The Relationship between Transparency & Disclosure and Firm Performance in the ISE: 
Does IFRS Adoption Make a Difference?

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December, 2005

Preliminary draft. Please do not quote. Comments welcome

* We would like to thank Utpal Bhattacharya for his invaluable comments on an earlier version of the paper
and the seminar participants at the EAA’05 Congress in Gotheburg and at the MODAV’05 conference in
Istanbul for helpful comments and suggestions. The list of attributes and the scoring methodology were
obtained in part from Standard and Poor’s and is gratefully acknowledged. We are also thankful to Aydos
Özel, Erkin Solak, Esra Aksu, Meriç Biçakçı, Oznur, our dear assistants, for their careful and competent
reading of the annual reports, to Amra Balic of S&P, London for her expertise in rating and for training the
assistants, and finally, to the Corporate Governance Forum of Turkey for financial support.

Keywords: corporate governance, transparency and disclosure index, Istanbul Stock Exchange, IFRS, agency conflicts

JEL Codes: G14, G32, G34, G38, O52
The relationship between transparency & disclosure and firm performance in the ISE: Does IFRS adoption make a difference?

Abstract

There has been a proliferation of firm-specific research on the effect of compliance with high corporate governance (CG) standards on the cost of capital and financial performance. As a result of the observed positive link and the recent CG and accounting scandals, most countries are upgrading their laws and regulations to include compliance with best CG and transparency and disclosure (T&D) standards and firms are voluntarily having their CG and T&D practices rated, to signal their quality and to improve their current practices.

In this study, we use a database of T&D scores in three categories for 52 large and liquid Turkish firms, previously created by S&P and Sabanci University CG Forum researchers. The creation of this database and the T&D scores are described in detail in S&P’s newsletter dated 6/6/2005 and in Aksu and Kosedag, 2005 which compares the T&D scores of Turkish public firms with those in other countries where the same survey had been conducted by S&P and also explores the firm-specific determinants of the T&D scores.

Using the same database, we first associate the T&D scores of 52 public Turkish firms with accounting based (return on assets and return on equity) and market based (excess returns) performance measures. We investigate the relationship for the overall T&D scores and the scores in the three sub-categories of T&D. The results show significant differences in financial performance of sample firms in the two extreme T&D score quartiles while the relationship is not strong in multivariate tests run with the addition of control variables. Second, we use early voluntary adoption of IFRS in 2003 as an observable indicator of and commitment to better disclosure and transparency, and test if the T&D scores themselves and their relationship with performance are higher in these early adaptors. Finally, we create a parsimonious Commitment to Better Disclosure (CBD) Index which includes early voluntary adoption of IFRS, existence of a CG Charter, and presentation of the annual report on the company website as the only three attributes out of our 106 attribute T&D index. As of 2003, these attributes of good T&D were all voluntary and costly steps taken by the sample firms and, as such, indicate a strong commitment to transparency and full disclosure. Observing the high correlation between the two indices, we repeat our tests of the relationship between firm performance and T&D scores by using this new CBD index. The results support the previous studies that use factor analysis to come up with a few significant variables rather than using an index with many heterogeneous, perhaps offsetting, attributes. The study should be of interest to T&D researchers, managers, analysts, boards, and especially to international and local policy makers and regulators at a time when debate on convergence to IFRS has become intense.
I. Introduction

As a result of the post-Enron heightened awareness of the economic benefits of good corporate governance (CG) and transparency and disclosure (T&D), many countries have been increasing their mandatory disclosure requirements through new laws and regulations. At the same time, companies themselves have been poring out additional voluntarily disclosures such as the voluntary expensing of the employee stock options since 2000 in the US.¹ Parallel to these developments, there has been a proliferation of country-level evidence that the origin of legal rules and the quality of their enforcement in a country are good proxies for differences in investor protection which, in turn, affects the efficiency of its financial markets and its access to foreign capital (see for ex. La Porta et al., 1996, 1997, Schleifer and Wolfenzon, 2002). Firm-level empirical evidence has corroborated these findings: firms with better corporate governance practices have been found to have lower cost of capital (Sengupta, 1998; Mazumdar et al., 2002; Ashbaugh et al., 2004), lower credit rate spreads (Yu, 2005); higher values, profitability, and lower risk (Gompers et al., 2003; Brown and Caylor, 2004 and 2005).

Full disclosure and transparency (T&D) of financial information are vital components of the CG framework (OECD, 1999) and are regarded as an important indicator of CG quality.² Indeed, Beeks and Brown (2005) find that firms with higher CG quality make more informative disclosures. Sadka (2004) provides both theoretical and empirical evidence that the public sharing of financial and analyst reports (market transparency) has enhanced factor productivity and economic growth in 30 countries.

In this study, we follow S&P’s definition of T&D and define it as timely and adequate disclosure of the operating and financial performance of the firm and its corporate governance practices related to its ownership, board, and management structures and processes. Understandable, relevant, transparent, reliable, timely, and full disclosure of the results of economic activities and the

¹ Some local examples are the recent resolve to rewrite the Turkish Commercial Code that has been in effect since 1957, the new CG Principles of the Turkish Capital Markets Board, and the voluntary use of IFRS by many public firms before 2005 when it became mandatory for Turkish public firms.

² In their official report titled “Corporate Governance: the Turkish Transparency and Disclosure Survey” Standard & Poor's states that they view corporate transparency as an important factor affecting a company's attractiveness to investors, and as a vital element of corporate governance.
structure and processes used in its organizational units entrusted to operate in stakeholders’ interests, gives the stakeholders a true and fair view of the firm and the quality of the CG standards it follows. In this sense, good T&D mechanisms are set in place to essentially protect the rights of the minority shareholders and creditors and other outsiders who do not have first hand knowledge about the firm and its prospects, from extraction of private benefits by insiders based on their superior information. This, in turn, is expected to minimize the informational asymmetry in the firm and the probability of fraud, also enhancing its easier detection, leading to lower cost of capital and hence higher firm value. A related informational advantage of good T&D practices is that it increases investor awareness and trust which will reduce the uncertainty of the returns to the capital suppliers which, again, is expected to reduce the firm’s cost of external capital and hence increase its value (see, for ex., Berglof and Pajuste, 2005). A third advantage is that compliance with good T&D practices mitigates the political costs of non-compliance and hence reduces the risk of higher taxes, litigation and too much regulation.  

These relationships and expected benefits of T&D are more important for emerging markets such as Turkey because they are in dire need of external capital as their economies are growing faster than that of more developed nations. First of all, Turkey faces a specific type of agency problem that creates an impediment to external capital. It has a financial system with many banks owned by business-groups; highly concentrated, pyramidal, family-based ownership structures characterized by substantive inter-corporate shareholdings; and resulting low float rates and dividend payments (see Yurtoglu, 2000 for an in-depth description of ownership structures of ISE firms and its drawbacks in terms of firm value). This kind of a structure leads to expropriation of minority shareholders’ rights by ultimate owners with or without owning the cash flow rights. Furthermore, due to the concentration of ownership and power with influential families and its French legal origin, Turkey has also been slow in the development and enforcement of CG and T&D principles and best-practices. A recent (4/12/2005) report of the Institute of International Finance (IIF) discusses these agency problems and states: “Turkish companies are often controlled

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3 Using simultaneous equations to control for the endogeneity between disclosure and litigation, Field et al. (2004) find that disclosure deters certain types of litigation.
through the use of founders’ shares that carry multiple voting rights and/or board nominating rights. As a result, the protection of minority shareholder interests rests primarily on full disclosure and accurate financial reporting”. Hence the T&D component of CG is very important in mitigating this important agency problem in the ISE.

In this study, we use a database of T&D scores in three categories for our sample of 52 large and liquid Turkish public firms, previously created by S&P and Sabanci University CG Forum researchers. The creation of this T&D index are described in detail in S&P’s journal RatingsDirect dated 6/6/2005 and in Aksu and Kosedag (2005), which also compares the T&D scores of Turkish public firms with those in other countries where similar S&P surveys had been conducted and explores the firm-specific determinants of the T&D scores. The list of 106 attributes used to evaluate the T&D practices of the sample firms is reproduced here in Appendix 1.

Our first objective in this study is to associate the T&D scores of the same 52 ISE firms with accounting based (return on assets and return on equity) and market based (excess returns) performance measures. We investigate the relationship for the overall T&D scores and the scores in the three sub-categories of T&D. The results show significant differences in accounting performance of the firms in the two extreme T&D score quartiles while less significant results are obtained for the relationship between excess returns and our T&D scores and in multivariate tests.

The second objective of the paper is to investigate if IFRS adoption enhances the relationship between performance and T&D scores. We use early voluntary adoption of IFRS in 2003 as an observable indicator of and commitment to better disclosure and transparency, and test if the T&D scores themselves and their relationship with performance are higher in these early adaptors. Since the results show that the firms adapting the IFRS have significantly higher TDS,

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4 We explore TD quality using data from a single country because multi-country studies may yield mixed results as a result of their differences in terms of the sizes and liberalization of their markets, political and economic risk exposure, the average market capitalization, and their reporting standards. By using only ISE data, we control for these differences that are expected to affect both the TD scores and the variables we use as proxies for performance and agency conflicts. Furthermore, unlike many other countries, use of IFRS is a very significant reform for Turkey whose accounting rules have been traditionally shaped by tax considerations until recently and inflation accounting and consolidation of group accounts have never been used even though they have been crucial in an economy plagued with incredibly high inflation rates and composed of many family-based holding firms.

5 In a broader context, this could also be a proxy for commitment to accession to the European Union and for the demand for external capital.
we then test if the adoption of only inflation accounting or consolidation accounting drives the strong effect of IFRS adoption.

Finally, we create a new parsimonious Commitment to Better Disclosure (CBD) Index which includes early voluntary adoption of IFRS, existence of a CG Charter, and presentation of the annual report on the company website as the only three attributes out of our 106 attribute T&D index. As of 2003, all these three attributes were voluntary and costly steps taken by the sample firms and as such indicate a strong commitment to transparency and full disclosure on the part of our sample firms. Observing the high correlation between the two indices, we repeat our tests of the relationship between firm performance and T&D scores by using this new CBD index. The results support the previous studies that use factor analysis to come up with only a few significant variables rather than using an index with many heterogeneous attributes.

The study has several contributions. It is the first study that investigates the relationship between T&D and financial performance in the ISE. Second, the evidence provided will serve as a guideline to managers and for local and international regulators. Third, to our knowledge, this is the first study that examines the effect of voluntary IFRS adoption in this context. Fourth, for the first time, we create a parsimonious Commitment to Better Disclosure Score (CBDS) for each company in our sample based on only the above mentioned three voluntary disclosure items. Finally, T&D studies carried out in emerging markets with different legal origins, political, regulatory and cultural traditions, and different types of agency conflicts will also provide an input to regulatory reforms and serve as out-of-sample tests for the robustness of the results obtained in developed economies. Undoubtedly, the results will yield interesting conclusions both at the individual company and country level and should be of interest to researchers, practitioners, market participants and regulators. The remaining part of the paper is organized as follows: Section two discusses prior research and motivates the study. In section three, we generate our model of the CG/T&D framework and its relationship to the local and global economy through firm performance. We also develop our hypotheses in this section. The sample, data requirements and
methods of analysis employed in the study are described in Section four. The results are presented in section five and section six concludes and presents some ideas for future research.

II. Prior Research and Motivation

In this section we review the important firm-level research that investigates the relationship between CG, and more specifically T&D, and firm performance. We also discuss the specific political, economic, regulatory impediments to T&D quality in Turkey that have motivated this research.

II.1 Prior research and motivation

This paper is closely related to a large body of accounting and finance literature on the demand and incentives for regulated and voluntary disclosure. Motivated by the theoretical work on mandatory disclosure (Watts and Zimmerman, 1986; Beaver, 1998) and discretionary disclosure (Verrechia, 1983; Darrough and Stoughton, 1990; and Feltham and Xie, 1994), researchers have focused on the effect of corporate disclosure quality on the cost of capital, security prices, and other firm specific variables. More specifically, our research is directly related to the relationship between CG mechanisms, T&D in particular, and firm performance. Brown and Caylor (2004) relate Gov-Score, a composite measure of 52 factors encompassing eight governance categories, to five measures of performance using Compustat and Crisp data. They find that better governed firms are more profitable, more valuable, less risky, less volatile, and pay out more cash to their shareholders. Bai et al. (2004), among others, have shown that the findings are not confined to developed countries. They observe a positive relation between good CG proxies and market valuation in China.

Although similar to our study, these studies are related to the quality of CG practices rather than the accuracy, completeness, and transparency of their disclosure. Botosan and Plumlee (2000) use the disclosure rankings produced by analysts (AIMR) and document that cost of equity capital is decreasing in level of annual report disclosure while it increases (is not related to) with more timely quarterly reports (with level of investor relations). They also suggest that aggregating
different types of disclosure results in a loss of information. Callahan and Smith (2004) find that their index on disclosure practices in the management’s discussion and analysis section of the annual report predicts future firm performance and market value.

Here we particularly review the studies that use the S&P’s T&D database because our study measures the T&D practices of largest ISE firms using a slightly modified version of the 98 attributes and the methodology developed by S&P to rate disclosure practices in various countries around the globe. Apart from the country reports published by S&P at the conclusion of each of their surveys on T&D practices in many emerging and developed markets starting in 2001, the first set of papers using their T&D score database were written by S&P researchers themselves. Patel and Dallas (2002) document significant correlations between T&D rankings of US firms and determinants of expected returns: market risk, size, and the price-to-book ratio. Patel et al. (2002) relate the T&D scores and firm value in 19 emerging markets (354 firms followed by the S&P/IFCI Index) and it is the only study that includes Turkey in their sample. They find that, on average, firms with higher T&D scores have higher price-to-book ratios. However, their study suffers from small sample sizes. Their sample consists of less than 25 firms for 14 of the 19 countries they cover. They document that the average T&D score of the 12 Turkish companies they studied is 34%, the 7th lowest in their sample. Another study that utilizes the T&D database of S&P on S&P 500 firms is Cheng et al. (2003). They find that stronger T&D reduces the firm’s market beta and leads to increased risk-adjusted abnormal returns and earnings response coefficients around the release of the S&P scores. They also find that the three different T&D dimensions have different effects on these market metrics. Finally, Khanna, Palepu and Srinivasan (2004) use the S&P scores in 24 Asia Pacific and European countries to unveil a positive relationship with cross-border economic interactions after controlling for firm size, performance, and legal origin.

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6 They find a negative relation between T&D scores and market value in Brazil, Poland, and South Africa.
7 The only other study on the performance effect of CG on Turkish firms is Kula (2005). He examines the impact of the role, structure, and process of the boards and finds that effectiveness, info access, performance evaluation, and resource acquisition roles of the board were associated with performance.
In the first phase of our T&D study, we had found higher scores, 7 out of 10, but very little variation in the second category of T&D, financial information disclosure. We had conjectured that this is due to companies disclosing only what is required by the Turkish Uniform Accounting Standards and the Capital Markets Board, and not going beyond current requirements—voluntary disclosure was found to be limited. The one exception to this is the voluntary adoption of IFRS and its several separate standards such as the use of inflation accounting or consolidations by about two thirds of our sample firms prior to 2005, the effective date of the adoption of IFRS in the EU, Russia, and in Turkey. Thus, it is interesting to see if the voluntary disclosure of these more conservative and credible standards are associated with better disclosure in general. In this study, we consider voluntary adoption of IFRS a strong but costly commitment to better disclosure. The economic contracting theory we draw on in this paper suggests that this should decrease the info asymmetry component of the firm’s cost of capital. However, very few studies have looked into the disclosure quality impact of the voluntary or mandatory adoption of IFRS. Two of these studies are country-level studies. Jorgensen and Sabino (2002) explore the relationship between the legal origins, level of development, information availability in 57 countries’ and the CIFAR index of disclosure and find that the IAS/IFRS requirement in a country is not related to disclosure variables. Hope et al. (2005) report that countries with weaker investor protection mechanisms and that provide better access to their local capital markets are more likely to adopt IFRS, consistent with bonding theory. Firm-specific studies have been rare. The only one that the authors are aware of is Leuz and Verrecchia, 1999 which found that German firms that switched to IFRS had lower bid-ask spreads and higher transaction volume, indicating a decline in cost of capital.

We use a customized set of disclosure attributes based on the S&P attributes, and a larger sample of 52 ISE firms that constitutes---% of the market capitalization. We employ a set of proxies for financial performance: ROA, ROE, market-to-book ratio and excess returns. We also use the non-aggregated scores for S&P’s three different categories of disclosure as suggested by

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8 A recent (4/12/2005) report of the Institute of International Finance (IIF) comments on the recent CG improvements in Turkey and mention the adoption of IFRS, inflation accounting and consolidated reporting as some of these areas.
Botosan and Plumlee (2000) and Cheng et al. (2003). Furthermore, we measure the impact of voluntary IFRS adoption and a parsimonious 3 attribute T&D index on the firm’s disclosure level and on the link between disclosure and performance.

II.2. The poor regulatory framework and the CG and T&D culture in Turkey

The first legislation concerning a commercial law was enacted for the first time in the Ottoman Empire in 1850 and was based on the French Code of Commerce of 1807. Under the legal reforms of 1926, this was replaced by a system based on Swiss Civil Code and Code of Obligations, the Italian Penal Code, and the German Code of Penal Procedure. Neither these, nor the present Turkish Code of Commerce dated back to 1957 are based on the principles of accounting and auditing and hence do not regulate financial reporting. They highlight the strength of the civil law tradition, weak enforcement of rules and the lack of a disclosure philosophy in the Turkish business culture, expected to lead to poor corporate governance and T&D practices. This seems to be an important factor in the historic difficulty with which Turkish firms have attracted external capital. Table 1 reconstructed from tables 2 and 8 in La Porta et al. (1997) places Turkey in the French origin legal systems which has had the lowest access to external capital markets and the weakest rule of law and investor rights protection indices among the 3 other civil law and the common law traditions. The table also depicts that even though GDP growth is stronger in Turkey than in all legal origins, access to external capital and measures of investor rights are even lower than the average of the French origin countries. Hence, while the fast growth rate underscores the need to tap external debt and equity capital in the Turkish economy, the table highlights the difficulty of accessing external capital when enforcement of the rule of law and protection of investors rights are weak. The solution to this dilemma through observance of good CG and T&D practices has been one of the motivations for this study.

(Place Table 1 about here)

Recent studies have observed that the weak CG and disclosure tradition in Turkey have continued until very recently. Ararat and Ugur (2003) describe Turkey’s civil law tradition and its inefficient and inconsistent regulatory framework and the ensuing paucity of the rule of law and
enforcement; the concentrated and pyramidal ownership structure dominated by families; the inconsistent and opaque accounting and tax regulations and the investor misinformation caused by the absence of inflation and consolidation accounting in a highly inflationary economy and where most of the traded companies are holding companies. As a result of this infrastructure, corporate governance problems are concentrated around weak minority shareholders’ and creditors’ rights, inconsistent and opaque disclosure policies and lack of voluntary disclosure, and convergence (inseparability) of ownership and management. These create an environment that fosters corruption, share dilution, asset stripping, tunneling, insider trading, and market manipulation.

Mc Kinsey has carried out a global survey in which 201 institutional investors located in 31 countries were asked to identify their CG priorities in 2002. Table 2 reports the weights given by global institutional investors to the top seven CG factors and indicates that accounting disclosure, shareholder equality and property rights are the most important criteria that apply to all countries. The results also depicts that timely, broad, understandable accounting disclosure, safeguarding of shareholders’ rights, and market regulation and infrastructure are the most important CG priorities for investment in Turkish companies.

We expect that the aforementioned bleak picture will change in the near future as a result of the reforms in the financial reporting and disclosure environment (described in Appendix 1) on the one hand, and the recent developments in Turkish politics, economic reforms, new regulation, and effective enforcement, on the other. Some of these developments have been the accelerated privatization, the implementation of pension reforms and creation of private pension funds, the monitoring of banks by BRSA, the CMB’s commitment to the improvement of the regulatory framework, the provision of incentives for better governed companies, the recent Corporate Governance Code developed by the CMB in the areas of disclosure, minority rights, board structure and management oversight. Of course, Turkey’s progress in achieving full membership of the EU will provide the strongest inertia in establishing the “rule of law” and ethical conduct in business transactions and better corporate governance practices.
III. Our Model and Hypotheses:

In our simple model in Figure 1, we envision good CG/T&D practices as mechanisms of checks and balances that have evolved to mitigate the costly agency problems that arise due to separation of ownership and management in public firms. In terms of T&D, the lower the reliability, timeliness, relevance and understandability of disclosure, the higher the uncertainty of its returns to capital suppliers and the stronger the signal that there is hidden bad news about the company. This in turn, would increase the cost of capital, reduce the demand for the company’s shares and thus reduce firm value. The CG/T&D mechanisms are shaped by both the legal traditions and regulations in the firm’s country of domicile, and by international laws and the global economy that not only impose new rules and best-practices on the firm --such as the IFRS-- but also create opportunities in the form of positive NPV investments and access to foreign capital. Since undertaking positive NPV projects depends on the firm’s ability to tap the equity and debt markets, and since capital will flow to the safest and highest return investments, firms have the incentives to minimize their perceived risk and maximize the return to their capital suppliers by putting in place optimal CG mechanisms. The ability to attract funds and take advantage of positive NPV projects is then bound to increase firm performance and the returns to capital, in the absence of appropriation by insiders which are again mitigated through good CG/T&D practices. So in our model, best CG/T&D practices are used by firms not only to signal their quality, but also as monitoring tools to maintain their good quality.

In a prior study (Aksu and Kosedag, 2005), we have explored the left side of the model, i.e., the relationship between potential agency problems and the T&D scores in the ISE. In this study, we investigate the right hand side of this model: whether the TDS are related to financial performance and whether the relationship is enhanced by the adoption of an international best-practice, the international financial reporting standards (IFRS). Accordingly, we have the following testable hypotheses, presented in the alternative form:
**H1:** Firms with higher T&D scores are expected to have higher accounting performance (as proxied by return on equity (ROE) and return on assets (ROA) or vice versa.

**H2:** Firms with higher T&D scores are expected to have higher excess returns (market adjusted) after controlling for risk factors commonly considered in asset pricing or vice versa.

**H3:** Firms that have voluntarily committed themselves to a higher quality governance and disclosure in the future by early adopting the IFRS are expected to have higher T&D scores.

**H4:** Since these firms are expected to present more transparent and value relevant information in their financial statements, we also expect to observe a more significant link between their T&D scores and financial performance.

**IV. Sample, Data Requirements and Methods of Analysis**

In this study, we use a database of T&D scores in three categories for 52 large (based on market capitalization) and liquid (based on trade volume) Turkish firms, previously created by S&P and Sabanci University, CG Forum researchers. The creation of this database of T&D scores is described in detail in S&P’s publication RatingsDirect dated June, 6, 2005 and in Aksu and Kosedag, 2005 which also compares the T&D scores of Turkish public firms with those of firms in other countries where the same survey had been conducted by S&P and also explores the firm-specific determinants of the T&D scores. Our sample in this study consists of the same 52 corporations traded in the ISE because we are investigating the relationship between these firm’s T&D scores and their performance and the effect of IFRS adoption on their scores and the relationship with performance.

We conduct a cross-sectional analysis of the relationship between the objectively evaluated mandatory and discretionary information disclosed in company annual reports and websites, as explained above, and accounting and market-based measures of firm performance. Following an extensive accounting literature on corporate disclosure quality, we use our T&D rankings to represent the market participants’ assessments of the completeness, clarity, transparency, and
reliability of firms' disclosure policies. We use average of the monthly returns in excess of the market return (Rit-Rmt), return on assets (ROA), return on equity (ROE), market-to-book ratio (MVE/BVE) as our accounting and market-based measures of performance. The financial statement data, the actual monthly returns and the market returns are obtained from the ISE electronic database.

Several methods of analysis are used to estimate the effect of accounting and financial transparency on firm performance. First, we sort our sample firms into 4 quartiles of TDS in descending order and compare the performance measures in the two extreme quartiles, using difference of means tests. Second, we employ regression analysis to determine the relationship between our firm specific accounting performance measures and the T&D scores. Next, we compare the TDS of the firms that have and that have not voluntarily adopted IFRS and then go on to compare the effect of IFRS adoption on the relation between TDS and performance measures by adding IFRS adoption as a dummy variable to our regressions. Finally, alongside IFRS adoption, we select three other relevant attributes out of 106 attributes used in our original T&D rating survey to come up with a new parsimonious Commitment to Better Disclosure (CBD) Index which we use to rescore our sample firms. We analyze the similarity between the two T&D indices and examine if the relationship of TD scores with performance is stronger when this parsimonious index is used.

V. Results

V.1. Descriptive Statistics:

Table 3 presents the descriptive statistics of our sample and their T&D scores. The average 2003 overall TDS score and average scores in the three T&D categories by type of firm (family vs. non-family) indicates that the transparency and disclosure scores of ISE companies are not impressive, especially in terms of the board and management structure and processes. The highest scores are obtained in the category of financial transparency and information. This is not surprising given that this category mostly questions compliance with mandatory IFRS and Turkish GAAP disclosures for public firms. In general, Turkish companies have a pattern similar to Emerging Asia
but have higher Financial Disclosure, but lower Board & Mgmt. scores. In comparison to European countries’ with an overall T&D score of 6/10, Turkey has a somewhat lower average score 5/10 which is comparable to many civil law tradition European countries (Aksu and Kosedag, 2005).

Panel B reports the mean, median, min. and max. values of firm-specific agency, risk and performance variables likely to be impacted by TDS. Turkish companies had slightly negative returns in 2003 due to the continuation of the economic slump of 2002; their return on assets and return on equity ratios have been moderate about 5-10% even though the mean ROE is quite high at 17%; and their mean leverage is about 50%.

(Place Table 3 about here)

V.2. Evidence on the relation between stock returns, accounting profitability and T& D scores:

We first perform univariate tests of the mean performance difference between the extreme quartiles of lowest and highest TDS firms. We find that of the two accounting profitability ratio, only ROE, the composite accounting measure of performance favored by analysts and investors, and the leverage ratio that measures the amount of debt in the capital structure of the firm are significantly higher in the quartile with the highest overall T&D scores (TDS) and in the quartile with the highest FinDisc scores compared to firms with lowest TDS. The higher scores in high leverage firms can be explained by closer monitoring by creditors in such firms. Debt contracts are based on accounting numbers disclosed in the financial statements--such as dividends paid, financial ratios, long-term and current debt, cash flow from operations, financial ratios --, the quality of which is measured by FinDisc scores. The higher profitability in high T&D score firms confirms our main hypothesis of the positive relationship between T&D and performance.

(Place Table 4 about here)

When we measure financial performance as excess returns, we are not able to find a significant difference in the excess returns of firms in the two extreme quartiles based on any category of TDS in 2002. Neither do we find significant coefficients when we regress excess returns on the T&D scores and control variables of size and book-to-market ratio which have been proven
to explain excess returns both in developed and many emerging markets (Fama and French, 1993
and Fama and French 1998), including Turkey (Aksu and Onder, 2003). However, we observe a
significant difference in the excess returns to the two extreme portfolios of highest and lowest
overall scores, FinDisc scores and Board&Mgmt scores in 2003. We draw three conclusions from
the results. First, there is a positive relationship between T&D and both accounting and market
measures of performance. The “no effect” result for 2002 is plausible since we do not have the
2002 TDS scores available and it is not likely that 2003 TDS will impact the lagging year
performance results. Second, the hypothesized effect seems to be contemporaneous --the 2003 TD
scores are reflected in 2003 financial performance – even though we have not checked if TDS have
a predictive effect on next years performance as the 2004 financial statements were not available to
us when we were carrying out the analysis. Stronger results in 2003 may also be due to the
heightened interest in disclosure quality as a result of the accounting scandals all over the world and
the discussions on improved corporate governance and on convergence to IFRS. Third, it is hard to
entangle the direction of causality between TDS, performance and leverage with the current
research design used that does not take care of the endogeneity between the variables of interest.
These three variables may be determined simultaneously and one needs to use a different research
design such as simultaneous equations to entangle the effects of these endogenous variables. There
is a proliferation of econometric research that tries to take this endogeneity into account (see for ex.
Gaud, 2005 that uses a simultaneous equations system to account for the endogenous relationship
between ownership structure and firm performance and Larcker and Rusticus, 2005 that use the
instrumental variables approach to disentangle the relationship between corporate disclosure and
cost of capital). Given the broad conclusion of the latter authors that “…the commonly used
instruments are unlikely to provide estimates that are preferable to OLS”, we have decided to leave
this statistical improvement to future research.

The observed difference in financial performance may also be explained by systematic
risk differences between the high and low TD score portfolios which would lead to a Type I errors
in our tests. To rule out this possibility, we also test whether the high TDS subsample has a higher
average beta than the low TDS one. Average beta of each subsample is calculated by averaging the firm-specific coefficients obtained from regressions of actual monthly returns against market returns for the same months for each firm. The results in Panel B indicate that the systematic risk in the two subsamples are not statistically different; hence we are, ex-post, controlling for differences in market risk in the two subsamples.

**V.2. Evidence on the relation between voluntary IFRS adoption, T& D scores, and performance:**

In line with Turkey’s accession to the EU and the EU Directive mandating adoption of IFRS by the EU countries by 2005, the Capital Markets Board of Turkey and the Turkish Accounting Standards Board have mandated the use of IFRS for public companies, to be effective, for the first time, in the financial statements prepared for the fiscal periods starting on Jan. 1, 2005. However, some publicly traded companies have already started using the IFRS voluntarily since 2002. In Table 5, we use the early voluntary adoption of IFRS (65% of sample firms) in 2003, as a signal of and commitment to better T&D, and we measure its effect on the T&D scores of our sample firms and on the relationship between their T&D scores and performance.

(Table 5 about here)

The table depicts the descriptive statistics on the effect of IFRS adoption on the overall T&D score and the scores in its three categories. As we hypothesized, OwnStr, FinDisc, and the overall T&D scores are significantly higher in the subsample that have voluntarily adopted IFRS in their financial statements. There is no significant difference in only the BrdMgmt scores of the two subsamples, perhaps because almost all of our sample firms have very low BrdMgmt scores as was reported in Panel A of Table 4.

We next run our regressions of performance measures on the T&D scores the results of which are presented in Table 6. This time, we add a dummy variable for IFRS adoption, alongside other control variables which have been found to explain the variation in TD Scores of ISE firms in earlier research (Aksu and Kosedag, 2005). As reported in Table 6, we find that the coefficient for IFRS dummy is significant and that the relationship between TDS and performance is enhanced
when IFRS dummy is included in the model. Specifically, we find that performance, especially market and risk adjusted excess returns explain the variation in TDScores \( (p-value=0.10) \); IFRS adoption explains the variation in TDScores \( (p-value=0.025) \); and IFRS adoption has a positive impact on the relationship between performance and TDS in that \( R^2 \) increases from 22% to 31% and the coefficient of our performance measures becomes more significant.

(Table 6 around here)

**V.3. Commitment to Better Disclosure Index as a substitute to T&D index and its relationship with performance**

Finally, we create a parsimonious Commitment to Better Disclosure Score (CBDS) for each company in our sample based on the following voluntary disclosure items. We use IFRS adoption as a commitment to more comprehensive, reliable, consistent, and comparable financial disclosure; adoption of a CG charter as a commitment to higher level of transparency in the structures and processes of all organizational units entrusted with protection of shareholders’ and other stakeholders’ rights; and finally, the presence of the annual report on the company web site as a commitment to have all this firm-specific information easily accessible to all the stakeholders.

In Table 7, Panel A, we first provide descriptive statistics on the frequency of sample firms adopting IFRS in its entirety (65%) and using only inflation accounting (89%) and consolidated financial statements for group firms (75%). The latter two are very important and relevant accounting standards for Turkey and for our sample firms, in particular. First, until recently, Turkish economy has been experiencing a very high inflation rate in the last two decades. Second, although most of our sample firms are group firms (41), they have never consolidated the subsidiaries financial statements with that of the parent because the Turkish accounting standards did not require consolidation until IFRS was mandated for public firms in 2005. In Panel A, we also provide the frequency of sample firms that disclose the existence of a CG charter, whether it is presented in the annual report, and whether the annual report itself is included on the company web site since these additional important disclosures also signal a strong commitment to better disclosure.

(Please place table 7 around here)
In Panels B and C, we investigate the substitutability between our 106 attribute overall T&D index and our 3-attribute simple CBD Index by comparing their means and by looking at the correlations between the CBD scores (CBDS) and our categories of TD (TDS) scores. We find that there is a significant correlation between FinDisc scores and CBDS (79%), and hence a high correlation with the overall TDS (55%). We then measure the impact of IFRS adoption, which is a component of our CBD index, on the CBDS. As expected, the firms that use IFRS in the preparation of their financial statements have a mean CBDS of 84.62% while those that follow only local accounting standards have a statistically different mean score of 26.83% (see Table 7, Panel D).

**VI. Summary and Concluding Remarks**

This paper examines the relationship between the financial performance of a sample of large capitalization and liquid ISE firms and their T&D scores, as measured by an objective examination of their 2003 annual reports and company web sites for the inclusion of 106 T&D attributes in three subcategories. We find results in the hypothesized direction in our extreme T&D score quartiles. The companies with higher scores, especially in the category of board and management structures, have higher returns and accounting measures of profitability. We also find that the firms that also use IFRS in the preparation of financial statements have higher T&D scores and commitment to better disclosure (CBD) scores. As such, IFRS adoption seems to be a credible signal of commitment to transparency and more accurate disclosure. Finally, we find that there is a stronger relationship between our parsimonious index of CBD scores and performance and a dummy variable for early IFRS adoption improves the weak relationship between TDS and performance measures.

There are various limitations of the study. Sample size is too small, especially in our quartiles. As we consider the relationship between good TD practices and performance, we have totally neglected the endogeneity problem. We also have low $R^2$ in the regressions of TDS on performance measures and IFRS dummy, probably due to omitted variables.

For future research, we are planning to repeat the study on ISE-100 firms in 2004 to increase sample sizes and to explore the effect of Capital Market Board’s CG Principles, promulgated on a
comply or explain basis, on the TD Scores of ISE firms. We will also compare our results with those of other EU or accession countries that have recently adopted the IFRS.
References

http://ssrn.com/abstract=250919


Beaver W., 1998.


Organization for Economic Cooperation and Development (OECD), 1999


Figure 1

FIRM
Nexus of contracts between stakeholders

CG-T&D mechanisms

FIRM
Accounting & market performance

COUNTRY
Local Economy

GLOBAL
Economy

Conflicts of interest
Asymmetric info
TDScores
IFRS Adoption
ROE
Excess Returns
Laws & regulation
Opportunities
Threats
Table 1
Access to external financing and measures of investor protection in Turkey and by legal origin

Panel A: Aggregate mean values for the Turkish economy and stock market and comparison with different legal origins

<table>
<thead>
<tr>
<th>Country</th>
<th>External Cap / GNP</th>
<th>Domestic Firms / Pop</th>
<th>IPOs / Pop</th>
<th>Debt / GNP</th>
<th>GDP growth</th>
<th>Log GNP</th>
<th>Rule of Law</th>
<th>Antidirector Rights</th>
<th>One-Share One-Vote</th>
<th>Creditor Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>0.18</td>
<td>2.93</td>
<td>0.05</td>
<td>0.15</td>
<td>5.05</td>
<td>12.08</td>
<td>5.18</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>French Origin Average</td>
<td>0.21</td>
<td>10.00</td>
<td>0.19</td>
<td>0.45</td>
<td>3.18</td>
<td>11.55</td>
<td>6.05</td>
<td>1.76</td>
<td>0.24</td>
<td>1.58</td>
</tr>
</tbody>
</table>

Panel B: Tests of Means (t-statistics)

<table>
<thead>
<tr>
<th>Test</th>
<th>Common vs Civil Law</th>
<th>English vs French Origin</th>
<th>French vs German Origin</th>
<th>French vs Scand. Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>3.12</td>
<td>3.29</td>
<td>-2.38</td>
<td>-0.91</td>
</tr>
<tr>
<td>p-value</td>
<td>0.002</td>
<td>0.002</td>
<td>0.016</td>
<td>0.368</td>
</tr>
</tbody>
</table>

Panel C: External funding at the firm level – median values for Turkish and different legal origin firms on the Worldscope database

<table>
<thead>
<tr>
<th>Firm Type</th>
<th>Market Cap / Sales</th>
<th>Market Cap / Cash-Flow</th>
<th>Debt / Sales</th>
<th>Debt / Cash-Flow</th>
<th>WorldScope Firms / Domestic Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>0.46</td>
<td>2.87</td>
<td>0.11</td>
<td>0.50</td>
<td>0.12</td>
</tr>
<tr>
<td>French Origin Average</td>
<td>0.51</td>
<td>3.69</td>
<td>0.27</td>
<td>1.82</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Panel D: Tests of means (t-statistics)

<table>
<thead>
<tr>
<th>Test</th>
<th>Common vs. Civil Law</th>
<th>England vs. France</th>
<th>France vs. Germany</th>
<th>France vs. Scandinavia</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>1.04</td>
<td>1.10</td>
<td>-0.42</td>
<td>0.54</td>
</tr>
<tr>
<td>p-value</td>
<td>0.31</td>
<td>0.30</td>
<td>0.68</td>
<td>0.57</td>
</tr>
</tbody>
</table>
Table 2

The top seven CG factors chosen by institutional investors in 30 countries in 2002

<table>
<thead>
<tr>
<th>CG Factors</th>
<th>Turkey</th>
<th>All 30 countries surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting disclosure</td>
<td>73%</td>
<td>52%</td>
</tr>
<tr>
<td>Shareholder equality</td>
<td>64%</td>
<td>47%</td>
</tr>
<tr>
<td>Market regulation and infrastructure</td>
<td>55%</td>
<td>43%</td>
</tr>
<tr>
<td>Takeover markets</td>
<td>45%</td>
<td>23%</td>
</tr>
<tr>
<td>Property rights</td>
<td>45%</td>
<td>46%</td>
</tr>
<tr>
<td>Credit information</td>
<td>36%</td>
<td>29%</td>
</tr>
<tr>
<td>Board independence</td>
<td>27%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Table 3
Descriptive Statistics

Panel A: T&D Scores and the return, profitability and leverage for 52 ISE firms in 2003

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>T&amp;D Scores:<em>a</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDS-Overall</td>
<td>52</td>
<td>16.19</td>
<td>71.43</td>
<td>41.11</td>
<td>11.06</td>
</tr>
<tr>
<td>TDS-OwnershipStr.</td>
<td>52</td>
<td>3.13</td>
<td>88.00</td>
<td>38.57</td>
<td>18.26</td>
</tr>
<tr>
<td>TDS-Fin.Disclosure</td>
<td>52</td>
<td>19.44</td>
<td>86.11</td>
<td>64.21</td>
<td>14.25</td>
</tr>
<tr>
<td>TDS-Board&amp;Mgmt</td>
<td>52</td>
<td>2.70</td>
<td>54.05</td>
<td>20.42</td>
<td>12.18</td>
</tr>
</tbody>
</table>

Panel B: Excess returns, profitability, and leverage:

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExRet'04</td>
<td>52</td>
<td>-19,70</td>
<td>64,52</td>
<td>0.81</td>
<td>10.05</td>
</tr>
<tr>
<td>ExRet'03</td>
<td>52</td>
<td>-6.18</td>
<td>17.90</td>
<td>-0.17</td>
<td>3.84</td>
</tr>
<tr>
<td>ExRet'02</td>
<td>52</td>
<td>-4.75</td>
<td>12.67</td>
<td>2.02</td>
<td>3.20</td>
</tr>
<tr>
<td>ExRet-AllYrs.</td>
<td>52</td>
<td>-5.69</td>
<td>14.43</td>
<td>0.90</td>
<td>3.02</td>
</tr>
<tr>
<td>ROA</td>
<td>50</td>
<td>-0.17</td>
<td>0.24</td>
<td>0.065</td>
<td>0.07</td>
</tr>
<tr>
<td>ROE</td>
<td>50</td>
<td>-0.332</td>
<td>1.89</td>
<td>0.175</td>
<td>0.274</td>
</tr>
<tr>
<td>Market-to-book (MTB)</td>
<td>47</td>
<td>0.009</td>
<td>18.10</td>
<td>1.96</td>
<td>2.76</td>
</tr>
<tr>
<td>Debt ratio (DTA)</td>
<td>50</td>
<td>0.02</td>
<td>0.89</td>
<td>0.51</td>
<td>0.24</td>
</tr>
</tbody>
</table>

*a* The T&D Scores are measured based on the inclusion of 106 T&D attributes in three sub-categories in the 2003 hardcopy annual reports and company web sites.

*b* ROA = Net income/Total Assets for the year t-1.
ROE = Net Income/Owner’s Equity for the year t-1
DTA = Total Liabilities/Total Assets as of Dec. 31, 2002.
ExRet = Excess returns are calculated as market adjusted average monthly returns for the year 2003 and for the average of 2002, 2003, and 2004 excess returns.
Table 4
Mean Differences in Performance Measures Based on TD Scores (Hi-Lo)

The TD Scores are measured based on the inclusion of 106 T&D attributes in three sub-categories in the 2003 annual reports and company web sites of 52 ISE firms.

<table>
<thead>
<tr>
<th>TDS Categories</th>
<th>Overall</th>
<th>OwnershipStr</th>
<th>FinDisclosure</th>
<th>Board&amp;Mgmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.007</td>
<td>0.009</td>
<td>0.031</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td>(0.759)</td>
<td>(0.692)</td>
<td>(0.270)</td>
<td>(0.591)</td>
</tr>
<tr>
<td>ROE&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.069</td>
<td>0.049</td>
<td>0.096</td>
<td>0.054</td>
</tr>
<tr>
<td></td>
<td>(0.127)</td>
<td>(0.278)</td>
<td>(0.085)</td>
<td>(0.352)</td>
</tr>
<tr>
<td>DTA&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.174</td>
<td>0.142</td>
<td>0.132</td>
<td>0.118</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.153)</td>
<td>(0.093)</td>
<td>(0.229)</td>
</tr>
</tbody>
</table>

**Panel B: Differences (p-values) in Market Adjusted Excess Returns and Betas in the Two Extreme T&D Score Quartiles**

<table>
<thead>
<tr>
<th>TDS Categories</th>
<th>Overall</th>
<th>OwnershipStr</th>
<th>FinDisclosure</th>
<th>Board&amp;Mgmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExRet&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AllYrs.</td>
<td>1.879</td>
<td>0.562</td>
<td>0.163</td>
<td>1.265</td>
</tr>
<tr>
<td></td>
<td>(0.028)</td>
<td>(0.551)</td>
<td>(0.911)</td>
<td>(0.054)</td>
</tr>
<tr>
<td>ExRet ‘03</td>
<td>2.199</td>
<td>0.201</td>
<td>2.528</td>
<td>2.329</td>
</tr>
<tr>
<td></td>
<td>(0.080)</td>
<td>(0.877)</td>
<td>(0.034)</td>
<td>(0.055)</td>
</tr>
<tr>
<td>Beta’03&lt;sup&gt;d&lt;/sup&gt;</td>
<td>0.193</td>
<td>0.228</td>
<td>-0.096</td>
<td>0.274</td>
</tr>
<tr>
<td></td>
<td>(0.184)</td>
<td>(0.181)</td>
<td>(0.626)</td>
<td>(0.090)</td>
</tr>
</tbody>
</table>

<sup>a</sup> ROA = Net income/Total Assets for the year t-1.
ROE = Net Income/Owner’s Equity for the year t-1.
<sup>b</sup> DTA = Total Liabilities/Total Assets as of Dec. 31, 2002.
<sup>c</sup> ExRet = Excess returns are calculated as market adjusted average monthly returns for the year 2003 and for the average of 2002, 2003, and 2004 excess returns.
<sup>d</sup> Beta (systematic risk) is measured as the average of firm specific coefficients from regressions of actual monthly returns on monthly returns to the market portfolio (ISE-100) for years 2002 and 2003.
Table 5
The Effect of Voluntary IFRS Adoption on T&D Scores

Descriptive statistics (*std.dev in parantheses*) for overall TD Scores and the scores in three TD subcategories in firms that voluntarily comply with IFRS and those that do not

<table>
<thead>
<tr>
<th></th>
<th>IFRS (n = 34)</th>
<th>No IFRS (n=17)</th>
<th>Diff.</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean (std.dev)</td>
<td>mean (std.dev)</td>
<td>min</td>
<td>max</td>
</tr>
<tr>
<td>OwnStr Score</td>
<td>40.34 (18.79)</td>
<td>35.23 (17.23)</td>
<td>9.38</td>
<td>88</td>
</tr>
<tr>
<td>FinDisc Score</td>
<td>71.36 (8.10)</td>
<td>50.69 (13.64)</td>
<td>57.14</td>
<td>86.11</td>
</tr>
<tr>
<td>BrdMgt Score</td>
<td>21.19 (13.34)</td>
<td>18.98 (9.80)</td>
<td>2.7</td>
<td>54.05</td>
</tr>
<tr>
<td>Overall TD Score</td>
<td>44.11 (10.66)</td>
<td>35.44 (9.71)</td>
<td>26.21</td>
<td>71.43</td>
</tr>
</tbody>
</table>
Table 6
Cross-sectional regressions of T&D Scores on performance measures and voluntary IFRS adoption.

The regression coefficients, their p-values and the $R^2$ of the regressions are presented for each model specification. LnMVE (natural log of market capitalization) and TDS scores are measured as of Dec. 31, 2003 (year $t$) while the MTB (market value of equity/book-value of equity) and ROE (Net income/book equity) ratios that contain balance sheet data are measured as of Dec. 31, 2002 (year $t-1$). AvgExRet (market-adjusted excess returns) = actual monthly returns – ISE-100 monthly returns. IFRS dummy acquires a value of 1 if the firm has voluntarily adopted IFRS in 2003 financial statements, 0 otherwise.

Panel A: $TDS = \alpha + \beta_1 \text{ROE} + \beta_2 \ln\text{MVE} + \beta_3 \text{MTB} + \beta_4 \text{IFRS}_{\text{dummy}} + \varepsilon$

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>p-values</th>
<th>Coefficients</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>w/out IFRS</td>
<td>with IFRS</td>
<td>w/out IFRS</td>
<td>with IFRS</td>
</tr>
<tr>
<td>Intercept</td>
<td>-44.888</td>
<td>-36.263</td>
<td>0.101</td>
<td>0.167</td>
</tr>
<tr>
<td>ROE</td>
<td>6.389</td>
<td>7.160</td>
<td><strong>0.244</strong></td>
<td><strong>0.173</strong></td>
</tr>
<tr>
<td>lnMVE</td>
<td>4.150</td>
<td>3.475</td>
<td><strong>0.002</strong></td>
<td><strong>0.009</strong></td>
</tr>
<tr>
<td>MTB</td>
<td>-0.063</td>
<td>-0.033</td>
<td>0.205</td>
<td>0.490</td>
</tr>
<tr>
<td>IFRS$_{\text{dummy}}$</td>
<td><strong>7.416</strong></td>
<td></td>
<td><strong>0.023</strong></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td><strong>0.201</strong></td>
<td></td>
<td><strong>0.291</strong></td>
<td></td>
</tr>
</tbody>
</table>

Panel B: $TDS = \alpha + \beta_1 \text{AvgExRet} + \beta_2 \ln\text{MVE} + \beta_3 \text{MTB} + \beta_4 \text{IFRS}_{\text{dummy}} + \varepsilon$

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>p-values</th>
<th>Coefficients</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>w/out IFRS</td>
<td>with IFRS</td>
<td>w/out IFRS</td>
<td>with IFRS</td>
</tr>
<tr>
<td>Intercept</td>
<td>-48.847</td>
<td>-39.871</td>
<td>0.073</td>
<td>0.128</td>
</tr>
<tr>
<td>AvgExRet</td>
<td>1.148</td>
<td>1.158</td>
<td><strong>0.102</strong></td>
<td><strong>0.085</strong></td>
</tr>
<tr>
<td>lnMVE</td>
<td>4.263</td>
<td>3.585</td>
<td><strong>0.002</strong></td>
<td><strong>0.006</strong></td>
</tr>
<tr>
<td>MTB</td>
<td>-0.138</td>
<td>-0.110</td>
<td>0.039</td>
<td>0.087</td>
</tr>
<tr>
<td>IFRS$_{\text{dummy}}$</td>
<td><strong>7.175</strong></td>
<td></td>
<td><strong>0.025</strong></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td><strong>0.224</strong></td>
<td></td>
<td><strong>0.309</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Table 7

**Commitment to Better Transparency & Disclosure Scores (CTDS)**

Panel A: Proportion of sample firms that comply with IFRS, that have a CG charter, and annual reports on the company web sites. Panels B and C: Comparison of Overall and 3 sub-categories of TD Scores and CTD Scores. Panel D: the effect of IFRS adoption on CTDS.

#### Panel A: Sample proportions for CTD

<table>
<thead>
<tr>
<th></th>
<th>IFRS</th>
<th>Only Inf Acc</th>
<th>Only Consolid.</th>
<th>CG Charter Existence</th>
<th>CG Charter Reproduction</th>
<th>Web report</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of sample</td>
<td>0.65</td>
<td>0.89</td>
<td>0.75</td>
<td>0.6</td>
<td>0.25</td>
<td>0.71</td>
</tr>
</tbody>
</table>

#### Panel B: Comparison of Overall CTD and TD Scores

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>std.dev</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall CTDS</td>
<td>64.25</td>
<td>30.01</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Overall TDS</td>
<td>41.11</td>
<td>11.06</td>
<td>16.19</td>
<td>71.43</td>
</tr>
</tbody>
</table>

#### Panel C: Correlation Coefficients (between TDS and CTDS)

<table>
<thead>
<tr>
<th></th>
<th>Overall TDS</th>
<th>OwnStr TDS</th>
<th>FinDisc TDS</th>
<th>BrdMgt TDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall CTDS</td>
<td>0.5467</td>
<td>0.2546</td>
<td>0.7862</td>
<td>0.2178</td>
</tr>
</tbody>
</table>

#### Panel D: Effect of IFRS on CTD Scores

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>std.dev</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFRS (n = 34)</td>
<td>84.62</td>
<td>10.3</td>
<td>71</td>
<td>100</td>
</tr>
<tr>
<td>No IFRS (n = 17)</td>
<td>26.83</td>
<td>15.61</td>
<td>0</td>
<td>42.86</td>
</tr>
<tr>
<td>Difference</td>
<td>57.79</td>
<td>71</td>
<td></td>
<td>58.14</td>
</tr>
</tbody>
</table>
Table 8

Relationship between CBDS and Financial Performance

CBDS is measured as the scores of companies based on their adoption of IFRS and a CG Charter and having their annual reports on their web sites. Financial Performance (FinPerf) is proxied by return on equity (ROE) and average monthly stock returns in excess of the return to ISE-100 during the three years around the T&D ranking of firms (2002-2004). MVE is measured as the market capitalization and MTB as MVE/book-value of equity. The relationship is measured as a linear regression model specified as:

\[
\text{CBDS} = \alpha + \beta_1 \text{FinPerf} + \beta_2 \ln \text{MVE} + \beta_3 \text{MTB} + \varepsilon
\]

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th>AvgExRet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.s</td>
<td>p-value</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FinPerf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lnMVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R²
Appendix I-List of attributes used in the T&D survey (based on 98 S&P attributes)

### Ownership

1) # of issued and o/s ordinary common shares?
2) # of issued and o/s other shares (preferred, non-voting, founders, recap)?
3) Par value of each ordinary share?
4) Par value of each other share (pref, non-vot, recap)?
5) # of auth but unissued ordinary shares?
6) # of auth but unissued other shares?
7) Top 1 shareholder?
8) Top 3 shareholders?
9) Top 5 shareholders?
10) Top 10 shareholders?
   11) # and identity of shareholders holding more than 3%?
   12) # and identity of shareholders holding more than 5%?
   13) # and identity of shareholders holding more than 10%?
   14) Identity of shareholders holding at least 50%?
   15) Float %
16) Descriptions of share classes?
17) Review of shareholders by type?
18) Percentage of cross-ownership?
19) Existence of Corp Gov Charter or Code of Best Practice?
20) Reproduction of its Corp Gov Charter/Code of Best Practice?
21) Mention of Articles of Association?
22) Details about Articles of Assn. (i.e. Charter Articles of Incorporation)?
23) Voting rights for each voting share?
24) How or who nominates directors to board?
25) How shareholders convene an EGM?
26) Procedure for putting Inquiry Rights to the board?
27) Procedure for proposals at shareholders meetings?
28) Review of last shareholders meeting? (e.g. minutes)
29) Calendar of important shareholder dates?
30) Any (in) formal voting agreements or blocks (relevant to family ownership)?
31) Shareholding by senior managers?
32) Ultimate beneficiaries in case of institutional, co. or cross shareholdings?

### Financial Disclosure

1) Its accounting policies?
2) Acctg standards it uses for its accounts?
3) Accounts according to the local acctg standards?
4) Accounts according to internationally recognized acct standard (IAS/GAAP)?
5) B/S according to int’l acctg standard (IAS/GAAP)?
6) I/S according to int’l acctg standard (IAS/GAAP)?
7) C/F according to int’l acctg standard (IAS/GAAP)?
8) Accounts adjusted for inflation?
9) Basic earnings forecast of any kind?
10) Detailed earnings forecast?
11) Financial information on a quarterly basis?
12) Segment analysis (broken down by business line)?
13) Name of its auditing firm?
14) Reproduction of the auditors’ report?
15) How much it pays in audit fees to the auditor?
16) Any non-audit fees paid to auditor?
17) Consolidated financial statements (or only the parent/holding co)?
18) Methods of asset valuation?
19) Info on method of fixed assets depreciation?
20) List of affiliates in which it holds a minority stake?
21) Reconciliation of its domestic acctg standards to IAS/US GAAP?
22) Ownership structure of affiliates?
23) Details of the kind of business it is in?
24) Details of the products or services produced/provided?
25) Output in physical terms disclosed? (# of users, etc.)
26) Characteristics of assets employed?
27) Efficiency indicators (ROA, ROE, etc.)?
28) Any industry-specific ratios?
29) Discussion of corporate strategy?
30) Any plans for investment in the coming year(s)?
31) Detailed info about investment plans in the coming year(s)?
32) Output forecast of any kind?
33) Overview of trends in its industry?
34) Its market share for any or all of its businesses?
35) List/register of related party transactions?
36) List/register of group transactions?
37) English Annual report on the web site?

Board and Mgmt
1) List of board members (names)?
2) Details about directors (other than name/title)?
3) Details about current employment/position of directors provided?
4) Details about previous employment/positions provided?
5) When each of the directors joined the board?
6) Classification of directors as an executive or an outside director?
7) Named chairman listed?
8) Details about the chairman (other than name/title)?
9) Details about role of the board of directors at the company?
10) List of matters reserved for the board?
11) List of board committees?
12) Existence of an audit committee?
13) Names on audit committee?
14) Existence of a remuneration/compensation committee?
15) Names on remuneration/compensation committee?
16) Existence of a nomination committee?
17) Names on nomination committee?
18) Existence of other internal audit functions besides Audit committee?
19) Existence of a strategy/investment/finance committee?
20) # of shares in the company held by directors?
21) Review of last board meeting? (e.g. minutes)
22) Whether they provide director training?
23) Decision-making process of directors’ pay?
24) Specifics of directors’ salaries (e.g. numbers)?
25) Form of directors’ salaries (e.g. cash, shares, etc.)?
26) Specifics on performance-related pay for directors?
27) Decision-making of managers’ (not Board) pay?
28) Specifics of managers’ (not on Board) salaries (e.g. numbers)?
29) Form of managers’ (not on Board) salaries?
30) Specifics on performance-related pay for managers?
31) List of senior managers (not on the Board of Directors)?
32) Backgrounds of senior managers?
33) Details of the CEO’s contract?
34) # of shares held by managers in other affiliated companies?
35) Whether board members are employees of parent co.? (in case co. is a consolidated affiliate/subsidiary.)
36) Whether any grp policies exist re. nature of relationship between parent and affiliates? (w/respect to CG of affiliates/subsidiaries)
37) Whether any members of senior mgmt are related (family, joint business, etc.) to any major shareholder?