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Information Asymmetry and the Role of Regulations: A Corporate Governance Perspective

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On the one hand, there are individuals and institutions looking for opportunities to invest their savings and increase their future consumption ability. On the other hand, there are people with business ideas worth investing in but not enough money to meet the investment need. These people, often managers and entrepreneurs, are looking for ways and means to raise funds for their investment idea. Capital markets help the two hands meet by matching the demand and supply of money.

Capital market efficiency requires a smooth flow of capital from the investors to the managers and entrepreneurs. However, the effective allocation of capital is hampered by information asymmetry. Full information on investment options is available only to the insiders (management/entrepreneurs), but the investment decision is taken by the outsider (savers). Two seemingly similar investments (say similar tenure, base investment, and management quality) may yield very different returns (high for a good investment versus low for a not-so-good investment) based on hidden risk factors known only to the insiders. Not being privy to such information would result in the investor's inability to identify the investment type and distinguish between the two investments. This would lead to mispricing of the investment options (refer to Figure 1).

Unhappy with such mispricing, the good manager would leave the market and seek alternative (and cheaper) funding options. The not-so-good manager, happy with a cost of capital lower than expected, would stay on in the market, creating a lemons problem (Akerlof, 1970). This may lead to a breakdown of the capital markets. Thus, the effective flow of capital requires the effective flow of information.

Figure 1: Information asymmetry and its consequences on price discovery

Type of Investment / Type of Disclosure	**Good Investment**	**Not-So-Good Investment**
Full disclosure	Correctly identified and priced higher (lower cost of capital)	Correctly identified and priced lower (higher cost of capital)
Limited disclosure	Incorrectly identified and average priced (average cost of capital)	Incorrectly identified and average priced (average cost of capital)

Many capital market resolutions have been formulated to combat issues that arise from information asymmetry. These include (a) pre-committing to increased disclosures through optimal contracting, (b) introducing monitoring systems that dis-incentivize concealing information or incentivize desired outcomes, (c) signaling information through reputation, legitimacy, and firm choices, such as type of financing used, and (d) setting in place governance frameworks that increase accountability.

Information gaps have also led to the proliferation of many information intermediaries that privately source and produce information from insiders (generally for a fee) and help reduce information asymmetry. Such intermediaries include financial analysts, proxy advisors, credit rating agencies, and the financial press. Healy and Palepu (2001) and Bergh, Ketchen, and Orlandi (2019) provide an extensive review of our understanding of information asymmetry in the finance and management disciplines, respectively, and discuss some of these resolutions.

Another key resolution to information asymmetry has been the role of regulations. Leuz and Verrecchia (2000) discuss how increased information availability reduces the cost of capital for firms. Burgeoning regulations setting out disclosure and reporting mandates and aimed at improving governance have become a critical and recurring policy issue globally. Progressive global integration, worldwide capital flows, and the resultant increase in the need for standardization (for example, through the adoption of the International Financial Reporting Standards – IFRS across more countries) have spurred more regulations. Multiple financial crises and corporate frauds have led to large-scale regulatory reform across developed and developing nations.

Do we really understand the effect of different types of regulations?

The last two decades have seen a rapid increase in the pace and frequency of regulatory reforms related to corporate governance in many markets worldwide. For example, since embarking on corporatisation of the economy in the 1990s, China has introduced many regulations. Aimed at allowing state-owned enterprises to keep their ownership intact while disallowing harmful administrative interventions, China has seen old organs of governance (like the Party Committee and Union) transition to newer governance mechanisms like shareholder meetings and boards of directors. This period has seen several reforms: the introduction of the Chinese Securities Law, multiple regulations by the China Securities Regulation Commission to improve board governance (increase board independence, etc.), issuance of the Code of Corporate Governance for Listed Companies, amendment of the Companies Law in 2005, then 2014 to provide more teeth to the governance regulations issued, changes to the Securities Law in 2006, then 2013 to improve the protection of minority shareholders, including the Split

Share reform in 2005, and altering and updating listing rules across different stock exchanges (for example, the Shanghai Stock Exchange listing rules in 2008).

Similar changes to improve governance have been seen in many countries, particularly in Asia, including India, Malaysia, Korea, Thailand, and Singapore (see the OECD Survey of Corporate Governance Frameworks in Asia, 2017), along with regulatory changes seen even in countries like the US and the UK.

Interestingly, most of these regulations have been two-pronged and required newer disclosures and structural changes. Let us consider a specific regulatory change such as Clause 49 in the Indian context to understand this further.[1] A part of the listing agreement to the stock exchange in India, Clause 49 was formulated by the Securities Exchange Board of India (SEBI) in 2000 and later amended majorly to clarify the requirements and increase the muscle of the mandates in 2004-05. After multiple committees, amendments, and delays in requiring compliance, the regulation came into effect in January 2006 and remains a significant governance regulation in India. In essence, it reflects the objectives and processes of the Sarbanes-Oxley Act of the US (SOX), another critical governance regulation.

What did Clause 49 require? Similar to the SOX, Clause 49 required qualifying firms to disclose more information on governance and management perspectives through the Corporate Governance Report and Management Discussion and Analysis sections of the annual reports, respectively. In addition, the clause required firms to make structural changes to governance which included introducing sub-committees to the board of directors, altering the definition of independent directors, and setting a minimum requirement for representation of independent directors on the board. Many papers examined the benefits and costs of SOX in the US (Ge and McVay, 2005; Engel, Hayes and Wang, 2007; Zhang, 2007; Linck, Netter and Yang, 2009; Jain and Rezaee, 2010), studying the consequences of governance changes mandated by the Act. Different from the dispersed ownership setting in the US, Clause 49 in India, where ownership is concentrated, also saw a few papers investigate the impact of governance changes. Despite poor compliance, studies found a decline in the cost of capital (Bhattacharyya, Raychaudhuri and Rao, 2008) and an increase in firm value (Black and Khanna, 2007; Dharmapala and Khanna, 2013) due to improved governance arising from Clause 49.[2] Interestingly, the empirical strategy in most of these studies has been based on measuring changes in board structure or composition.

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[1] The corporate governance regulations like Clause 49, introduced in India since early 2000s, are now all incorporated in the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 (SEBI LODR). Refer to https://www.sebi.gov.in/legal/regulations/mar-2022/securities-and-exchange-board-of-india-listing-obligations-and-disclosure-requirements-regulations-2015-last-amended-on-march-22-2022-_57105.html, last accessed on 24th March 2022.

[2] As of 2007, BSE disclosed that less than 50% of qualifying companies were compliant with the requirements of Clause 49 (see Jackling and Johl, 2009). Also refer to https://economictimes.indiatimes.com/sebi-pulls-up-20-clause-49-violators/articleshow/2360322.cms?from=mdr, last accessed on 20th February 2022.

Like the above example, most regulatory studies have used tangible changes to examine the effectiveness of new mandates. However, regulations can be of three types (see Figure 2),

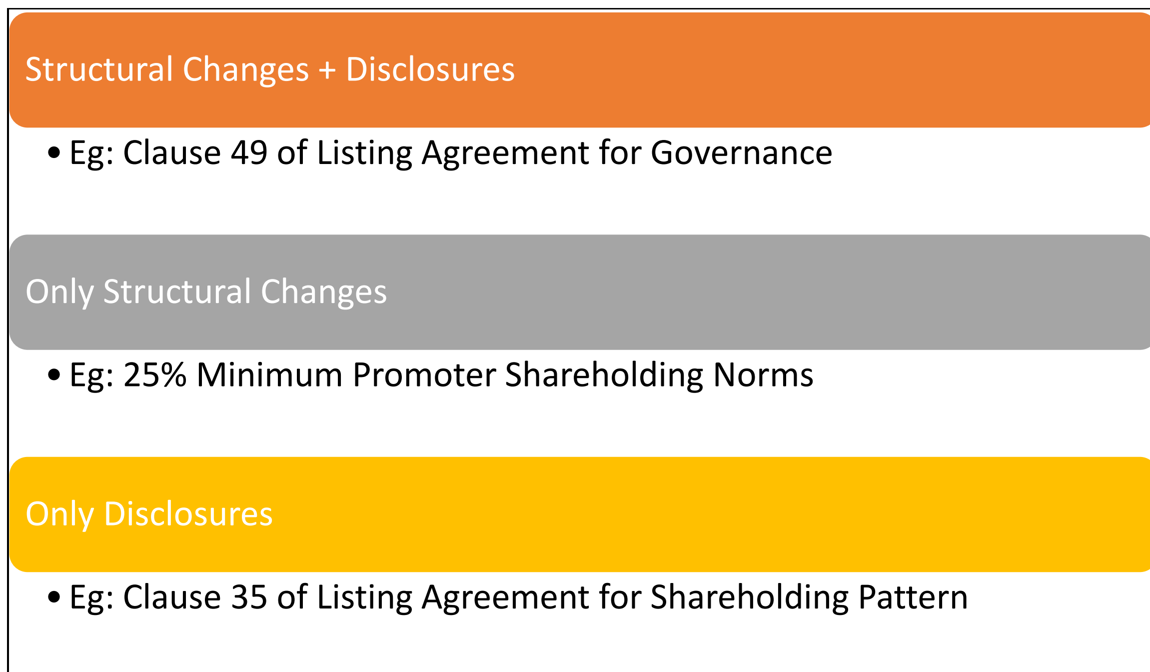
a) **Type A**: mandates that require both structural changes and new disclosures. For example, Clause 49 of the Listing Agreement in India (as discussed above).

b) **Type B**: mandates that require only structural changes. For example, the 25% Minimum Public Shareholding (MPS) Norms introduced in India in 2013 required promoters to reduce their stakes to less than 75% in all listed companies.

c) **Type C**: mandates that require only disclosures. For example, Clause 35, introduced in India in 2001, required all listed companies to disclose, for the first time, the shareholding pattern in a prescribed format (along with identifying and classifying the percentage of promoter ownership).[3]

Type A regulations, requiring both structural changes and disclosures, are most common, while type B and type C are not. Thus, the extant investigations into regulatory impact ensure that we understand the pros and cons of the structural changes introduced (both within type A and by type B regulations). Still, it almost completely (and often conveniently) ignores the impact of disclosures (new information made available within type A or by type C regulations).

Figure 2: Types of regulations



[3] Most of these regulations are now rolled into the SEBI's Listing Obligations and Disclosure Requirements Regulations, 2015 (LODR).

The use of such combined information and action-based mandates has made it difficult to segregate the impact of new information from the effect of structural changes. More importantly, while structural changes are easier to analyze given the tangible changes to structure post-regulation, information-only disclosures are challenging to examine. It is particularly challenging since the pre-regulation period is a black box with no information, and the post-regulation period reveals new information making a pre-post comparison unwieldy. It creates empirical issues associated with identification (no counterfactuals, no control groups, etc.).

Leuz and Wysocki (2016), in a review of disclosure and reporting regulations, highlight the significant role of regulations in curbing information asymmetry but conclude that evidence on the usefulness and real effect of regulations is rare, which makes the economic justification of regulations difficult. They conclude that evidence on the causal effect of regulations is difficult and rare since a clean identification strategy is challenging. Thus, market-wide effects of such regulations remain unknown, not just in the US but also in contexts outside the US, which the literature has largely ignored. So, little is known about the benefits or firm-level impact of such disclosure-only regulations (Leuz, 2018).

Are disclosure-based regulations welfare-enhancing?

Let us consider Clause 35 of the Listing Agreement of SEBI as an example to explore this. Multiple reasons make this regulation novel. First, Clause 35 only required disclosing more information and no real structural changes. Second, this was the first time SEBI required the identification of blockholders as promoters (insiders) and non-promoters (outsiders). This is particularly important in an economy like India, where concentrated ownership in the hands of insiders is the norm and therefore, type two agency issues of the principal-principal kind between majority owners and other owners are more common. Before this, the ownership and control rights of insiders versus those of outsiders were not possible to estimate at all (Sarkar, 2010). So, stakeholders like capital providers were unaware of the actual manifestation of agency issues at any firm. Information about ownership concentration and the identity of the largest shareholder are critical inputs in assessing the scope of owner-owner agency issues (Lim et al., 2014).

The availability of ownership information post Clause 35 meant that stakeholders could now estimate where promoters or insiders had more control. Therefore, this mandate would have a differential impact on firms where promoter ownership is concentrated (so the scope for ownership-related agency issues is higher) and firms with more diversified ownership (where the scope for ownership-related agency issues is lower). Clause 35 appears to provide a clean setting to examine the impact of ownership disclosure. Still, the fact remains that the pre-Clause 35 periods had no shareholding information, and only the post-Clause 35 periods provide this ownership information. Consequently, it is difficult to empirically examine the usefulness of the new disclosure on the shareholding pattern.

How does one empirically test the impact of a disclosure?

Another characteristic of the Indian economy is the presence of business groups. Loosely affiliated firms with formal or informal ties are the norm in the Indian economy. Examples of business groups include the Tata group, Larsen and Toubro group, and Reliance group. While firms affiliated with such groups account for only about 35% of listed firms in the BSE A and B groups, they are economically significant, contributing more than 65% of the market capitalization and total assets.[4] These firms also display promoter control, with at least a 51% promoter stake on average. These groups have also been documented to have complex webs of ownership aimed at increasing control of the affiliated firms (refer to the literature on ownership and control wedge; see Kali and Sarkar, 2011; Claessens et al., 2006; Gopalan and Jayaraman, 2012; Lugo, 2019). Contrary to this are standalone firms (not affiliated with any group), which account for 65% of firms but only about 35% of market capitalization. The promoter ownership in these firms is also lesser than the majority requirement (51%), implying less promoter control.

Thus, group-affiliated firms are expected (and have been documented) to be ripe for agency-related issues. Unraveling of frauds within business groups has been testimony to this. The notable ones include Kalyani Steel during the 1990s, Daewoo India in 2004, and Mardia Chemicals in 2005, the last being for approximately USD 23 million. This was followed by the massive accounting fraud at Satyam in 2008, where cash and bank loans were overstated by INR 53.6 billion (approximately USD 1.2 billion).[5] More recently, the Indian economy has been fighting similar ownership-based agency issues that have led to fraud at DHFL India and Yes Bank.

Group affiliation thus overlaps with promoter ownership in interesting ways. More importantly, group affiliation for every firm is identified, both pre- and post-Clause 35. Let us consider the Tata group as an example. The Tata group is one of the largest groups globally with multinational business interests across various sectors, including automotive, steel, power, airlines, jewelry, consumer products, and hotels. Tata Sons is the principal investment company and the promoter of Tata companies. If we visit the Tata Sons website (https://www.tata.com/), it is easy to maneuver to a page on their website - https://www.tata.com/investors/companies, where we can find the list of Tata group companies. However, while this available information enables us to link each company to the group it belongs to, ownership information is not available. The actual ownership stake of Tata Sons and other Tata group companies in every group company varies widely. In most Tata-group companies, Tata Sons does not

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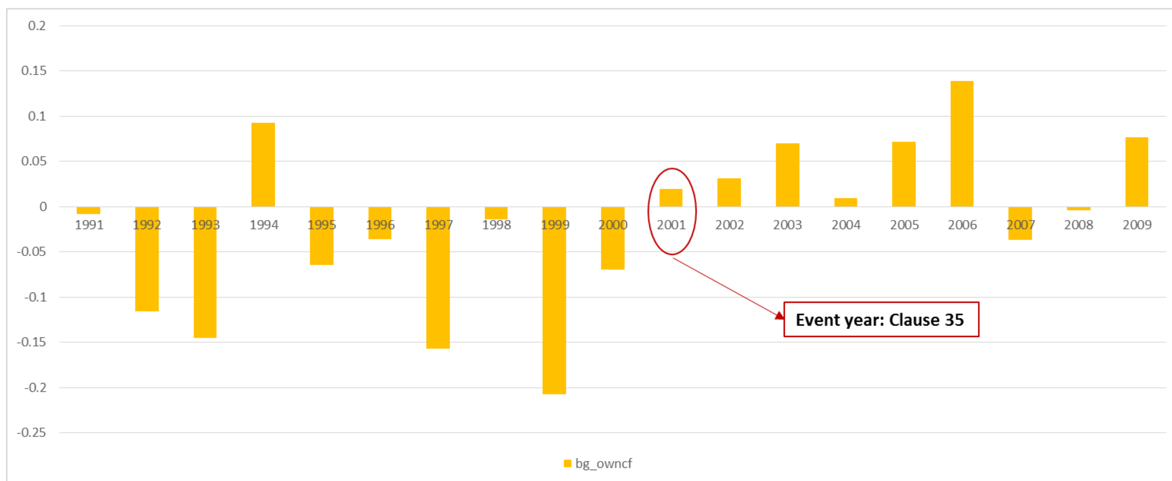
[4] The A and B group stocks are the most liquid stocks of the Bombay Stock Exchange, which is the oldest stock exchange in Asia with a market capitalization of ~USD3.7trillion and more than 5000 listings.

[5] While only examples from India are discussed here, extant literature has documented the higher occurrence of frauds and earnings manipulation in business group like structures across the world (eg: Albrecht et al., 2010; Kim and Yi, 2010; Beuselinck and Deloof, 2014). Chen et al. (2019) have developed a model specifically for detecting frauds in business groups. Large scale frauds like Procomp, Enron, Parmalat, and Daewoo are global examples of frauds in business groups.

hold a majority stake (ownership ranges from 22 to 31%).[6] Thus, it is (and was) possible to associate a firm with the group it belongs to and differentiate it from a standalone firm, even before or without the ownership information made available by Clause 35.

Basu and Sen (2020) attempt to resolve the empirical issues with identification using this overlap. Set in the context of capital markets, the authors find that disclosure-only regulations are welfare enhancing. The availability of information on promoter ownership and the revelation of the scope for agency issues are efficiently used by capital providers to reallocate capital. Funding constraints are found to increase for firms with higher insider ownership, particularly those with poorer compensatory mechanisms like governance and transparency, relative to firms with lower insider ownership. Figure 3 reveals the impact of Clause 35 on funding constraints faced by higher insider-owned firms relative to lower insider-owned firms in the Basu and Sen (2020) sample. The reallocation happens even within group-affiliated firms that differ based on promoter ownership levels. Thus, mandated regulations on information disclosure are an effective policy tool to reallocate capital efficiently.

Figure 3: Impact of Clause 35 on financial constraints; source: Basu and Sen (2020)



This is a step forward and can open up multiple avenues for further research on the relevance and impact of different types of regulations. It is crucial that the structure of regulations is understood and made a critical dimension of examining their impact. More so, in a world of increasing regulatory mandates, not just in the governance space but also beyond.

[6] Refer to https://www.livemint.com/Companies/cJRNMVUFVnjsG3Xm8Y3chN/Who-owns-how-much-in-Tata-group-firms.html.

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