be in the best interest of shareholders (Claessens, Djankov, Fan and Lang, 2002; Leuz, Nanda, and Wysocki, 2003; Lang, Lins, and Miller, 2004; Anderson, Duru, and Reeb, 2008). In fact, in the absence of an explanation we may think about the worst in terms of governance (e.g., entrenchment, private benefits of control and minority expropriation) because companies either don't want to or cannot disclose inappropriate governance information. On the contrary, companies providing an informative and specific explanation of why corporate governance standards are not appropriate in their situation are more likely to be well governed since they don't hide the reasons why deviating from governance standards is optimal for them.

Based on the level of information provided by companies, we are able to separate companies that diverge from governance standards for good reasons in the shareholders' interest from those that diverge for bad reasons related to self-maximizing goals. We use this information to construct a corporate governance measure which takes into account both the level of compliance with the

Code provisions and the level of informativeness provided when departing from the standards. In a nut-shell, our measure is not limited to a one-size-fits-all approach to corporate governance, but it captures the endogenously chosen corporate governance structure since such a measure does not penalize companies for not complying with the Code as long as they provide a valid reason. Thus, our approach allows us to fine-tune the identification strategy for well-governed companies and to detect whether companies deviate from governance standards because of different monitoring characteristics or entrenchment purposes.

We find that companies with a dominant shareholder are more likely, in addition to complying less with governance standards, to give less informative explanations or omit the reasons and specific circumstances that have lead to departing from governance standards. Such companies thus do not communicate to minority shareholders the reasons why commonly considered good practices in corporate governance are not optimal for them.

We then test the impact of corporate governance transparency on operating performance because less governance transparency (deviating from corporate governance standards without an explanation) can be related to self-maximizing interests, inefficient allocation of resources, and can destroy investor value. In fact, if companies engage in self-serving behavior, they would provide less disclosure to hide such behavior because they will not like to disclose the true reasons related to their entrenchment goals. If companies pursue objectives different from value maximization, then company resources and assets will not be used efficiently for firm value maximization.

We find that companies that deviate from corporate governance standards and do not disclose informative explanations for deviating are associated with lower performance, which highlights the existence of an association between poor governance disclosure, bad corporate governance and lower performance. On the other hand, more governance transparency (adhering with the governance standards or deviating and disclosing valid reasons) is reflected in better performance. These results are consistent with the literature showing that the commitment to higher governance standards or to higher levels of disclosure will reduce management's consumption of private benefits of control (perquisites, negative net present value projects, etc.) (Klapper and Love, 2003, Bens and Monahan,

2004, Durnev and Kim, 2006). Our evidence also suggests that deviating from corporate governance standards is not necessarily a sign of bad governance if it is not related to self-maximizing purposes but to the company's unique characteristics.

The preceding evidence is robust to differing specifications, including alternative constructions of our governance measure, use of individual governance provisions, an alternative dependent variable (stock market returns) and the inclusion of various control variables. We address the endogeneity problem by using an instrumental variables approach in a system of simultaneous equations and we find that the our results are robust to our best attempt to address endogeneity concerns. Similar to Gompers, Ishii, and Metrick (2003), we also find some evidence of higher agency costs in a positive relationship between worse governance disclosure and capital expenditures, which may explain what *causes* lower profitability.

Our paper adds to the literature in at least three ways. First, we contribute to the literature on corporate governance and performance. Our study tackles the joint-endogeneity problem in a novel way, by investigating the reasons why the endogenous corporate governance structure has been chosen and consequently separating well-governed companies from poorly-governed ones: in particular, our finding builds on the recent debate on the structural differences across boards as a solution to the constrained optimization problems (see Adams, Hermalin, and Weisbach, 2008, for a recent survey). Our results also suggest that the positive association between performance and one-size-does-not-fit-all governance structures appears to be limited to those firms with the highest levels of governance transparency, thus contributing to the literature on the quality and discretion in corporate governance disclosure (see, for instance, Leuz and Wysocki, 2008). Finally, our findings also have policy implications: corporate governance regimes which are not mandated by law may be less efficient in countries where companies are less inclined to transparency but more likely to take advantage of the allowed flexibility for entrenchment purposes.

The structure of the paper is as follows. Section 2 shows the sample selection and the various corporate governance measures. Sections 3 and 4 show the multivariate regressions and results. Section 5 summarizes and concludes.

2 Sample and data

The UK response to corporate governance failures in the 1980s (e.g., the Maxwell Communications, Polly Peck and BCCI scandals) has been different from the Sarbanes-Oxley Act in the US. Instead of a prescriptive and legislative regulation, the UK has adopted a new form of regulation known as the “Comply or Explain” approach. The defining aspect of this approach was the introduction of a set of recommendations (provisions) listed in a Code, detailing commonly recognized standards (principles) of best practice on various corporate governance aspects (e.g., board structure, committees composition, and independence).

The main premise of this approach is that raising standards of corporate governance cannot be achieved by structures and rules alone because companies are different, hence it is not appropriate to impose a strict and rigid regulation common to all, but companies should choose the governance structure that best suits them. The approach is characterized by voluntary compliance coupled with mandatory disclosure: companies either comply with the recommendation or explain the reasons why they do not. Since neither the form or content of this part of the statement is prescribed, companies have a free hand to explain their governance policies. It is for shareholders to evaluate the companies’ explanations.

2.1 Corporate governance data

2.1.1 The Combined Code provisions

We download annual reports of companies belonging to the FTSE 350 index as of 31st December 2003, for the period 1998 – 2004 from Mergent Online. We chose this period because the Combined Code was in force continuously and with no amendments, after which it was subsequently updated by the Higgs Committee recommendations. Each annual report contains a corporate governance section that states the level of compliance with the Combined Code and an explanation in case of non compliance with any of its recommendations. Since the Combined Code was in effect from 31st December 1998 to 30th June 2004, we exclude annual reports of companies with financial year

endings before 31st December 1998 and after 30th June 2004. As common in the literature, we exclude 106 financial companies (SIC codes 60 – 69) (banks, insurance, REITs, equity investment trusts, etc.) because the regulatory environment for those companies differs significantly from that of non financial companies. Sometimes, the annual reports are missing in Mergent Online. We are therefore left with 1275 total company-year annual reports.

From each annual report we collect the statement of compliance and the exact explanation given in case of non compliance with the following eight provisions¹:

1. *Separation of Chairman and CEO*: There should be a clear division of responsibilities at the head of the company (Provision A.2.1);
2. *Senior Non-executive Director (SNED)*: Whether the posts (Chairman/CEO) are held by different people or by the same person, there should be a strong and independent non-executive element on the board (SNED), with a recognized senior member other than the chairman to whom concerns can be conveyed (Provision A.2.1);
3. *Non-executive Directors*: They should comprise not less than one third of the board (Provision A.3.1);
4. *Independent Non-Executive Directors*: The majority of non-executive directors should be independent of management and free from any business or other relationship (Provision A.3.1);
5. *The term of Service Contracts*: it should be one year or less (Provision B.1.7);
6. *Nomination Committee*: it should be established to make recommendations to the board on all new board appointments. A majority of the members of this committee should be non-executive directors (Provision A.5.1);

¹The Combined Code consists of eleven provisions, of which we analyze eight. We did not include in our analysis the provisions related to the directors' re-election, pay linked to performance, and the quality of the internal control systems, because all companies in the sample complied or stated their intention to comply with these provisions. The inclusion of these provisions would have not affected our results. Furthermore, judging the effective level of compliance of the provisions pertaining to pay-linked to performance and internal controls would have required additional information which was not available to the authors.

7. *Compensation Committee*: it should be established for a transparent policy on executive compensation. It should consist exclusively of independent non-executive directors (Provisions B.1 and B.2.2);
8. *Audit Committee*: it should be established for transparent arrangements on the financial reporting. The committee should consist of at least three non-executive directors, a majority of whom should be independent (Provision D.3).

2.1.2 Corporate governance Indicators

Analysis of the deviations from corporate governance standards We first construct indicators that measure divergence from the Combined Code standards. Specifically, we look at a company's overall level of compliance with all the Code provisions and we construct the following dummy:

- *Dummy GC Deviation* that takes the value 0 if a company is fully compliant with all the Combined Code provisions, and 1 otherwise.

We also construct two broader dummy indicators grouping common characteristics related to the board composition members and committees:

- *Dummy Board* equal to 0 if the company is compliant with the provisions related to the separation of CEO/Chairman (A.2.1), existence of a senior non executive director (A.2.1), proportion of non-executive (A.3.1) and independent directors (A.3.1), and 1 if it is not compliant with at least one of these provisions;
- *Dummy Committees & Contracts* that takes 0 if a company is compliant with the provisions related to the nomination, compensation and audit committees (A.5.1, B.2.2, D.3) and the terms of service contracts (B.1.7), and 1 otherwise.

We further construct a finer dummy indicator by grouping subsets of provisions most likely to be interrelated or jointly determined:

- *Dummy Power* equal to 0 if a company is compliant with both the provisions related to the separation of CEO/Chairman (A.2.1) and the existence of a senior non executive director (A.2.1), 1 otherwise;
- *Dummy Non-Executives* equal to 0 if a company is compliant with both the provisions related to non-executive presence (A.3.1) and independent directors (A.3.1), and 1 otherwise;
- *Dummy Remuneration* equal to 0 if a company is compliant with both the provisions related to the compensation committee (B.1.7) and service contracts (B.1.7), and 1 otherwise;
- *Dummy Transparency* equal to 0 if a company is compliant with both the provisions related to the nomination (A.5.1) and audit committees (D.3).

We also construct a measure that counts the total number of non-compliances (*# CG Deviations*), similarly to the Gompers et al. (2003) methodology, as a measure of the distance from the governance standards.

Analysis of the reasons for deviating from corporate governance standards Since companies are allowed to depart from the absolute standard (best practice) if they have valid reasons, the assessment of the level of compliance with certain rules or provisions does not necessarily measure the quality of an individual company's corporate governance but we also need to consider the reasons for deviating from standards. Since the "Comply or Explain" approach requires companies to explain the reasons of their corporate governance deviations, this allows us to separate companies that diverge from governance standards for good reasons from those that diverge for bad reasons. If a company does not comply with some corporate governance provisions and does not provide a valid justification, we have to assume that it cannot or does not want to provide the reasons for deviating (perhaps because they are associated with self-maximizing purposes) and poor governance disclosure is per se an indicator of bad governance. The explanation provided when deviating from corporate governance standards is thus a crucial component of the governance quality of a company.

We therefore classify the corporate governance quality of non compliant companies based on the informativeness and verifiability of their explanations. The analysis of the explanations to assess the validity and optimality of the reasons for not complying with general standards requires some qualitative judgment on our part and necessarily contains some subjectivity, which we try to minimize by using objective and measurable criteria. Our perspective will be that of an individual shareholder who evaluates the corporate governance statement contained in the annual report and judges its degree of informativeness. As discussed in the robustness checks, we also asked three research assistants to replicate our classification of the companies' explanations.

The Combined Code does not prescribe a format that companies have to follow when giving such explanations, but states that the explanation has to be *narrative* and refer to the *company's unique circumstances*. In this sense, the Combined Code approach is characterized by mandatory disclosure, but with discretion over its form and content.² We find different degrees of "narration" and "specific circumstances" in the explanations given in the annual reports. In particular, some explanations are more informative and provide more details than others. Consider, for instance, the following explanation in GlaxoSmithKline 2002 Annual Report:

"In determining its overall policy in respect of service contracts, the Committee aims to balance the costs associated with any early termination provisions with the need to protect GlaxoSmithKline's intellectual property rights. [...] Executive Directors are employed on service contracts under which the employing company is required to give 24 calendar months' notice of termination. [...] Executive Directors' service contracts contain 'garden leave', non-competition, non-solicitation and confidentiality clauses. [...] The Remuneration Committee currently believes that one year contracts would not be in the best interest of GlaxoSmithKline with regard to offering a globally competitive overall remuneration package and securing maximum protection for its intellectual property rights.

²*"In the first part of the statement, the company will be required to report on how it applies the principles in the Combined Code. We make clear in our report that we do not prescribe the form or content of this part of the statement, the intention being that companies should have a free hand to explain their governance policies in the light of the principles, including any special circumstances applying to them which have led to a particular approach. It must be for shareholders and others to evaluate this part of the company's statement. [...] In our report we make clear that companies should be ready to explain their governance policies, including any circumstances justifying departure from best practice; and that those concerned with the evaluation of governance should do so with common sense, and with due regard to companies' individual circumstances."* (Points 4 and 6 of the Preamble to the Combined Code)

The Remuneration Committee believes that the current termination payments due under Executive Director’s contracts are justified because they represent fair and reasonable compensation in the event that the contracts are terminated, given market practice and the associated restrictions arising from the need to protect intellectual property.”

The contents of this explanation are narrative (information on the context and the motivations are provided) and contain verifiable and specific elements (the company belongs to a competitive industry and it aims at protecting its property rights by offering two years contracts containing "garden leave", non competing and confidentiality clauses), which are unique to the company’s circumstances. For specific reasons, GlaxoSmithKline believes that one year contracts would not be in the company’s best interest. On the contrary, consider the following explanation in Reuters 1999 Annual Report:

“The Board has not identified a senior independent non-executive director, as specified by the Code, because it considers such an appointment to be unnecessary at present.”

Reuters justifies the non appointment of a senior figure in the board as simply unnecessary at the present, without further details. This explanation clearly fails to identify specific circumstances for departing from best practice. We also found numerous instances of non compliance statements with no explanation provided.³

Based on the presence of *verifiable and specific* elements related to the company’s circumstances, we classify the explanations on a Type 0 to 5 scale, from the least (absence of any explanation) to the most (unique and specific) informative. Following our taxonomy, “Type 5” are genuine, detailed explanations unique to the company (as in GlaxoSmithKline); “Type 4” describe temporary verifiable situations due to which the company is not compliant (e.g., a board member resignation) but no further information is provided on the company’s circumstances; “Type 3” and “Type 2” explanations vaguely provide some explanations which are not specific to company’s circumstances or simply too general, respectively; “Type 1” explanation is totally uninformative and uses some standard sentences, for example explanations asserting that compliance is “*unnecessary*”, without

³For additional examples and discussion, see also Arcot and Bruno (2007).

further explanations (as in Reuters); finally, “Type 0” occurs when there is a non compliance statement in the annual report, but no explanation is provided. The omission of any type of explanation is a purely objective fact and does not suffer of any subjective judgment in its classification.

Corporate governance standards and disclosure We construct a corporate governance index reflecting both the level of compliance with the Combined Code principles, the quality of explanations in case of non-compliance and the number of non compliances. We do this because we want a corporate governance measure that takes into consideration the endogenous governance choices, which may be different from the governance standards but not necessarily reflecting bad governance, weighted by the number of provisions. An index which identifies better governed companies by only analyzing adherence to governance provision(s) would discard relevant information and impose a one-size-fits-all framework on what is expected from companies. This aspect is further complicated by the existence of heterogeneous corporate structures and the firms’ competitive environment (Boone, Field, Karpoff and Raheja; 2007; Coles, Daniel and Naveen, 2008).

We thus need a quantitative measure of corporate governance that does not penalize companies departing from best practice for valid reasons. On the other hand, our governance measure will be lower when deviating from the governance standards is not fully explained because the lack of transparency is a sign of bad governance. We call this measure *CG & Disclosure Index* because it reflects both adherence to the corporate governance standards and the level of disclosure of relevant information related to the company’s circumstances. We construct the index as follows.

Compliance with all provisions alleviates the principal-agent problem because it gives monitoring control to the board of directors and greater balance of power, thus reducing the likelihood of entrenchment. Adherence with commonly recognized standards of good corporate governance is also verifiable and fully transparent and we give 5 points to each corporate governance provision a company complies with.

We also give 5 points in case of non-compliances which are explained in detail: in principle, there should be no difference between a compliant company and a non compliant company that deviates

from standards for good and valid reasons which are fully disclosed because better transparency is more likely associated with less entrenchment issues. A company departing from best practice for valid reasons is therefore not penalized in the classification of its governance quality. We then progressively attribute a lower score to explanations which are less informative, not verifiable or not unique to the company's circumstances because lack of transparency can be associated with self-serving purposes. Based on our classification of the quality of explanations, we give 4 points to transitional non-compliance situations, 3 or 2 points when the explanation is vague and not verifiable, 1 point when it is uninformative, and 0 points when no explanation is given.

Formally, we compute the *CG & Disclosure Index* as follows:

$$\text{CG and Disclosure Index} = 5 * \text{Number of compliances} + \sum (\text{Explanation Type} * \text{Non-compliances}) \quad (1)$$

For instance, the *CG & Disclosure Index* of a company fully compliant with all eight provisions is 40, the same of a non-compliant company giving all informative explanations for its non-compliances. A company with one non-compliance for which no explanation is provided (classified as Type 0) has a *CG & Disclosure Index* of 35. In calculating the *CG & Disclosure Index* all the provisions are equally weighted because the Combined Code considers each provision to be equally important. Nevertheless, we also run separate regressions for each provision.

Panel A of Table 1 provides summary statistics of corporate governance characteristics. Of the total 1275 company-year observations, we have 860 cases (68%) of lack of compliance with all the provisions of the Code. The average number of non-compliances is 1.2 per company, and 1.8 within the subset of non-compliant companies only. The average *CG & Disclosure Index* is 36.39 for the whole sample and the median is 37. The average *CG & Disclosure Index* for the sub-sample of non-compliant companies is 34.65, with a median of 36. The minimum value of the *CG & Disclosure Index* is 10 and the maximum is 40.

In a companion paper (Arcot and Bruno (2007)), we provide more detailed statistics on the

corporate governance characteristics, which we briefly discuss but do not report in tables for space reasons. There is a constant increase in the propensity to comply with the provisions over time. By the end of 2004, more than half of the companies (56%) in the sample are fully compliant with the Code, as compared to 10% in 1998. The average *CG & Disclosure Index* increases over the period from 36 to 38 (Chart 1). The average number of non-compliances per company decreases monotonically from 2.05 to 1.57 in 2004. More worrying, an average of 17% non compliances are not explained at all. In 55 cases, non-compliant companies have the highest *CG & Disclosure Index* value of 40. Typically, companies either stick to the same explanation across years or comply. Non-compliant companies with the *CG & Disclosure Index* greater than 37 have mainly (85%) one non-compliance classified as Type 3 or above.

2.2 Financial and ownership data

We use the industry-adjusted return on assets (*ROA*) as our main measure of performance since we are mainly interested in investigating how corporate governance reflects on the efficient use of the company assets, but we also use stock market returns for robustness. As discussed in Barber and Lyon (1996) and Core et al. (2006), return on assets is a preferred measure of operating performance because it is not affected by leverage, extraordinary items, and other discretionary items; it has also more desirable distributional properties than return on equity. We define the return on assets as the ratio of earnings before interests and taxes (EBIT) to total assets. We then compute the industry-adjusted measure by subtracting the return on assets of each company in each year with the median return on assets of the respective Fama-French industry group it belongs to. Accounting information comes from Worldscope, whereas monthly stock market data is from Datastream.

Ownership data is downloaded from Worldscope. Following Dahya, Dimitrov, and McConnell (2008), we divide companies between individually owned and widely-held based on the dominant shareholder at the 10% threshold. A firm has a dominant shareholder if an individual, family, privately held operating firm, privately held financial firm, or government owns at least 10% of the voting rights in the firm, and we construct a dummy (*Ownership*) that takes the value one

if a company has a dominant shareholder and zero otherwise. If ownership data is not available for a particular company in Worldscope, we hand-collect information from Hemscott’s Corporate Register.

We also use in the analysis the following variables that have been used in similar studies investigating the determinants of corporate governance choices or their performance impact: the logarithm of book value of assets (*Size*) or of the market value of assets (*Market Capitalization*), the logarithm of firm age (*Age*), the logarithm of the ratio of market to book value of equity (*Growth Opportunities*), the ratio of long term debt to total assets (*Leverage*), the ratio of EBIT to sales (*Profitability*), and the ratio of property, plant and equipment (PPE) to sales (*Capital Intensity*)⁴.

Panel B of Table 1 shows some financial characteristics of our sample. Since the companies belong to the FTSE350 index, not surprisingly, they are on average profitable in terms of ROA (4.93%), large (assets of GBP 3670 millions), relatively old (40 years old) and not highly levered (0.19). We have 204 cases related to the presence of a dominant shareholder (17% of the sample) which is consistent with the summary statistics reported in Faccio and Lang (2002) relative to the sample of companies (large) we consider in our analysis.

3 Multivariate results: Corporate Governance structure and the level of Disclosure

3.1 Determinants of the Corporate Governance structure

We investigate what types of companies are more likely to comply with the corporate governance standards and what types of companies prefer to deviate instead. We use a logit estimation and we regress the variable *Dummy GC Deviation* on various company characteristics that may be associated with corporate governance choices and board structure.

Different corporate governance arrangements may be justified by monitoring reasons. Because large shareholders have the incentive to collect information and the power to monitor the manager

⁴Due to the presence of significant outliers, we winsorize the ratio PPE to sales at the 1% level.

(Shleifer and Vishny, 1986; Bolton and Von Thadden, 1998), they substitute the monitoring role of the board. It is therefore more likely that firms with dominant shareholders comply less with provisions related to the monitoring role of the board, for instance less outside and independent directors, because the presence of concentrated shareholders alleviates free-riding problems in the monitoring process. When the principal is informed, he can exercise formal authority (the right to decide) and choose the project that he prefers (Aghion and Tirole, 1997). We therefore use a dummy (*Ownership*) identifying the presence of a dominant shareholder.

Raheja (2005) and Adams and Ferreira (2007) also argue that board structure is determined by different monitoring and advising needs generally related to operational characteristics and industrial environment. When the costs of monitoring are high, for instance in the presence of projects with future high growth opportunities whose cash flows are costly to verify, to encourage the CEO to share information shareholders may optimally elect friendlier boards that does not monitor the CEO too intensively. As in Boone et al. (2007), we use the logarithm of the market to book ratio to measure the costs of monitoring.⁵ Market to book ratio is a widely recognized proxy for *Growth Opportunities* (see, amongst others, Alt, 2006; Kayhan and Titman, 2007; Hovakimian, Hovakimian, and Tehranian, 2004; Goyal, Lehn, and Racic, 2002), which are typically more costly for outsiders to monitor and verify than are assets in place.

In addition, Coles et al. (2007), Lehn et al. (2005), and Boone et al. (2007) argue that board corporate governance is driven by the scope and complexity of the firm’s operation (e.g., larger companies may need bigger boards or more advice by outside directors). We follow Boone et al. (2007) and we use the logarithm of the market value of equity (*Market Capitalization*) and firm age (*Age*) as proxies for firms’ scope.

Finally, we use *Profitability*, *Leverage*, and *Capital Intensity* to proxy for other forms of monitoring which can substitute the role of the board. In fact, highly levered firms that depends from external resources may be differently monitored, firms operating with higher proportions of intan-

⁵Differently from other studies on US companies (e.g., Coles, Daniel, and Naveen, 2008), we are unable to use R&D expenses as an alternative proxy for costly monitoring of growth/investment opportunities because of a large number of missing observations in Worldscope (55% of the sample).

gible assets may find it optimal to adopt stricter governance mechanisms to signal to investors that they intend to prevent the future misuse of these assets, and low profitability can be associated with higher private benefits and weaker boards. We also use *industry dummies* to control for possible externalities effects at the industry-level. Regression standard errors are robust and clustered at the firm-level.

The estimates results presented in Table 2, column 1, show that companies with a dominant shareholder and with growth opportunities (high market to book ratio) are more likely to deviate from any corporate governance standard. There is non convincing evidence that the size of a company is a major factor in the corporate governance choices: the value of assets (*Market Capitalization*) is not significant whereas *Age* is positive. *Profitability*, *Leverage*, and *Capital Intensity* variables are also not significant.

We further disentangle *Dummy GC Deviation* into its various components to understand what specific corporate governance standards companies are more likely to deviate from (columns 2 – 7).⁶ We find that companies with concentrated shareholder are less likely to comply with board-related provisions and to be less intensively monitored by non executives (combined CEO/Chairman role, lower proportion of non-executive directors, and less transparent nomination and audit processes). Companies with growth opportunities are less likely to comply with governance aspects related to both board composition (CEO/Chairman and SNED) and board committees (transparency and remuneration).

These results are consistent with the monitoring role of the large shareholder who can be more informed about the company projects and monitor the CEO more efficiently, thus relying less on monitoring from the non-executive board members. The large shareholder tends also to retain formal authority in audit and nomination issues, which reflects her discretion in the management of the company. The results on companies with high growth opportunities are consistent with the trade-off between information revelation and costly verification, where a friendlier board does

⁶We cannot investigate separately each of the eight provisions constituting *Dummy CG Deviation* because some dummies perfectly predict the outcome and we would lose many observations due to the small number of non-compliances within each provision.

not monitor the CEO too intensively. Also, because of their future growth opportunities, such companies may prefer to retain flexibility in the contracts terms and appointment of new board members.

3.2 Determinants of Corporate Governance Disclosure

Since the decision of deviating from the governance standards is not necessarily a signal of bad governance because companies may deviate for good reasons, we turn our attention to the informativeness of the explanations companies provide. We perform a multinomial logit regression to analyze what factors affect the decision to deviate from the governance standards jointly with the level of informativeness provided, since the two decisions occur in sequence. To do so, we need to construct a set of dummy variables that capture the degree of governance disclosure of companies.

We start with "extreme" cases, i.e. companies that omit any type of explanation (Type 0) when departing from the governance standards and those that on the contrary give narrative and detailed explanations (Type 5), and we create a dummy *No Disclosure* equal to 1 if no explanation is provided, and 0 otherwise, and a dummy *Full Disclosure* equal to 1 if the explanation is fully informative, and 0 otherwise.⁷ We then look at "intermediate" cases, i.e. situations where some information is disclosed but it is not fully informative. We create two dummies, *Some Disclosure* that takes 1 if *CG & Disclosure Index* is above the median and 0 otherwise, and *Poor Disclosure* equal to 1 if *CG & Disclosure Index* is below the median and 0 otherwise. These four dummies capture different degrees of explanation informativeness, hence governance disclosure quality. The group of compliant companies is the reference dummy group.

Table 3 shows the multinomial logit results. Interesting, companies with a dominant shareholder are more likely to deviate from the governance standards *and* to omit explanations of the reasons for their non compliances (the dummies *No Disclosure* and *Poor Disclosure* are positive and significant). This evidence is consistent with the existent literature showing less governance disclosure by concentrated institutional ownership because large institutional holders behave more

⁷There are 55 cases of Type 5 explanations and 198 cases of Type 0 explanations.

like insiders and have less incentives to disclose public information (Ajinkya, Bhojraj, and Sengupta, 2005; Anderson, Duru, and Reeb, 2008; Chen, Chen, and Cheng, 2008). In fact, because dominant shareholders are actively involved in the management, the information asymmetry between owners and managers is lower and the large shareholder prefer less public disclosure. Finally, we also find that companies with growth opportunities, that we already knew from the evidence before tend to comply less, do not significantly differ in the disclosure quality, whereas older companies are more likely to comply less and explain little. We obtain similar results when we use a finer classification of the quality of disclosure (results not shown).⁸

If non compliance decisions are not per se bad governance, the lack of disclosure is definitely a more worrying signal since it can facilitate private benefits of control. To understand whether lack of transparency is associated with self-serving purposes, we focus our subsequent analysis on performance.

4 Multivariate results: Corporate Governance and Performance

In this section, we investigate the effects of corporate governance different choices and disclosure on performance. On one hand, companies may deviate from governance standards in light of their unique circumstances and characteristics. In fact, some companies may prefer friendly boards and retain flexibility in some decisions, like executive contracts and compensation, due to the complexity of their projects and activities or simply because the monitoring and discipline role is exercised by dominant shareholders and there is less need of outside directors. Yet, deviations from commonly recognized standards of good practice in corporate governance may lead to potential entrenchment and private benefit expropriation. When observing poor (or lack of) governance transparency, we

⁸We construct six dummy variables, each equal to 1 and 0 otherwise if the worst explanation given (among multiple non compliances) is Type 0 or Type 1 or Type 2 or Type 3 or Type 4 or Type 5, respectively. The compliant companies are again the reference dummy group. We find confirmation that the presence of a dominant shareholder is related to higher probability of non compliance and lack of explanations, whereas companies with growth opportunities comply less but do not differ in the disclosure quality. In addition, we also run the multinomial specification with only three categories (*Poor Disclosure* and *Some Disclosure* dummies as dependent variables and compliant companies as the reference group) with similar results.

may think about the worse in terms of governance (e.g., entrenchment, private benefits of control and minority expropriation) because either companies don't want to or cannot disclose inappropriate governance information.

To provide an initial assessment of the associations between corporate governance and performance, we compare ROA across various subsamples of firms. Table 4 presents the univariate results. Panel A indicates that there is no statistical difference in the mean ROA between compliant and non compliant companies (5.26% versus 4.76%, p-value = 0.40). Panels B, C, and D show the differences in ROA average between compliant companies and companies with a different number of non compliances. We do not observe a clear pattern: fully compliant companies are not statistically different from companies with just one non compliance (5.26% versus 5.35%, p-value = 0.89); compliant companies outperform those with two non compliances (5.26% versus 3.63%, p-value = 0.041), but do not perform better than those with three non compliances (5.26% versus 4.88%, p-value = 0.69). This evidence suggests that only compliance per se may not necessarily lead to higher operating performance.

Panel E of Table 4 shows companies with the *CG & Disclosure Index* above median are associated with a higher ROA than companies with *CG & Disclosure Index* below median (5.63% versus 4.26%, p-value = 0.014). A similar result is obtained for the sub-sample of non compliant companies: non compliant companies with *CG & Disclosure Index* greater than their sample median (36) have a better ROA than those below the median (5.84% versus 4.04%, p-value < 0.01). These preliminary results suggest that companies that either comply with the Code recommendations or those that do not comply for valid reasons have better operating performance than companies departing from best practice and providing ambiguous reasons.

In a multivariate setting, we then run the following OLS regression:

$$ROA_{i,t+1} = \alpha + \beta \cdot CG_{i,t} + \delta \cdot Controls_{i,t} + \varepsilon_{i,t}, \quad (2)$$

where *ROA* is the next year industry adjusted ROA and *CG* is a vector of governance variables

(compliance or deviation from the governance standards and quality of disclosure) defined before. We use future performance to reduce endogeneity issues. The regression is run with time dummies and robust standard errors clustered at the firm level. We cannot include company dummies because the *CG & Disclosure Index* is mostly invariant over time. The explanation provided in case of non compliance, and hence the *CG & Disclosure Index*, also tends to remain the same over time. We use *Size*, *Growth Opportunities*, *Leverage*, current *Profitability* and *Capital Intensity* as control variables, those most likely related to a company’s future performance and that have been found in the literature to explain the cross-sectional and time-series variation in ROA.

Table 5 shows that the coefficient of *CG & Disclosure Index* has a positive (0.0014) and statistically significant (at 5% level) relationship with performance (column 2). The economic magnitude of the impact is high: one standard deviation increase in the *CG & Disclosure Index* is associated with an increase in ROA by 0.0067, a 1.7% increase relative to the sample average of 4.91%. The positive relationship is further confirmed among the sub-sample of non-compliant (NC) companies only (column 3): the coefficient of the *CG & Disclosure Index* is positive (0.0021) and significant at the 1% level. This evidence highlights that adherence with the governance standards and higher quality of disclosure are positively associated with performance, thus confirming that transparency in the governance practices is associated with a better and more efficient use of the resources. These results are consistent with our conjecture and the existent literature (Klapper and Love, 2003; Bens and Monahan, 2004; Durnev and Kim, 2006) that a higher level of governance transparency will reduce management’s consumption of private benefits of control and entrenchment (e.g., perquisites, negative net present value projects, etc.), whereas less transparency is associated with self-maximizing interests and to an inefficient allocation of company’s resources that leads to poor performance.

Table 5 columns 4 – 6 provides additional evidence on the consequences of deviating and not explaining. There is no significant evidence that the deviation from corporate governance standards is associated with lower performance. The coefficient of the index constructed by counting the total number of non compliances (*# CG Deviations*) is not significantly associated with performance:

the sign is negative as expected, but it is not significant (p-value = 0.44, column 4).

The separation of companies between compliant and non-compliant (*Dummy GC Deviation*) does not reveal a significant relationship between corporate governance and performance: the coefficient is not significant (p-value = 0.76) and even negative (−0.0025) (column 5). These results could be related to the fact that companies endogenously choose their corporate governance structure and hence there should not appear any significant association with performance. However, when we interact the *Dummy GC Deviation* with *CG & Disclosure Index* we find that the coefficient of the variable *Dummy GC Deviation* is negative and significant, whereas the coefficient of the incremental effect of *CG & Disclosure Index* is positive and significant (column 6). This result indicates that governance disclosure has a positive incremental effect on performance, which confirms that the positive relationship between performance and different corporate governance choices is limited to those companies with higher levels of governance transparency.

4.1 Individual corporate governance provisions

So far, we have focused on a governance index that comprises all corporate governance recommendations of the Code. We now focus on each individual governance provision to investigate what aspect matters most for performance. For each provision, we construct a dummy that takes the value of 1 if a company complies with that provision and 0 otherwise (*Dummy GC Deviation Provision*), and a governance index based on both compliance and explanation (*CG & Disclosure Provision*). For instance, a company with a separate CEO/Chairman has the same *CG & Disclosure Provision* Index (5) as a company with a combined CEO/Chairman with valid explanation (Type 5). We then run separate regressions of the main specification (2), with all the control variables, time dummies and clustering at the company-level. Each cell in Table 6 reports the coefficient estimates of each different provision.

Column 1 shows that compliance with the provision recommending non-executive directors in the board in the proportion of at least one third is significantly associated with better performance, consistent with the evidence found in Dahya and McConnell (2007). In particular, we do not find

that companies with separate CEO/Chairman have better performance, consistent with the existing mixed evidence on the importance of splitting the two roles for performance. We also do not find that a majority of independent directors is associated with better performance, in line with the current debate on the lack of expertise of many independent outside directors.

Columns 2 and 3 show the results when the quality of non compliance is taken into account for the all sample of companies and limited to the sub-sample of non-compliant ones (NC). We find that *CG & Disclosure Provision* is positive and significant for the provisions related to the presence of at least one third non executive in the board, the majority of independent non executive directors, the presence and independence of the audit and remuneration committees. These results are consistent with the literature and our earlier evidence on the trade-off between the costs and benefits of having independent non executive directors and board committees. A company that, after evaluating the costly effects of appointing new directors and constituting independent committees, opts out from the governance recommendation for a valid reason is associated with a higher performance than a company opting out and not explaining.

4.2 Sensitivity Analysis

4.2.1 Endogeneity

In our regressions of ROA (Table 5), we use corporate governance as an independent variable. Prior literature, however, indicates that corporate governance might be, in turn, determined by ROA. We tackle the problem from several perspectives. First, we use lagged (instead of contemporaneous) values of ROA (as in Dahya, Dimitrov, and McConnell, 2007) since we investigate the relationship between the current governance structure with future (next year) operating performance.⁹

We also estimate a system of two simultaneous equations using a three-stage least squares method, very similar to the approach in Durnev and Kim (2005), allowing for endogeneity between governance and performance. To implement the three-stage least squares estimation we define

⁹Another method to potentially control for endogeneity is to include firm fixed effects, which however is not appropriate in our case because the governance indicator *CG & Disclosure Index* is mostly invariant over time.

two equations, the first setting out the factors affecting corporate governance choices (governance equation) and the second explaining the determinants of performance (performance equation).

We further need to identify exogenous parameters that affect only governance or performance, but not both. As in Durnev and Kim (2005) and Dahya et al. (2008), in the governance equation we use the firms' alpha and beta as instruments for the *CG & Disclosure Index*, under the assumption that alpha and beta affect governance but not performance. Higher excess returns (alpha) can induce better corporate governance, whilst higher market risk (beta) may generate diversion of private benefits, hence worse corporate governance. Alpha and beta are estimated using ordinary least squares regressions over 30 consecutive rolling month-end percentage price changes relative to the FTSE All-shares Index. Stock prices data are downloaded from Datastream. Identifying truly exogenous parameters is difficult, hence the usual caveats apply.

Table 7 reports results of the three-stage estimation of the relation between ROA and *CG & Disclosure Index*. Columns 1 and 3 show the results of the governance equation for the whole sample and the subsample of non-compliant companies, respectively. Importantly, ROA is never significant, i.e., the *CG & Disclosure Index* does not appear to depend upon firm value. Columns 2 and 4 show the results of the performance equation for the whole sample and the subsample of non-compliant companies (NC), respectively, which are consistent with those reported in Table 5, i.e., the *CG & Disclosure Index* is positively and significantly related to operating performance. Hence, the causality appears to run in one direction.

4.2.2 Robustness of the Corporate Governance Index

Notwithstanding that the *CG & Disclosure Index* contains some form of subjectivity based on the analysis of quality of the explanations which cannot be entirely eliminated, we asked three research assistants to classify the explanations based on our 6-Types scale. Since the analysis of the printed annual report would have been time-intensive, we provided them with a spreadsheet containing the list of the exact explanations provided by each company in case of non-compliance. Each research

assistant separately constructed the *CG & Disclosure Index* for each company¹⁰; we then took the average of the three research assistants (*CG & Disclosure-RA*) to estimate our base regression (2). Table 8, columns 1 and 2, shows that the coefficients of the *CG & Disclosure-RA* estimated by the research assistants are very similar to ours estimated in Table 5: the coefficient estimated on the entire sample is actually slightly bigger and more significant (p-value = 0.03). This evidence highlights that the classification of the explanations is easily replicable on the basis of information publicly available to all shareholders. This make us less concerned about possible biases during the classification and construction of the *CG & Disclosure Index*.

We next check that the results are not sensitive to the particular Type-scale used. We rescale the Types of the explanations using a narrower 3-Types scale classification based on the verifiability of the information. Non compliances without any explanation continue to be classified as Type 0 and get zero points. General and not verifiable explanations (Types 1, 2, and 3) get one point. Transitional situations (Type 4) and genuine explanations (Type 5) are all verifiable and are given two points. We then use the same methodology (1) to generate a rescaled flexible corporate governance index (*CG & Disclosure-Rescaled*).¹¹ Table 4, columns 3 and 4, show that the results are robust to the use of a different scaling criteria, both for the whole sample and also within the subsample of non-compliant companies, at the 5% and 1% level respectively. As expected, the magnitude of the coefficient estimated is bigger because the scale is narrower, but the magnitude of the economic impact is similar.

We then focus on the companies that omit any type of explanation (*Dummy No Disclosure*). Table 4, columns 5 and 6, show that this group of companies on average has a 1.4% and 1.6% lower ROA than all the other companies, including and excluding fully compliant companies, respectively. This evidence further confirms that the explanations are a proxy of the corporate governance quality, even after eliminating any possible subjectivity in the judgment.

Finally, in Table 8, columns 7 and 8, we further explore the issue of objectivity in the quantifi-

¹⁰The maximum (minimum) value of *CG & Disclosure-RA* is 40 (8.67), with a mean of 36.68, a median of 37.67, and a standard deviation of 4.67.

¹¹Under the narrower classification, the maximum (minimum) value of *CG & Disclosure-Rescaled* is 16 (5), with a mean of 14.87 and a standard deviation of 1.61.

cation of the corporate governance quality by constructing the ratio of the number of pages of the corporate governance section over the total number of pages of the annual report (*CGPage-Ratio*). This measure is admittedly crude and likely to be noisy, but it gives indications of the care and importance companies take when reporting on their corporate governance situation. The maximum (minimum) value of *CGPage-Ratio* is 38.5% (0.9%), with a mean of 3.9%, a median of 3.6%, and a standard deviation of 1.8%.¹² We find that companies with corporate governance sections relatively smaller are significantly associated with lower ROA, which confirms the importance of the quality and detail of the report as proxy for a serious commitment to corporate governance.¹³

4.2.3 Stock market returns

In addition to ROA as measure of performance, we test whether compliance with the Code provisions and better quality explanations show up with an increase in stock prices. The event study methodology is a common technique used for such an investigation. We are however unable to carry out an event study because we do not know the exact day a corporate governance decision is taken. Typically, such decisions are taken by companies throughout the year and announced immediately to the market, whilst we capture such information only from the companies' annual reports, which are usually published 4 – 6 months after the financial year-end. Hence, our analysis would suffer from measurement errors.

To overcome these problems, we use the long run event study methodology used by Gompers et al. (2003). We first separate companies into two portfolios based on the respective governance parameter. We construct the portfolios and calculate their value-weighted returns from July of year t to June of year $t + 1$ based on a corporate governance aspect as at the end of calendar year $t - 1$. We perform this analysis for a six year period from July 1999 to June 2005 and we begin in July 1999 since we have compliance data from December 1998 onwards. The portfolios are reset in

¹²We lose 16 observations due to lack of the data on the total number of pages of the complete annual report.

¹³We also counted the total number of words of the explanations provided when departing from best practice. The length of the explanation is however not significantly associated with performance, possibly highlighting a difference between long but obscure explanations and more concise but serious and verifiable explanations. Moreover, fully compliant companies would be excluded from the analysis since they provide no explanation.

July of every year based on compliance at the end of the last calendar year. We then estimate the following Fama-French (1993) three-factor model:

$$R_t = \alpha + \beta_1 * RMRF_t + \beta_2 * SMB_t + \beta_3 * HML_t + \varepsilon_t \quad (3)$$

where $RMRF$, SMB , and HML are the monthly Fama-French factors for the UK representing the market, size, and book-to-market factors, respectively. We calculate the Fama-French factors based on all listed UK companies from Datastream, following the Fama-French (1993) methodology. R is the monthly excess return from a strategy involving going long and short in portfolios of companies with specific corporate governance characteristics. The *alpha* in this model can be therefore interpreted as the monthly abnormal return in excess of what could be achieved by passive investment in these factors. If we observe a positive and significant *alpha* after controlling for the market, size, and book-to-market factors, then the specific governance parameter is not incorporated in the stock prices.

Panel A of Table 9 shows the results where the dependent variable, R , is the monthly return difference between the portfolios consisting of only compliant and non-compliant companies. Thus, the *alpha* in this estimation is the abnormal return on a zero-investment strategy that buys fully compliant companies and sells companies that are not fully compliant. We do not find statistically significant evidence that compliant companies outperform non-compliant companies.

We also form portfolios based on the *CG & Disclosure Index*, i.e., we go long in the high score portfolios and short in the low score portfolio. We use the median of the *CG & Disclosure Index* (37) as the cutoff, and we estimate the Fama-French model using monthly value-weighted returns obtained by going long in the high Index portfolio and shorting the low Index portfolio. Panel B of Table 9 shows that the *alpha* is positive (0.01) and significant (p-value = 0.07), and highlights that companies that comply with the Code recommendations or have valid explanations for not complying outperform all others by 1% on average per month. This evidence on stock market returns complements the previous results on operating performance.

4.2.4 Agency costs

The preceding evidence establishes an empirical relationship of corporate governance with operating performance and stock market returns. In this section we perform a direct test, similar to Gompers, Ishii, and Metrick (2003), that lack of transparency *causes* an increase in agency costs through inefficient investments. A substantial literature, dating back at least to Williamson (1964), holds that managers may undertake inefficient projects in order to extract private benefits. When governance transparency is reduced, the agency costs hypothesis predicts that managers can make suboptimal self-maximizing decisions, including "empire building" which decreases operating performance (Jensen, 1986, Diamond and Verrecchia, 1991, Titman, Wei, and Xie, 2004).

If better corporate governance reduces moral hazard, it can then improve efficiency by increasing shareholder ability to monitor managerial activities. For instance, Gompers, Ishii, and Metrick (2003) find that companies adopting less takeover defences are associated with lower capital expenditures. We therefore use the following median regression¹⁴ to investigate whether adherence with the governance standards and better quality of explanations provided in case of non-compliance reduce the moral hazard problem:

$$CAPEX_{i,t} = \alpha_1 + \beta_1 \cdot CG_{i,t} + \delta_1 \cdot Controls_{i,t} + \varepsilon_{i,t}, \quad (4)$$

where *CAPEX* is the industry adjusted ratio of capital expenditures to total sales constructed using the Fama-French industry group, and *CG* is a vector of governance variables (*Dummy GC Deviation*, *# CG Deviations*, *CG & Disclosure Index*) as we defined before. We use the logarithm of sales, the logarithm of the market to book ratio, the ratio of debt to assets, and the ratio of cash flows from operations to sales as control variables: size, growth, leverage, and funds availability may be associated with capital expenditures decisions. Regressions are run with time dummies.

Table 10 shows that full compliance with the Code and a lower number of non compliances are not significantly associated with less moral hazard problems: the coefficients are both highly

¹⁴We use the median regression due to a significative presence of outliers in the *CAPEX* variable.

insignificant (p-value = 0.78 and p-value = 0.55). On the contrary, we find that the *CG & Disclosure Index* is negatively (-0.0375) and significantly (p-value = 0.06) associated with excess capital expenditure. This result shows that managers of well-governed firms, i.e., those that fully embrace the Code’s recommendations or departure from best practice for valid reasons, are less likely to undertake wasteful projects. This supports the earlier evidence that compliance with the corporate governance standards alleviates agency problems, and that departure from best practice for valid reasons does not exacerbate moral hazard behavior. On the other hand, more opaque companies engage in a large amount of inefficient investment, which complements the earlier evidence: companies hiding the reasons for departing from corporate governance standards make self-maximizing decisions which reduce company’s profitability and stock returns.

5 Summary and discussion

In this paper we have examined different corporate governance choices and their association with performance. Our analysis builds on an institutional setting where corporate governance standards are listed but not prescribed by law, and companies can endogenously choose the structure that best suit them. Since the companies must explain the reasons of deviating from the governance standards, this allows us to separate the corporate governance behavior of companies and alleviate the joint-endogeneity problem of the econometric investigation.

We find that companies with a dominant shareholder and with growth opportunities are more likely to deviate from the corporate governance standards, which is consistent with a one-size-does-not-fit-all approach to corporate governance and with different monitoring needs of companies. However, deviations from corporate governance standards may also be related to obscure reasons that can hide entrenchment purposes. Only companies with greatest transparency (i.e., adherence with the governance standards or fully explained deviations) are associated with better performance because governance transparency provides discipline that mitigates the agency conflicts within companies and, consequently, companies’ resources are efficiently used. On the contrary, companies

with self-maximizing goals hide their corporate governance structure and this is reflected in lower performance.

Our empirical results are related to the growing literature that indicates that corporate governance varies across firms depending on growth, monitoring, and managerial characteristics of the firm because it is the endogenous result of a competitive process. In this regard, we contribute to the debate that rules alone are unlikely to enhance value of all firms. On the other hand, the absence of mandated regulations allows discretion to companies, which some of them take advantage for self-maximizing purposes. For instance, our evidence that companies with a large shareholder are less inclined to governance transparency suggests that voluntary regulation may have drawbacks in countries with large shareholders.

Our results, however, come with some caveats. First, we do not investigate the consequences of the adoption of corporate governance standards because, differently from Dahya and McConnell (2005), the analysis of the performance impact of the UK Combined Code is beyond our scope: in this regard, our main goal is not to test the effects of the implementation of the UK Code of corporate governance, but to use the UK governance framework to investigate the companies' endogenous choices. We also focus our analysis more on operating performance than stock market performance because public information about governance may not be impounded in stock prices in a timely manner (see Core et al., 2006), whereas weak corporate governance has been found to be associated with an inefficient use of company's resources that leads to poor operating income. In addition, our corporate governance measure *CG & Disclosure Index* includes aspects of both compliance and disclosure of governance standards, which may be differently interpreted by market participants. This could explain why we do not find robust and consistent results when using Tobin's Q as an alternative performance measure, and we thus prefer to exclude it from our performance analysis. Finally, the question of whether mandatory regulation would help in solving the agency conflicts and be preferred to voluntary regulation is left unanswered and for future research.

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Table 1: Summary Statistics

This table shows statistics for a sample of 244 non-financial UK companies analysed over the period 1998-2004. *Panel A* shows the Corporate Governance Indicators gathered from the annual reports of companies. *Dummy GC Deviation* is a dummy variable which takes the value 0 if a company is fully compliant with all the provisions of the Combined Code and 1 otherwise. *# GC Deviations* is a discrete variable which counts the total number of non-compliances with the provisions of the Code. *CG & Disclosure Index* is a measure of corporate governance constructed based on compliances with the corporate governance standards as well as the level of disclosure provided in case of non compliance. *Panel B* shows the financial characteristics of firms in our sample. Accounting data is from Worldscope and stock data is from Datastream. *ROA* is the ratio of earnings before interest and taxes to book value of assets adjusted for the median from the respective Fama-French industry group. *Age* is the number of years since incorporation. *Size* is the book value of assets in GBP millions. *Market Capitalization* is the market value of equity in GBP millions. *Growth Opportunities* is the logarithm of the ratio of market to book value of equity and excludes negative values. *Profitability* is the ratio of earnings before interest and taxes to sales. *Leverage* is the ratio of long term debt to the book value of assets. *Capital Intensity* is the ratio of net property, plant, and equipment to sales, truncated at 1% and 99%. *Ownership* a dummy variable which takes the value 1 if the firm has a family or individual shareholder with at least 10% stake.

	N	Dummy=1	Mean	Std. Dev.	Median	P25	P75
Panel A: Corporate Governance Indicators							
Dummy GC Deviation	1275	860	0.6745	0.4687	0	1	1
# GC Deviations (All sample)	1275		1.2227	1.3053	1	0	2
# GC Deviations (NC only)	860		1.8127	1.2067	1	1	2
CG & Disclosure Index (All sample)	1275		36.3945	4.8251	37	35	40
CG & Disclosure Index (NC only)	860		34.6547	5.0218	36	33	37
Panel B: Firm Characteristics							
ROA	1274		4.93%	9.96%	3.27%	0.00%	8.83%
Age (Years)	1147		39.4917	34.5767	26	12	65
Size (GBP millions)	1274		3670	12100	1023	448	303
Market Capitalization (GBP millions)	1268		3696	12500	859	405	2730
Sales (GBP millions)	1274		2780	8033	946	402	2584
Growth Opportunities	1204		4.8165	12.3636	2.23	1.34	3.885
Profitability	1269		8.27%	49.95%	10.39%	5.35%	16.01%
Leverage	1274		0.1988	0.1646	0.1786	0.0718	0.2874
Capital Intensity	1269		0.6630	1.0493	0.2603	0.1223	0.6082
Ownership	1147	204	0.1779	0.3826	0	0	0

Table 2: Determinants of corporate governance structure

This table gives coefficients and p-values of logistic regressions. *Dummy GC Deviation* is a dummy variable which takes the value 0 if a company is compliant with all the provisions of the Combined Code and 1 otherwise. *Dummy Board* is equal to 0 if the company is compliant with all the provisions related to the separation of CEO/Chairman, existence of a senior non executive director, non-executive presence and independent directors, and 1 if it is not compliant with any of these provisions. *Dummy Committees & Contracts* that takes a value 0 if a company is compliant with all the provisions related to the nomination, compensation, audit committees and the terms of service contracts, and 1 otherwise. *Dummy Power* is equal to 0 if a company is compliant with both the provisions related to the separation of CEO/Chairman and existence of a senior non executive director. *Dummy Non-Executives* equal to 0 if a company is compliant with both the provisions related to non-executive presence and independent directors and 1 otherwise. *Dummy Transparency* equal to 0 if a company is compliant with both the provisions concerning the nomination and audit committees. *Dummy Remuneration* is equal to 0 if a company is compliant with both the provisions related to the compensation committee and service contracts and 1 otherwise. *Ownership* a dummy variable which takes the value 1 if the firm has a family or individual shareholder with at least 10% stake. *Growth Opportunities* is the logarithm of the ratio of the market to book value of equity and excludes negative values. *Market Capitalization* is the logarithm of the market capitalization of the company. *Age* is the number of years since incorporation. *Profitability* is the ratio of earnings before interest and taxes to sales. *Leverage* is the ratio of long term debt to the book value of assets. *Capital Intensity* is the ratio of net property, plant, and equipment to sales, truncated at 1% and 99%. *P*-values based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, * and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	(1) Dummy GC Deviation	(2) Dummy Board	(3) Dummy Comm. & Contr.	(4) Dummy Power	(5) Dummy Non-Executives	(6) Dummy Transparency	(7) Dummy Compensation
Ownership	0.6090* (0.059)	0.9308*** (0.003)	0.0052 (0.986)	0.4908* (0.103)	1.0722*** (0.002)	0.9370** (0.013)	-0.3256 (0.299)
Growth Opportunities	0.4373*** (0.003)	0.3251** (0.014)	0.4610*** (0.001)	0.2642* (0.060)	0.1941 (0.249)	0.6852*** (0.000)	0.3724*** (0.008)
Market Capitalization	-0.0850 (0.382)	-0.1500 (0.141)	-0.1026 (0.335)	-0.1698* (0.095)	-0.2585 (0.173)	-0.3496* (0.054)	-0.0965 (0.423)
Age	0.2613** (0.014)	0.0792 (0.480)	0.1890* (0.080)	0.1474 (0.214)	-0.1540 (0.376)	0.2247 (0.139)	0.0998 (0.387)
Profitability	-0.7924 (0.111)	-1.3171** (0.035)	-0.1252 (0.280)	-0.1847 (0.230)	-0.1205 (0.663)	-0.0106 (0.944)	-0.0598 (0.640)
Leverage	1.0303 (0.238)	0.2042 (0.814)	0.5602 (0.518)	0.4838 (0.603)	-0.6243 (0.678)	-1.7559 (0.179)	0.5946 (0.524)
Capital Intensity	-0.0907 (0.546)	0.0697 (0.686)	-0.2619* (0.093)	-0.0851 (0.641)	0.3499 (0.175)	-0.0448 (0.890)	-0.1350 (0.424)
Industry dummies	Yes 948	Yes 942	Yes 920	Yes 908	Yes 753	Yes 782	Yes 920
Pseudo R^2	0.087	0.1043	0.0813	0.0891	0.1442	0.1861	0.0859

Table 3: Determinants of corporate governance structure and disclosure quality

This table gives coefficients and p-values of a multinomial logistic regression with the following dependent variable groups: *No Disclosure* if a company does not provide any explanation for non-compliances (Type 0); *Poor Disclosure* if the company has a value of *CG & Disclosure Index* less than the median 37; *Some Disclosure* if the company has a value of *CG & Disclosure Index* equal to or greater than the median of 37, but less than 40; *Full Disclosure* if the company provides informative explanations (Type 5) for all its non-compliances. The base variable for the regression are companies that are fully compliant with all provisions of the Code. *Ownership* is a dummy variable which takes the value one if the firm has a family or individual shareholder with at least 10% stake. *Growth Opportunities* is the logarithm of the ratio of the market to book value of equity and excludes negative values. *Market Capitalization* is the logarithm of the market capitalization of the company. *Age* is the number of years since incorporation. *Profitability* is the ratio of earnings before interest and taxes to sales. *Leverage* is the ratio of long term debt to the book value of assets. *Capital Intensity* is the ratio of net property, plant, and equipment to sales, truncated at 1% and 99%. P-values based on robust standard errors clustered at the firm level are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	(1)	(2)	(3)	(4)
	Multinomial Logit (Base: Compliant Companies)			
	No Disclosure	Poor Disclosure	Some Disclosure	Full Disclosure
Ownership	0.7198* (0.068)	0.6828* (0.079)	0.4685 (0.236)	1.0436 (0.174)
Growth Opportunities	0.5253*** (0.006)	0.4230** (0.021)	0.4196*** (0.008)	0.6191** (0.039)
Market Capitalization	-0.3261* (0.083)	-0.2110 (0.115)	0.0539 (0.612)	0.5661*** (0.002)
Age	0.4494** (0.014)	0.2614* (0.057)	0.1613 (0.183)	0.2700 (0.213)
Profitability	-0.8716* (0.099)	-0.7155 (0.160)	-0.8216 (0.105)	-1.0575** (0.041)
Leverage	0.7986 (0.531)	2.0583* (0.066)	-0.3961 (0.722)	4.7938** (0.026)
Capital Intensity	-0.0702 (0.718)	-0.1259 (0.538)	0.0238 (0.898)	-0.1159 (0.754)
Industry dummies	Yes	Yes	Yes	Yes
N	980	980	980	980
Pseudo R ²			0.163	

Table 4: Corporate Governance and Operating Performance – Univariate Results

This table reports the results of univariate comparisons of mean ROA between various categories across the sample period 1998 to 2004. ROA is defined as the ratio of earnings before interest and taxes to book value of assets adjusted for the median from the respective Fama-French industry group. *CG & Disclosure Index* is a measure of corporate governance constructed based on compliances with the corporate governance standards as well as the level of disclosure provided in case of non compliance. *P*-values are reported based on two-sided t-test of difference in means.

Panel A: ROA Compliant vs. Non-Compliant

	ROA	N
Compliant	5.26%	415
Non-Compliant	4.76%	859
Total	4.93%	1274
p-value	0.406	

Panel B: ROA Compliant vs. Non-compliant with One non-compliance

	ROA	N
Compliant	5.26%	415
One non-compliance	5.35%	458
Total	5.31%	873
p-value	0.891	

Panel C: ROA Compliant vs. Non-compliant with Two non-compliances

	ROA	N
Compliant	5.26%	415
Two non-compliances	3.63%	252
Total	4.64%	667
p-value	0.041**	

Panel D: ROA Compliant vs. Non-compliant with Three or more non-compliances

	ROA	N
Compliant	5.26%	415
Three or more non-compliances	4.88%	149
Total	5.16%	564
p-value	0.691	

Panel E: ROA *CG & Disclosure Index* greater vs. lower than median

	ROA	N	ROA	N
<i>CG & Disclosure Index</i> > Median	5.63%	619	5.84%	346
<i>CG & Disclosure Index</i> ≤ Median	4.26%	655	4.04%	513
Total	4.93%	1274	4.76%	859
p-value	0.014**		0.009***	
Sample	All		NC	

Table 5: Corporate Governance and Operating Performance – Multivariate Regressions

This table gives coefficients and p-values of ordinary least squares regressions with one year ahead *ROA* as the dependent variable, where *ROA* is defined as the ratio of earnings before interest and taxes to book value of assets adjusted for the median from the respective Fama-French industry group. *Dummy GC Deviation* is a dummy variable which takes the value 0 if a company is fully compliant with all the provisions of the Combined Code and 1 otherwise. *# CG Deviations* is a discrete variable which counts the total number of non-compliances with the provisions of the Code. *CG & Disclosure Index* is a measure of corporate governance constructed based on compliances with the corporate governance standards as well as the level of disclosure provided in case of non compliance. *Size* is the logarithm of book value of assets. *Growth Opportunities* is the logarithm of the ratio of the market to book value of equity and excludes negative values. *Profitability* is the ratio of earnings before interest and taxes to sales. *Leverage* is the ratio of long term debt to the book value of assets. *Capital Intensity* is the ratio of net property, plant, and equipment to sales, truncated at 1% and 99%. *P*-values based on robust standard errors clustered at the firm level are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
CG & Disclosure Index	0.0015** (0.050)	0.0014** (0.046)	0.0021*** (0.006)			
# CG Deviations				-0.0024 (0.447)		
Dummy GC Deviation					0.0025 (0.767)	-0.0679** (0.015)
(Dummy GC Deviation)* (CG & Disclosure Index)						0.0020*** (0.006)
Size	-0.0100** (0.015)	-0.0072* (0.090)	-0.0081 (0.104)	-0.0065 (0.137)	-0.0060 (0.158)	-0.0074* (0.077)
Growth Opportunities	0.0353*** (0.000)	0.0368*** (0.000)	0.0402*** (0.000)	0.0367*** (0.000)	0.0365*** (0.000)	0.0370*** (0.000)
Profitability	0.0582*** (0.000)	0.0613*** (0.000)	0.0571*** (0.000)	0.0612*** (0.000)	0.0614*** (0.000)	0.0619*** (0.000)
Leverage		-0.1323*** (0.000)	-0.1122*** (0.006)	-0.1330*** (0.000)	-0.1339*** (0.000)	-0.1342*** (0.000)
Capital Intensity		0.0052 (0.105)	0.0073* (0.097)	0.0053* (0.099)	0.0056* (0.091)	0.0058* (0.080)
Year dummies	Yes	Yes	Yes	Yes	Yes	Y
Sample	All	All	NC	All	All	All
N	1192	1192	806	1192	1192	1192
Adjusted R^2	0.246	0.275	0.307	0.272	0.271	0.277

Table 6: Provisionwise Analysis

Each cell of this table gives coefficients and p -values of ordinary least squares regressions for each provision run separately with one year ahead ROA as the dependent variable, where ROA is defined as the ratio of earnings before interest and taxes to book value of assets adjusted for the median from the respective Fama-French industry group, and controls. *Dummy GC Deviation* Provision is a dummy variable which takes the value 0 if a company is compliant with the respective provision indicated and 1 otherwise. *CG & Disclosure Provision* is *CG & Disclosure Index* is a measure of corporate governance constructed based on compliances with the corporate governance provision as well as the level of disclosure provided in case of non compliance. with the respective provision. The controls used are same as those in the regression shown in Table 5. P -values based on robust standard errors clustered at the firm level are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	(1) Dummy GC Deviation Provision	(2) CG & Disclosure Provision	(3) CG & Disclosure Provision
CEO/Chairman	-0.0029 (0.781)	0.0012 (0.658)	0.0012 (0.665)
Service Contracts	0.0009 (0.914)	0.0005 (0.808)	0.0009 (0.654)
Non-Executive Directors (NED)	-0.0443*** (0.006)	0.0097** (0.021)	0.0091** (0.032)
Independent NED	-0.0198 (0.130)	0.0053 (0.147)	0.0061* (0.096)
Senior Non-executive Director	0.0151 (0.110)	-0.0002 (0.929)	-0.0001 (0.984)
Audit Committee	-0.0143 (0.345)	0.0076* (0.068)	0.0081* (0.067)
Remuneration Committee	-0.0141 (0.123)	0.0043* (0.060)	0.0050** (0.038)
Nomination Committee	-0.0007 (0.952)	0.0023 (0.544)	0.0026 (0.491)
Controls	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes
Sample	All	All	NC
N	1192	1192	806

Table 7: Three-Stage Least Squares Regression Estimation

This table reports coefficients and p -values of two simultaneous equations estimated by three stage least squares. The dependent variable of the governance equation is the *CG & Disclosure Index*, which is a measure of corporate governance constructed based on compliances with the corporate governance standards as well as the level of disclosure provided in case of non compliance. The dependent variable of the performance equation is one year ahead *ROA*, where *ROA* is defined as the ratio of earnings before interest and taxes to book value of assets adjusted for the median from the respective Fama-French industry group. *Alpha* and *Beta* are estimated over 30 consecutive rolling month-end percentage price changes relative to the FTSE All-shares Index. *Ownership* is a dummy variable which takes the value one if the firm has a family or individual as a shareholder with at least 10% stake. *Age* is the number of years since incorporation. *Size* is the logarithm of book value of assets. *Growth Opportunities* is the logarithm of the ratio of the market to book value of equity and excludes negative values. *Profitability* is the ratio of earnings before interest and taxes to sales. *Leverage* is the ratio of long term debt to the book value of assets. *Capital Intensity* is the ratio of net property, plant, and equipment to sales and truncated at 1% and 99%. P -values are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

Dependent Variable	(1) Governance eq. CG & Disclosure Index	(2) Performance eq. ROA _{t+1}	(3) Governance eq. CG & Disclosure Index	(4) Performance eq. ROA _{t+1}
ROA _t	-0.9180 (0.801)		-1.6580 (0.715)	
CG & Disclosure Index		0.0084*** (0.000)		0.0080*** (0.000)
Size	0.7279*** (0.000)	-0.0086*** (0.001)	0.8244*** (0.000)	-0.0093*** (0.003)
Ownership	-1.1441*** (0.006)		-0.8302* (0.100)	
Age	-0.2145 (0.115)		0.0824 (0.675)	
Growth Opportunities	-0.9089*** (0.000)	0.0444*** (0.000)	-0.5605* (0.081)	0.0492*** (0.000)
Profitability		0.0784*** (0.000)		0.0731*** (0.000)
Leverage	2.6768* (0.053)	-0.1529*** (0.000)	3.0817* (0.077)	-0.1485*** (0.000)
Capital Intensity	-0.1012 (0.680)	0.0046 (0.199)	-0.3002 (0.429)	0.0099** (0.045)
Alpha	-3.4516 (0.570)		-6.0708 (0.470)	
Beta	0.2087 (0.432)		-0.0209 (0.951)	
Industry dummies	Yes	No	Yes	No
Year dummies	No	Yes	No	Yes
Sample	All	All	NC	NC
N	869	869	566	566
R ²	0.168	0.214	0.237	0.288

Table 8: Robustness of the CG & Disclosure Index

This table gives coefficients and p -values of ordinary least squares regressions with one year ahead ROA as the dependent variable, where ROA is defined as the ratio of earnings before interest and taxes to book value of assets adjusted for the median from the respective Fama-French industry group. $CG \ \& \ Disclosure - RA$ is the $CG \ \& \ Disclosure \ Index$ constructed based on independent scoring of the quality of explanations. $CG \ \& \ Disclosure \ Rescaled$ is the $CG \ \& \ Disclosure \ Index$ constructed using a three point scale of the quality of explanations instead of six point scale. $No \ Disclosure$ is a dummy variable which takes the value one if a company does not provide an explanation for at least one of its non-compliance and zero otherwise. $CGPage \ Ratio$ is the ratio of the number of pages of the corporate governance section to the total number of pages in the annual report. $Size$ is the logarithm of book value of assets. $Growth \ Opportunities$ is the logarithm of the ratio of the market to book value of equity and excludes negative values. $Profitability$ is the ratio of earnings before interest and taxes to sales. $Leverage$ is the ratio of long term debt to the book value of assets. $Capital \ Intensity$ is the ratio of net property, plant, and equipment to sales and truncated at 1% and 99%. P -values based on robust standard errors clustered at the firm level are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CG& Disclosure-RA	0.0016** (0.033)	0.0021*** (0.007)						
CG & Disclosure Rescaled			0.0043** (0.030)	0.0059*** (0.004)				
No Disclosure					-0.0142* (0.079)	-0.0163* (0.061)		
CG Page-Ratio							-0.0427* (0.058)	-0.0452* (0.096)
Size	-0.0072* (0.092)	-0.0080 (0.117)	-0.0073* (0.088)	-0.0080 (0.107)	-0.0065 (0.116)	-0.0066 (0.186)	-0.0062 (0.139)	-0.0059 (0.241)
Growth Opportunities	0.0368*** (0.000)	0.0401*** (0.000)	0.0368*** (0.000)	0.0401*** (0.000)	0.0366*** (0.000)	0.0396*** (0.000)	0.0369*** (0.000)	0.0393*** (0.000)
Profitability	0.0616*** (0.000)	0.0574*** (0.000)	0.0614*** (0.000)	0.0571*** (0.000)	0.0609*** (0.000)	0.0561*** (0.000)	0.0602*** (0.000)	0.0550*** (0.000)
Leverage	-0.1346*** (0.000)	-0.1169*** (0.004)	-0.1333*** (0.000)	-0.1140*** (0.005)	-0.1337*** (0.000)	-0.1127*** (0.005)	-0.1332*** (0.000)	-0.1120*** (0.006)
Capital Intensity	0.0053* (0.097)	0.0076* (0.085)	0.0052* (0.100)	0.0073* (0.093)	0.0053* (0.092)	0.0072* (0.092)	0.0056* (0.076)	0.0071 (0.100)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample	All	NC	All	NC	All	NC	All	NC
N	1192	806	1192	806	1192	806	1176	796
Adjusted R^2	0.276	0.307	0.276	0.306	0.274	0.302	0.269	0.290

Table 9: Corporate governance and Stock Market Performance

This table shows coefficient estimates and p-values from the Fama-French three factor regressions of value-weighted monthly returns of portfolios of firms. The portfolios are formed based on either overall compliance (i.e. compliance with all provisions) or companies with high *CG & Disclosure Index* defined as being greater than the median (37). The portfolio returns are value-weighted returns which are the result of taking a long position in compliant companies (or high *CG & Disclosure Index* companies) and a short position in non-compliant companies (or low *CG & Disclosure Index* companies) shown in *Panel A* (*Panel B*). The explanatory variables are *RMRF*, *SMB* and *HML*. These variables are zero-investment portfolios designed to capture market, size, and book-to-market effects, respectively. *P*-values are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	α	RMRF	SMB	HML
<i>Panel A</i>				
Overall compliance v/s	-0.0021	-0.1029	-0.0806	-0.5713***
Non-compliance	(0.615)	(0.275)	(0.435)	(0.001)
<i>Panel B</i>				
<i>CG & Disclosure Index</i> (> 37) v/s	0.0106*	0.0355	0.3861**	-0.4064***
<i>CG & Disclosure Index</i> (≤ 37)	(0.073)	(0.790)	(0.010)	(0.005)

Table 10: Corporate Governance and Agency Costs

This table gives coefficients and p -values of a median regression with $Capex/Sales$ as the dependent variable, where $Capex$ is the ratio of capital expenditure to sales adjusted for the median from the respective Fama-French industry group. *Dummy GC Deviation* is a dummy variable which takes the value 0 if a company is fully compliant with all the provisions of the Combined Code and 1 otherwise. *# CG Deviations* is a discrete variable that counts the total number of non-compliances with the provisions of the Code. *CG & Disclosure Index* is a measure of corporate governance constructed based on compliances with the corporate governance standards as well as the level of disclosure provided in case of non compliance. *Size* is the logarithm of book value of assets. *Growth Opportunities* is the logarithm of the ratio of the market to book value of equity and excludes negative values. *Leverage* is the ratio of long term debt to the book value of assets. *Cash Flow* is the ratio of cash flow from operations to sales. P -values are reported in parentheses. ***, ** and * denote that the coefficient is statistically significant at the 1, 5 or 10 percent levels, respectively.

	(1)	(2)	(3)	(4)
Dummy GC Deviation			-0.0911 (0.658)	
# CG Deviations				0.0448 (0.597)
CG & Disclosure Index	-0.0535** (0.011)	-0.0707** (0.023)		
Size	-0.1078 (0.122)	-0.0805 (0.474)	-0.1469** (0.034)	-0.1385* (0.069)
Growth Opportunities	-0.1916* (0.059)	-0.0333 (0.831)	-0.1861* (0.071)	-0.1967* (0.079)
Leverage	3.5071*** (0.000)	4.5375*** (0.000)	3.8189*** (0.000)	3.7150*** (0.000)
Cash Flow	-1.3329*** (0.000)	-17.1951*** (0.000)	-2.0281*** (0.000)	-1.3400*** (0.000)
Year dummies	Yes	Yes	Yes	Yes
Sample	All	NC	All	All
N	1196	808	1196	1196

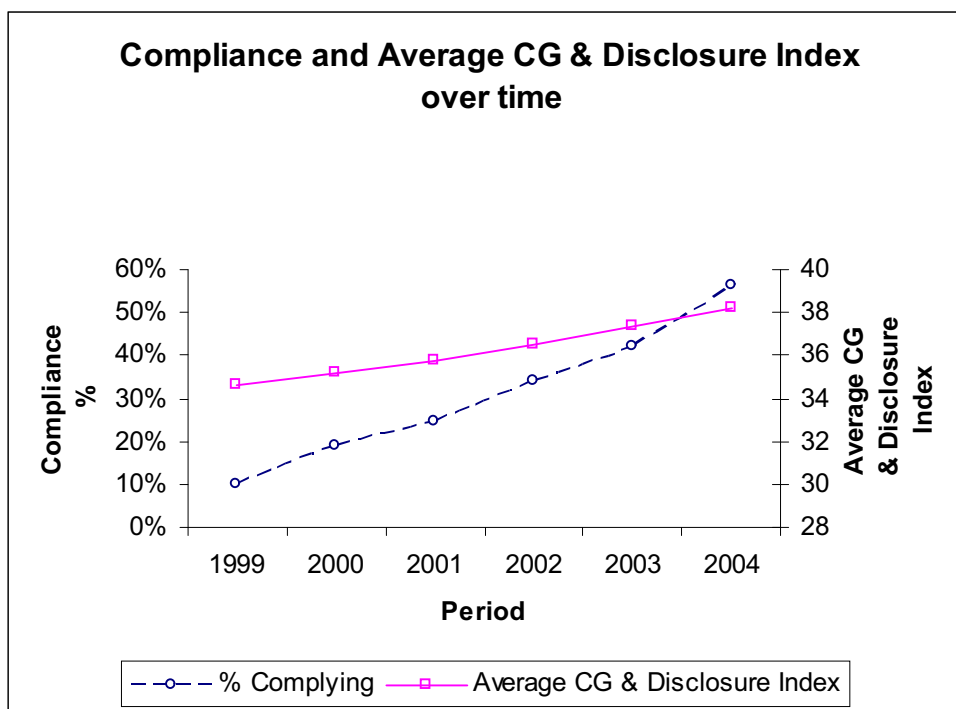


Chart 1: Trends in Compliance and quality of Explanations

This graph plots trends in the percentage of companies full compliant with all the provisions of the Combined Code over the period 1999 – 2004 (dashed line), and the average *CG & Disclosure Index* (dotted line) per year.