Transparency and Disclosure Scores and their Determinants in the Istanbul Stock Exchange

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Recent financial reporting and auditing scandals on both sides of the Atlantic have led to a global realisation of the importance of sound corporate governance (CG) practices in alleviating the agency problems in the corporate form of business and for efficient allocation of capital in international markets. Transparency and disclosure (T&D) practices followed by firms are an important component and a leading indicator of CG quality. Transparent and full-disclosure of information is especially vital for Turkey where external capital is necessary to sustain the high growth rate and the biggest agency problem centres on asymmetric information and expropriation by majority shareholders.

We collaborate with Standard & Poor's (S&P) and base our survey on their scoring methodology, a customised version of the 98 desirable T&D attributes they used in several other countries, and their classification of the attributes into three categories: ownership structure and investor relations, financial transparency and information disclosure, and board and management structures and processes. We evaluate the T&D practices of the 52 largest and most liquid firms in the Istanbul Stock Exchange (ISE), based on their English and local language annual reports and websites. Our rankings provide a first time, objective assessment of the corporate disclosure practices of ISE firms and uncover that they are, at best, moderate and vary with respect to the three sub-categories of T&D.

We also consider a simple model that sequentially links agency problems to CG/T&D mechanisms in place, which in turn impact firm-level and economy-wide financial performance. Concentrating on the causal side of the model – *the determinants of T&D scores* – we provide out-of-sample evidence that firm size, financial performance and market-to-book equity best explain the variation in T&D scores in the ISE. While our results provide considerable support for prior findings in developed markets, they also shed light on how specific agency problems faced by ISE firms impact their T&D scores.

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

Introduction

The recent corporate governance and financial reporting scandals on both sides of the Atlantic have led to a global realisation that sound corporate governance (CG) practices including transparency and full disclosure (T&D) are important for long-term viability of companies as well as for efficient allocation of capital in the international financial markets. Starting with the Sarbanes-Oxley Act in the US, many countries have experienced an unprecedented amount of governmental and institutional intervention and are now in the process

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of restructuring their current laws, regulations and enforcement capabilities within the framework of best corporate governance practices.[1] Furthermore, academicians, investment and data-base companies have started to construct and evaluate ethical, socially responsible, and strong CG indices,[2] and companies themselves are paying hefty sums of money to have their CG and T&D practices rated by rating agencies such as Standard & Poor's (S&P) and Institutional Shareholder Services (ISS) to signal their quality in their quest for external capital. Parallel to these developments, there has been a proliferation of country-level (La Porta *et al.*, 1997; Shleifer and Wolfenzon, 2000; Gugler *et al.*, 2004) and firm-level (see for example, Ashbaugh *et al.*, 2004; Brown and Caylor, 2004) evidence that better CG practices are associated with lower cost of capital, higher firm values and thus easier access to external capital.

Full disclosure and transparency of financial information are vital components of the CG framework (OECD, 1999) and are regarded as important indicators of CG quality.[3] Beeks and Brown (2005) find that firms with higher CG quality make more informative disclosures. Sadka (2004) provides theoretical and empirical evidence that the public sharing of financial and analyst reports have enhanced factor productivity and economic growth in 30 countries.

These relationships and the expected benefits of good CG and T&D practices are especially important for emerging markets like Turkey because they are in dire need of external capital as their economies grow faster than that of more developed nations. As a result, it is important to investigate whether the historical scarcity of external capital flow to Turkey is related to the low quality of T&D. This study, which provides a first-time, objective measurement of T&D quality in the Istanbul Stock Exchange (ISE), in a form suitable for time-series and cross-sectional comparisons, including comparison with other sample countries surveyed by S&P, is a first step in this direction.

Turkey is a French origin civil law country where corporate ownership structure can be characterised by concentrated family ownership and low float rates leading to certain types of agency problems.[4] As a result of its highly concentrated, pyramidal, family-based ownership structures, substantive inter-corporate shareholdings, and dual class shares, the main agency conflict centres around the expropriation of minority shareholders' rights by ultimate owners with superior information even in cases where they don't hold a significant amount of the cash-flow rights. The ensuing information asymmetry between the insiders and outsiders has resulted in low float rates and dividend payments (for an in-depth description of ownership structures of ISE firms, its disadvantages in terms of investment returns and development of the capital markets, see Yurtoglu, 2000, 2003). Furthermore, due to the concentration of ownership and power in 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.

The potential for this special kind of agency conflict and the importance of T&D as a leading CG mechanism in alleviating its drawbacks by reducing the asymmetry between the insiders and outsiders have been an important motivation of this study. This agency problem was recently acknowledged in a task force report of the Institute of International Finance (4/12/2005, page 1) as the following quote indicates: "Turkish companies are often controlled 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".

This study is the first attempt to create a summary T&D index for the largest and most liquid firms trading on the ISE. We undertook the project in collaboration with S&P, a prestigious, global rating and financial services company that has been carrying out large-scale research since 2001 to score the T&D practices of a number of large and liquid firms they follow in the US, Latin America, Europe, Japan, Russia and some emerging Asian markets. We customised the 98 attributes used in these prior surveys and came up with a final set of 106 attributes which not only reflects the expertise of S&P analysts and researchers, but also the regulatory, institutional and economic environment in Turkey. We consider the 106 attributes in three subcategories, again using S&P's classification scheme: (i) Disclosure of ownership structure and investor relations (OwnStr); (ii) Financial transparency and disclosure in the financial statements (FinDisc); and (iii) Disclosure of the board and management structure and processes (BrdMgmt). Next, the annual reports and the websites (both English and local language versions) of the 52 largest and most liquid firms listed in the ISE were searched for the inclusion of these information attributes. Each firm was then graded and ranked in the above-mentioned three categories as well as in their overall T&D quality.[5]

We find that the transparency and disclosure scores of ISE companies are not impressive, especially in terms of the board and management structure and processes. Nevertheless, considerably high scores (7/10) are obtained in the category of financial transparency and information disclosure and the average overall T&D score (TDS) of Turkish companies is 5/10, a score comparable to many countries in continental Europe.

In this paper, we draw on the agency theory of the firm and model CG and T&D as a system of checks and balances that has evolved to mitigate the agency problems often encountered in the corporate form. Our expectation is that if companies have effective mechanisms in place, the agency problems – such as extraction of private benefits by majority shareholders, consumption of perquisites by entrenched management, under or overinvestment – and their associated costs will be mitigated. We base our analysis on this body of research for the second objective of the study: exploring the cross-sectional differences in quality of disclosure in ISE firms. We find that larger and more profitable firms, as well as firms with higher information asymmetry exhibit higher TDS to partially resolve the conflict with minority shareholders and regulatory institutions while free cash flow available to management and leverage do not have explanatory power. This is not surprising since the conflict between the shareholders and managers and creditors is not a major agency problem in Turkey.

The study has several contributions and is expected to be of interest to regulators, researchers, managers and market participants. The rankings provide a first time, objective, quantitative and verifiable assessment of corporate disclosure practices of listed companies in the ISE, encompassing not only financial statement disclosure, but also disclosures of shareholder's rights and board and management structures/processes. As such, it is expected to be a benchmark for future longitudinal and cross-country studies. Moreover, since we use the same attributes and methodology of prior S&P studies, the findings allow comparison with the scores previously obtained in other markets. The rankings based on a universal benchmark are expected to help investors and other stakeholders in their decision making as they allow an objective assessment of differences in the level of reporting quality and hence investment risks across firms, markets and sectors. The T&D rankings can also be used as a meaningful, objective monitoring and enforcement tool by local and international regulators. Finally, this is the first study that investigates the relationship between T&D and some agency conflict proxies prevalent in the ISE. The results provide out-of-sample evidence that these firm-specific characteristics do a good job in explaining the variation in TDS as in some other countries.

The remaining part of the paper is organised as follows: the next section describes the poor culture and regulation of disclosure in Turkey, after which we discuss our simple model of the causes and the consequences of the CG/T&D framework and develop our hypothesis. We then discuss prior research and the choice of our agency conflict proxies used as determinants of the T&D scores. The sample, data requirements and methods of analysis are described, followed by the results. The final section concludes and presents some future research ideas.

The poor regulatory framework and culture of CG and T&D in Turkey

Turkey has historically had a poor culture of CG and T&D. It has always been a civil law country and has had a very late start in the liberalisation of its economy, the establishment of its stock market (1986), and financial reporting standards based on generally accepted accounting principles and the concept of full and fair disclosure (1994).[6]

The first legislation concerning 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, dating back to 1957, were based on the generally accepted principles of accounting and auditing and hence did not regulate financial reporting. They highlight the strength of the civil law tradition, weak enforcement of rules and lack of a disclosure philosophy in the Turkish business culture.

This legal and cultural infrastructure 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 system, which has enjoyed the lowest access to external capital markets as well as the weakest rule of law and investor rights protection among the three other civil law and the common law traditions. The table also depicts that while GDP growth is higher in Turkey than in the other legal origins, access to external capital and measures of investor rights are lower than even the average of the French origin countries. Hence, while the fast growth rate in the Turkish economy underscores the need to

Table 1: Access to external financing and measures of investor protection in Turkey and by legal origin

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

	External cap/GNP	Domestic firms/pop	IPOs/pop	Debt/GNP	GDP growth	Log GNP	Rule of law	Antidirector rights	One-share = one-vote	Creditor rights
Turkey	0.18	2.93	0.05	0.15	5.05	12.08	5.18	2	0	2
French origin average	0.21	10.00	0.19	0.45	3.18	11.55	6.05	1.76	0.24	1.58

Panel B: Tests of means (t-statistics)

	External cap/GNP	Domestic firms/pop	IPOs/pop	Debt/GNP	GDP growth	Log GNP	Rule of law	Antidirector rights	One-share = one-vote	Creditor rights
Common vs civil law	3.12	3.16	3.97	1.33	1.23	–1.06	–0.77	5.24	–0.03	3.61
English vs French origin	3.29	3.16	4.50	2.29	1.97	–0.28	0.51	5.13	–0.11	3.61
French vs German origin	–2.38	–1.85	0.78	–3.39	–1.96	–2.48	–2.55	–0.47	–0.45	–1.29
French vs Scand. origin	–0.91	–3.31	–5.45	0.82	0.97	–0.33	–20.80	–1.25	2.50	–0.60

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

	Market cap/sales	Market cap/cash-flow	Debt/sales	Debt/cash-flow	WorldScope firms/domestic firms
Turkey	0.46	2.87	0.11	0.50	0.12
French origin average	0.51	3.69	0.27	1.82	0.24

Panel D: Tests of means (t-statistics)

	Market cap/sales	Market cap/cash-flow	Debt/sales	Debt/cash-flow	WorldScope firms/domestic firms
Common vs. civil law	1.04	0.72	–0.60	–0.50	
England vs. France	1.10	2.20	–0.36	0.53	
French vs. German	–0.42	–2.08	–0.43	–1.95	
French vs. Scandinavia	0.54	0.45	–0.06	–1.17	

[a] Panels A and B are reconstructed from La Porta *et al*. (1977), Table 2, presented for 49 countries and by legal origin.
[b] Panels C and D are reconstructed from La Porta *et al*. (1977), Table 8, presented for 49 countries and by legal origin. All values are taken from the Worldscope database.

access external debt and equity capital, the table highlights its difficulty in countries where 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 a major motivation for this study.

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 its enforcement. They also elaborate on the specific CG problems faced by Turkish firms: the concentrated and pyramidal ownership structure dominated by families; ownership of many banks by these group companies; inconsistent and opaque accounting and tax regulations; and the investor misinformation caused by the absence of inflation and consolidation accounting.[7] As a result of this infrastructure, agency conflicts are concentrated around weak minority shareholders' and creditors' rights, inconsistent and opaque disclosure policies and lack of a culture of voluntary disclosure, and convergence (inseparability) of ownership and management.[8] These create an environment that fosters corruption, share dilution, asset stripping, tunnelling, insider trading and market manipulation.

Given these specific agency problems fostered by the ownership and regulatory structure in large public Turkish firms, we concentrate on the disclosure and transparency components of CG, which are the mechanisms most likely to improve the protection of minority shareholders' and the creditors' rights. McKinsey (2002) has carried out a global survey in which institutional investors were asked to identify their CG priorities for companies and policy makers. The survey, administered in 2002, covers 201 responses from institutional investors located in 31 countries. Table 2 reports the weights assigned by global institutional investors to the top seven most important CG factors for their investment decisions in Turkey. The survey results depict a pattern similar to the average of all countries surveyed: timely, broad, understandable accounting disclosure and safeguarding of the shareholders' rights are the most important CG priorities of institutional investors in their decisions to invest in Turkish companies.

Unfortunately, Turkey has not scored high in the scarce prior disclosure studies either, as will be described below. We believe that the aforementioned bleak picture is changing fast as a result of the reforms in the financial reporting environment, the recent stability in Turkish politics, economic reforms, new regulation and more effective enforcement, and in this study we hope to quantify the expected improvement in disclosure practices of ISE firms. Some of these developments inlcude the following:

(a) accelerated privatisation of State Economic Enterprises.
(b) the creation of private pension funds that are expected to serve as institutional investors and enhance monitoring in public firms.
(c) monitoring of banks by the Banking Regulation and Supervison Agency (BRSA).
(d) the Capital Markets Board's (CMB's) commitment to improvement of the regulatory framework.
(e) the CMB's Corporate Governance Principles, promulgated on a comply or explain basis and covering areas of disclosure, minority rights, board structure and management oversight. The extent of compliance and the reasons for noncompliance to the principles would be indicated in the 2004 annual reports published in 2005.
(f) the establishment of the Turkish Accounting Standards Board and their mandate to converge the local accounting standards to the International Financial Reporting Standards (IFRS) by 2005 in line with the directives of the European Commission.
(g) Of course, Turkey's recent progress in achieving full membership of the EU will provide the strongest inertia in establishing the "rule of law" and improved CG and T&D practices in Turkey.

A model of incentives for good CG/T&D and our main hypothesis

Our basic model of the relationships between the conflicts of interest and information asymmetry between the stakeholders in the corporate form, CG/T&D practices as mechanisms of checks and balances put in place to mitigate them, firm performance and the local/global economy is depicted in Figure 1. In this paper, we explore the left-hand side of the model, i.e.

Table 2: CG priorities of institutional investors for their investment decisions in 30 countries

CG factors	Turkey (%)	All 30 countries surveyed (%)
Accounting disclosure	73	52
Shareholder equality	64	47
Market regulation and infrastructure	55	43
Takeover markets	45	23
Property rights	45	46
Credit information	36	29
Board independence	27	44

Sources: McKinsey & Company (2002) Global Investor Opinion Survey on Corporate Governance, and Ararat and Ugur (2003).

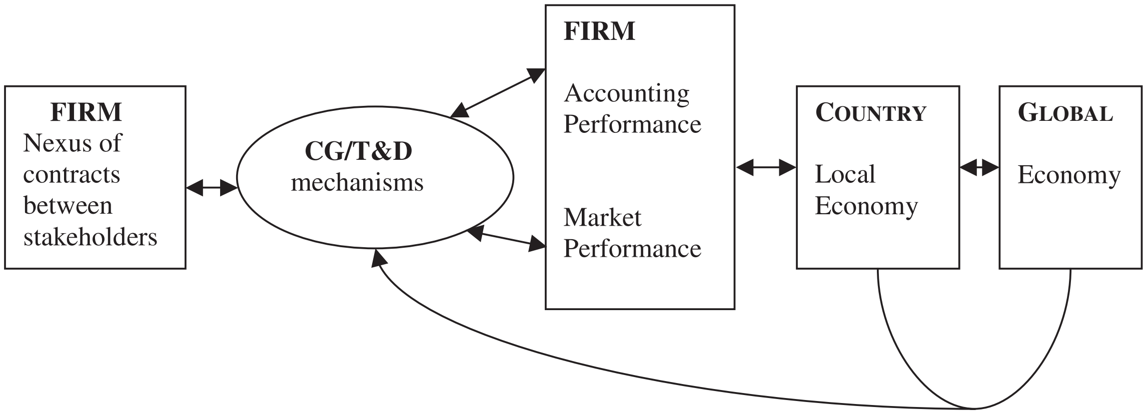

Figure 1: A model of incentives for sound CG/T&D practices

the quality of T&D practices of ISE firms and the firm-specific, agency-conflict related determinants of their T&D scores.

Based on the agency theory of the firm and viewing the firm as a nexus of contracts prone to information asymmetry and conflicts of interest between its stakeholders (Jensen and Meckling, 1976), we envision good CG/T&D practices as mechanisms of checks and balances that have evolved to mitigate these agency problems.[9] Such best practices are expected to lower the agency costs, leading to higher firm performance. In turn, the CG/T&D practices themselves are shaped by the legal traditions and regulations in the firm's country of domicile, as well as by international laws and standards and the global economy. Not only do these impose new CG/T&D rules and best practices on the firm – such as the IFRS or CG principles of the OECD – but they also create new opportunities in the form of positive NPV projects and ease of access to foreign capital on the one hand, and new threats such as regulatory intervention and litigation due to, perhaps, non-compliance or misrepresentation. 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 highest return investments for a given risk level, firms have the incentives to maximise the return to their capital suppliers while minimising their perceived risk by putting in place optimal CG mechanisms. Good T&D mechanisms are thus set in place to protect the rights of shareholders, creditors and other outsiders from extraction of private benefits by insiders based on their superior information. This is expected to minimise the informational asymmetry, increase investor awareness and trust which, in turn, should reduce the uncertainty of the returns to capital suppliers and lead to lower cost of capital and hence higher firm value (see, for example, Ashbaugh *et al.*, 2004; Brown and Caylor, 2004; Berglof and Pajuste, 2005).[10] This back and forth flow between the economic units and capital suppliers can be sustained only in the absence of appropriation by insiders and other common agency problems. Thus 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 quality.[11]

This simple model of incentives for good CG/T&D practices has been well-studied and reviewed extensively (see, for example, Watts and Zimmerman, 1986; Healy and Palepu, 2001; Core, 2001; Rahman, 2002) in literature. A recent example that draws on this literature is the Albuquerque and Wang (2005) study which develops a dynamic general equilibrium model to acknowledge the implications of agency conflicts, through weak investor protection, for security prices. They find that countries with weaker investor protection have higher overinvestment, lower values, and higher expected returns, return volatility, and interest rates. Ashbaugh *et al*. (2004) discuss the agency problems created by the separation of ownership and control and conclude that firms with better governance present less agency risk to shareholders leading to lower cost of equity capital. Accordingly, we expect to observe higher quality CG/T&D practices in firms that have solved or that are less susceptible to or that have committed themselves to reduce their agency conflicts. Accordingly, we pose the following hypothesis, presented in the alternative form:

> ***H_1****: Firms that have lower potential agency conflicts are expected to have higher T&D scores*

Prior research and the choice of the agency conflict proxies

Since this paper adapts an index of disclosure attributes to measure the T&D quality in a specific country and also explores the determinants of the T&D scores obtained, it is closely related to both of these vast strands of disclosure literature. Such indices have been developed in several countries in the past 40 years, mostly carried out by rating firms, financial analysts, academicians and database companies. They are indeed far too many to list here. Some examples are the disclosure quality evaluations published by the Association for Investment Management and Research (AIMR) over the decade 1980–90, analysts' ratings of firms' disclosure policies, disclosure quality evaluations published by the *Financial Post* and the country-based index of accounting quality and transparency developed by the Center for International Financial Analysis and Research (the CIFAR Index) in 1993 and 1995. This latter index represents the average number of 90 items included in the annual reports of a sample of companies covering 42 countries. It has been used by many academicians in their cross-country research to uncover the relationship between accounting transparency, legal origin, culture and economic performance (see, for example, La Porta *et al*., 1998; Hope, 2003). To our knowledge, the CIFAR Index is the earliest disclosure study that includes Turkey in its sample. The average score of the 10 Turkish companies is measured as 58.6, the second lowest, after Portugal (53.7), among the 25 code-law countries and after India (54) among the 17 common-law countries included in the CIFAR Index. Of course, this survey was carried out in 1995 and Turkey has come a long way since then.

The more recent Patel *et al*. (2002) study which uses the T&D scores of S&P measured at the end of 2000 covers 354 firms in 19 emerging markets. The study includes only 12 Turkish firms, covering only 64 percent of the market capitalisation of Turkish companies included in the S&P/International Finance Corporation (IFC) Index. As of the end of 2000, the average T&D score of these 12 firms is 34, the third lowest after the five Latin American countries and the Philippines – both groups exhibiting an average score of 29.

More closely related to this study are the recent surveys conducted by S&P to measure a broader-based firm-specific T&D quality in many regions of the world, often in collaboration with academicians in respective countries. In 2002, S&P Governance Services published its first T&D study that includes companies in the following S&P/IFC indices: Asia, Latin America, Asia Pacific 100, TOPIX 150 (Japan). Then came the surveys in Russia in 2002, 2003, and, as a result of continued interest among investors, in 2004. Furthermore, in 2003, S&P released its study of the S&P Europe 350 companies.[12] Our main objective in this study is to quantify the improvement in disclosure practices of Turkish firms in the recent years by using a much larger sample (covering 100 percent of S&P/IFC Index market capitalisation of Turkish firms) and a more comprehensive set of attributes encompassing not only financial statement disclosure, but also disclosure of other aspects of CG, i.e. ownership, board and management structures and processes, and covering the disclosure in annual reports and company web sites. Accordingly, we collaborated with S&P to carry out the Turkish survey. Our and the S&P's roles in this study are explained at the beginning of the next section. S&P and the Corporate Governance Forum of Turkey (CGFT) of Sabanci University announced the results to the public in a press release in May 2002 and S&P officially published the results in their newsletter Ratings Direct dated 6/6/2005.[13]

This research is also closely related to a large body of accounting and finance literature that investigates the causes and consequences of voluntary disclosure. In this paper, we limit our investigation to the agency theory-based determinants of discretionary disclosure reviewed in seminal studies such as Verrecchia (1983, 2001), Healy and Palepu (2001) and Core (2001). The theory predicts that even though self-serving managers have incentives to disclose their insider information, they will withhold private information when disclosure is too costly and that there is a strong country effect in what companies disclose (for empirical evidence on country-based differences see, for example, Berglof and Pajuste, 2005; Hope *et al.*, 2003). Prior research has shown that there is also considerable within-country variation in disclosure driven by firm characteristics.

We draw on agency research, studies on firm-specific determinants of disclosure, and we consider the specific agency problems faced by Turkish firms in our choice of the relevant agency conflict proxies. There exists an extensive body of prior research on determinants of disclosure that has accumulated over the past 40 years, a review of which is beyond the scope of this paper. Here, we will just mention a few important or recent papers.[14] The variables we explore under two categories of agency conflicts are size, measured as market value of equity (MVE); market-to-book value of equity ratio (MTB, measured as MVE/BVE); firm performance measured as earnings before interest and taxes/total assets (ROA) and net income/owner's equity (ROE); leverage measured as total liabilities/total assets (TL/TA); and free cash flow (FCF):

Proxies for conflict with minority shareholders and regulatory institutions

Size and profitability

Watts and Zimmerman (1986) suggest that larger companies are more visible and thus they are politically more sensitive. We expect larger and more profitable firms to have higher TDS because they are closely followed by financial intermediaries, have more comprehensive disclosure standards in place to minimise the political costs of noncompliance with generally accepted accounting principles (GAAP), and can better afford the cost of voluntary disclosure. Furthermore, profitable firms are likely to have less to hide from their constituents and thus are expected to employ less earnings management.[15] Many empirical studies have associated disclosure quantity and quality, measured by a disclosure index, with firm size and performance and many have investigated the relationship between firm characteristics and agency problems. In their well-cited empirical work, Lang and Lundholm (1993) find that analyst ratings of disclosure are higher for firms that perform well, for larger firms, firms with a weaker relation between annual stock returns and earnings, and firms that issue securities. Doyle *et al*. (2005) and Bryan and Lilien (2005) document that material weaknesses in internal control are more likely for smaller, younger, financially weaker, fast growth firms and worse performers. Similarly, using voluntary segment disclosure as a proxy for transparency, Sidney and Bertrand (2004) find that concentrated board ownership results in low disclosure and this effect is stronger when firm performance is poor. Black *et al*. (2006) investigates the cross-sectional differences in Korean firms' CG practices and again finds that firm size, risk and long-term profitability and need for equity capital are positively related to better CG. Hope (2003) observes a positive correlation between firm size and the CIFAR index for annual report disclosure. Similarly, Hossain *et al*. (2005) has found that voluntary disclosure of prospective information is related to firm size. Veronina *et al*. (2005) is a recent study which is similar to the present one in that it measures the transparency practices of 102 listed Russian firms in 2001 and also investigates the cross-sectional differences in their transparency scores. Using a checklist of 441 items from International Accounting Standards (IAS), they find that use of a Big-5 auditor, foreign listing, size, government shareholdings and independence of CEO and board chair are associated with transparency.

Market-to-book ratio

MTB ratio has been used in the literature as a proxy for risk, growth potential, unreported intangibles and firm prospects assessed by market participants. A low ratio is associated with low growth potential and high free cash flows under the discretion of insiders. Such firms have little need for external finance and, thus, voluntary disclosure (Core, 2001). Therefore, within the agency theory framework, one should expect to see a positive relationship between MTB and T&D scores. For example, Berglof and Pajuste (2005) report that more information is publicly available in larger firms, firms with lower leverage, higher financial performance, higher market-to-book ratios and more concentrated ownership. On the other hand, a low MTB can also be considered a sign of undervaluation by the market. The equity's market value might be low relative to its book value not because of the firm's low growth potential but simply because future prospects of the firm are not properly communicated to the public or there is a general undervaluation in the market due to local economic uncertainties. For example, the cash flows from valuable intangible assets such as human resources, internally generated patents and R&D activities, which are not recognised in financial statements in line with GAAP, may not have been impounded in prices in an inefficient information setting. In such cases, management may take actions to increase transparency and put better CG practices in action to remedy this unwanted perception and its negative effect on firm value. Furthermore, low MTB may be the result of an increase in book value of equity due to recently issued capital and several researchers have found that firms disclose more when they have recently issued capital (see, for example, Frankel *et al*., 1995). Contrary to the predictions of agency theory, this argument suggests a negative relationship between MTB and T&D scores.[16]

Proxies for conflict between the shareholders and managers and creditors

Leverage

Agency theory also suggests a strong link between leverage and disclosure (Jensen and Meckling, 1976). In highly levered firms, there is a higher demand for and supply of information and creditors themselves produce information about the borrower.[17] Furthermore, as a result of monitoring by informed creditors and strict debt covenants, the debtor firm has to commit itself to the discipline of debt payments and cannot as freely expropriate the free cash flows (Jensen, 1986). Bebchuck *et al*. (2000) suggest that controlling-minority structures (CMSs) like stock pyramids, cross-ownerships and dual class shares, such as those found in Turkey, could benefit from the constraining function of leverage and thus reduce the high agency costs associated with such ownership structures. Thus we expect a higher commitment to reduce the agency conflicts and thus higher disclosure in firms with higher leverage even in CMSs. However, empirical studies have provided conflicting results. For example, while Ho and Wong (2001) found no relationship between disclosure and leverage, several studies have found a significant relationship (for a positive relationship, see, for example, Hossain *et al*., 1994 and Dellas and Hess, 2005; for a weakly negative one see Hope, 2003). We have no priors for the large family-owned group firms, some of which can be considered CMSs and many of whom own their own banks. When the bank is directly or indirectly owned by the borrower, the role of leverage as a monitoring and/or disciplining device – both for the majority owner group and the management team – is suspect.

Free cash flow

FCF, defined as the cash flow at the discretion of management after all positive NPV projects are undertaken, has been an extensively used measure of the agency conflict between self-serving managers and diffuse shareholders. Firms with higher FCFs are subject to higher agency costs, and this results in undervaluation of the firm's equity. Indeed, firms with higher FCFs and lower MTB ratios have been targets for leveraged buyout transactions (see Lehn and Poulsen (1989), for example). Our hypothesis predicts a positive relationship between TD score and FCF measure as companies with accumulated cash have an incentive to be as transparent/informative as possible through their disclosure to mitigate the negative impact of the excessive cash holding on the equity value. However, when concentrated ownership structures like those in the ISE do not leave the control of cash in the hands of managers, the role of FCF as a source of agency conflict between the managers and shareholders and its role in disclosure practices are suspect.

Sample, data requirements and methods of analysis

Our sample consists of the 52 largest market cap and most liquid (based on trade volume) corporations traded in the ISE, 44 of which are currently followed by S&P and included in their S&P/IFC Emerging Markets Index. The study analyses disclosure practices of these firms from an investor perspective. It therefore focuses on sources of information that are most readily accessible by local and international investors – typically the latest available English language and local language company annual reports and the English and Turkish websites. The study leverages S&P's expertise in corporate governance, index construction and financial analysis. We carried out the study ourselves but make use of their list of 98 best T&D attributes, use their classification of overall T&D into three subcategories, and utilise their scoring methodology.

Transparency and disclosure are evaluated by searching for the inclusion of best practice information items ("attributes") in the 2003 annual reports and websites of our sample firms. Our primary data source is the annual reports prepared in English. If we do not find a specific information item in this primary source, then we sequentially search for that item in the English website, then in the Turkish annual report and finally in the Turkish website. As S&P uses US disclosure best practices as an implicit benchmark, we have modified their list of 98 attributes used in prior surveys. A similar modification was also carried out in Russia. The list of attributes has been extended to 106 information items in the case of Turkey in order to incorporate some local market, culture and regulation-specific issues: the CMB's new CG principles, concentrated ownership due to family ownership and founders' shares, cross-holding relationships between the holding companies and their subsidiaries, high inflation rate and the mandate to follow IFRS starting with the first interim reports in 2005.

The 106 attributes, grouped into the following three sub-categories, are presented in Appendix 1:

1. *Ownership structure and investor relations (OwnStr)*
2. *Financial transparency and information disclosure (FinDisc)*
3. *Board and management structure and processes (BrdMgmt)*

The inclusion of each attribute is scored on a trinary basis as "yes" (included) or "no" (not included) and "N/A" (not applicable) to ensure objectivity. Each "yes" answer is equal to one point and the overall T&D score (TDS) for each firm is calculated as:

$$\mathrm{TDS} = \sum_{j}\sum_{k} S_{jk}/\mathrm{TOTS} \qquad (1)$$

where
j = the attribute category subscript, $j = 1, 2, 3$,
k = the attribute subscript, $k = 1, \ldots, 106$,
S_{jk} = the number of info items disclosed (answered as "yes") by the firm in each category, and
TOTS = the total maximum possible "yes" answers for each firm.[18]

Companies are finally ranked based on their TDS in deciles. An overall ranking will reflect the total number of the 106 maximum possible attributes disclosed in a company's annual report and website. Individual rankings for each of the three sub-categories are calculated likewise by reference to the maximum possible number of yes answers for each sub-category. We use the TDS rankings to represent the market participants' assessments of the completeness, clarity and transparency of a firm's disclosure policies.

In exploring the determinants of TDS, we conduct a cross-sectional analysis of the relationship between the T&D scores and the firm-specific proxies for agency variables discussed above. Both financial statement price/return data are obtained from the electronic database in the ISE website.

Results

In Table 3, we present a comparison of the average scores of Turkish firms with those of other geographical regions of the world and with European countries in the Europe 300 index of the S&P/IFC database. The scores are obtained from S&P's Transparency and Disclosure Studies in 2001–2002. The comparison indicates that UK and US composite have the highest rankings globally. Continental Europe and developed Asia are somewhat lower and emerging Asia and Latin America have the lowest disclosure scores, particularly in terms of Board and Management disclosures. The scores vary a lot between regions and between different categories of T&D. In all regions and countries reported, including Turkey, the highest T&D scores are observed in the FinDisc category, while the lowest scores are obtained in the OwnStr and BrdMgmt categories in all regions, except for Japan, Latin America, Emerging Asia and Turkey. In these exception regions/countries, BrdMgmt scores are the lowest. Apart from Japan, these are all emerging markets.

The average T&D scores of sample ISE firms are reported in the last row of Panel A. While the overall score is 41 out of 100 points, the OwnStr, FinDisc, and BrdMgmt scores are 39, 64 and 20, respectively. Overall, Turkish companies have a disclosure pattern similar to Emerging Asia, but have higher FinDisc and lower BrdMgmt scores. S&P also assigns a decile score to each region/country by recording the scores in deciles while rounding them up to the next highest digit. The decile scores of all reported regions and countries, including the 350 firms in 15 European countries and Russia are given in Panels B and C. In comparison to other European countries' overall T&D score in deciles (6), Turkey has a somewhat lower average score (5), which is comparable to many continental European countries.

Descriptive statistics

Table 4 presents the descriptive statistics for our sample. The average 2003 overall TD scores and average scores in the three T&D categories depicted in Panel A indicate that the transparency and disclosure scores of ISE companies are not impressive, especially in terms of board and management structures and processes. The highest scores are obtained in the category of financial transparency and information disclosure, which is not surprising as most of the attributes in that category are mandatory disclosures required by the CMB's accounting principles that all publicly traded firms are required to follow and which, more or less, follow IAS. We also include the mean, median, min. and max. values of our firm-specific agency conflict proxies such as size, market-to-book ratio, leverage, accounting profitability of the sample firms as defined earlier. Most of the sample firms have recently become public firms and on average they have traded on the ISE for 11.5 years. They have 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, on average 6 percent and 17 percent, respectively; and their mean leverage about 50 percent.

Evidence on the relation between agency problems and the T&D scores

In this section, we test if potential conflicts of interest caused by agency problems explain the differences in the TDS scores by estimating the following regression equation, where i is the firm subscript, j stands for the overall score (and scores in each sub-category) and there is no time subscript as the regressions are run for only 2003 values of the independent variables. Our explanatory variables

Table 3: Comparison of T&D scores in different geographical regions with Turkey

Panel A: The scores in three categories of T&D and the composite scores (in %)

	Composite score	Ownership structure	Financial disclosure	Board and management	Number of firms
Europe	58	46	73	51	351
UK	70	54	81	70	124
Non-UK	51	41	69	41	227
US (annuals)	42	25	66	31	500
US (combined data sources)	70	52	77	78	500
Japan	61	70	76	37	150
Asia-Pacific	48	41	60	42	99
Latin America	31	28	58	18	89
Emerging Asia	40	39	54	27	253
Turkey	41	39	64	20	52

Panel B: The composite scores in deciles for S&P Europe 350 and other regions

Countries/regions	Number of companies	Average decile scores
UK	133	8
Austria	2	5
Belgium	7	5
Switzerland	20	5
Deutschland	34	5
Denmark	6	5
Spain	15	5
Finland	5	7
France	43	6
Greece	2	4
Ireland	4	8
Italy	27	5
Netherlands	26	6
Norway	3	6
Portugal	7	5
Sweden	16	7
Europe[a]	*350*	*6*
Continental Europe[b]	*217*	*5*
S&P 500 (US)	500	7
Australia		7
Russia		5
Turkey	52	5

Source: S&P's *Transparency and Disclosure Study, 2002* (with the exception of results for Turkey).
[a]Represents the sum of all the above listed European companies.
[b]Excludes the 133 UK companies.

are free cash-flow (FCF), accounting performance (ROE), leverage (TL/TA), market capitalisation (MVE), and market-to-book ratio (MTB), as defined earlier:

$$\mathrm{TDS}_{i,j} = \beta_0 + \beta_1\mathrm{TL/TA}_i + \beta_2\mathrm{MVE}_i + \beta_3\mathrm{MTB}_i + \beta_4\mathrm{ROE}_i + \beta_5\mathrm{FCF} + \varepsilon_i \quad (2)$$

TDS ratings are based on 2003 annual reports. Consistent with this, all the explanatory variables are measured by using 2003 end of year values. This is also consistent with our hypothesised relationship between the TDS scores and the variables included in the model. For example, firms with higher realised profits over the year tend to share more information

Table 4: Descriptive statistics: T&D scores and financial profiles of 52 ISE firms in 2003

Variables	N	Min	Max	Mean	SD
Panel A: T&D scores					
TDS-overall	52	16.19	71.43	41.11	11.06
TDS-ownership structure	52	3.13	88.00	38.57	18.26
TDS-financial disclosure	52	19.44	86.11	64.21	14.25
TDS-board & management	52	2.70	54.05	20.42	12.18
Panel B: Descriptive statistics for the agency conflict proxies used					
ROA	49	–0.047	0.45	0.059	0.087
ROE	50	–0.332	1.89	0.175	0.274
Market-to-book (MTB)	47	0.009	18.10	1.96	2.76
Debt ratio (DTA)	50	0.02	0.89	0.51	0.24
Market value of equity (MVE)	49	157,351,677	18,875,025,000	1,985,949,851	3,180,430,804

TDS = Transparency and disclosure scores of the sample firms measured in three disclosure categories based on the 106 question survey presented in Appendix 1 and the S&P scoring methodology. MVE = (year end close price) * (Number of outstanding shares) and measured at the end of 2003 in million TL. MTB ratio = market value of equity/book-value of equity. DTA(leverage) = total liabilities/total assets. ROA = firm performance measure defined as earnings before interest and taxes/total assets. ROE = firm performance indicator measured as net income/owner's equity. All variables are measured as of 31 December 2003.

with the public, naturally in their current statements. Similarly, firms with low MTB ratios based on end of year figures would tend to be more transparent both about their financials and managerial practices in their immediate annual reports to mitigate any miscommunication about their future prospects that could well be the reason for a poor MTB ratio.

We report the results with the last four variables only. The FCF variable was excluded from the regression equations for two reasons: First, we were able to find information only on 31 firms to estimate an appropriate FCF measure. However, as far as the signs and significance of the coefficients are concerned, our initial model that included FCF provided similar results to those reported here, but the coefficient of FCF was not significant. Our second reason for excluding FCF stems from the institutional structure of Turkish corporations. Since, as discussed earlier, family members usually sit in the highest executive positions and in the boards, the rest of the managers are not likely to have much power and authority over the use of free cash flows. As a result, agency problem/cost associated with FCF in a typical corporate form – with diffused ownership and fully delegated decision making authority to the management team – is somewhat limited. This argument defies the role of FCF as a proxy for agency conflict.

Table 5 shows that our model is a valid one with an F-value of 4.06. Given the usual limitations of multiple regression analysis used in our study, we checked our independent variables for a possible correlation. With the exception of a ROE with leverage – which seem to have a moderate positive correlation – no significant correlation exists among the variables. Furthermore, usual diagnostics applied to residuals show no violation of homoscedasticity or normality assumptions of the models.

We find that size and market-to-book are significant in explaining the variation in TDS, while leverage is not. We conjecture that larger firms with higher followings by investors and with higher political costs of non-compliance or litigation threat have higher quality disclosures, as expected. On the other hand, the negative relation between MTB and TDS indicates that riskier, low growth or undervalued firms also disclose more to signal their quality to perhaps counter the negative assessments of the market participants about their prospects. Leverage is not significant in explaining the changes in TDS, probably due to loss of power in the tests due to the families' ownership of banks from whom they obtain credit.[19] When we add either ROA or ROE to the model, they both have significant coefficients as we expected.[20]

Table 5: Cross-sectional regressions of TD scores on profitability, size, market-to-book ratio and leverage. The regression coefficients, their p-values (in parentheses) and the overall F-statistics are presented for each model specification

	Constant	Explanatory variables[a]				
		ROE	LnMVE	MTB ratio	DTA	F-statistic
Overall TDS	−60.201 (0.033)	9.508 (0.093)	5.089 (0.000)	−1.211 (0.046)	−4.171 (0.509)	4.062 (0.007)
OwnStr TDS	−106.506 (0.029)	7.632 (0.429)	7.324 (0.003)	−1.834 (0.078)	−7.859 (0.471)	2.836 (0.036)
FinDisc TDS	8.334 (0.812)	7.943 (0.267)	2.841 (0.101)	−0.814 (0.284)	−1.174 (0.884)	0.913 (0.465)
BrdMgmt TDS	−94.815 (0.002)	12.275 (0.046)	5.794 (0.000)	−1.455 (0.027)	−5.723 (0.402)	4.723 (0.003)

[a]The TD scores and the explanatory variables, lnMVE (natural log of market value of equity), MTB (market value of equity/book-value of equity), DTA (total liabilities/total assets) and ROE (net income/owner's equity) ratios are measured as of 31 December 2003.

Apart from their explanatory power for the overall scores, size and market-to-book are also significant in explaining the ownership structure and board and management structure sub-category scores. None of the variables tried are significant in explaining differences in financial disclosure scores probably because the information items included in this sub-category are mostly mandatory disclosure items (with the exception of voluntary early adoption of IFRS, consolidated reporting and inflation accounting) and hence there is less of a variation in these scores.

Summary and concluding remarks

Collaborating with S&P, we score the T&D practices of 52 large and liquid ISE firms in three categories of disclosure by examining their 2003 annual reports and websites. We conclude that the T&D quality of Turkish firms are at best moderate with the highest and lowest scores observed in the Financial Disclosure and Board and Management processes categories, respectively. The results indicate that the annual reports and websites are weak in terms of voluntary disclosure. In the exploratory part of our study that investigates the firm-specific determinants of the TDS, we find that while size, accounting profitability and market-to-book ratio explain the differences in the scores in the ownership and board and management sub-categories as well as in overall scores, leverage remains insignificant in all four models.

There are several limitations of the study. Our sample is small in size and, by construction, composed of the largest and most followed firms in the ISE and thus may not be representative of the population of Turkish firms. Second, we concentrate on a subset of disclosure and transparency attributes in annual reports and websites to the exclusion of timeliness, truthfulness and accessibility of information and other sources of CG information. Finally, the study gives, at best, a snapshot picture of disclosure quality in ISE firms and its relation to firm-specific variables because the tests are based on only one year's data. Thus, it lacks longitudinal generalisability and ignores a possible lead lag relationship in the link between T&D scores and our agency conflict proxies. To mitigate some of these limitations and enrich our insight, we will expand our data set to ISE-100 firms and replicate the study in 2005. Our expectation is that the T&D scores and their relationship with our agency conflict proxies will improve due to the required compliance with IFRS and the CMB's CG principles for public firms in 2005. We are also planning to investigate the right-hand side of our model presented in Figure 1, that is the relationship between the T&D scores and firm-level and country-level financial performance. We are particularly interested in unveiling whether good T&D increases the firm's and the market's access to domestic and foreign capital and hence leads to higher levels of growth.

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Notes

1. Some local examples are the recent resolve to rewrite the *Turkish Commercial Code* that has been in effect since 1957 and the new *CG Principles of the Turkish Capital Markets Board*, which will be effective in 2005. Another one is the recent Reporting Standard (RS) 1 "The Operating and Financial Review" in the UK. Announcing its publication, Ian Mackintosh, the Chairman of the ASB, said: "This reporting standard represents an important step forward in encouraging greater transparency and more open communication between companies and their shareholders … This should be of great benefit to many parties" (Association of International Accountants, 2005).
2. See, for example, the G-Index of Gompers *et al*. (2003) and Gov-7 of Brown and Caylor (2005).
3. In their official newsletter dated 6/6/05, entitled "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.
4. Yurtoglu (2003) documents that families ultimately own about 80 percent of the 305 companies traded in the ISE as of 2001.
5. In line with these three categories, T&D is defined as adherence to the principles of "full-disclosure" and "openness and informativeness" in public presentation of financial statements as well as the ownership and board/management structures and processes followed by the company. As such, an attempt to quantify it, like ours, would not measure the truthfulness of the information disclosed in the financial reports or the actual quality of board and management structures and investor relations; that is, it does not measure the "CG quality" of the firm. Implicitly assuming truthful disclosure, it basically measures the "quality of disclosure" of its governance and financial reporting mechanisms.
6. An important reason for exploring the TD quality using data from a single country is that multi-country studies may yield mixed results as a result of their differences in terms of the sizes and liberalisation of their markets and institutions, political and economic risk exposure, the average market capitalisation and their reporting standards. We use only ISE data in this study to control for these differences that are expected to affect both the TD scores of firms and the variables we use as agency conflict proxies. Yurtoglu (2003) specifically states that Turkey is especially suitable for exploring the link with agency costs because it shares many features of weak CG such as concentrated family ownership, weak regulation and enforcement, pyramidal groups and dual class shares.
7. In large ISE firms, the conflict between creditors and shareholders has not been an issue because many banks are owned by the business-groups themselves that often have control over the banks' lending decisions. Furthermore, family members usually sit in the highest executive positions and in the boards and the rest of the managers do not have much power and authority over the use of free cash flows. As a result, the manager–shareholder conflict is also nonexistent.
8. Such stock pyramids, cross-ownership and dual-class voting and non-voting equity structures are predominant in Turkey. Bebchuk *et al*. (2000) call these controlling-minority structures and posit that they lead to much larger agency costs than both highly leveraged and concentrated ownership structures.
9. This is similar to the view in Florackis and Ozkan (2004) that investigates managerial ownership and compensation, and ownership concentration as two corporate governance devices that mitigate agency costs.
10. Another advantage of compliance with good T&D practices is that it mitigates the political costs of non-compliance and hence reduces the risk of higher taxes, litigation and too much regulation. Field *et al*. (2005) indeed find that disclosure deters certain types of litigation.
11. Taken literally, the model predicts limitless disclosure which, of course, is prohibited by its cost. Only to the extent the aforementioned benefits of disclosure exceed its costs, we expect the firm to increase its voluntary disclosure and transparency. Furthermore, excessive transparency may limit the competitive advantage of the firm and the limitations in place against extraction of private benefits by insiders may reduce the incentives of controlling shareholders to undertake positive NPV projects and to monitor the managers (see, for example, Core, 2001 for the trade-off between lower cost of capital and litigation costs against higher proprietary and incentive costs).
12. Standard & Poor's (2002) states that the S&P's Transparency and Disclosure Study will eventually cover about 1600 companies which represent approximately 70 percent of the world's tradable market capitalisation.
13. The newsletter entitled "Corporate Governance: the Turkish Transparency and Disclosure Survey" discusses their scoring methodology, T&D studies carried out in other countries, announces the top 5 companies in the ISE, lists the most and the least practised ones among the 106 T&D attributes, includes a table of cross-country comparisons which we extend

as our Table 3 and a reproduction of our Table 4, Panel A.

14. The reader is referred to a very useful and comprehensive review of empirical literature entitled “Developments of firm-to-outsider communication research” by Schadewitz and Blevins (2005) on the web.
15. Faulkender *et al*. (2005) finds that the extent of the potential disagreement between investors and managers depends on prior firm performance.
16. Size and book-to-market ratio are also important variables that explain excess returns both in developed and many emerging markets (Fama and French, 1993, 1998), including Turkey (Aksu and Onder, 2003). As such, these two variables may also act as controls for this omitted variable.
17. This is especially true for firms with significant amount of bank debt in their capital structure. Recent theories of financial intermediation have focused on the role of banks to produce and transmit information in capital markets when there are informational asymmetries. Either because of their information-gathering cost advantages or intimate customer relationship developed over time, banks are assumed to have access to valuable information that may not be available to other market participants.
18. In determining the denominator TOTS, we exclude the N/A answers for info items not applicable to the firm. For example, in question 35, under BrdMgmt category, “Whether board members are employees of parent co.?” is not included in the total possible score (TOTS) in case the company is not a holding company. Similarly question 36 in the Financial Disclosure category, “List of group transactions” is excluded from TOTS if the firm is not a group firm.
19. When we exclude the highly leveraged banks and financial institutions from our sample leaving only 43 firms, the coefficient of leverage has the correct positive sign and becomes weakly significant. This is reasonable as high leverage does not necessarily mean financial distress or monitoring intensity in banks.
20. As the ROE measure already incorporates the effect of leverage, hence, might be a possible reason behind the insignificance of leverage, we tried the runs with ROA instead of ROE. This did not have any effect on the signs and significances of the coefficients in the model. We also tried an indicator variable for whether the company is a group firm with a highly concentrated ownership. This was found to be insignificant.

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Appendix 1: List of attributes used in the survey

Ownership
1) No. of issued and o/s ordinary shares?
2) No. of issued and o/s other shares (pref, non-vot, recap)?
3) Par value of each ordinary share?
4) Par value of each other share (pref, non-vot, recap)?
5) No. of auth but unissued & o/s ordinary shares?
6) No. of auth but unissued & o/s other shares?
7) Top 1 shareholder?
8) Top 3 shareholders?
9) Top 5 shareholders?
10) Top 10 shareholders?
11) No. and identity of shareholders holding more than 3%?
12) No. and identity of shareholders holding more than 5%?
13) No. 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 Corporate Governance Charter or Code of Best Practice?
20) Reproduction of its Corporate Governance Charter/Code of Best Practice?
21) Mention of Articles of Association?
22) Details about Articles of Association (i.e. Charter Articles of Incorp)?
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?

Appendix 1: Continued

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) Accounting standards it uses for its accounts?
3) Accounts according to the local accounting standards?
4) Accounts according to internationally recognised accounting standard (IAS/GAAP)?
5) B/S according to international accounting standard (IAS/GAAP)?
6) I/S according to international accounting standard (IAS/GAAP)?
7) C/F according to international accounting 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 company)?
18) Methods of asset valuation?
19) Information on method of fixed assets depreciation?
20) List of affiliates in which it holds a minority stake?
21) Reconciliation of its domestic accounting 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? (No. 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 management

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)?

Appendix 1: Continued

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) No. 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 CEOs contracted?
34) No. of shares held by managers in other affiliated companies?
35) Whether board members are employees of parent company (in case company is a consolidated affiliate/subsidiary)?
36) Whether any group policies exist re. nature of relationship between parent and affiliates (with respect to CG of affiliates/subsidiaries)?
37) Whether any members of senior management are related (family, joint business, etc.) to any major shareholder?

Appendix 2: The list of ISE firms included in our survey

Company	Ticker symbol	Sector code	Sector
Ak Enerji Elektik Uretimi Otoproduktor Gurbu A.S.	AKENR	55	Utilities
Akbank T.A.S.	AKBNK	40	Financials
Akcansa A.S.	AKCNS	15	Materials
Aksa Akrilik Kimya Sanayil A.S.	AKSA	25	Consumer discretionary
Aksigorta	AKGRT	40	Financials
Alarko Holding A.S.	ALARK	20	Industrials
Anadolu Efes Biracilik ve Malt Sanayii	AEFES	30	Consumer staples
Arcelik A.S.	ARCLK	25	Consumer discretionary
Aselsan Askeri Elektronik Sanayii ve Ticaret A.S.	ASELS	20	Industrials
Aygaz A.S.	AYGAZ	55	Utilities
Beko Elektronik	BEKO	25	Consumer discretionary
Bosch Fren	BFREN	20	Industrials

Appendix 2: Continued

Company	Ticker symbol	Sector code	Sector
Brisa Bridgestone Sabanci Lastik San.ve Tic.	BRISA	25	Consumer discretionary
BSH Profilo Elektrikli Gerecleri	BSPRO	25	Consumer discretionary
Celebi Hava Servisi A.S.	CLEBI	20	Industrials
Cimsa Cimento San ve Tic. A.S.	CIMSA	15	Materials
Dogus Holding	DOAS		Construction, wholesale, retail
Dogan Holding A.S.	DOHOL	20	Industrials
Dogan Yayin Holding A.S.	DYHOL	25	Consumer discretionary
Eczacibasi Ilac San ve Tic. A.S.	ECILC	35	Health Care
Enka Insaat ve Sanayi AS	ENKAI	20	Industrials
Eregli Demir ve Celik Fabrikalari A.S.	AEFES	15	Materials
Finansbank	FINBN	40	Financials
Ford Otosan Otomobil Sanayi A.S.	FROTO	25	Consumer discretionary
Haci Omer Sabanci Holding A.S.	SAHOL	40	Financials
Hurriyet Gazetecilik ve Matbaacilik A.S.	HURGZ	25	Consumer discretionary
Ihlas Holding	IHLAS	40	Fiancials
Is Gayrimenkul Yatirum Ortakligi A.S.	ISGYO	40	Financials
Kardemir		15	Materials
Koc Holding A.S.	KCHOL	20	Industrials
Kordsa Sabanci Dupont Endustri	KORDS	25	Consumer discretionary
Migros A.S.	MIGRS	30	Consumer staples
Netas Northern Electric Telekomunikasyon A.S.	NETAS	45	Information technology
Petrokimya Holding A.S.	PETKM	15	Materials
Petrol Ofisi	PTOFS	10	Energy
Sasa Dupont Sabanci Polyester	SASA	15	Materials
T. Garanti Bankasi	GARAN	40	Financials
T. Sise Cam Fabrikalari A.S.	SISE	25	Consumer discretionary
Tansas Perakende Magazcilik Ticaret A.S.	TNSAS	30	Consumer staples
Tofas Turk Otomobil Fabrikasi A.S.	TOASO	25	Consumer discretionary
Trakya Cam Sanayil A.S.	TRKCM	20	Industrials
Turk Traktor	TTRAK	20	Industrials
Tupras Turkiye Petrol Rafinerileri A.S.	TUPRS	10	Energy
Turk Dis Ticaret Bankasi	DISBA	40	Financials
Turk Hava Yollari A.S.	THYAO	20	Industrials
Turkcell Iletisim Hizmetleri AS	TCELL	50	Telecommunication services
Turkiye is Bankasi A.S.	ISBNK	40	Financials
Ulker	ULKER	30	Consumer staples
Vestel Elektronik Sanayi ve Ticaret A.S.	VESTL	25	Consumer discretionary
Yapi ve Kredi Bankasi A.S.	YKBNK	40	Financials
Yazici Holding	YAZIC		Manuf., wholesale, retail
Zorlu Enerji	ZOREN	55	Utilities