

**THE RELATION BETWEEN FIRM-LEVEL CORPORATE  
GOVERNANCE AND MARKET VALUE:  
A STUDY OF INDIA**

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## Abstract

Relatively little is known about the corporate governance practice of public firms in emerging markets. We provide a detailed overview of the practices of publicly traded firms in India, and identify areas where governance practices are relatively strong or weak. We also find cross-sectional evidence of a positive relationship for an overall governance index and a subindex covering shareholder rights. The association is stronger for more profitable firms and firms with stronger growth opportunities.

Keywords: India, securities law, corporate governance, Clause 49

JEL Classifications: G38, K22

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# The Relation Between Firm-level Corporate Governance and Market Value: A Case Study of India

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## I. Introduction

We know relatively little about the corporate governance practices of public firms in emerging markets. This paper offers two principal contributions. First, we provide a detailed “case study” of firm-level governance practices in an emerging market, based on a 2006 survey of Indian firms. India is a logical choice for this effort – it is the second largest emerging market based on both population and GDP (after China), and the largest emerging market with a significant number of non-government-controlled public firms. We are not aware of comparable efforts in other countries, other than a contemporaneous effort by one of us in Brazil, with a smaller sample (Black, de Carvalho and Gorga, 2010b).

Second, we contribute to the literature on corporate governance indices and the connection between governance and firm market value. We build a broad Indian Corporate Governance Index (*ICGI*) and find a positive association between *ICGI* and firm market value. These results are broadly consistent with those from multi-country studies (e.g., Klapper and Love, 2004; Durnev and Kim, 2005). However, the multi-country studies cover only the largest firms in each country. We find that the association between *ICGI* and firm market value extends to, and may be stronger for, smaller firms.

We also investigate the role of particular aspects of governance, such as board structure, in predicting firms’ market values. Some other studies (Dahya, Dimitrov and McConnell, 2008 (cross-country), Black and Kim, 2010 (Korea)) find a positive association between board structure and firm market value. We find no association; see also Black, de Carvalho and Gledson (2010a) (negative association in Brazil). Our results thus cast doubt on how much we know about what matters in governance. The association between an overall index and firm market value breaks down when one investigates which aspects of governance underlie the overall relationship.

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Our findings, especially when combined with those from other countries, suggest that the benefits of particular corporate governance practices vary depending on firm and country characteristics. This suggests that governance is not one-size fits all (see also Arcot and Bruno, 2006; Bruno and Claessens, 2010; Black, de Carvalho and Gorga, 2010a). A combination of some mandatory minimum rules (perhaps differing based on firm size) and flexibility above the minimum level – for example, by allowing firms to select levels of governance (as in Brazil) or comply-or-explain regimes (as in the UK and Continental Europe) -- may prove more valuable than legal regimes that rely primarily on mandatory rules.

Part II summarizes the relevant literature and India's corporate governance history. Part III discusses our survey methodology and data sources. Part IV discusses survey results. Part V defines our India corporate governance index and examines the relationship between index scores and firm market value. Part VI discusses some implications of our study. Part VII concludes.

## II. Literature Review

We review here the literature on two aspects of governance in emerging markets: what we know about governance patterns, and to what extent does governance predict firm share prices or performance. We cover studies of India with care, and other studies in less depth. We do not cover developed countries or nonpublic firms.

### A. What We Know About Firm-Level Governance in Emerging Markets

This paper's first goal is to provide a detailed descriptive analysis of firm-level governance in an important emerging market. Cross-country studies of governance provide high level comparisons between countries -- for example, mean scores on disclosure (Patel, Balic and Bwakira, 2002) or overall governance (Bruno and Claessens, 2010) -- but few details. Individual country studies report summary statistics for overall governance and particular governance measures, but again few details. To our knowledge, the most directly comparable paper is contemporaneous research on Brazil (Black, de Carvalho, and Gorga, 2010b).

Several studies examine Indian corporate governance generally. Khanna (2009) reviews the development of corporate governance norms in India from independence to the present. World Bank (2005), Sarkar & Sarkar (2000), and Mohanty (2003) examine how firm-level governance influences the behavior of institutional investors, or vice-versa. Mohanty (2003) finds that institutional investors own a higher percentage of the shares of better-governed Indian firms. This is consistent with research in other countries (Aggarwal, Klapper and Wysocki, 2005; Ferreira and Matos, 2007).

Zattoni, Pedersen and Kumar (2009) and Singh and Gaur (2009) examine the association between business group membership and performance with conflicting results. Jackling & Johl (2009) study the association between board structure and firm performance in large Indian firms and find an association between board size and Tobin's q, but report only three stage least squares results, with unconvincing instruments. Bhattacharyya and Rao (2005) examine whether adoption of Clause 49 (an important set of governance reforms in India) predicts lower volatility and returns for large Indian firms. Black & Khanna (2007) conduct an event study of the adoption of Clause 49 and report positive returns to a treatment group of large firms (who were required to comply quickly) relative to small firms (for whom compliance was delayed), around the first important legislative announcement. Dharmapala and Khanna (2009) report that small Indian firms which are subject to

Clause 49 react positively to plans by the Securities and Exchange Board of India (SEBI) -- India's securities regulator -- to enforce the Clause, relative to similar firms not subject to Clause 49.

Other studies of Indian firms are more peripherally related. Khanna, Kogan and Palepu (2006), study instances of minority shareholder expropriation by Indian firms. Bertrand, Mehta and Mullainathan (2002) provide evidence on tunneling within Indian business groups, but see Siegel and Choudhury (2010). Deb and Chaturvedula (2004) study the relationship between ownership concentration and firm market value.

## **B. Does Governance Predict Firm Value in Emerging Markets?**

A second goal of this paper is to contribute to the literature on the connection between firm-level governance and firm market values in emerging markets. A number of cross-country studies examine this connection (e.g., Aggarwal, Erel, Stulz and Williamson, 2006; Klapper and Love, 2004; Durnev and Kim, 2005; Doidge, Karolyi and Stulz, 2007; see also the survey by Love (2010). However, these studies have important weaknesses, including: almost all rely on one of two available indices from Standard & Poor's (S&P) and Credit Lyonnais Securities Asia (CLSA), each imperfect; they cover only the largest firms in each country; and they have limited control variables (which increases the risk of omitted variable bias).<sup>1</sup>

Individual country studies, such as this one, have different strengths and weaknesses, and can complement the cross-country studies. These studies are of uncertain generalizability. However, they allow one to: (i) study the association between governance and performance at both large and small firms; (ii) develop, as we do here, a country-specific governance index which reflects a particular country's rules and norms; (iii) use current indices. In contrast, the S&P and CLSA indices are becoming dated. The principal studies which develop and assess overall governance measures for emerging markets include:

- Brazil (Leal and Carvalhal-da-Silva, 2007; Black, de Carvalho and Gorga, 2010b)
- Hong Kong (Cheung, Connelly, Limpaphayom and Zhou, 2007)
- Korea (Black, Jang and Kim, 2006a)
- Russia (Black, 2001; Black, Love and Rachinsky, 2006).

## **III. Survey Methodology and Data Sources**

### **A. Survey Methodology**

This study relies on an extensive survey we conducted in early 2006 of 506 Indian public companies ("India CG Survey 2006"). We received 370 responses (73% response rate).<sup>2</sup> We

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<sup>1</sup> The indices are: Standard & Poor's transparency and disclosure index (2002; only disclosure); and Credit Lyonnais Securities Asia survey (2001; some questions rely on analysts' subjective opinions, which could be influenced by firm performance). Morey, Gottesman, Baker and Godridge (2009) rely on an Alliance-Bernstein index, which is partly subjective and only partially disclosed.

<sup>2</sup> A copy of the survey is available on request from the authors. Most respondents held senior positions at their firms (309 were chief legal officer or company secretary; 42 were CFO or other senior finance official; 10 were the CEO). The survey was supported by the Bombay Stock Exchange (BSE) and IIM Bangalore, one of India's top business schools. We mailed a survey to each firm, did followup mailings and phone calls, and engaged the A.C. Nielsen survey research firm to visit firms. The higher response rates non-BSE-500 firms (see Table 1) could reflect a tendency for A.C. Nielsen to contact firms with whom they had prior relationships. We promised confidentiality to respondents, and thus do not name individual firms in this paper.

surveyed firms with central offices in one of India's six largest cities -- Bangalore, Chennai, Hyderabad, Kolkata, Mumbai, and New Delhi. We approached all firms in the BSE 200 index with central offices in these cities; these firms include 26 of the firms in the BSE 30 index and 131 of the BSE 200 firms.<sup>3</sup> For smaller firms, we asked A.C. Nielsen to select firms at random, with a tilt toward firms in the BSE 500 index. Overall, we approached 275 firms in the BSE 500 (55%); these firms represent 80% (76%) of the market capitalization of the BSE 500 (all Indian public firms). For details on the survey questions, see Balasubramanian, Black and Khanna (2009).

The size and other financial characteristics of approached firms are similar to nonapproached firms and those of responding firms are similar to nonresponding firms. Thus, sample selection bias is likely to be limited, relative to Indian private firms large enough to be included in the Prowess financial database (the principal source of financial information for Indian firms, similar to a combined Compustat and CRSP for U.S. firms). We did not study very small firms which are publicly listed, but rarely trade and are not covered by Prowess.<sup>4</sup>

Table 1 provides summary information on the firms we approached and those which responded. The response rates exceeded 50% for all BSE group ranges.

**Table 1. Surveyed and Responding Firms**

Number of firms approached and number of respondents in different size ranges, for India CG Survey 2006. Total row includes all firms in Prowess database of Indian public firms.

Size Group	No in group	Approached(% of total)	Responses (% of surveyed)
BSE 30	30	26 (87%)	20 (77%)
BSE 31-100	70	45 (64%)	26 (58%)
BSE 101-200	100	61 (61%)	31 (51%)
BSE 201-500	300	143 (47%)	82 (56%)
<b>Subtotal BSE 500</b>	<b>500</b>	<b>275 (55%)</b>	<b>160 (58%)</b>
Other	2,007	231 (15%)	210 (91%)
<b>Total</b>	<b>2,507</b>	<b>506 (20%)</b>	<b>370 (73%)</b>

Of the 370 respondents, 31 were government-controlled, 38 were foreign-controlled.<sup>5</sup> Our analysis below focuses on the remaining 301 firms, which we term "Indian private firms." The response rate for these firms was 77% (301/393). Of these 301 firms, 55% are part of an Indian business group which includes one or more other public firms; 69% have a 40% or greater shareholder.

<sup>3</sup> The standard stock price indices for Indian firms are BSE 30 (also called Sensex); BSE 100, BSE 200, BSE 500 and, for the National Stock Exchange, the Nifty Fifty. Most large Indian firms are listed on both exchanges.

<sup>4</sup> Respondents might self-report with bias, but it seems likely that this bias is not severe. First, a significant number of firms do not comply with Indian rules on board independence, which is verifiable from both their annual reports and their survey responses. This suggests that firms do not expect significant consequences from noncompliance. Given this, plus our promise of confidentiality, firms had little reason to misreport to us. Second, for some governance elements, we have data both from annual reports (which are public, hence misreporting may be riskier) and from our survey; there are occasional differences between the two sources, but no systematic differences.

<sup>5</sup> We classified as foreign-controlled firms with a majority foreign owner or a 40% foreign owner who held more than any other shareholder. We classified as government-controlled 25 firms which were majority owned by the central government or a state government, 5 firms with at least 39% government ownership, and Cement Corp. of India, which has missing ownership data. Prowess classifies all of these firms as government firms. No firms have between 11% and 39% government ownership.



#### IV. Indian Corporate Governance Overview

This Part provides a detailed overview of the corporate governance of Indian private firms. Results are based only on responding firms except as noted. Balasubramaniam, Black and Khanna (2009) provide additional details and citations to the applicable legal rules.

##### A. Board Composition and Independence

The principal sources of Indian corporate governance rules are the Company Law and “Clause 49” of the stock exchange listing requirements, issued by the Indian securities regulator, SEBI (Securities and Exchange Board of India). Clause 49 requires listed firms with net worth greater than Rs. 25 crores (1 crore =  $10^7$  rupees  $\approx$  US\$200,000) or paid up share capital greater than Rs. 3 crores at any time in their history to have either a majority of independent directors, or at least 1/3 independent directors plus a board chairman who is a non-executive director (but need not be independent, and often represents the controlling family or business group). Table 2 provides information on board composition. Larger firms have larger boards (Pearson correlation between  $\ln(\text{market capitalization})$ , and board size = 0.20,  $p < .01$ ).

Some Indian firms have complained that it can be hard for them to find qualified independent directors. Table 2 suggests that most surveyed firms can find independent directors; how qualified, we do not know.

**Table 2. Percentages of Different Types of Directors**

Sample is 295 firms with board composition data which responded to India CG Survey 2006.

Percentage range	Inside	Nonexecutive (not indep.)	Independent	Separate CEO and chairman (for firms in range for independent directors)
0%	7	152	7	2
1-32%	121	97	13	9
33-49%	98	31	68	50
50%	35	4	70	34
51-74%	31	9	108	67
75-100%	3	2	29	13
<b>Total</b>	<b>295</b>	<b>295</b>	<b>295</b>	<b>175 (59%)</b>
<b>mean (median) %</b>	35% (33%)	12.7% (0%)	53% (50%)	
<b>mean (median) number of directors</b>	2.82 (3)	1.09 (0)	4.35 (4)	

The final column of Table 2 shows the number of firms, within a particular range for percentage of independent directors, who have separate CEO and chairman. This practice is common; it is followed by 175 (59%) of responding firms. However, 20 firms (7%) do not comply with the requirement of at least 33% independent directors. In addition, of the 68 firms with 33-49% independent directors, 18 do not have a separate CEO and chairman; and thus also do not comply with Clause 49. In all, 257 firms (87%) comply with the board independence rules.

If the independence rules are appropriate (a topic we do not explore here), this level of noncompliance could be worrisome. Yet, in assessing the reliability of survey responses, reports of non-compliance may be good news. That some firms reported not complying with Clause 49 gives us more confidence that firms who report complying in fact comply.

We also asked about director backgrounds. Clause 49 requires firms to have an audit committee and requires the audit committee to have at least one person with financial or accounting expertise; 96% of firms comply. Over 20% of firms have a director who explicitly represents minority shareholders or institutional investors. There is a fair bit of gender diversity, with 30% of firms having a female director (but typically only one).

Some aspects of firms' choices for directors provide some basis for concern. One may doubt the business expertise of a typical scholar. Yet 39% of firms turn to scholars as independent directors, and often add several such persons to their boards; the mean number of scholar-directors for firms which take this route is 2.6. A similar percentage of firms have a lawyer on the board, but typically only one. Perhaps reflecting the importance of government regulation and political connections, 30% of firms have a former government official or former politician on their board.<sup>6</sup>

## **B. Board Practices and Processes**

We turn next to the survey questions that assess board practices and processes. These are summarized in Table 3, along with an indication of which practices are legally required practices, and when the requirement was adopted.

Indian law allows director terms to be up to 5 years but also requires either (i) annual terms or (ii) at least two-thirds of the directors should serve staggered terms, with a 3-year maximum. Most firms use multiyear terms for both executive and nonexecutive directors, usually 3 or 5 years for executives and 3 years for nonexecutives.

Indian law requires at least 4 board meetings per year, with no more than 3 months between meetings. All but eight firms met this rule; the median number of physical meetings per year is 6. However, three outlier firms reported that their board never met during the year! Only 11% of firms reported sometimes using phone or other electronic meetings, instead of physical meetings. Indian law requires firms to prepare minutes for board and board committee meetings. Almost all firms prepare minutes for meetings of board committees. Only 75% said that dissents would be recorded in the minutes. However, some "no" answers could reflect lack of dissents, rather than a practice of not recording them.

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<sup>6</sup> By comparison, Choi, Park and Yoo (2007) report, for Korean directors over 1999-2002 (period of rapid change in Korean boards, partly due to legal mandates), the average firm had 32% outside directors; 25% of firms had one or more academics as directors; 16% had one or more lawyers, and 13% had one or more former politicians or government officials.

**Table 3. Board Practices and Processes**

Sample is 301 Indian private firms which responded to India CG Survey 2006. Number of missing or ambiguous responses ranges from 0 to 18. Percentages are of firms with usable responses. "Required" column indicates items that are legally required or recommended.

Characteristic	Required (since when)	Firms with characteristic	mean (median)
<b>Director terms</b>	(1956)		
nonexecutive directors have staggered terms		275 (91%)	
executive directors have multiyear terms		261 (92%)	
<b>Board meetings</b>			
Minimum of 4 physical meetings	(2001)	293 (98%)	
No. of physical meetings			6.9 (6)
minutes prepared	(1956)	297 (99%)	
Dissents recorded in minutes	(1956)	211 (75%)	
<b>Evaluation of CEO and other executives</b>			
regular system for evaluating CEO		151 (51%)	
regular system for evaluating other executives		248 (83%)	
succession plan for CEO		86 (29%)	
annual separate meeting for nonexecutive directors		46 (15%)	
board replaced CEO in last 5 years		0	
<b>Evaluation of nonexecutive directors</b>			
regular system for evaluating nonexecutive directors	(2001) (recommended)	76 (25%)	
retirement age for nonexecutive directors		44 (15%)	
Director not renominated or resigned due to performance or policy dispute during last 5 years		7	
<b>Other</b>			
code of conduct	(2004)	275 (91%)	
policy restricting insider trading		278 (92%)	
board members typically receive materials at least one day in advance of meeting		291 (96%)	
regular director training	(2001) (recommended)	30 (13%)	

About half of Indian private firms report that they regularly evaluate the CEO; a larger number (83%) evaluate other executives. One wonders, however, how rigorous these evaluations are, given that zero firms reported that the board had replaced the CEO in the last 5 years, and only three reported replacing other executives! Perhaps some CEOs were quietly encouraged to pursue other opportunities and the respondent did not know the circumstances under which a CEO left. Still, Indian CEOs do not appear to be at grave risk of losing their jobs for poor performance. We also asked about the existence of a CEO succession plan; only 29% of respondents had one. Only 15% held an annual board meeting solely for nonexecutive directors.

Clause 49 includes some recommended items. One is that firms evaluate the performance of nonexecutive directors. About one-quarter of responding firms report doing so. Only about 15% of respondents had a retirement age for directors. There were occasional instances – a total of 7 – in which a director was not renominated or resigned due to performance concerns or a policy dispute. Here too, reporting could be incomplete, or the respondent may not have known the reasons for board turnover.

Clause 49 requires firms to adopt a code of conduct. About 90% of respondents have such a code; a similar number have a policy restricting insider trading. A full 96% normally provide materials to directors at least one day before board meetings. However, only 13% comply with the Clause 49 recommendation to provide regular director training.

### **C. Audit Committee**

Clause 49 requires firms to have audit committees with at least three members, all nonexecutives, an independent chair, and at least one member with expertise in finance or accounting. The committee must meet at least four times per year. All but three responding firms have an audit committee. Of the firms with a committee, all but three (one) have the required number of members (a member with accounting or finance expertise).

Practice is less uniform on how audit committees operate. Only 65% of respondents reported that the audit committee recommends reappointing or dismissing the external auditor, even though Clause 49 requires that the audit committee have this power. Seventy-nine percent have the required 4 meetings per year, but another 18% report having three meetings; 11 firms report 0-2 meetings. Only 68% of respondents have a bylaw to govern the audit committee, and at only 72% do the independent members meet separately at least once per year. One lone firm gives minority shareholders the power to appoint an audit committee member.

### **D. Compensation of Executives and Nonexecutives**

Table 4 provides information on executive compensation and compensation disclosures. For most survey questions, complete responses were the norm, but not for compensation, either because respondents lacked the information or chose not to provide it. Executive compensation is modest by U.S. standards. The mean (median) CEO receives annual cash compensation of 64 (30) lakhs (1 lakh =  $10^5$  rupees  $\approx$  US\$2,000). Only 16% of Indian private firms use stock options, which are the usual road to riches for U.S. executives. Most option grants are also modest.<sup>7</sup>

Indian law requires firms to obtain government approval to pay compensation above – generally speaking -- the greater of (i) 5% of net profits for one manager and 10% for all managers; or (ii) if the firm doesn't meet the percentage of profits test, between Rs. 9 lakhs for small firms (< 1 crore in book value of equity) and 24 lakhs for large firms (> 100 crores in book value of equity). Executive compensation under clause (ii) must also be approved by shareholders. Government approval to exceed these levels is usually obtainable, but the combination of these levels, desire to avoid seeking approval, and the need to obtain approval if over the threshold could all constrain executive pay. Seventeen percent of firms (52/301) obtained government approval.

Indian law requires companies to disclose the total pay of the CEO and each director. We asked firms about their disclosure, but cannot distinguish between "no" and missing responses. Most firms disclose CEO pay (95%), but compliance is lower for the pay of other directors. Indian law requires shareholders to approve the pay of all directors as a group, but does not require separate approval of CEO pay. Oddly, 89% of firms report that shareholders approve CEO pay, while only 70% report that shareholders approve the pay of all directors, even though the latter is the legal requirement.

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<sup>7</sup> A back-of-the-envelope estimate: The median grant to a CEO of 100,000 options might have an implied value  $100,000 \times (\text{typical } \$2 \text{ share price}) \times (0.40 \text{ estimate of option value/share price}) = \$80,000$ .

**Table 4. Executive and Director Compensation**

Sample is 301 Indian private firms which responded to India CG Survey 2006. Compensation is in lakhs (1 lakh = 10<sup>5</sup> rupees ≈ \$2,000); options are in thousands of shares. For compensation, number of usable responses is shown. For disclosure and approval questions, we cannot distinguish between “no” and missing responses. “Required” column indicates items that are legally required.

Compensation	Required (since when)	Responses	mean (median)
CEO cash compensation		251	64 (30)
Compensation of all other executives		184	2273 (154)
Executives receive stock options		49/299 (16%)	
Disclosure and Shareholder Approval		Disclosed	Approved
CEO total pay	(1956)	286 (95%)	267 (89%)
total pay of nonexecutive directors	(1956 & 2004)	231 (77%)	183 (61%)
total pay of all directors	(1956 & 2001)	267 (89%)	211 (70%)

### E. External Auditor

We also asked about auditor independence. The external auditor provides non-audit services at about half of the firms. When the auditor provides non-audit services, mean (median) fees for non-audit services are 18% (10%) of the auditor's total fees.

Indian law does not require rotation of audit firms, or of the engagement partner within an audit firm. Nonetheless, almost half of firms report that their audit firm rotates the partner responsible for their account every 5 years. Auditor dismissal is rare -- only 2 firms noted dismissals in the last 5 years. One firm said the reason was fees charged, the other did not provide a reason.

### F. Shareholder Rights

Table 5 summarizes questions related to shareholder rights. Indian law has required companies to allow postal ballots since 1956, yet only 73% do so. Given that most firms have a controlling shareholder, the fraction of shares voted at the most recent annual shareholder is surprisingly small, at a mean of only 58%. This suggests that minority shareholders often do not vote. Yet shareholder resolutions are not uncommon. About one-sixth of firms had one or more resolutions proposed in the last 5 years.

Indian law provides takeout rights on a sale of control, which require the new controller to offer to buy all shares at the price paid for the controlling shares. We asked whether minority shareholders receive takeout rights, but only 21 firms (8%) reported providing these rights. Possible explanations include poor phrasing (we asked whether the *firm*, rather than the new controller, provides the rights), or ignorance of this requirement. The famously slow Indian judicial system limits the effectiveness of shareholder remedies. A modest number of firms (20 firms, 7%) have responded to problems with the courts by providing for disputes with shareholders to be resolved by arbitration.

Under Indian law, shareholders holding 10% of a company's shares can demand that the company hold a special shareholder meeting. This happened at 14 firms (5%) during the last five years. Shareholders can also ask SEBI or a special appellate court, the Companies Appellate Tribunal, to investigate oppression by the controlling shareholder, but only one firm reported facing

such an investigation in the last five years. Finally, only one firm has issued preferred shares. Thus, Indian firms are not using these shares to avoid the one common share, one vote regime.<sup>8</sup>

**Table 5. Shareholder Rights**

Sample is 301 firms which responded to India CG Survey 2006 and have ownership data on Prowess. Number of missing or ambiguous responses ranges from 1 to 31. Percentages are of firms with usable responses. "Required" column indicates items that are legally required.

Characteristic	Required (since when)	Firms with characteristic	mean (median)
shareholders can vote by postal ballot	(1956)	218 (73%)	
percentage of shares voted at most recent AGM			58% (60%)
company had shareholder resolution in last 5 years		52 (17%)	
disputes w. shareholders resolved by arbitration		20 (7%)	
shareholders requested extraordinary meeting in last 5 years		14 (5%)	
shareholders asked SEBI or Tribunal to investigate oppression within last 5 years		1	
company has preferred shares		1	

### G. Related Party Transactions

Related party transactions and other forms of self-dealing by controlling shareholders are a significant concern in India. Most Indian firms have a major, often controlling shareholder. Bertrand, Mehta and Mullainathan (2002) report evidence of tunneling within Indian business groups during 1989-1999. Siegel and Choudhury fail to confirm this 1989-2008, with stronger statistical methods. The good news is that 78% of the responding firms have policies requiring RPTs to be on arms-length terms. The less good news is that there are lots of RPTs. Clause 49 requires the audit committee to approve all RPTs and requires the firm to disclose "materially significant" RPTs to shareholders. Ninety-four percent of firms said they reported RPTs to shareholders, but this includes some firms which reported having no or negligible RPTs, and thus nothing to disclose. When asked to quantify RPTs as a percentage of sales, 67% (20%) of firms with RPTs reported were at least 1% (5%) of revenue. Sixty percent of firms reported that their board reviewed at least one RPT in the last year; 36% reported board review of five or more transactions.

It is one thing to require RPTs to be on arms-length terms, but another to put procedures in place to ensure that this policy is adhered to. Table 6 summarizes approval requirements, separately for RPTs with an inside director and with a controller. Approval by non-conflicted directors is uncommon (7-9% of firms require this) and approval by non-conflicted shareholders is rare (1%). Thus, approval can often be influenced, and not infrequently dictated, by a controller.

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<sup>8</sup> Compare Brazil, where many firms issue preferred shares, which are in substance nonvoting common shares, to ensure that the control group retains control. See Black, de Carvalho and Gorga (2010b).

**Table 6. Approval Requirements for Related Party Transactions**

Sample is 301 Indian private firms which responded to India CG Survey 2006. We cannot distinguish between “no” and missing responses.

Related Party Transaction Approval Requirements	Transaction with	
	with inside director	with controlling shareholder
no specific requirement	81 (27%)	102 (34%)
approval by audit committee	96 (32%)	82 (27%)
approval by board of directors	212 (70%)	182 (61%)
approval by shareholders	37 (12%)	44 (15%)
approval by non-conflicted directors	26 (9%)	20 (7%)
approval by non-conflicted shareholders	2 (1%)	3 (1%)

## H. Cross-Listing and Financial Disclosure

Table 7 summarizes information on cross-listing and financial disclosure. Cross-listing may, depending on the destination exchange, require the firm to provide additional disclosures. Twenty-two firms (7%) are cross-listed, some on more than one non-Indian exchange.<sup>9</sup> However, only four firms are cross-listed on US exchanges (in the US on levels 2 or 3 -- four firms on the New York Stock Exchange and none on NASDAQ -- and hence are subject to U.S. reporting requirements and the U.S. Sarbanes-Oxley Act.. The rest cross-list on European markets or in the U.S. over-the-counter market, where they face few disclosure requirements (Doidge, Karolyi and Stulz, 2009). Only about 7% of firms prepare financial statements that meet U.S. GAAP or International Financial Reporting Standards (IFRS).

**Table 7. Financial Disclosure**

Sample is 301 Indian private firms which responded to India CG Survey 2006.

Question	Yes	% Yes
Company has shares cross-listed in another country	22	7%
<b><i>If yes, which country:</i></b>		
UK	12	
Luxembourg	11	
Germany (Frankfurt or Berlin)	10	
U.S. – off exchange	6	
U.S. - New York Stock Exchange or NASDAQ	4	
Company provides IFRS or U.S. GAAP financial statements	20	6.8%

Neither SEBI nor the stock exchanges maintains a website containing annual reports or financial statements for all listed firms. Thus, firm websites are an important way that investors can obtain this information. Table 8 summarizes what firms provide. About 67% provide annual financial statements on their website. About half also post the annual report to shareholders; a similar number provide press releases. About 43% post a notice of an upcoming shareholder opinion, but nary a firm announces the meeting results. Finally, 6% have no website (or have one that we could not find).

<sup>9</sup> Cross-listing data was provided to us by Kate Litvak (see Litvak, 2007).

**Table 8. Information on Company Website**

Sample is 301 Indian private firms which responded to India CG Survey 2006. Number of responses varies from 276 to 278. Percentages are of firms with usable responses.

Information Item	Yes	% Yes
<b>Financial information</b>		
annual financial statements	182	67%
annual report to shareholders	137	50%
share price information	145	54%
press releases	154	57%
notice of upcoming shareholder meetings	137	46%
results of shareholder meetings	0	0%
<b>Website not located</b>	18	6%

### I. Since When?

We asked firms how long selected governance practices had been in place. Table 9 summarizes the responses. Many governance practices were adopted recently -- especially those which recently became legally required. -- such as having a written code of conduct for directors and executives, which became mandatory in 2004. Similarly, policies on insider trading, on recommendation of the external auditor by the audit committee, and RPT disclosure are mostly of recent vintage. Use of stock options is recent as well; only 9 firms used them before 2000.

In contrast, the practice of separating the positions of CEO and chairman has a long vintage. Its current use may partly reflect the Clause 49 rules, under which a firm is permitted to have at least 33% independent directors if these positions are separated, versus 50% otherwise. But many firms voluntarily separate the two posts, including firms that separated them before Clause 49 was adopted, and there are 114 firms that have both separation and 50% independent directors (see Table 2).

**Table 9. Since When Has a Practice Existed**

Sample is 301 Indian private firms which responded to India CG Survey 2006. For some questions, number of usable responses may not equal firms with practice because some firms did not answer the "since when" question.

Practice	Usable responses	Required (since when)	Since When		
			2000s	1990s	Earlier
When was company incorporated	298		6	83	209
Firm has separate CEO and chairman	163		46	57	60
Firm has system for evaluating CEO	137		71	43	23
Firm has code of conduct	266	(2004)	246	13	7
policy restricting insider trading	251		218	37	6
audit committee recommends auditor	180	(2001)	149	24	7
executives receive stock options	48		39	7	2
RPT's must be on arms-length terms	185		111	31	43
Material RPT's are disclosed to shareholders	224	(2001)	170	31	23



## J. Government Enforcement

In some countries, company law is enforced privately or not at all. In the U.S., for example, the Securities and Exchange Commission enforces securities law, but Delaware corporate law is enforced only privately, through suits by shareholders, creditors, or the company itself. The Indian government, in contrast, has a variety of powers under corporate law, including the compensation limits noted above, as well as the power to provide relief for oppression or mismanagement, remove management, demand a special audit, inspect the company's accounts, and impose fines for some company law violations.

These powers, however, are rarely exercised. In the last 5 years the government has removed a director or blocked a director from serving at one Indian private firm and one foreign-controlled firm in our sample, dismissed an executive at one government firm, and ordered a special audit at three private firms. To be sure, powers that are rarely exercised can still be deterrents.

## V. Is Corporate Governance Associated with Firm Value?

We turn next to the association between firm-level governance practices and market value. We limit the sample to 276 non-bank Indian private firms with data available on Tobin's  $q$ . We construct a broad Indian corporate governance index, and ask whether the index or subindices predicts market values. We use  $\ln(\text{Tobin's } q)$  as our principal measure of market value (we take logs to address high- $q$  outliers), and market/book and market/sales in robustness checks.

Some caveats. The analysis below uses only cross-sectional data. Moreover, governance and other firm characteristics could be endogenously determined. We have no instrument for governance, so make no claims as to causation. Also, firm market values reflect trading prices for noncontrolling shares, and do not capture any additional value enjoyed by controlling shareholders. Governance changes could produce market value gains for outside investors by increasing overall firm value, by reducing the private benefits of control enjoyed by insiders (thus transferring value from insiders to outsiders), or both. We cannot distinguish here between these two broad channels. We discuss in Part 6 the extent to which our results might generalize to other emerging markets.

### A. Non-governance Variables and Descriptive Statistics

Table 10 defines the principal financial and other non-governance variables used in this paper, and provides summary statistics.

**Table 10. Non-Governance Variables**

Table describes and provides summary statistics for principal non-governance variables. Data from Prowess unless otherwise stated. Share values and balance sheet amounts are measured at year end 2005. Income statement variables are measured for 2005 unless otherwise specified. R&D/sales, Advertising/sales, exports/sales, PPE/sales, CAPEX/sales, and EBDIT/sales are assumed to be zero if missing (7-15 firms depending on measure). Number of observations varies from 276 to 296. Amounts in crores.

Variables	Description	Mean	Median	Standard Deviation	Minimum	Maximum
Tobin's $q$	Estimated [book value of debt + book value of preferred stock + market value of common stock]/book value of assets.	2.26	1.54	1.73	0.32	13.88
Market-to-Book Ratio	Market value/book value of common stock. We drop 17 firms with negative, zero or missing book value of common stock.	3.21	2.20	9.32	0	149.53
Book Value of Assets	Book value of assets.	905	199	3,134	9.01	42,545
Market Value of Equity	Market value of common stock plus book value of preferred stock.	1,954	261	7,961	3.5	81,737
Debt/Equity	Book value of debt divided by market value of common stock.	1.18	0.72	1.97	0	19.46
Debt/Assets	Book value of debt divided by book value of total assets	1.34	0.66	2.67	0	36.21
Years Listed	Number of years since original listing.	29.72	21	22.34	3	126
Sales Growth	Geometric growth rate from 2003 to 2005 (or available period).	0.35	0.17	1.46	-0.39	21.32
R&D/Sales	Research and development expense/sales.	0.002	0	0.013	0	0.17
Advertising/Sales	Ratio of advertising expense to sales.	0.009	0	0.022	0	0.18
Exports/Sales	Ratio of export revenue to sales.	0.232	0.07	0.31	0	1.02
PPE/Sales	Ratio of property, plant and equipment to sales.	0.65	0.40	0.95	0.004	9.89
Capex/Sales	Ratio of capital expenditures to sales.	1.19	0.62	2.58	0.044	36.59
EBDIT/Sales	Earnings before depreciation, income and taxes/sales.	0.18	0.15	0.82	-11.71	5.99
Share Turnover	Average daily shares traded during 2005/shares held by public shareholders	0.007	0.0023	0.017	0.00001	0.15
Foreign Ownership	Foreign ownership of the firm's common shares divided by common shares outstanding.	8.38	2.92	12.29	0	66.02
Market Share	Firm's share of sales by all firms in same 4-digit industry.	0.02	0.005	0.056	0	0.44
Cross-Listing Dummy	1 if firm is cross-listed on a foreign exchange.	0.08	0	0.27	0	1
Promoter Ownership	Percentage share ownership by promoters.	49.11	49.78	18.47	0	98.19
Business Group Dummy	1 if a member of a business group, 0 otherwise.	0.53	1	0.50	0	1
MSCI Dummy	1 if firm is in Morgan Stanley Capital International Index at year-end 2004, 0 otherwise.	0.03	0	0.17	0	1
Industry Dummies	10 industry groups, plus "other" category. Constructed using information from Prowess and company websites.					

## B. Construction of the Indian Corporate Governance Index

We rely on the survey and firm annual reports to construct an India Corporate Governance Index (*ICGI*). We identify 49 firm attributes that are often believed to correspond to "good" governance, on which we have reasonably complete data, reasonable variation across firms, and sufficient difference from another element included in *ICGI*. Manifestly, there is judgment involved on which elements to include. Each is coded "1" if a firm has the attribute; "0" otherwise. We group these elements into indices as follows:

- Board Structure (with subindices for board independence and board committees)
- Disclosure (with subindices for disclosure substance and for auditor independence/disclosure reliability)
- Related Party Transactions (with subindices for volume of RPTs and approval procedures)
- Shareholder Rights
- Board Procedure (with subindices for overall procedure and for audit committee procedure)

Table 11 describes the index components. Within each index, we give equal weight to each element. We normalize each index to mean 0 and standard deviation 1, and sum the normalized index scores to obtain an overall *ICGI* score. If a firm has a missing value for a particular element, we use its average score for the nonmissing values to compute each index.<sup>10</sup>

**Table 11. India Corporate Governance Index**

Description and summary statistics for elements included in India Corporate Governance Index (*ICGI*), for 296 private, non-bank Indian firms which responded to India CG Survey 2006. All variables are coded yes=1, no=0. In "responses" column, numerator is number of "1" responses, denominator is total responses.

Label	Variable	Responses	Mean	% Responding
<b>Board Structure Index</b>				
<i>Board independence subindex</i>				
BdIn.1	Board contains <i>at least</i> 50% independent directors	205/290	0.71	98%
BdIn.2	Board contains <i>over</i> 50% independent directors	135/290	0.47	98%
BdIn.3	CEO is NOT chairman of the board	175/296	0.59	100%
BdIn.4	Compliance with Clause 49: Either (i) board contains at least 50% independent directors or (ii) board contains at least 1/3 independent directors and CEO is not chairman	253/290	0.87	98%
<i>Board committee subindex</i>				
BdCm.1	Audit committee exists, has majority independent directors	268/284	0.94	96%
BdCm.2	Compensation committee exists	213/296	0.72	100%
<b>Disclosure Index</b>				
<i>Disclosure substance subindex</i>				
Di.1	Related party transactions are disclosed to shareholders	270/287	0.94	97%
Di.2	Firm has regular meetings with analysts	185/296	0.63	100%
Di.3	Firm discloses direct and indirect 5% holders	216/294	0.73	99%
Di.4	No shareholder agreement among controlling shareholders or agreement exists and is disclosed	264/270	0.98	91%

<sup>10</sup> For Board Independence subindex, three of the four elements require data on number of independent directors, which is missing for 6 firms. We judged that multiplying these firms' scores on the remaining element (CEO ≠ chairman) by 4 would overweight to this element, so multiplied by 2 instead. Five of these 6 firms had CEO ≠ chairman.

Label	Variable	Responses	Mean	% Responding
Di.5	Firm puts annual financial statements on web	182/271	0.67	92%
Di.6	Firm puts quarterly financial statements on web	198/271	0.73	92%
Di.7	Firm puts annual report on web	137/273	0.50	92%
Di.8	Firms puts directors' report on web	143/273	0.52	92%
Di.9	Firm puts corporate governance report on web	148/273	0.54	92%
<b>Auditor independence (disclosure reliability) subindex</b>				
Dr.1	Auditor does not provide non-audit services	151/296	0.51	100%
Dr.2	Dr.1 = 1 or non-audit fees are < 25% of total auditor fees	185/296	0.63	100%
Dr.3	Full board reviews auditor's recommendations	275/290	0.95	98%
Dr.4	Audit partner is rotated every 5 years	120/282	0.43	95%
<b>Related Party Index</b>				
<b>RPT volume subindex</b>				
Re.1	Firm does not have loans to insiders	273/291	0.94	98%
Re.2	Firm does not have significant sales to or purchases from insiders	270/291	0.93	98%
Re.3	Firm does not rent real property from or to an insider	233/291	0.80	98%
Re.4	Firm had negligible revenue from RPT's (0-1% of sales)	139/209	0.67	71%
Re.5	No RPT's needed board or audit committee approval in last 3 years	69/175	0.39	59%
Re.6	RPT's are on arms-length terms	226/289	0.78	98%
<b>RPT approval subindex</b>				
Ra.1	RPT's with <i>executives</i> approved by board, audit committee or shareholders	219/296	0.74	100%
Ra.2	RPT's with <i>executives</i> approved by audit committee or non-interested directors	97/296	0.33	100%
Ra.3	Shareholder approval of RPT's with executives	37/296	0.13	100%
Ra.4	RPT's with <i>controlling shareholder</i> approved by board, audit committee or shareholders	197/296	0.66	100%
Ra.5	RPT's with <i>controlling shareholder</i> approved by audit committee or non-interested directors	84/296	0.28	100%
<b>Shareholder Rights Index</b>				
Sh.1	Directors serve one year terms	26/296	0.09	100%
Sh.2	Firm allows voting by postal ballot	213/292	0.73	99%
Sh.3	Disputes with shareholders are subject to arbitration	20/266	0.08	90%
Sh.4	Company has policy against insider trading	273/295	0.93	99%
Sh.5	Board has one or more minority shareholder representatives	3/294	0.01	99%
<b>Board Procedure Index</b>				
<b>Overall procedure subindex</b>				
Pr.1	Average board meeting attendance rate $\geq$ 80%	174/296	0.59	100%
Pr.2	Firm has system to evaluate CEO	146/293	0.50	99%
Pr.3	Firm has system to evaluate other executives	243/293	0.83	99%
Pr.4	Firm has system to evaluate nonexecutive directors	74/292	0.25	99%
Pr.5	Firm has succession plan for CEO	84/288	0.29	97%
Pr.6	Firm has retirement age for nonexecutive directors	41/294	0.14	99%
Pr.7	Directors receive regular board training	39/294	0.13	99%
Pr.8	Firm has annual board meeting only for nonexecutives	46/292	0.16	99%
Pr.9	Board receives materials in advance	285/296	0.96	100%
Pr.10	Nonexecutives can hire own counsel and advisors	172/292	0.59	99%
Pr.11	Firm has code of ethics	269/296	0.91	100%
<b>Audit committee procedure subindex</b>				
Pa.1	Firm has bylaws governing audit committee	199/293	0.68	99%
Pa.2	Audit committee recommends external auditor	191/293	0.65	99%
Pa.3	Independent members of committee meet separately	212/292	0.73	99%

Figure 1 shows the overall variation in the index. One firm with a very low score aside, the distribution of *ICGI* is reasonably symmetric and close to normal.

**Figure 1. Distribution of *ICGI***

Fraction of firms with *ICGI* scores in indicated ranges, plus superimposed normal probability density function. Sample = 296 private, non-bank Indian firms. Mean = 0 (by construction), median = 0.211;  $\sigma=2.71$ .

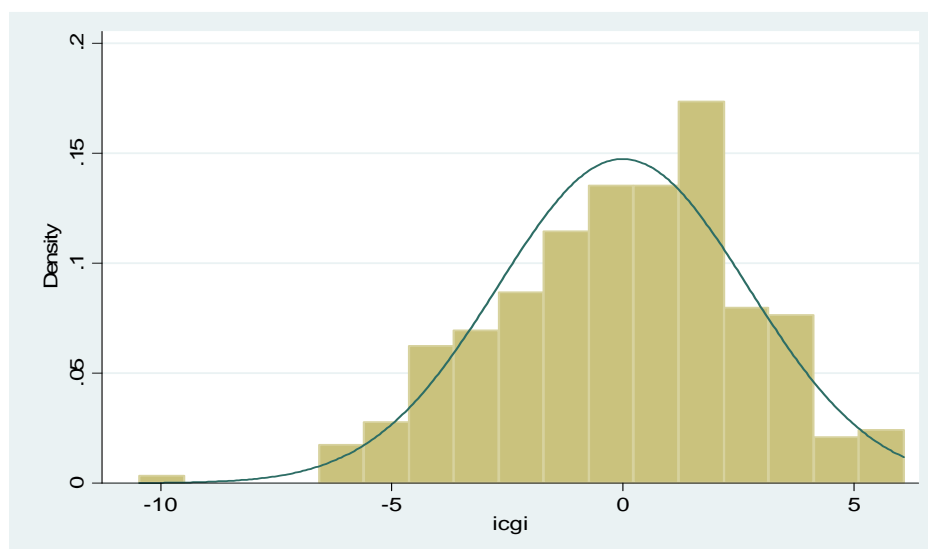


Table 12, Panel A provides summary statistics on *ICGI* and its components; Panel B provides a correlation table. There is substantial spread on each index and subindex, and for *ICGI* as a whole. The mean (median) firm has “1” values for 27.5 (27.8) elements. The inter-index correlations are generally positive but modest, so there is only limited colinearity between indices.

**Table 12. Summary Data for *ICGI***

**Panel A.** Descriptive statistics for *ICGI* and components (before normalizing), for 296 private, non-bank Indian firms which responded to India CG Survey 2006.

	Mean	Stand. Dev.	Min.	Max.	Max possible
<b>Board Structure Index</b>	4.29	1.36	0	6	6
Board Independence Subindex	2.61	1.19	0	4	4
Board Committees Subindex	1.64	0.57	0	2	2
<b>Disclosure Index</b>	8.85	2.65	0	13	13
Disclosure Substance Subindex	6.20	2.41	0	9	9
Disclosure Reliability Subindex	2.65	0.89	0	4	4
<b>Related Party Index</b>	6.66	2.11	0	11	11
RPT Volume Subindex	4.67	1.24	0	6	6
RPT Approval Subindex	2.14	1.55	0	5	5
<b>Shareholder Rights Index</b>	2.23	0.81	0	4.8	5
<b>Procedure Index</b>	7.43	2.41	1	14	14
Board Procedure Subindex	5.37	1.95	0	11	11
Audit Committee Procedure Subindex	2.04	0.90	0	3	3
<b>Non-normalized sum of ICGI components</b>	27.47	4.83	9.0	38.4	49
<b>ICGI (sum of normalized subindices)</b>	0	2.71	-10.46	6.07	

**Panel B.** Correlations among *ICGI* and its components. \*\* and \*\*\* indicate significance at 5% and 1% levels. Statistically significant correlations (at 5% level or better) are shown in **boldface**.

	<i>ICGI</i>	<i>ICGI</i> - indicated index	Board Structure	Disclosure	Related Party	Shareholder Rights
<i>ICGI</i>	1					
Board Structure Index	<b>0.54***</b>	<b>0.20***</b>	1			
Disclosure Index	<b>0.56***</b>	<b>0.22***</b>	<b>0.21***</b>	1		
Related Party Index	<b>0.53***</b>	<b>0.19***</b>	0.089	<b>0.15***</b>	1	
Shareholder Rights Index	<b>0.46***</b>	<b>0.10***</b>	0.044	-0.043	0.060	1
Board Procedure Index	<b>0.61***</b>	<b>0.29***</b>	<b>0.12**</b>	<b>0.19***</b>	<b>0.15**</b>	<b>0.18***</b>

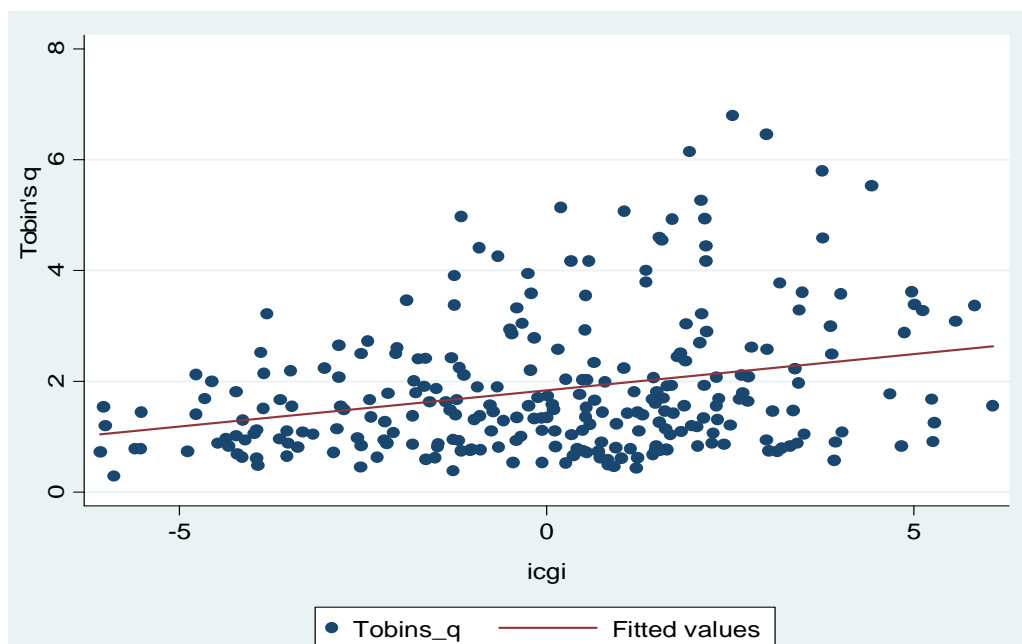
### C. Univariate Association Between Governance and Firm Value

We next assess the association between *ICGI* and its components, on one hand, and firms' market values, on the other. Figure 2 provides a scatter plot of *ICGI* against Tobin's *q* at year-end 2005 (shortly before we conducted the survey), plus a regression line from a regression of Tobin's *q* on *ICGI* plus a constant term. There is a visually apparent correlation; the simple correlation is 0.26 and the regression coefficient is 0.064 ( $t = 4.90$ ).

We have 276 firms with data on Tobin's *q*. In Figure 2 and later regressions we drop 12 outlier observations, for which a studentized residual from regressing Tobin's *q* on *ICGI* is greater than  $\pm 1.96$ . This generates a regression sample of 264 firms.

**Figure 2. ICGI (Indian Corporate Governance Index) and Tobin's *q***

Scatter plot of *ICGI* versus Tobin's *q* at year-end 2005 for 264 firms with data on Tobin's *q* which responded to India CG Survey 2006, after dropping 12 outlier observations based on  $|\text{studentized residual}|$  from regression of  $\ln(q)$  on *ICGI*  $> 1.96$ . Highest and lowest 5% of Tobin's *q* values are included in regression but suppressed in the scatter plot for better visual presentation. Regression coefficient = 0.064 ( $t = 4.90$ ).



## D. Association Between Governance and Market Value: Full Sample Results

In Table 13, regressions (1)-(3) we regress  $\ln(\text{Tobin's } q)$  against *ICGI* and control variables. In unreported robustness checks, we obtain similar results if we do not drop outliers or keep them but winsorize  $\ln(q)$  at 5% and 95%. Regressions (4)-(5) report robustness checks with  $\ln(\text{market/book})$  and  $\ln(\text{market/sales})$  as dependent variables.

Many firm characteristics can be associated with both Tobin's  $q$  and governance. We therefore include a broad array of control variables, to limit omitted variable bias. We use  $\ln(\text{assets})$  to control for the effect of firm size on Tobin's  $q$ . In unreported robustness checks, we obtain similar results using  $\ln(\text{sales})$ . We include  $\ln(\text{years listed})$  as a proxy for firm age, because younger firms are likely to be faster-growing and perhaps more intangible asset-intensive, which can lead to higher Tobin's  $q$ . We include leverage (debt/market value of common equity) because it can influence Tobin's  $q$  by reducing free cash flow problems.

We control for firms' growth prospects using geometric average sales growth over 2003-2005, for capital intensity using  $\text{PPE/sales}$ , and for capital expenditures relative to the historical capital stock using  $\text{capex/PPE}$ . We control for intangible assets using  $(\text{R\&D expense})/\text{sales}$  and  $(\text{advertising expense})/\text{sales}$ . Because export-oriented firms may be different than other firms, we control for  $\text{exports/sales}$ . We control for profitability measured by  $\text{EBDIT/sales}$ . We control for market share in 4-digit industry because it could affect both profitability and product market constraints. We include share turnover (traded shares as a percentage of public float) as a measure of liquidity, since share prices may be higher for firms with more easily traded shares. We include promoter ownership as a measure of insider ownership. We include foreign ownership because foreign investors are diversified and may be willing to pay higher prices than domestic investors, may pressure firms to improve their governance, or may invest in better governed firms (Ferreira and Matos, 2007). Since both governance and Tobin's  $q$  may reflect industry factors, we include industry dummies.<sup>11</sup> We include a business group dummy because business group firms may have political connections, access to financing, or be more diversified, which could affect Tobin's  $q$  (Zattoni, Pedersen and Kumar, 2009; Singh and Gaur, 2009). We include a cross-listing dummy, which can proxy for foreign investor interest, liquidity, and enhanced disclosure; and a dummy variable for a firm's inclusion in the Morgan Stanley Capital International Index for East Asia, which may proxy for liquidity and price pressure due to index fund purchases.

In regression (1), the only independent variables are *ICGI* and industry dummies. Including these dummies reduces the coefficient on *ICGI* from 0.064 (Figure 1) to 0.057. As we add additional control variables in regressions (2) and (3), the coefficient on *ICGI* declines to 0.034, indicating the importance of a good set of control variables. However, *ICGI* remains statistically significant ( $t = 2.75$ ) and economically meaningful. A one standard deviation (2.71 point) increase in *ICGI* predicts an 0.093 increase in  $\ln(\text{Tobin's } q)$ , or about a 17% increase in share price for a firm with median Tobin's  $q$  (1.54) and median debt/total assets (0.66).<sup>12</sup>

<sup>11</sup> Following Black and Khanna (2007), we construct 15 industry groups, of which 11 are represented in our sample. The industries (number of firms) are: agriculture and manufacturing (151); chemicals (42); services (25); computer (20); finance (15); construction (10); trade (9); metals (8); transportation (7); energy (2); and other (7).

<sup>12</sup> Tobin's  $q = (\text{debt/assets}) + (\text{market value of equity/assets})$ . A shock to share price affects only the second term: Let  $T$  be the fractional increase in Tobin's  $q$  and  $S$  be the fractional share price increase.  $S = \{[\text{New (market equity/assets)}]/[\text{Old (market equity/assets)}] - 1\} = \{[\text{New } q - (\text{debt/assets})]/[\text{Old } q - (\text{debt/assets})] - 1\} = \{[(\text{Old } q) * (1+T) - (\text{debt/assets})]/[\text{Old } q - (\text{debt/assets})] - 1\}$ . This equation can be solved for  $S$  if we know debt/assets, old  $q$ , and the fractional change  $T$ .

**Table 13. OLS for Corporate Governance Index**

Ordinary least squares regressions of  $\ln(\text{Tobin's } q)$ ,  $\ln(\text{market/book})$ , and  $\ln(\text{market/sales})$  on *ICGI* and control variables. We drop 12 outlier observations, based on  $|\text{studentized residual}|$  from regressing dependent variable on *ICGI* > 1.96. \*, \*\*, and \*\*\* indicate significance levels at 10%, 5%, and 1% levels. *t*-values, based on White's heteroskedasticity-consistent standard errors, are in parentheses. Significant results (at 5% or better) are shown in **boldface**.

Dependent variable	<i>Ln</i> (Tobin's <i>q</i> )			<i>Ln</i> (market/book)	<i>Ln</i> (market/sales)
	(1)	(2)	(3)	(4)	(5)
<i>ICGI</i>	<b>0.0565***</b> (4.10)	<b>0.0563***</b> (3.96)	<b>0.0342***</b> (2.75)	<b>0.0322**</b> (1.97)	<b>0.0400**</b> (2.11)
<i>Ln</i> (assets)		-0.00578 (0.18)	<b>-0.0957***</b> (2.75)	<b>-0.0874**</b> (2.05)	-0.076 (1.39)
<i>Ln</i> (years listed)		0.0616 (1.08)	0.0662 (1.23)	0.1262* (1.89)	0.042 (0.55)
Debt/Equity		-0.0354 (1.30)	-0.00928 (0.41)	<b>0.084***</b> (2.93)	-0.0615 (1.04)
Sales Growth		<b>0.0528**</b> (2.39)	0.0327* (1.65)	<b>0.0468**</b> (2.11)	0.0424 (1.15)
R&D/Sales			<b>11.08***</b> (4.18)	<b>9.660***</b> (3.63)	16.744* (1.77)
Advertising/Sales			<b>5.134**</b> (2.43)	<b>5.402***</b> (2.65)	<b>5.16**</b> (2.17)
Exports/Sales			-0.195 (1.52)	-0.248 (1.48)	0.297 (0.17)
PPE/Sales			<b>-0.136**</b> (2.16)	-0.0941 (0.93)	-0.0007 (0.01)
Capex/PPE			0.0002 (0.61)	-0.0001 (0.53)	0.0003 (0.73)
EBDIT/Sales			<b>1.395***</b> (3.97)	<b>0.9846**</b> (2.54)	<b>2.352***</b> (4.92)
Market Share			1.317 (1.65)	<b>1.969**</b> (2.31)	-0.309 (0.27)
Share Turnover			2.740* (1.79)	1.607 (0.90)	<b>4.752**</b> (2.45)
Foreign Ownership			<b>0.0125***</b> (3.65)	<b>0.0133***</b> (3.54)	<b>0.017***</b> (4.00)
Promoter Ownership			<b>0.0005**</b> (2.18)	<b>0.0059**</b> (2.28)	<b>0.006**</b> (2.07)
Business Group Dummy			-0.071 (0.83)	0.063 (0.62)	0.0001 (0.00)
Cross Listing Dummy			<b>0.314**</b> (2.39)	0.216 (1.14)	<b>0.455***</b> (2.78)
MSCI Dummy			0.254 (1.40)	0.296 (1.35)	0.273 (1.29)
Intercept Term	Yes	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes	Yes
Sample Size	264	254	250	255	260
Adjusted R <sup>2</sup>	0.097	0.095	0.291	0.278	0.540

Several control variables are significant and generally remain so with the alternate dependent variables. Larger firms have lower valuations. Firms which are intangible asset intensive, proxied by advertising/sales and R&D/sales, have higher valuations. More profitable firms have higher valuations, as do firms with higher ownership by the controlling shareholder or group and higher foreign ownership. In unreported regressions, we add interactions between *ICGI* and the significant control variables; none of the interaction terms are significant.



## E. Subindex Results

We next examine which subindices are associated with  $\ln(q)$ . Table 14, regression (1) reports results if we include all five subindices as separate independent variables, in a regression otherwise similar to our "full controls" specification (Table 13, regression (3)). In robustness checks, we obtain similar results for each subindex by itself. In regression (1), Shareholder Rights Index is positive and marginally significant. Shareholder rights also seems to drive the association between *ICGI* and firm value for more profitable firms (regression (4)). The coefficients on Board Structure and Disclosure Indices in the full sample regression (1) are positive but insignificant. The coefficients on Board Procedure and Related Party Transactions are close to zero.

**Table 14. OLS Results for Subindices**

Ordinary least squares regressions of  $\ln(\text{Tobin's } q)$  on *ICGI* and each subindex. Control variables and sample are the same as in Table 13, regression (3), and regressions are similar, except that we replace *ICGI* with five subindices as separate variables. *t*-values, based on White's heteroskedasticity-consistent standard errors, are reported in parentheses. Adjusted  $R^2$  varies from 0.153 to 0.371. \*, \*\*, and \*\*\* indicate significance levels at 10%, 5%, and 1% levels. Significant results (at 5% level or better) are shown in **boldface**.

Dependent variable		$\ln(\text{Tobin's } q)$				
Sample	Sample size	Board Structure index	Disclosure index	Related Party index	Shareholder Rights index	Board Procedure index
(1) All firms	250	0.044 (1.22)	0.061 (1.46)	0.003 (0.09)	<b>0.062*</b> <b>(1.89)</b>	0.005 (0.15)
(2) BSE 500 firms	92	0.046 (0.64)	-0.005 (0.06)	-0.051 (0.73)	0.062 (0.93)	-0.058 (0.72)
(3) non-BSE 500 firms	158	0.072* (1.75)	-0.010 (0.22)	0.059 (1.41)	0.042 (1.20)	-0.019 (0.42)
(4) More profitable firms (ROA>15%)	129	-0.004 (0.07)	0.041 (0.56)	0.036 (0.56)	<b>0.130**</b> <b>(2.37)</b>	0.063 (1.01)
((5) High $\ln(\text{Tobin's } q)$ )	128	0.025 (0.58)	0.061 (1.56)	0.064 (1.50)	0.042 (1.11)	-0.013 (0.31)

The weak results for Board Structure Index should be compared to the significant negative coefficient on a similar index in Black, de Carvalho and Gorga (2010b)'s study of Brazil, the positive coefficient in Dahya, Dimitrov and McConnell's (2008) multi-country study, and the strong positive coefficient on a similar index in Black and Kim (2010). If we divide Board Structure Index into Board Independence and Board Committee subindices, Board Independence subindex is not significant; Board Committee subindex is positive and marginally significant (coefficient = 0.062,  $t = 1.75$ ). We also varied the definition of Board Independence subindex, with similar results. One reason why board independence is not strongly associated with market value could be that India's minimum requirements for board independence are strict enough so that overcompliance (which provides the only variation we can test) does not predict firm value.

## F. Subsample Results

We also divide the sample into various subsamples, and rerun the "full controls" specification from Table 13, regression (3). As Table 15 reports, *ICGI* predicts higher Tobin's  $q$  for

more profitable firms, but not for less profitable firms.<sup>13</sup> However, if we use a different specification, in which we add an interaction between *ROA* and *ICGI* to Table 13, regression (3), the interaction term is small and insignificant. We found no significant differences in the coefficient on *ICGI* for large versus small, high versus low growth, manufacturing versus non-manufacturing, and business group versus non-group subsamples.

**Table 15. OLS Results for Subsamples**

Ordinary least squares regressions of  $\ln(\text{Tobin's } q)$  on *ICGI* for subsamples. Control variables and sample are the same as in Table 14, regressions (3)-(4). Sample is divided at the sample median. *t*-values, based on White's heteroskedasticity-consistent standard errors, are in parentheses. \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% levels. Significant results (at 5% or better) are shown in **boldface**.

Dependent variable	$\ln(\text{Tobin's } q)$				$\ln(\text{Market/Book})$
	Sample (for $\ln(q)$ )	ICGI	Other Controls	Adjusted R <sup>2</sup>	ICGI
Entire Sample	250	<b>0.034***</b> (2.75)	Yes	0.291	<b>0.032**</b> (1.97)
More profitable firms (Return on assets > 14.85%)	129	<b>0.057***</b> (3.35)	Yes	0.265	<b>0.062**</b> (2.80)
Less profitable firms (Return on assets < 14.85%)	121	0.012 (0.66)	Yes	0.188	0.013 (0.56)

## G. Endogeneity Concerns

Tables 14 and 15 provide evidence that firm-level governance is associated with higher  $\ln(\text{Tobin's } q)$ . We cannot assess causation because we have only cross-sectional data, and no plausible instrument for governance. But we can say a little bit about the likelihood that our results may provide decent guides to causation.

For emerging markets, little is known about the extent to which reverse causation (with better performance leading to better governance) or "optimal differences," in which governance optimally differs across firms, make cross-sectional results unreliable in assessing causation (Arcot and Bruno, 2006). For Korea, Black and Kim (2010) find weak evidence of reverse causation in Korea. Black, Jang and Kim (2006b) report that firm characteristics, other than firm size, only weakly predict Korean firms' governance choices. This suggests that endogeneity due to firms' optimally choosing governance to reflect firm characteristics may not be a large concern.

We cannot assess the likelihood of reverse causation with our dataset. However, if governance were sensitive to a firm's circumstances, we might expect financial and ownership characteristics to predict governance. In unreported regressions, we assess whether the control variables used in Tables 13-15 predict firms' governance choices. Regardless of which independent variables we use, adjusted R<sup>2</sup> values are negative (and become more so as we add more control variables). This is consistent with the Black, Jang and Kim (2006b) results for Korea, and suggests that the optimal differences flavor of endogeneity may be a limited concern in India as well.

<sup>13</sup> Compare Black, de Carvalho and Gorga (2010b), who report that a Brazil governance index predict higher Tobin's  $q$  for both more profitable and less profitable firms, with similar coefficients; and Hutchinson and Gul (2004), who report that governance is more important for Australian firms with high growth opportunities.

## VI. Implications for Corporate Governance in Emerging Markets

In this part, we combine our findings with those from other “case studies” of specific emerging markets. We seek to draw an overall picture of what corporate governance elements emerge as important across countries. Our conclusions are tentative, for several reasons. First, endogeneity is an important concern. Yet most studies, including this one, rely on cross-sectional associations, so their results may not be robust. Time-series studies are preferable, but are still vulnerable to endogeneity concerns (e.g., Wintoki, Linck and Netter, 2009). Second, different studies use different governance indices. The “shareholder rights” measure in one study may map only loosely onto the similarly named measure in another study. Third, different countries have different regulatory minima, which affect the elements on which there is within-country variation, and the range of that variation.

Generalizing turns out to be difficult. A number of studies find an association between a governance measure and Tobin’s  $q$ , but Connolly, Limpaphayom and Nagarajan (2008, Thailand) do not, at least without extensive digging. Which governance elements predict higher firm value also varies across countries. This suggests that flexibility in governance rules, above a regulatory minimum, would be valuable.

*Board structure and outside directors.* There is evidence that the combination of a minimum number of outside directors and an audit committee staffed principally by outside directors can be valuable, at least for larger firms. Black and Kim (2010) and Choi, Park and Yoo (2007) so find in Korea, and Black and Khanna (2007) find evidence that India’s Clause 49 reforms, which were largely concerned with board structure and audit committees, raised the value of large firms relative to smaller firms. In this study, we find that board structure is positive and marginally significant for non-BSE-500 firms, but not for larger firms (see Table 14). These weak results could partly reflect the fairly high regulatory floor set by Clause 49.

*Disclosure.* There is also evidence that better disclosure predicts higher firm value. Black, Kim, Jang and Park (2009) so find for Korea, with firm fixed effects, as do Black, Love and Rachinsky (2006) for Russia, again with firm fixed effects, and Cheung, Connelly, Limpaphayom and Zhou (2007) for Hong Kong in cross-section. We find an insignificant coefficient on disclosure.

*Shareholder rights.* There is mixed evidence on whether a package of shareholder rights can predict higher firm value. Cheung, Jiang, Limpaphayom and Lu (2009) so find for mainland China, with firm fixed effects, as do we for India in cross-section. However, Cheung, Connelly, Limpaphayom and Zhou (2007) find an insignificant negative coefficient on the same measure of shareholder rights in cross-section in Hong Kong, and Black, Kim, Jang and Park (2009) find an insignificant, negative coefficient on a shareholder rights measure in Korea with firm fixed effects.

*Related party transactions.* There is mixed evidence on whether direct controls on related party transactions predict higher firm value. Black, Love and Rachinsky (2006) so find for Russia with firm fixed effects, but we find no significant effect for India in cross-section. However, part of the value added by independent directors may involve better control of related party transactions, so that even if they occur, they are less adverse to minority shareholders. Black and Kim (2010) find evidence of this for Korea with firm fixed effects. This indirect effect of governance on related party transactions might be captured mostly by a board structure measure, rather than a related party transactions measure.

*Board and committee procedures.* There is mixed evidence on whether board and committee procedures predict firm value. Black, de Carvalho and Gorga (2010a) so find for Brazil, but Black,

Kim, Jang and Park (2009) find an insignificant coefficient on a board procedures measure in Korea with firm fixed effects, as do we for India in cross-section.

*Ownership parity.* Black, Kim, Jang and Park (2009) find evidence for Korea, with firm fixed effects, that a measure of “ownership parity” (whether the largest shareholder has equal voting and economic rights) predicts higher firm value. A number of cross-country studies also find that higher ownership parity predicts higher firm value (e.g., Claessens, Djankov, Fan and Lang, 2002).

*Firm size, profitability, and growth opportunities.* It is plausible that large firms need different governance structures than small firms. Our results weakly support this proposition – the association between *ICGI* and Tobin’s *q* and subindices is somewhat different for BSE-500 and non-BSE 500 firms. On the other hand, Black, Kim, Jang and Park (2009) report similar results for large and small firms. We also find that the association between *ICGI* and Tobin’s *q* is present for high-profit (but not low profit) firms, but is similar for high and low-growth firms.

*Inter-firm differences.* Minimum mandatory rules can be valuable in some instances (Black and Khanna, 2007 (India); Black and Kim, 2010 (Korea)). At the same time, the benefits of “better” governance depend in part on firm characteristics. Moreover, governance regulations can sometimes impose larger costs than benefits. The U.S. Sarbanes-Oxley Act likely offers an example, both for U.S. firms and cross-listed foreign firms (Litvak, 2007; Zhang, 2009).

One response to inter-firm variation would be a relatively low regulatory floor, which mandates only governance structures that are likely to benefit all or most firms. Another would involve a comply-or-explain corporate governance code, of the sort used in the UK (see Arcot and Bruno, 2006) and a number of other countries.

*Cross-country differences.* Different countries may have different corporate governance needs. For example, the mean and median Tobin’s *q*’s for our sample are over 2 (see Table 4). This suggests a combination of strong growth prospects for most firms and investors not expecting a high level of tunneling. In contrast, mean and median Tobin’s *q* levels are much lower in the other countries for which we have similar case study evidence, and are below 1 in Korea (Black, Kim, Jang and Park, 2009) and in the early years of the Russia study by Black, Love, and Rachinsky (2006), and are often a small fraction of 1 (suggesting high tunneling risk) in Black’s (2001) study of Russian firms in 1999. This suggests that the core corporate governance problems may be different, either in kind or in intensity, across countries, and may call for different remedies.

*Public enforcement.* Dharmapala and Khanna (2009) provide evidence supporting the value of sanctions against Indian firms which did not comply with India’s governance rules, and against their directors. This effect was found even though the change in official sanctions, which occurred in 2004, was not then (or since) followed by imposition of actual sanctions. Compare Bhattacharya and Daouk (2002, 2009), who report that enforced insider trading laws affect firm valuation, but unenforced laws do not. Desai, Dyck and Zingales (2007) provide evidence from Russia that enforcement of corporate income tax laws can benefit minority shareholders by limiting cash-flow tunneling.

## VII. Conclusion

We provide a detailed descriptive account of the governance practices of Indian public firms. Most firms meet the board independence rules under Indian law, which require either 50% outside directors or 1/3 outside directors and a separate CEO and board chairman, but 13% (38 firms) do not. The board chairman often represents the controlling business group or other controlling

shareholder. Firms are more likely to comply with audit committee requirement, although 1% do not. Related party transactions are common (67% of firms have RPTs representing 1% of more of revenues), but approval requirements for them are often weak. For transactions with a controlling shareholder, only 7% (1%) of firms require approval by non-conflicted directors (minority shareholders). However, 78% of firms nominally require RPTs to be on “arms-length” terms, and 94% disclose them to shareholders. Only about 2/3rds of firms provide annual reports on their websites. For those which do not, there is no good alternate source. Executive compensation is modest by US standards, but CEOs face only a small risk of dismissal. Only about 75% of firms allow voting by mail, even though this has been legally required since 1956. Government enforcement actions against firms are almost nonexistent.

We also contribute to the literature on corporate governance indices and the connection between governance and firm value. We build a broad Indian Corporate Governance Index (*ICGI*) and examine the association between *ICGI* and firm market value. We find a positive and statistically significant association between *ICGI* and firm market value in India. This is consistent with prior research in other countries and in cross-country studies. The association is more significant for more profitable firms. A subindex for shareholder rights is individually marginally significant, but subindices for board structure, disclosure, board procedure, and related party transactions are not significant. The non-results for board structure contrast to other recent studies, and suggest that India's legal requirements are sufficiently strict so that overcompliance does not produce valuation gains.

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