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I. INTRODUCTION

The desirability of mandatory disclosure requirements in securities regulation has long been a subject of debate among legal academics and economists. A number of prominent commentators have argued that mandatory disclosure requirements are unnecessary, and even harmful, as market forces will generally ensure that firms disclose the optimal level of information.[1] For instance, Roberta Romano has argued for the removal of mandatory disclosure requirements in a series of important articles.[2] Proponents of mandatory disclosure have countered by arguing that the information released by firms generates important informational externalities.[3] One such informational externality that has received significant attention is the possibility that firm disclosures may improve the stock price accuracy of firms other than the disclosing firm.[4] Given that

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1. For scholars critical of mandatory disclosure, see HOMER KRIPKE, THE SEC AND CORPORATE DISCLOSURE: REGULATION IN SEARCH OF A PURPOSE (1979); George J. Benston, *Required Disclosure and the Stock Market: An Evaluation of the Securities Exchange Act of 1934*, 63 AM. ECON. REV. 132 (1973); Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L.J. 2359 (1998); George J. Stigler, *Public Regulation of the Securities Markets*, 37 J. BUS. 117 (1964); *cf.* Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903 (1998); Jonathan R. Macey, *Administrative Agency Obsolescence and Interest Group Formation: A Case Study of the SEC at Sixty*, 15 CARDOZO L. REV. 909 (1994).

2. *See* Romano, *Empowering Investors*, *supra* note 1 (proposing that firms select which state's regulatory regime will set their disclosure requirements); Roberta Romano, *The Need for Competition in International Securities Regulation*, 2 THEORETICAL INQUIRIES 387 (2001) [hereinafter Romano, *The Need for Competition*] (defending the proposal against various criticisms).

3. *See* Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 VA. L. REV. 1335, 1345–46 (1999) [hereinafter Fox, *Retaining Mandatory Securities Disclosure*] (arguing that certain firm disclosures will have effects on third parties, such as suppliers and customers, that will not be internalized by the firm); Merritt B. Fox, *Securities Disclosure in a Globalizing Market: Who Should Regulate Whom*, 95 MICH. L. REV. 2498, 2562–69 (1997) [hereinafter Fox, *Who Should Regulate*]; *cf.* Marcel Kahan, *Securities Laws and the Costs of "Inaccurate" Stock Prices*, 41 DUKE L.J. 977, 1034–35 (1992).

4. *See* Fox, *Who Should Regulate*, *supra* note 3, at 2562–69; Merritt B. Fox et al., *Law, Share Price Accuracy and Economic Performance: The New Evidence*, 102 MICH. L. REV. 331 (2003).

firms will not consider these externalities when deciding which pieces of information to disclose, it is argued that a mandatory disclosure regime can be socially beneficial.

Much of the debate to date has focused primarily on the merits of mandatory disclosure in the United States, where dispersed ownership structures are prevalent. This article focuses on whether mandatory disclosure can play a socially beneficial role in countries with concentrated ownership structures. Most countries around the world have concentrated ownership structures, including those of Continental Europe. This article argues that the case for mandatory disclosure in these countries does not hinge on whether there are informational externalities associated with firm disclosures—an issue that has dominated the academic debate over mandatory disclosure. Rather, the theoretical case for a demanding mandatory disclosure regime in these countries is based on the view that a demanding mandatory disclosure regime can reduce the level of diversion of corporate resources by controlling shareholders, and promote competition (both for capital and in the product market) against established firms. This theoretical case is backed by substantial empirical support.[5] Neither a reduction in the diversion of corporate resources nor an increase in competition is likely to be in the interests of existing controlling shareholders. However, as this article will show, these effects of mandatory disclosure are very likely to be in the interests of minority shareholders in countries with a high concentration of controlling shareholders. In countries such as the United States, which have dispersed ownership structures (but in many cases entrenched managers who may not always act in shareholder interest)[6] mandatory disclosure can serve the interests of shareholders as a group as well.

Examining the desirability of mandatory disclosure requirements is crucial given the important role these requirements play in modern securities regulation. A number of countries have adopted and/or strengthened mandatory disclosure requirements for their publicly traded firms in the last decade,[7] and many more countries, including developing ones, are considering doing the same.[8] Indeed, the quality of disclosure

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For a useful model capturing the effects of informational externalities associated with firm disclosures, see Anat R. Admati & Paul Pfleiderer, *Forcing Firms to Talk: Financial Disclosure Regulation and Externalities*, 13 REV. FIN. STUD. 479 (2000).

5. *See infra* section III.B.

6. *See infra* note 158 and accompanying text.

7. *See* Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, *in* CONVERGENCE AND PERSISTENCE IN CORPORATE GOVERNANCE 33, 52–53 (Jeffrey N. Gordon & Mark J. Roe eds., 2004).

8. *See, e.g.*, JUZHONG ZHUANG ET AL., CORPORATE GOVERNANCE AND FINANCE IN EAST ASIA (2000); Eur. Comm'n, Internal Market Directorate General, *Towards an EU Regime on Transparency Obligations of Issuers whose Securities are Admitted to Trading on a Regulated Market*, *Consultation Document of the Services of the Internal Market Directorate General* (2001) (proposing EU-wide disclosure requirements).

regulation was a particular focus in the aftermath of the East Asian financial crisis of 1997–1998, which many have blamed, at least in part, on poor firm transparency in the region.[9]

But is mandatory disclosure really necessary? The traditional case, which suggests it is not because market forces alone will compel firms to disclose, is outlined in Part II of this article. The theoretical case *for* mandatory disclosure, this article will argue, begins with the observation that the level of diversion of corporate resources by controlling shareholders is, on average, substantial in countries with concentrated ownership structures. These private benefits of control can theoretically be reduced to some extent by the adoption of a mandatory disclosure regime. The empirical literature that documents the size of controlling shareholders' private benefits of control is discussed in Part III.A. Part III.B. predicts that controlling shareholders' private benefits of control can be reduced by a country's adoption of a mandatory disclosure regime. If this prediction is true, then existing controlling shareholders will tend to have a preference for a lax disclosure regime. The empirical literature that is relevant to determine whether there is a linkage between disclosure regulation and the level of private benefits of control is also discussed in detail in Part III.B. This literature, it is argued, supports the view that mandatory disclosure sometimes substantially reduces controlling shareholders' private benefits of control.

However, neither the existence of substantial private benefits of control nor the potential for reduction of these benefits through the adoption of a mandatory disclosure regime is sufficient to establish the desirability of mandatory disclosure in countries with concentrated ownership structures. For example, it is possible that private benefits of control merely represent a transfer of value from minority shareholders to controlling shareholders, with no net social losses. The effect of mandatory disclosure on competition—for capital and in the product market—must be considered when evaluating whether existing controlling shareholders' tendency to prefer a lax disclosure regime will result in social losses. Part III.C.1 argues that a mandatory disclosure regime can reduce the cost of external finance to potential competitors of firms owned by existing controlling shareholders. Part III.C.2 then argues that existing controlling shareholders, *including* those shareholders of firms raising external finance for the first time, may prefer a lax disclosure regime as a means of reducing the ability

9. *See, e.g.*, Simon Johnson et al., *Corporate Governance in the Asian Financial Crisis*, 58 J. FIN. ECON. 141 (2000) (emphasizing overall poor corporate governance as responsible for East Asian crisis); Todd Mitton, *A Cross-Firm Analysis of the Impact of Corporate Governance on the East Asian Financial Crisis*, 64 J. FIN. ECON. 215, 216 (2002); Joseph Stiglitz, Address to the Chicago Council on Foreign Relations: The Role of International Financial Institutions in the Current Global Economy (Feb. 1998), *available at* http://www2.gsb.columbia.edu/faculty/jstiglitz/papers.cfm.

of potential competitors to raise external finance. This socially undesirable reduction of competition can occur along two dimensions: a reduction in competition for capital and a reduction in competition in the product market. Part III.C.2 presents empirical evidence consistent with the conclusion that the level of competition along both these dimensions would be positively affected by the presence of a mandatory disclosure regime.[10]

The fact that some (and perhaps most) controlling shareholders would prefer a lax disclosure regime as a means to protect their private benefits of control and reduce competition does not necessarily imply that firms that do find it in their self-interest to credibly commit to a demanding disclosure regime cannot do so. Nevertheless, Part IV argues that willing firms will not necessarily be able to credibly commit. Part IV.A. discusses how a willing firm might credibly commit to such a regime, but also addresses how governments and exchanges might very well not adopt a demanding disclosure regime, even if there is firm demand for one, given the opposition of those firms that do not find it in their self-interest. Moreover, as Part IV.B.1 emphasizes, competition between a country's domestic exchanges for investors' order flow will not necessarily result in a "race to the top" in terms of disclosure requirements imposed by exchanges on listed firms. Part IV.B.2 then looks at the pre-mandatory disclosure regulation of exchanges in the United States as a test case to see whether competition between exchanges will result in a demanding disclosure regime being offered by at least some exchanges. This section argues that prior to governmental pressure on exchanges to adopt demanding disclosure regulation, the level of disclosure imposed on firms by U.S. exchanges, including the New York Stock Exchange, was quite low. Part IV.C. discusses why international competition between exchanges for listings is not a perfect substitute for a country's home exchange or government adopting meaningful disclosure regulation. Part IV.D. explains why firms, through provisions in their corporate charters and other contractual arrangements, are often unable to credibly commit to a demanding disclosure regime through unilateral action.

A common argument for mandatory disclosure is that it ensures that the cheapest cost producer of firm-specific information, the firm itself in many circumstances, actually produces and discloses this information to the markets. This has the socially beneficial effect, the argument goes, of preventing traders from generating the same information but at a higher cost. Part V argues that this standard argument does not, standing alone, constitute a reason to favor mandatory disclosure. Rather, the force of this argument ultimately depends on whether firms are willing and able to

10. See RAGHURAM G. RAJAN & LUIGI ZINGALES, SAVING CAPITALISM FROM THE CAPITALISTS (2003) for a general argument that investor protections can encourage product market competition.

credibly commit to a demanding disclosure regime—the issues addressed in Parts III and IV.

Finally, Part VI examines empirical studies of the effect of mandatory disclosure on stock returns, volatility and financial development. In contrast to the conclusions of scholars opposed to mandatory disclosure, this article concludes, in Part VII, that the empirical evidence strongly supports the view that mandatory disclosure often has socially beneficial effects.

II. THE TRADITIONAL CASE AGAINST MANDATORY DISCLOSURE

The earliest comprehensive evaluations of the effects of a firm's disclosure decision, in the work of Sanford Grossman and Olivier Hart, among others, contained a powerful conclusion: In a world in which a firm has private information about the quality of its product and disclosure is costless, firms will voluntarily publicly disclose their private information as a signal of their products' quality.[11] The reason for this is simple but significant: Firms will voluntarily disclose information so as not to be confused by customers with firms with lower quality products. Firms with high quality products will, therefore, voluntarily commit to a disclosure regime that credibly commits the firm to full public disclosure. Firms with product quality a notch below that of these high quality firms will then voluntarily commit to a full disclosure regime so as not to be confused with firms with even lower quality. Eventually, the market completely unravels with all firms voluntarily disclosing their product quality, even if it is poor.[12]

This elegant and intuitively appealing signaling story has been the main theoretical support for the contention that market forces alone will ensure the optimal level of voluntary disclosure by firms. Most prominently, Roberta Romano, in her articles advocating the removal of mandatory disclosure requirements, relies heavily on this signaling story for her theoretical case against the need for mandated disclosure in securities regulation.[13] Simply put, firms that wish to maximize the value of their

11. *See* S. J. Grossman & O. D. Hart, *Disclosure Laws and Takeover Bids*, 35 J. FIN. 323 (1980); *see also* Sanford J. Grossman, *The Informational Role of Warranties and Private Disclosure About Product Quality*, 24 J.L. & ECON. 461 (1981) [hereinafter Grossman, *The Informational Role of Warranties*]. In the Grossman-Hart model, there are sanctions for lying but no sanctions for non-disclosure.

12. Grossman, *The Informational Role of Warranties*, *supra* note 11.

13. *See, e.g.*, Romano, *The Need for Competition*, *supra* note 2, at 418 ("The signaling hypothesis regarding information disclosure is a plausible scenario in today's capital markets. . . . It is therefore theoretically difficult for advocates of mandated disclosure to maintain their normative claims."). *Cf.* Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 683 (1984) ("Once the firm starts disclosing it cannot stop short of making any critical revelation, because investors always assume the worst. It must disclose the bad with the good, lest investors assume that the bad is even worse than it is.").

shares will disclose to ensure that investors do not mistakenly assign a positive probability that the firm is withholding information that would reveal a low firm value and, hence, assign a low value to the firm's shares.[14]

The signaling argument as applied to firm disclosure decisions retains some of its power despite the unrealistic assumption that disclosure is costless. Disclosure can obviously create a variety of costs for firms, ranging from the cost of gathering, verifying and releasing information to the loss of competitive advantage resulting from the release of proprietary information. While these costs might lead a firm to rationally refrain from disclosing some information, this simply means that firms will trade off the costs and benefits of disclosure.[15] Who better to make this trade-off, many argue, than firms who will suffer the consequences of making the wrong decision? After all, there is no reason to believe that firms will not optimize their disclosure decisions so that the marginal costs and benefits of disclosing are equated.

The signaling story, and hence its use as the linchpin for the case against mandatory disclosure, however, falls short as a basis for policy on two crucial points. First, the signaling argument relies on the assumption that those who set firm policy, such as entrenched managers and controlling shareholders, *want* to credibly commit to a disclosure regime that will maximize the market's current valuation of the firm. For the reasons given in Part III, this is simply not true for many firms in most countries. This group of unwilling firms can even include firms selling shares to the public for the first time. Second, the signaling argument relies on the assumption that firms *can* credibly commit to any desired level of disclosure. Again, this is less likely to be true than one might initially think. Part IV explains why some firms are unable to credibly commit to a high level of disclosure even if they might find it in their self-interests to do so.

III. DO FIRMS WANT TO CREDIBLY COMMIT?

Empirical evidence indicates that many controlling shareholders around the world divert corporate resources to themselves on a substantial scale. Logic and empirical evidence suggest that controlling shareholders' ability to engage in this diversion of corporate resources can be adversely affected by the imposition of mandatory disclosure requirements. Equally important, mandatory disclosure requirements can have the effect of increasing competition for capital and competition in the product market by decreasing the cost of external finance to new entrants and potential competitors. This increased competition would be to the detriment of existing firms with

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14. *See* Romano, *The Need for Competition*, *supra* note 2, at 544, 562.

15. See, e.g., Robert E. Verrecchia, *Discretionary Disclosure*, 5 J. ACCT. & ECON. 179 (1983), for a model in which disclosure is costly.

controlling shareholders. These different considerations deserve in-depth examination.

A. CONTROLLING SHAREHOLDERS AND CORPORATE DIVERSION

Most firms around the world have controlling shareholders.[16] The dispersed ownership structures of the United States and the United Kingdom are an exception. For this reason, it is crucial to consider the preferences of controlling shareholders when thinking about disclosure decisions for most firms around the world.[17]

Given the prevalence of concentrated ownership around the world, the potential conflict between the interests of controlling shareholders and those of minority shareholders is a significant problem facing corporate and securities regulators in most countries.[18] As is widely recognized, controlling shareholders will tend to ignore the harm caused to minority shareholders' interests when deciding which actions the firm should take. More to the point, controlling shareholders will have an incentive to divert corporate assets to themselves at the expense of existing minority shareholders.

The empirical evidence strongly indicates that diversion of corporate resources by controlling shareholders is an economically important and widespread phenomenon. This empirical literature consists of studies that have attempted to directly measure the private benefits of control accruing to the controlling shareholder (and not to other shareholders), as well as studies documenting the widespread existence of so-called "tunneling"—the phenomenon of corporate assets being transferred from the firm to a controlling shareholder through a variety of mechanisms.[19] "Tunneling" includes such activities as transferring assets at below-market price from

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16. In the United States, in contrast, it is more important to focus on the preferences of managers of firms with dispersed ownership, who may have some degree of entrenchment against shareholder wishes, as well as the preferences of the firms' shareholders. *See* Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113, 1146 (1998) [hereinafter La Porta et al., *Law and Finance*]; Rafael La Porta et al., *Legal Determinants of External Finance*, 52 J. FIN. 1131 (1997) [hereinafter La Porta et al., *Legal Determinants of External Finance*]; *see also* Marco Becht & Ailsa Röell, *Blockholdings in Europe: An International Comparison*, 43 EUR. ECON. REV. 1049, 1050 (1999).

17. See Lucian Bebchuk, Alma Cohen & Allen Ferrell, *What Matters in Corporate Governance?* (Harvard John M. Olin Ctr. for Law, Econ., & Bus., Discussion Paper No. 491, 2004), *available at* http://www.law.harvard.edu/programs/olin_center/papers/pdf/Bebchuk_et%20al_491.pdf. for an index measuring managerial entrenchment for U.S. firms. The degree of managerial entrenchment, as measured by this index, is correlated—with 1% statistical significance—with firm valuation. Moreover, firm valuation is monotonically decreasing in the entrenchment index. *Id*. at 17.

18. *See generally* REINIER R. KRAAKMAN ET AL., THE ANATOMY OF CORPORATE LAW: A COMPARATIVE AND FUNCTIONAL APPROACH (2004) (discussing the main issues in corporate and securities law).

19. See Simon Johnson et al., *Tunneling*, 90 AM. ECON. REV. 22 (2000), for examples of tunneling.

firms where the controlling shareholder has relatively low cash-flow rights to firms where the controlling shareholder has higher cash-flow rights.[20]

Several studies have documented that private benefits of control often take the form of "tunneling" in a wide range of countries.[21] For instance, one study found that in India it is not uncommon for more than 25% of the profits in firms where the controlling shareholder had low cash-flow rights to be transferred to firms where the controlling shareholder has high cash-flow rights when there is a positive shock to the firm's cash flow.[22] Studies that have measured the private benefits of control enjoyed by controlling shareholders have consistently found that control of a company is typically worth a great deal, indicating that as a result of their control, controlling shareholders receive benefits (including via diversionary activities such as "tunneling") not generally available to other shareholders. In Italy, for instance, the average value of control is worth an amazing 37% of the equity value of the firm.[23] More generally, control was worth, on average, an impressive 14% of the equity value of the firm in a sample of thirty-nine countries. The sample included both developing and developed countries ranging from Colombia to the United States.[24] Nevertheless there is wide variation across countries. At one extreme, the estimated value of control in some countries, like Brazil, is in the range of 65% of the equity value of the firm. At the other extreme, corporate control in Japan is estimated to be worth negative 4% of the equity value of the firm.[25]

B. DISCLOSURE AND CORPORATE DIVERSION

Widespread diversion of firm assets by controlling shareholders has implications for firms' disclosure decisions. There are good reasons to believe that the more firms engage in diversion of corporate resources, all else being equal, the more the controlling shareholders will prefer to keep these activities hidden from public view.[26] A lax disclosure regime will likely have the effect of making it easier for controlling shareholders to

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20. *See generally id.*

21. *See infra* notes 22–25 and accompanying text.

22. Marianne Bertrand, Paras Mehta & Sendhil Mullainathan, *Ferreting out Tunneling: An Application to Indian Business Groups*, 47 Q. J. ECON. 121 (2002).

23. Alexander Dyck & Luigi Zingales, *Private Benefits of Control: An International Comparison*, 59 J. FIN. 537, 551 (2004).

24. *Id.* Other studies have likewise found that corporate control has, on average, a substantial economic value. *See* Tatiana Nenova, *The Value of Corporate Voting Rights and Control: A Cross-Country Analysis*, 68 J. FIN. ECON. 325 (2003); Luigi Zingales, *The Value of the Voting Right: A Study of the Milan Stock Exchange Experience*, 7 REV. FIN. STUD. 125 (1994); *cf.* Luigi Zingales, *What Determines the Value of Corporate Votes?*, 110 Q. J. ECON. 1047 (1995). These studies find a substantial value placed on owning the control block in most cases, despite the fact that control block ownership entails some potential costs as well, such as a lack of diversification.

25. Dyck & Zingales, *supra* note 23, at 551.

26. This preference can exist even if everyone knows that firms, on average, are engaged in these activities.

divert corporate resources to their benefit: The more information there is available about a firm's operations, assets and ownership, the easier it is for shareholders and regulators to uncover when, how and to whom diversion is occurring.

Detection of diversion through increased disclosure might have a number of unwanted consequences for the controlling shareholder. Detection might lead, of course, to legal action. Even in countries with poor legal protections for investors there is some legal response, at least sporadically, to expropriation of firm assets that is sufficiently egregious.[27] Indeed, in extreme enough cases, public pressure might provoke action from regulators. In addition to any legal consequences, there might well be reputational costs for a controlling shareholder that has been publicly identified as particularly likely to engage in egregious conduct. Furthermore, recent empirical work suggests that a reputation for transparency and good governance can affect firm valuation.[28]

The empirical evidence is consistent with the view that it can be in the strong self-interest of controlling shareholders who enjoy high levels of private benefits of control for there to be low levels of firm transparency.[29] One study found that the higher the level of private benefits of control of firms in a country, the lower the level of disclosure (as captured by the degree of earnings management firms engage in) by firms in that country.[30] This study consisted of a sample of thirty-one countries, including developing as well as developed countries. Another recent finding is that an increase in mandatory disclosure requirements in a country is associated with a substantially lower level of private benefits of control for controlling shareholders in that country.[31]

Increased disclosure can reduce the private benefits of control. Todd Mitton conducted an important study of firms from Indonesia, Korea, Malaysia, the Philippines and Thailand during the East Asian financial crisis of 1997–1998 and found that firms with high levels of disclosure (by

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27. *See* Christian Leuz & Felix Oberholzer-Gee, *Political Relationships, Global Financing and Corporate Transparency* 3 (Wharton Fin. Inst. Ctr., Working Paper No. 03-16, 2003), *available at* http://fic.wharton.upenn.edu/fic/papers/03/0316.pdf.

28. *See* Jordan Siegel, *Can Foreign Firms Bond Themselves Effectively by Renting U.S. Securities Laws?*, 75 J. FIN. ECON. 319 (2005).

29. This is not to say, of course, that the only factor affecting the level of private benefits of control is transparency, or even, more generally, the quality of the regulatory regime. Other non-legal factors have been found to be important. *See*, *e.g.*, Marco Pagano & Paulo Volpin, *The Political Economy of Finance*, 17 OXFORD REV. ECON. POL'Y 502 (2001). It is worth bearing in mind, by way of caution, that none of these studies definitively establish a causal link between firms' disclosure preferences and the level of private benefits of control (as is typically the case for studies in this area).

30. *See* Leuz & Oberholzer-Gee, *supra* note 27.

31. *See* Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Shleifer, *What Works in Securities Laws?*, 61 J. FIN. 1, 16, 19 (2006) (two-standard-deviation increase in their "disclosure index" associated with a 13% decrease in the premium paid for control blocks).

virtue of having securities trading in the United States or having an auditor from a (then) "Big Six" accounting firm) had substantially better stock return performance during the crisis.[32] One plausible explanation for these abnormal stock returns is that diversion of corporate resources is likely to be particularly severe during financial crises,[33] but firms with high levels of disclosure experienced lower levels of corporate diversion because of the increased transparency of any diversion that is undertaken.

Another piece of evidence comes from studies of firms that cross-list. Empirical research has found that the benefits to firms from countries with weak disclosure and investor-protection regimes of cross-listing onto U.S. exchanges are often substantial. Cross-listings are associated with more accurate analyst forecasts—arguably an indication of a richer information environment—and increased firm valuation.[34] Improvements in firm valuation are particularly significant for firms cross-listing from countries with the weakest disclosure and investor-protection regimes.[35] Despite the apparent substantial benefits of cross-listing, relatively few of the firms eligible for cross-listing take advantage of this opportunity. Less than 10% of firms eligible for cross-listing onto the U.S. markets do so.[36] Many firms are apparently satisfied with their regulatory environments and the associated high levels of private benefits of control, despite the cost to firm valuation.

Another study investigated the effect of a country having an active media on the level of private benefits enjoyed by controlling shareholders.[37] The effects were quite strong. A one-standard-deviation increase in the level of the active press variable translated into a reduction in the value of the private benefits of control by 6.4%.[38] This evidence is consistent with an increased ability of the public to scrutinize questionable behavior, in this case through the press, limiting the ability of controlling shareholders to extract private benefits.

Other studies have focused on politically connected firms and firm transparency. Again, the evidence demonstrates that firms prefer to avoid

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32. Mitton, *supra* note 9, at 217 (stating that having an ADR resulted in a higher stock return relative to other firms during the East Asian crisis of 10.8% and having a Big Six accounting firm was associated with a higher return of 8.1%).

33. *See* Johnson et al., *supra* note 9, at 142 (arguing that expropriation increased during the crisis).

34. Mark H. Lang, Karl V. Lins & Darius P. Miller, *ADRs, Analysts, and Accuracy: Does Cross Listing in the United States Improve a Firm's Information Environment and Increase Market Value?*, 41 J. ACCT. RES. 317 (2003).

35. *See* Craig Doidge, G. Andrew Karolyi & René M. Stulz, *Why Are Foreign Firms Listed in the U.S. Worth More?* (Nat'l Bureau of Econ. Research, Working Paper No. 8538, 2001), *available at* http://www.nber.org/papers/w8538.pdf.

36. *Id.* at 1.

37. *See* Dyck & Zingales, *supra* note 23, at 582–86 (where the level of activity of the press was proxied by the number of newspapers sold per 100,000 residents).

38. *Id.* at 586.

demanding disclosure regimes that might publicly expose uncomfortable facts. For example, politically connected firms in Indonesia during the reign of Soeharto, were significantly less likely to have securities publicly traded abroad.[39] More specifically, these firms were significantly less likely to have debt or equity traded on the U.S exchanges and thereby avoided U.S. disclosure requirements.[40] One plausible explanation for this finding is that these firms desired to hide questionable transactions with their political backers and state-owned banks. Causation is difficult to establish, however, as the availability of favorable financing from state banks could have reduced the need for external finance.[41]

Of course, the mere fact that controlling shareholders might want to opt into a lax disclosure regime does not by itself indicate that such a decision is socially undesirable. It is possible that the controlling shareholder values the diverted resources as much as the shareholders who would otherwise be the beneficiaries.[42] In other words, diversion of corporate resources might constitute a mere transfer with no net social loss. Moreover, the ability to engage in diversion might conceivably serve as compensation to the controller for the costs associated with monitoring the firm's managers. These costs might include a lack of diversification and liquidity associated with holding a large control block of stock in a single company and the time and effort incurred by the controller in the course of monitoring firm management.[43]

When evaluating how likely it is that there are no net social losses associated with a lax disclosure regime, two considerations need to be kept in mind. First, even if private benefits of control merely represent a transfer from minority shareholders to controlling shareholders or efficient compensation for the monitoring services provided by the controller, the effects of a lax disclosure regime—adopted as a means to protect these transfers—on competition, growth and financial development must be considered. Once these effects are taken into account, it is questionable how innocuous the decision to opt into a poor disclosure regime really is. The empirical evidence suggests that the effects of lax disclosure regimes on competition, growth and financial development are both detrimental and nontrivial.[44]

39. Leuz & Olberholzer-Gee, *supra* note 27, at 3.

40. *See id.*

41. *See id.* at 3–4 (discussing this possibility).

42. Most models of expropriation, however, do assume that there is a cost associated with diversion of corporate resources. *See*, *e.g.*, Mike Burkhart, Denis Gromb & Fausto Panunzi, *Why Higher Takeover Premia Protect Minority Shareholders*, 106 J. POL. ECON. 172 (1998).

43. *See* Anat R. Admati, Paul Pfleiderer & Josef Zechner, *Large Shareholder Activism, Risk Sharing, and Financial Market Equilibrium*, 102 J. POL. ECON. 1097 (1994) (discussing the costs associated with holding large blocks). Of course, if control is guaranteed by holding shares with disproportionate voting rights, the diversification and liquidity costs of control will be reduced.

44. See discussion *infra* Part III.C. for a discussion of this evidence.

Second, it is also worth emphasizing that once firms have sold shares to minority shareholders, controlling shareholders will not necessarily find a mandatory disclosure regime in their self-interest for the simple reason that some of the benefits of such a regime will accrue to the benefit of minority shareholders.[45] Minority shareholders would benefit because they were able to initially purchase their shares at a discount reflecting a higher expected level of diversion than is possible under a more demanding, mandatory disclosure regime.[46] Selling shares at such a discount might be the optimal course of action if it turns out that, at the time the shares were sold, no demanding disclosure regime was available and supporting the creation of such a demanding disclosure regime was either infeasible or would have created potentially unwanted competition.

On a more general note, research has found that there is a negative correlation between the presence of controlling shareholders and the strength of the legal protections provided to investors.[47] One common explanation for this finding is that as private benefits of control are lower and hence the attractiveness of retaining control reduced, the stronger are the legal protections of investors (such as mandatory disclosure requirements).[48] Outside investors, such as non-controlling shareholders, will be willing to pay more for claims on the firm's profits given the lower level of expected diversion of corporate resources.

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45. *See*, *e.g.*, Lucian Arye Bebchuk & Mark J. Roe, *A Theory of Path Dependence in Corporate Ownership and Governance*, *in* CONVERGENCE AND PERSISTENCE IN CORPORATE GOVERNANCE 69, 83–92 (Jeffrey N. Gordon & Mark J. Roe eds., 2004).

46. *See* Andrei Shleifer & Daniel Wolfenzon, *Investor Protection and Equity Markets*, 66 J. FIN. ECON. 3, 17–18 (2002). The Shleifer-Wolfenzon model is cast in terms of investors' legal protections. Their model is easily adopted to apply to disclosure requirements. See Michael Greenstone, Paul Oyer & Annette Vissing-Jorgensen, *Mandated Disclosure, Stock Returns, and the 1964 Securities Acts Amendments*, 121 Q. J. ECON. 399, 406 (2006), for an adoption of Shleifer-Wolfenzon model to the mandatory disclosure requirement context.

47. *See*, *e.g.*, Rafael La Porta, Florencio Lopez-de-Silanes & Andrei Shleifer, *Corporate Ownership around the World*, 54 J. FIN. 471 (1999). The La Porta et al. "anti-directors" index, a measure of the strength of legal protections provided investors, does not include mandatory disclosure requirements as one of its elements. However, using an index that includes mandatory disclosure requirements appears to capture more of the important aspects of differences across countries than does the "anti-directors" index. *See* La Porta et al., *supra* note 31. Moreover, disclosure levels of firms in a country and that country's "anti-directors" index are, not surprisingly, highly correlated. *See* Christian Leuz, Dhananjay Nanda & Peter D. Wysocki, *Earnings Management and Investor Protection: An International Comparison*, 69 J. FIN. ECON. 505 (2003).

48. *See*, *e.g.*, Lucian Arye Bebchuk, *A Rent-Protection Theory of Corporate Ownership and Control* (Nat'l Bureau of Econ. Research, Working Paper No. 7203, 1999), *available at* http://www.nber.org/papers/w7203.pdf (showing that fewer private benefits of control can lead to more dispersed ownership structures).

C. DISCLOSURE AND COMPETITION

1. Reducing the Cost of External Finance

In addition to affecting the ability of controlling shareholders to divert corporate resources, the presence of a demanding disclosure regime also can lead to a lower cost of capital for firms reliant on external finance. This consequence is potentially quite important for those firms that do not have sufficient internal sources of capital to participate in investment opportunities. This group of firms would likely include young firms with high-growth prospects but relatively few internal sources of capital. Larger, more established firms are more likely to have internal sources of capital and ties to financial institutions that can provide credit.

There are at least three mechanisms by which a demanding disclosure regime can reduce the cost of external finance: Reducing adverse selection costs, reducing the level of private information held by traders and reducing the expected level of diversion of corporate resources. Consider first the effect of demanding disclosure on adverse selection costs. A standard set of models in corporate finance indicates that there is an adverse selection cost to raising external finance that can be reduced with improved disclosure. In the absence of sufficient firm-specific public information, the market will assign a positive probability that a firm with valuable assets—such as a firm with substantial profits and promising growth prospects—is in fact a firm with low-value assets.[49] This makes it less likely that high-value firms will raise external finance to fund attractive investment opportunities, as their shares will sell at a discount to their true value. This discount represents the adverse selection cost that these high-value firms experience when raising external finance. High-value firms will be more likely to raise external finance if improved disclosure of firm-specific information is available at the time the firm is raising capital, given the increased ability of the market to differentiate between high-value and low-value firms.[50]

The second reason why the cost of external finance might be lower in a regime with demanding disclosure requirements is the effect such a regime has on the level of private information that traders hold about the true value of the firm. Credible, public firm disclosures can have the effect of displacing information that was, or would have been, generated by privately informed traders.[51] This is important because recent theoretical and

49. The classic adverse selection papers are Stewart C. Myers & Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have*, 13 J. FIN. ECON. 187 (1984) and Stewart C. Myers, *The Capital Structure Puzzle*, 39 J. FIN. 575 (1984).

50. Consistent with this, voluntary levels of disclosure by firms are higher around the time firms access the capital markets for capital. *See* Mark Lang & Russell Lundholm, *Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures*, 31 J. ACCT. RES. 246 (1993).

51. For evidence that firm public disclosures can displace private information, see Stephen Brown & Stephen A. Hillegeist, *Disclosure Quality and Information Asymmetry* (Goizueta Bus.

empirical research indicates that securities with a high level of private-information trading have higher expected returns.[52] And, of course, a higher expected return, all else being equal, implies a higher cost of capital. This association between levels of private-information trading and expected returns suggests that there is value to a firm in not only credibly committing to meeting demanding disclosure standards at the time external finance is being raised, but also credibly committing at the same time to meeting demanding disclosure requirements in the future as well.[53]

Finally, the availability of external finance can be enhanced by mandatory disclosure because a firm can demand more per share if it is able to credibly commit to a low level of diversion of corporate assets through such a disclosure regime. The equity of a firm will be worth more because a larger percentage of the firm's profits will end up being used for the benefit of all the shareholders. Moreover, an increase in the amount of publicly available information could also have the effect of reducing the costs to minority shareholders of monitoring controlling shareholders and management to ensure that corporate diversion is not occurring.[54] The reduced cost of external finance for firms that have attractive investment opportunities and can credibly commit to reduced levels of diversion can result in a reallocation of capital from firms that have less attractive investment opportunities to firms with more attractive investment opportunities.[55]

A reduced cost of external finance for firms issuing securities also has implications for the availability of venture capital financing for these firms prior to the time they ultimately issue securities to the public. The option for venture capitalists to "cash out" their investments by selling securities in the firm to the public on favorable terms in the event that the company is successful could very well make it more likely that venture capital funding will be forthcoming in the first place.[56] One study has documented that

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Sch. Paper Series, Paper No. GBS-ACC-2005-001, 2005), *available at* http://gbspapers.library.emory.edu/archive/00000131/.

52. *Id*. at 16.

53. See discussion *infra* Part V. for a review of the theoretical and empirical literature on this association.

54. *See* Davide Lombardo & Marco Pagano, *Law and Equity Markets: A Simple Model*, *in* CORPORATE GOVERNANCE REGIMES: CONVERGENCE AND DIVERSITY 343, 351 (Joseph A. McCahery et al. eds., 2002) (modeling the effect of reduced monitoring costs on the equilibrium rate of return on equity).

55. *See* Shleifer & Wolfenzon, *supra* note 46, at 16 (establishing this result when capital is not perfectly mobile across countries).

56. *See* Bernard S. Black & Ronald J. Gilson, *Venture Capital and the Structure of Capital Markets: Banks Versus Stock Markets*, 47 J. FIN. ECON. 243, 255–56 (1998).

venture capital funding increases in the wake of countries introducing more demanding mandatory disclosure requirements.[57]

Empirical evidence clearly suggests that the presence of a demanding disclosure regime enables firms (especially cash-poor, high-growth firms) to raise needed external finance on favorable terms. Studies have found that many of the firms that cross-list in the United States, and thereby commit themselves to the U.S. disclosure regime, are in fact cash-poor, high-growth firms from countries with poor disclosure regimes (and poor investor protections generally) that need to raise external finance.[58] Cross-listing, either through reputational or legal bonding, apparently enables firms to credibly commit to a demanding disclosure regime.

More generally, countries whose firms have higher levels of transparency in their earnings reports enjoy lower costs of capital.[59] Consistent with this, industries and firms in countries with strong investor protection requirements rely more on external finance to raise capital. For instance, countries with stronger investor protection requirements have a larger number of firms going public (relative to the country's GDP).[60]

Comparing the relative success of the different securities regulations instituted by the Czech Republic and Poland in the 1990s is instructive.[61] One of the most striking differences between these countries' two regimes was in their disclosure requirements. While Poland imposed demanding disclosure requirements on firms with publicly traded securities, the Czech Republic did very little. For instance, securities could not begin trading on Poland's markets unless a firm prospectus was available. The Czech Republic required none. Poland required monthly, quarterly and semi-annual disclosures by firms. The Czech Republic did not require any such disclosures. Poland's level of financial development, including initial public offerings and the amount of external finance raised, far exceeded that of the

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57. *See* RAJAN & ZINGALES, *supra* note 10, at 254 (discussing evidence gathered by Jorg Kukies for his Ph.D. dissertation "Stock Markets for High-Technology Firms and Venture Capital Financing").

58. *See* Marco Pagano, Ailsa A. Röell & Josef Zechner, *The Geography of Equity Listing: Why Do Companies List Abroad?*, 57 J. FIN. 2651 (2002) (discussing that high-growth firms in need of external finance more likely to cross-list onto the U.S. markets); William A. Reese, Jr. & Michael S. Weisbach, *Protection of Minority Shareholder Interests, Cross-listings in the United States, and Subsequent Equity Offerings*, 66 J. FIN. ECON. 65 (2002) (showing that firms planning to raise capital tend to cross-list).

59. *See* Utpal Bhattacharya, Hazem Daouk & Michael Welker, *The World Price of Earnings Opacity*, 78 ACCT. REV. 641 (2003) (discussing the study of 34 countries over the 1985–1998 period).

60. *See* Rafael La Porta et al., *Legal Determinants of External Finance*, *supra* note 16, at 1142–45.

61. *See generally* John C. Coffee, Jr., *Privatization and Corporate Governance: The Lessons from Securities Market Failure*, 25 J. CORP. L. 1 (1999); Edward Glaeser, Simon Johnson, & Andrei Shleifer, *Coase Versus the Coasians*, 116 Q. J. ECON. 853 (2001).

Czech Republic throughout the 1990s.[62] Perhaps not coincidentally, the private benefits of control in Poland were 11% of firm value, while in the Czech Republic they were 58% of firm value.[63]

2. Increasing Competition

More demanding disclosure requirements have an important effect not only on firms that rely on external finance, but also for those firms—such as large, well-established, low-growth firms—that do not. Better financing opportunities for potential competitors are generally not in the interests of these firms.[64] Therefore, in addition to protecting any private benefits of control that may exist, these firms have an additional and separate reason to be strongly opposed to the institution of a more demanding disclosure regime. These firms will be opposed to a demanding disclosure regime being made available to (potential) competitors that rely on external finance. Recent evidence helps explain exactly how firms that do not rely on external finance will be disadvantaged by improved disclosure requirements.

Firms in industries with significant needs for external finance (high-growth opportunities relative to internal cash flows), such as the pharmaceutical industry with the substantial costs of drug development, grew substantially faster during the 1980s in countries with more demanding accounting-disclosure standards than firms in those same industries in countries with weak accounting-disclosure standards.[65] Equally importantly, the same study found that there was more competition in these external finance-dependent industries, as measured by the number of new entrants, in countries with demanding accounting standards.[66] In other words, in industries that rely heavily on external finance for funding, competition increased as a result of the presence of demanding mandatory disclosure requirements. The people harmed by demanding disclosure requirements in environments with more demanding mandatory disclosure requirements appear to be firms with sufficient sources of internal capital for their investments as a result of the increased competition they face.

Or consider the effect on a firm from a country with a poor disclosure regime of other firms from that country cross-listing onto a foreign exchange. A few studies have examined the effect of a firm's decision to

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62. *See* Edward Glaeser, Simon Johnson, & Andrei Shleifer, *Coase Versus the Coasians*, 116 Q. J. ECON. 853 (2001) (comparing financial development of Czech Republic and Poland during the 1990s).

63. *See* Dyck & Zingales, *supra* note 23, at 563.

64. *See* Raghuram G. Rajan & Luigi Zingales, *The Great Reversals: The Politics of Financial Development in the Twentieth Century*, 69 J. FIN. ECON. 5 (2003) (examining the effect of openness to capital flows and trade on the politics surrounding financial development).

65. *See* Raghuram G. Rajan & Luigi Zingales, *Financial Dependence and Growth*, 88 AM. ECON. REV. 559 (1998).

66. *See id.* at 572.

cross-list onto the U.S. markets on similarly situated firms that do not cross-list. These studies have found that firms not cross-listing experience a negative stock price reaction.[67] One needs to be cautious, however, in interpreting these findings. While these studies do indicate that non-cross-listed firms are apparently harmed by the cross-listing decisions of other firms, it is not clear from these studies what is responsible for this negative price reaction. The prospect of increased competition due to increased access to capital for a firm's rivals, or the possibility that the market draws a negative inference about the non-listing firms (such as their growth prospects) are just two possible causes.

The ability of a firm to credibly commit to a demanding disclosure regime not only increases competition in the product market by funding new entrants, but can also increase competition among firms for capital. This can lead some firms to oppose a demanding mandatory disclosure regime *even if* they have not yet sold (but are planning to sell) shares to the public. If capital is not perfectly mobile across borders (i.e. the supply of capital is not perfectly elastic), a situation which appears to be the case for most countries,[68] then the enhanced ability of some firms to receive external finance by credibly committing to a demanding disclosure regime implies that the country's interest rate increases.[69] More demand for external finance, all else being equal, implies a higher interest rate in equilibrium given the fact that capital is scarce. Firms that are planning a securities offering now face, unhappily, a higher discount rate (i.e. the economy's interest rate) for the shares they are selling. Indeed, some firms will not be able to raise sufficient capital by selling shares unless they operate in a lax disclosure regime, given the higher discount rate associated with increased competition for capital.

Supporting these theoretical predictions on the effect of a legal regime on risk-adjusted returns, Davide Lombardo and Marco Pagano found that countries with higher-quality legal regimes (as captured by indexes that capture a country's respect for the rule of law and the efficiency of the country's judicial system) have *higher* risk-adjusted returns.[70] Also

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67. *See* Michael Melvin & Magali Valero-Tonone, The Effects of International Cross-Listing on Rival Firms (2003) (unpublished manuscript), *available at* http://ssrn.com/abstract=472723; Dong W. Lee, Why Does Shareholder Wealth Increase When Non-U.S. Firms Announce Their Listing in the U.S.? (Aug. 2004) (unpublished manuscript), *available at* http://ssrn.com/abstract=422960.

68. *See* Geert Bekaert & Campbell R. Harvey, *Time-Varying World Market Integration*, 50 J. FIN. 403 (1995); Campbell R. Harvey, *Predictable Risk and Returns in Emerging Markets*, 8 REV. FIN. STUD. 773 (1995).

69. There are several formal models that capture these effects on the interest rate. *See* Lombardo & Pagano, *supra* note 54; Shleifer & Wolfenzon, *supra* note 46, at 17–18.

70. Davide Lombardo & Marco Pagano, *Legal Determinants of the Return on Equity* 13 (Ctr. for Studies in Econ. & Fin., Working Paper No. 24, 2000), *available at* http://ssrn.com/abstract=209310 (relying on the "Judicial Efficiency" variable produced by Business International Corporation, and the "Anti-Director Rights" index constructed by La Porta et al.,

consistent with these predictions is the finding in another recent study that stock markets that impound more firm-specific information are associated with an improvement in the allocation of capital across industries.[71] Interestingly, other empirical studies have found that mandatory disclosure is associated with more firm-specific information being impounded into stock prices.[72]

Moreover, research has found that there is an improvement in capital allocation in countries with strong legal protections for investors.[73] This improved allocation of capital from stronger legal protections resulted in "declining industries" receiving less funding relative to those in firms with better growth prospects. In other words, "declining industries" appear to be losers in legal systems with more demanding investor rights.[74]

In short, there is an extensive (and growing) body of evidence that supports the position that a number of firms have powerful reasons to be opposed to more demanding disclosure requirements if this means that these disclosure requirements will likewise be made available to other firms. Improved disclosure can have the effect of increasing competition by enabling firms without sufficient internal sources of capital to receive funding. This competition can take the form of increased competition for scarce capital and increased product-market competition. Competition, and the "creative destruction" of firms that it unleashes, is potentially quite threatening to established firms with internal sources of cash and well-established ties to banks and other financial institutions, as well as those firms that wish not to compete with others for the external finance they receive.

It is worth emphasizing that the desire to suppress competition through neglect of the legal infrastructure necessary to create and support robust competition can exist even if there are no controlling shareholders who enjoy, and wish to continue to enjoy, substantial private benefits of control. Moreover, firms can have this preference for a lax disclosure regime for this anti-competitive reason even at the time they are selling shares to the public, despite the discount in share price this will cause.

Of course, when there are substantial private benefits of control present, studies indicate that there is likely a real, and potentially quite significant, cost in terms of foregone competition, growth and financial development resulting from a preference on the part of controlling shareholders for a lax

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which "captures the degree of legal protection from expropriation by the managers and controlling shareholders granted to minority shareholders").

71. Jeffrey Wurgler, *Financial Markets and the Allocation of Capital*, 58 J. FIN. ECON. 187 (2000) (dataset consists of 65 countries over a thirty-three year period).

72. *See* Fox et al., *supra* note 4.

73. Wurgler, *supra* note 71.

74. The Wurgler study did not, however, focus on mandatory disclosure requirements separate from other legal protections for investors. *Id.* The two, however, are highly correlated. *See supra* note 31 and accompanying text.

disclosure regime as a means of retaining their ability to divert corporate resources unimpeded. This is true even if such diversion is a mere transfer between shareholders or such diversion represents, in part, compensation to the controller for its monitoring costs.

D. Firms That Still Want to Commit

As noted, there will undoubtedly be some firms that do want to commit to a high-quality disclosure regime. This group might include some controlling shareholders who are willing to forgo the opportunity to divert some corporate resources in order to capture the increase in the value of the controller's ownership stake associated with operating under a high-quality disclosure regime. In other words, the controller's share of the efficiency gains from selecting a higher quality disclosure regime might, if the magnitude is sufficiently large, more than offset the controller's decreased ability to divert corporate resources.[75] While substantial private benefits of control are common around the world, there are still a number of countries where the average private benefits are modest. Even in situations where private benefits of control are high, some controlling shareholders might want to attempt to capture the efficiency gains from improved corporate governance by purchasing the minority shareholder stakes at depressed prices and then commit to a firm-value-maximizing disclosure (and investor-rights protection) regime.[76] Finally, this group of willing firms will also likely include some firms that need to raise external finance and venture capital funding to capitalize on investment opportunities.

All this leads to the following question: Why should policymakers be concerned about the disclosure levels of those firms that want to credibly commit to a disclosure regime that maximizes firm valuation and reduces the cost of external finance? If there are firms that wish to so commit will not the market or a responsive government provide a means for these firms to do so? As it turns out, there are powerful reasons why government and the market might not provide the necessary tools for this group of firms to credibly commit to a high-disclosure regime even when such firms find it in their self-interests to do so.

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75. Lucian Arye Bebchuk & Mark J. Roe, *A Theory of Path Dependence in Corporate Ownership and Governance*, *in* CONVERGENCE AND PERSISTENCE IN CORPORATE GOVERNANCE 69 (Jeffery N. Gordon & Mark J. Roe eds., 2004).

76. *See* Hansmann & Kraakman, *supra* note 7, at 58 (discussing the possibility that controlling shareholders will use freeze-out mergers and coercive tender offers to purchase minority shares).

IV. CAN FIRMS CREDIBLY COMMIT?

A. THE POLITICAL ECONOMY OF VESTED INTERESTS

There are four different possibilities for how a firm might credibly commit to a demanding disclosure regime. First, the government, perhaps responding to firm demand for better disclosure requirements, could provide such a disclosure regime. Second, the exchange in the firm's country, through its listing requirements, could insist that certain disclosure standards be met by exchange-listed firms. Third, firms in countries with lax disclosure regimes might cross-list onto exchanges in countries that provide a more demanding disclosure regime. Fourth, firms in their individual capacities could attempt, through various contractual and corporate charter provisions, to create such a regime for themselves.

Whether government responds to the demands of some firms to make improved disclosure standards available to them will be impacted by the opposition of other firms—often the larger, well-established firms—to the prospect of increased competition. It is not surprising that in many instances governments around the world, perhaps responding to this powerful interest group, have failed to provide the legal infrastructure that would enable firms to commit to a high-quality disclosure regime, despite the possibility that there are firms that so desire.[77] The true costs to the public at large of such inaction are often not readily apparent.

When considering the likely response by domestic exchanges to a demand for improved disclosure requirements, it is worth bearing in mind that a number of the likely firm beneficiaries of improved access to external finance and venture capital are likely not even listed, or eligible for listing, on an exchange, given their firm size and stage of development. Indeed, some exchanges require that a firm be profitable for a certain number of years before the firm is even eligible for listing. That excludes exactly those firms that are least likely to have internal sources of capital or well-established ties to financial institutions. In other words, the beneficiaries of improved disclosure standards will often be outsiders to the internal decision-making process of the exchange when it is setting its listing standards. Not surprisingly, exchanges have proven quite responsive to the demands of their largest listed firms—those firms least likely to be the primary beneficiaries of a lower cost of external finance or increased venture capital funding.

The famous one-share-one-vote controversy over the New York Stock Exchange's (NYSE) listing rules is a good illustration of this solicitousness. Since 1926, the NYSE has had an exchange-listing rule expressly

77. *See generally* RAJAN & ZINGALES, *supra* note 10 (describing the politics surrounding financial development).

prohibiting dual-class common stock.[78] When General Motors, one of the larger NYSE-listed companies, issued dual-class common stock in 1982 in clear violation of this rule, the NYSE refused to take any action against General Motors. Indeed, the NYSE seriously considered changing its longstanding rule prohibiting dual-class common stock in response to General Motors' actions. The issue was finally moot when the SEC stepped in and restricted the use of dual-class common through regulation.[79]

There is also some evidence that a similar dynamic was at work in the pre-mandatory disclosure period in the United States. The NYSE appeared to be reluctant to impose meaningful disclosure requirements on listed firms at the turn of the century due to the opposition of firms with controlling shareholders, often families, who preferred not to be bound to disclose information.[80] Not until the exchange was under intense governmental pressure did the NYSE meaningfully improve its disclosure requirements in 1910.[81]

The refusal of government or an exchange to create or enforce a meaningful disclosure regime can, of course, be a reasonable decision. Creating a mandatory disclosure regime, with meaningful levels of enforcement, is an expensive and, perhaps even more importantly, complicated undertaking. To the extent there is court involvement in enforcement, perhaps adjudicating lawsuits or reviewing a governmental agency's enforcement actions, the court system must be up to the task. This includes tolerable levels of judicial corruption and some minimal level of expertise on the part of judges in assessing the merits of these actions. The same will be true for any private enforcement and adjudication process that might be established by an exchange. In addition, establishing workable definitions of concepts likely to be central in any mandatory disclosure regime, such as what constitutes a "material" misstatement, is likely to prove, if the U.S. experience is any guide,[82] to be a complicated endeavor. Moreover, there will inevitably be a need in any mandatory disclosure regime for regulations and guidelines to be continually clarified and updated as business conditions change and new fact patterns present themselves.

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78. See Jeffrey N. Gordon, *Ties that Bond: Dual Class Common Stock and the Problem of Shareholder Choice*, 76 CAL. L. REV. 1 (1988), for a detailed discussion of this episode. The rule, incidentally, received significant academic support as good policy. *See* Marcel Kahan, *Some Problems with Stock Exchange-Based Securities Regulation*, 83 VA. L. REV. 1509 (1997).

79. *See* 17 C.F.R. § 240.19c-4 (2005).

80. *See* David F. Hawkins, *The Development of Modern Financial Reporting Practices Among American Manufacturing Corporations*, *in* MANAGING BIG BUSINESS 166, 166–67 (Richard S. Tedlow & Richard R. John, Jr. eds., 1986).

81. *See* discussion *infra* Part IV.B.2. *See generally* James Davis, Corporate Disclosure Through the Stock Exchanges (Apr. 24, 1999) (unpublished manuscript on file with author).

82. *See* Basic Inc. v. Levinson, 485 U.S. 224, 230–36 (1988) (applying the standard of materiality defined in TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438 (1976)).

The costs that a country or an exchange must incur if it is going to establish a meaningful mandatory disclosure regime for firms with publicly traded securities are thus clearly non-trivial. Incurring these costs at any point in time will only make sense if there is a sufficient number of firms with publicly traded securities, or firms considering going public, that might benefit from such a regime at that time.

But this creates a serious timing problem. In a situation where there is, perhaps quite reasonably, a poor disclosure and investor-rights regime, the most efficient system might very well be the presence of controlling shareholders who can monitor management and internalize the costs of expropriation.[83] And, in fact, developing countries have a strong tendency towards concentrated ownership.[84] Controlling shareholders of firms that already have minority shareholders by the time it begins to make sense to incur the costs of establishing a mandatory disclosure regime will have an incentive to oppose a change in the disclosure regime irrespective of whether the change is being considered by government or the firms' exchange(s).[85] Likewise, entrenched managers of firms with dispersed ownership structures will attempt to protect any private benefits of control they enjoy. To make matters more difficult, non-controlling shareholders of these firms might also find it in their interest to oppose the adoption of a more demanding disclosure regime, even if this would reduce the incidence of corporate diversion by controlling shareholders and entrenched managers to their benefit, if the result is likely to be an increased level of competition faced by the firm.

This is not to say that these vested interests can never be overcome; that is obviously false. It is merely to say that the fact that firms in a country or an exchange operate under a lax disclosure regime does not imply that mandated disclosure cannot substantially improve matters. To this point, the analysis has focused on the political economy implications of having firms with a vested interest in a lax disclosure regime. But how does the willingness of an exchange to impose demanding disclosure requirements through its listing standards change when competition between exchanges is introduced?

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83. *See* Andrei Shleifer & Robert Vishny, *A Survey of Corporate Governance*, 52 J. FIN. 737 (1997); Morten Bennedsen & Daniel Wolfenzon, *The Balance of Power in Closely Held Corporations*, 58 J. FIN. ECON. 113 (2000); Rafael La Porta et al., *Investor Protection and Corporate Valuation*, 57 J. FIN. 1147 (2002).

84. Although there does appear to be more separation of cash-flow and voting rights than is optimal. *See* Bebchuk, *supra* note 48.

85. *See* Shleifer & Wolfenzon, *supra* note 46, at 17–18.

B. COMPETITION BETWEEN DOMESTIC EXCHANGES

1. Theory

It is argued that desire to attract the trading volume of investors will ensure that exchanges institute demanding disclosure requirements as a prerequisite to listing on the exchange. This is so because investors value disclosure and will route their stock orders accordingly. Based on this reasoning, Paul Mahoney and others have argued that exchanges should be vested with the responsibility of setting disclosure standards.[86]

How this competition for trading volume and listing business will work out has been fleshed out in different ways. Mahoney, for instance, argues that "[o]ne important source of risk [to investors] is the divergence of investor viewpoints about the company's performance. The company can reduce this divergence by making financial and other disclosures."[87] As a result, this will increase the "desirability of listed companies as investment vehicles."[88] Huddart, Hughes and Brunnermeier (HHB), to take another prominent example, have attempted to capture in a formal model the intuition that exchanges competing to maximize trading volume will offer demanding disclosure standards.[89]

In the HHB model, exchanges will attempt to capture the trading done by uninformed, liquidity traders—traders who have no private information about the firms' true values but need to trade given their liquidity needs—even while simultaneously attempting to attract listings from firms whose corporate insiders wish to engage in insider trading.[90] The model implies that there will be a "race to the top"[91] for disclosure standards. That argument relies on the plausible assumption that uninformed liquidity traders prefer not to trade, all else being equal, against informed traders. An exchange with a demanding disclosure regime reduces the likelihood in their model that uninformed liquidity traders are trading against informed traders. Corporate insiders prefer to conduct their trades where they can "hide" among a large number of liquidity traders even at the expense of having some of their private information publicly revealed as a result of the exchange disclosure rules. Hence, exchanges will voluntarily offer

86. Paul G. Mahoney, *The Exchange as Regulator*, 83 VA. L. REV. 1453 (1998); *see also* Edmund W. Kitch, *Competition Between Securities Markets: Good or Bad?*, *in* THE FUTURE FOR THE GLOBAL SECURITIES MARKET: LEGAL AND REGULATORY ASPECTS 233 (Fidelis Oditah ed., 1996).

87. Mahoney, *supra* note 86, at 1458.

88. *Id.*

89. Steven Huddart, John S. Hughes & Markus Brunnermeier, *Disclosure Requirements and Stock Exchange Listing Choice in an International Context*, 26 J. ACCT. & ECON. 237 (1999).

90. *Id.* at 243.

91. *Id.* at 237.

demanding disclosure standards given their preference, a preference shared by corporate insiders,[92] to attract the trades of liquidity traders.

Neither of these particular lines of reasoning is entirely convincing. As for the Mahoney argument, the precise connection between the desirability of a security as an investment and divergence of investor viewpoints is not spelled out. Even assuming that a decrease in the divergence of investor viewpoints will result in reduced systematic risk, this will not necessarily render the securities more attractive as an investment, as the risk-adjusted return will, in an efficient market, remain the same. Investors will simply enjoy a lower return as a result of bearing less systematic risk. At this point, the relative attractiveness of securities with high disclosure and those with low disclosure as an investment will remain the same.

Nor does the HHB model constitute a firm basis for arguing that exchanges will institute demanding disclosure requirements and, thereby, ensure that listed firms meet demanding disclosure standards even in the absence of mandatory disclosure. The HHB model normalizes all securities returns, regardless of where the security trades, to zero.[93] It is this assumption that drives their conclusion that liquidity traders have a preference for high-disclosure exchanges given the fact that the only difference between securities trading on different exchanges is the probability of incurring a loss by trading against informed traders. However, it is very much an open question in the finance literature whether securities with higher levels of informed trading have the same return as securities with lower levels of informed trading.[94] Fundamentally, they formally make the assumption implicit in Mahoney's argument: Exchange features that are unattractive to investors, such as lax disclosure standards, are not priced by the market.

Most importantly, neither argument addresses what happens when exchange rules affect the ability of those who control firms to engage in diversion of corporate assets or the level of competition faced by the firms—an ability, incidentally, that is not obviously affected by which exchange attracts liquidity traders. An exchange will have a powerful incentive to provide a lax disclosure regime if enough listed companies on an exchange, or firms eligible for listing on that exchange, have an interest in a poor disclosure regime. This will be so even if it implies a higher cost of external finance for firms as a result of undesirable exchange rules being priced by the market. Indeed, an attempt by an exchange to maximize trading volume might very well lead it to offer a lax disclosure regime so as to maximize the number of listed securities traded on the exchange.

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92. *Id.* at 240.
93. *Id.* at 243.
94. *See* discussion *infra* Part V.

The experience of the U.S. in the pre-mandatory disclosure period (pre-1933) has often been relied upon in attempting to figure whether exchanges will adopt demanding disclosure requirements out of self-interest. This experience may provide useful insights into the issue.

2. The U.S.'s Pre-Mandatory Disclosure Experience

A common claim is that the existence of demanding disclosure requirements imposed by exchanges in the U.S. in the decades immediately prior to the imposition of mandatory disclosure in the 1930s is powerful evidence that exchanges, left unencumbered, have the proper incentives when setting disclosure requirements through their listing standards.[95] During this pre-mandatory disclosure period, the NYSE, while the most important exchange, faced domestic competition from some thirty-three other exchanges, some with significant trading volume. And, indeed, it is true that the disclosure standards a firm had to meet as a condition to listing on the NYSE, as of 1931, were extensive.[96] Firms had to provide balance sheets and income statements for the prior two years and earnings statements for the prior five years. These balance sheets and income statements had to be updated periodically. Firms also had to provide a written description of how they calculated depreciation. Depreciation methods could not be changed without publicly providing details of any change in a firm's annual report.[97]

There are several reasons, however, for why the demanding nature of the NYSE's listing requirements circa 1931 is not as powerful a piece of evidence against the need for mandatory disclosure as often claimed. The NYSE's requirement that firms update their financial statements—a crucial component of any meaningful disclosure regime—were in fact, in large part, a result of governmental pressure. Prior to the Panic of 1907, the NYSE placed no general obligation on listed firms to periodically update their financial information.[98] Moreover, at this time the NYSE allowed securities of firms not listed on the exchange nevertheless to trade on it (so-called unlisted trading). These unlisted firms did not have to meet the disclosure requirements contained in the NYSE's listing standards. The volume of unlisted trading transactions on the NYSE was substantial, with very little disclosure by these unlisted firms.[99]

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95. *See* Mahoney, *supra* note 86.

96. *See id.* at 1466, 1477–78.

97. *See id.* at 1465–67.

98. *See generally* Davis, *supra* note 81. The NYSE did in 1895, however, recommend that firms update their financial statements. MARK L. LARSON, TECHNICAL CHARTING FOR PROFITS 17 (2001). Moreover, some firms agreed in their listing agreements to distribute annual reports.

99. *See* Hawkins, *supra* note 80, at 181 ("The companies whose stocks were noted by the Unlisted Department (mainly industrials) were not required to furnish the Exchange with financial information relevant to the issue.").

The Hughes Commission, established by the state of New York in the aftermath of the Panic of 1907, was charged with investigating the practices of the NYSE.[100] As a result of its investigation, the Hughes Commission Report (the Report) recommended that the NYSE "adopt methods to compel the filing of frequent statements of the financial condition of the companies whose securities are listed, including balance sheets [and] income . . . accounts."[101] Moreover, the Report recommended that the "unlisted department, except for temporary issues, [ ] be abolished."[102] Wisely, the NYSE adopted most of the Report's recommendations, including enforcing an obligation to periodically update balance sheet and income statements and prohibiting unlisted trading.[103]

The NYSE was not alone. The New York Curb Exchange, an important competitor to the NYSE, was strongly criticized in the Report for its lack of listing standards. After the Report came out, the New York Curb Exchange adopted listing standards.[104] These listing standards were later significantly strengthened in the aftermath of the crash of 1929, when the New York Curb Exchange's practices were the subject of Senate hearings.

However, while the NYSE had extensive disclosure requirements in place by 1931, it is highly questionable whether there was any meaningful enforcement. The only penalty that the NYSE could impose for non-compliance was de-listing. Not surprisingly, this was an action undertaken in only the rarest of cases. And while unlisted trading was barred on the NYSE after 1910,[105] unlisted trading, with little or no disclosure requirements, continued to constitute a substantial portion of trading on many of the other exchanges.

None of this is to suggest that exchanges have no incentive to impose disclosure standards. Nor does the U.S. history of listing standards even show that exchanges in the pre-mandatory disclosure period adopted insufficiently rigorous disclosure standards. A recital of disclosure standards and enforcement mechanisms cannot establish this. What the historical evidence canvassed above does undermine, though, is the common claim[106] that the pre-1933 U.S. experience demonstrates that

100. Moreover, there was proposed legislation at the national level to regulate the NYSE. *See* Davis, *supra* note 81, at 23.

101. W. C. VAN ANTWERP, THE STOCK EXCHANGE FROM WITHIN 425 (1913) (quoting the Hughes Commission Report).

102. *Id.*

103. *See* Hawkins, *supra* note 80, at 181 ("Subsequently, in 1910, under growing threats of government regulation, the New York Stock Exchange abolished its Unlisted Department."); *Regulation of the Stock Exchange: Hearing on S. 3895 Before the S. Comm. on Banking and Currency*, 63d Cong. 286 (1914) (explaining efforts of the New York Stock Exchange to ensure that the Hughes Commission recommendation that there be more frequent reporting was actually implemented).

104. *See* Davis, *supra* note 81, at 24.

105. *See* Hawkins, *supra* note 80, at 181.

106. *See supra* note 95 and accompanying text.

demanding mandatory disclosure requirements are unnecessary because exchanges will provide and enforce such requirements.

Not only did exchanges not demand and/or enforce disclosure requirements before 1910, but most firms, rarely voluntarily submitted meaningful annual reports during this period. Indeed, at this time many important firms released no annual reports. The annual reports that were released tended to be quite short, with relatively little in the way of detail. Major companies, such as the International Silver Company and the American Tin Plate Company, whose stock was traded on the NYSE, released very few details of any sort in their annual reports. The Eastman Kodak annual report of 1903[107] is representative of a number of annual reports of this time period. Nevertheless, there were still some companies—most notably U.S. Steel, starting with its annual report of 1903—that did provide relatively in-depth financial information.[108] In short, the overall level of disclosure contained in the annual reports during this time period was low, but not uniformly low.

In considering the relevance of the U.S. experience to other countries, it is worth noting that in many countries there simply is no meaningful competition between domestic exchanges. Many countries have a single, dominant domestic exchange where most order flow is executed. This is not surprising given the powerful liquidity network externalities of trading: Traders want to trade where other traders already are. Moreover, many exchanges around the world are far from independent market organizations. Government supervision and oversight of exchanges has historically been far greater, for example, in Continental Europe than the United States.[109]

C. International Competition for Listings

Competition between a country's domestic exchanges is not, of course, the only source of competitive pressure faced by a given exchange. There is increasing international competition among exchanges, which undoubtedly can powerfully change the incentive structure of exchanges. Perhaps the most dramatic example of this is the response of the Scandanivian stock exchanges to competition for investors' orders from other European exchanges.[110] In response to this competitive challenge, the Scandanivan stock exchanges (beginning with the Stockholm Stock Exchange in 1993[111])

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107. *See* Appendix *infra*.

108. *Id.*

109. *See* John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control*, 111 YALE L.J. 1 (2001).

110. David Ibison, *Stockholm Plots Course as Financial Centre*, FIN. TIMES, July 12, 2006, at 24.

111. In the process, the Stockholm Stock Exchange moved to an entirely electronic trading platform and permitted remote access to their trading platforms by overseas investment banks. This is further evidence of an effort by the Exchange to attract listings. *Id.*

demutualized, converting themselves into for-profit, shareholder-owned organizations.

This international competition does not stop at order flow, but extends to competition for listings. Listing standards, as well as execution services for investors' orders, are an important part of the "product" offered to firms by exchanges. The most important example of this phenomenon is the NYSE's sustained efforts to attract cross-listings from firms around the world, which the Exchange has done with considerable success: Approximately 15% of all NYSE-listed firms are foreign firms.[112]

A firm's listing on the U.S. markets, especially for firms from developing countries with poor disclosure requirements (as well as poor investor legal protections among a variety of other dimensions) does in fact constitute an important mechanism by which a firm can commit to a higher level of disclosure.[113] Firms that list on a U.S. exchange are subject to many of the basic U.S. disclosure requirements.[114] These mandated disclosures typically include disclosure of the identity of shareholders with more than 5% of the shares, along with the standard Exchange Act reports.

The ability of firms to cross-list on foreign exchanges, and thereby bond themselves to more demanding disclosure regimes, does reduce the need for mandatory disclosure with respect to firms whose decision-makers find a more demanding disclosure regime in their self-interest. There is some evidence that cross-listing is a successful strategy for these firms and that the source of this success is, in part, due to bonding.[115] Cross-listings have been found to be beneficial to firms. They are associated with more accurate analyst forecasts and increased firm valuation.[116] Improved firm valuation is particularly significant for firms cross-listing from countries with weak disclosure and investor-protection regimes.[117]

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112. *See* New York Stock Exchange, Non-U.S. Listed Issuers, http://www.nyse.com/marketinfo/datalib/1022221393065.html (last visited Nov. 16, 2007).

113. See generally John C. Coffee, Jr., *The Future as History: The Prospects for Global Convergence in Corporate Governance and its Implications*, 93 NW. U. L. REV. 641 (1999); René M. Stulz, *Globalization, Corporate Finance, and the Cost of Capital*, 12 J. APPLIED CORP. FIN. 8 (1999) for arguments along these lines.

114. *See* Securities Act Release No. 6493, Fed. Sec. L. Rep. (CCH) 83,435 (Oct. 6, 1983). One noticeable exception is that foreign cross-listing firms are exempted from the requirement that they disclose information concerning transactions with management when the firm is not already disclosing this information to its shareholders. For further discussion of the disclosure requirements of cross-listing firms, see generally Edward Rock, *Securities Regulation as Lobster Trap*, 23 CARDOZO L. REV. 675, 680–82 (2002).

115. *See* Craig Doidge, G. Andrew Karolyi & René M. Stulz, *Why are Foreign Firms Listing in the U.S. Worth More?* (Nat'l Bureau of Econ. Research, Working Paper No. 8538, 2001), *available at* http://www.nber.org/papers/w8538.pdf (arguing that other explanations for cross-listing cannot explain the pattern of cross-listings).

116. Mark H. Lang, Karl V. Lins, & Darius P. Miller, *ADRs, Analysts, and Accuracy: Does Cross Listing in the United States Improve a Firm's Information Environment and Increase Market Value?*, 41 J. ACCT. RES. 317 (2003); *see also* Mitton, *supra* note 9, at 217.

117. Doidge et al., *supra* note 115, at 6.

At the same time, the available evidence indicates that cross-listing is still a highly imperfect substitute for having a strong disclosure regime in the firm's home country. SEC enforcement actions against cross-listed firms are rare and often ineffective. Misconduct occurring in foreign countries is hard to detect and a low enforcement priority for the SEC. The traditional enforcement mechanisms are simply not well suited to cross-border actions.[118]

Finally, cross-listing is often not a feasible strategy for many firms that are at a relatively early stage of development and need external finance.[119] The disclosure regime for many firms is therefore largely limited to whatever is offered by that firm's home-country or domestic exchange.[120] Moreover, of course, the possibility of cross-listing does not address the set of firms that are content with a lax disclosure regime even when this creates social costs.

D. FIRMS ACTING IN THEIR INDIVIDUAL CAPACITIES

What if a demanding disclosure regime is not available to a firm from its home country, domestic exchange or through cross-listing? Can a firm credibly commit to a demanding disclosure regime through charter provisions or other contractual arrangements? In other words, can a private contract remedy deficiencies in governmental and exchange regulation?

The answer is very likely no, at least much of the time. All the difficulties of establishing a mandatory disclosure regime apply *a fortiori* to firms acting in their individual capacities. The ability of any individual firm, through its charter provisions or other contractual arrangements, to recreate for itself a credible mandatory disclosure regime is highly limited regardless of the benefits. For example, the firm will find it difficult to commit to disclosing bad information in the future. While this might be the optimal commitment *ex ante*, firms will sometimes find it in their self-interest *ex post* not to publicly release bad news.[121] Without binding contracts, spelled out in sufficient detail in advance and actually enforced

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118. *See supra* note 28, at 321.

119. The empirical literature has found that firm size is an important determinant of whether a firm cross-lists, suggesting that for smaller firms cross-listing is not a feasible strategy. *See* Marco Pagano, Ailsa A. Röell, & Josef Zechner, *The Geography of Equity Listing: Why Do Companies List Abroad?*, 57 J. FIN. 2651, 2660, 2673–76 (2002).

120. Consistent with this, empirical research has found that local financial development is more important to small firms' ability to receive financing than it is for larger firms who are likely to have access to additional sources of capital. *See* Luigi Guiso, Paola Sapienza, & Luigi Zingales, *Does Local Financial Development Matter?*, 119 Q. J. ECON. 929, 936–37 (2004).

121. A common conclusion of the theoretical literature on firms' disclosure decisions is that firms tend to have an incentive not to disclose bad news. There is strong evidence that U.S. firms do attempt to avoid reporting poor earnings to the markets. *See, e.g.*, David Burgstahler & Ilia Dichev, *Earnings Management to Avoid Earnings Decreases and Losses*, 24 J. ACCT. & ECON. 99 (1998); *cf.* François Degeorge, Jayendu Patel & Richard Zeckhauser, *Earnings Management to Exceed Thresholds*, 72 J. BUS. 1 (1999).

through the imposition of real penalties for non-compliance by courts or private adjudicators, this will be virtually impossible to do.[122] Moreover, there are obvious economies of scale associated with implementing and running a mandatory disclosure regime, such as a settled format for the presentation of information, not easily achievable by a firm in isolation.

In addition, there is some evidence that suggests a firm's ability to commit to a demanding disclosure regime is affected by whether a country has the infrastructure necessary to make such a commitment credible. Specifically, a recent empirical study has found that the number of auditors a country has (scaled by population) affects the opacity of firms' disclosures in that country.[123] An increase in the number of auditors in a country decreases the opacity of firms' earnings disclosures.[124] Firms in isolation will likely be unable to create the infrastructure, including a well-established auditing profession, necessary to support a credible disclosure regime.

Indeed, the consistent finding in the law and finance literature that "law matters" for firm valuation, specifically that the lack of certain legal rules and institutions can harm firm valuation, indicates that firms are often unable to employ contracting arrangements as an effective substitute for their desired legal regime.[125]

E. IMPLICATIONS FOR MANDATORY DISCLOSURE

The fact that there will often be no means for firms credibly to commit to a demanding disclosure regime implies that making such a regime, whether mandatory or not, available to these firms would constitute a substantial and much-needed improvement for many countries. One could imagine a number of ways such a change could occur, including making it easier for firms to cross-list onto foreign exchanges.

The advantage of mandating a demanding disclosure regime lies in the fact that not all firms will want to credibly commit to such a regime even when it is socially beneficial for them to do so.[126] Furthermore, and on a more practical note, a crucial aspect of any disclosure regime is that firms be credibly bound to disclose in the future, perhaps many years later, information that the firm might not, at that point in time, wish to disclose. Even if firms find it in their strong interests to bind themselves *ex ante* to a

122. *See* Rock, *supra* note 114, at 684–86; Bebchuk & Roe, *supra* note 75, at 94–95, 101–02.

123. *See* Bhattacharya et al., *supra* note 59, at 658, 659 Table 2.

124. *Id.*

125. Eric Friedman and Simon Johnson provide an interesting argument, building on the work of Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323 (1986), that firms that find themselves stuck in a weak regulatory environment use debt as a way, in part, to reduce expropriation. The use of debt, they point out, has significant costs of its own, including lower levels of financing of investment opportunities and increased exposure to economic crises. *See* Johnson et al., *supra* note 9.

126. *See* discussion *supra* Part III.

demanding disclosure regime, say because the firm wishes to raise external finance, there will be strong incentives for a firm to later switch to a less demanding disclosure regime.

The most obvious and straightforward way to accomplish the necessary commitment, especially in countries with weak overall legal infrastructures, is to make disclosure requirements mandatory. There is no evidence, at this point, to indicate that firms, especially firms in countries with weak legal infrastructures, can in fact credibly bind themselves, through purely contractual devices such as supermajority voting rules in the firm charters not to engage in opportunistic abrogation of a previously chosen, more demanding disclosure regime.[127] In sharp contrast, there is substantial—and growing—evidence, some of which has already been discussed, that mandatory disclosure requirements can have a beneficial effect.[128]

Finally, it should not be overlooked that as a practical matter, many countries face the decision whether to have a mandatory disclosure regime or to leave matters as they currently stand. Policy analysis should shed some light on this choice.

V. INFORMATIONAL ASYMMETRY AND THE DUPLICATIVE INVESTMENT ARGUMENT FOR MANDATORY DISCLOSURE

While there are strong arguments that mandatory disclosure can be beneficial, this does not mean, of course, that all arguments for mandatory disclosure are convincing. The "duplicative investment" argument for mandatory disclosure is one of these.[129] Given its prominence and plausibility, this argument merits careful attention. This argument ultimately depends on whether firms are willing and able to credibly commit to a demanding disclosure regime.

The "duplicative investment" argument for mandatory disclosure requirements is based on the highly plausible assumption that firms are the cheapest cost producers of at least some firm-specific information relevant to firm valuation. Mandatory disclosure is a way of ensuring that firms, rather than traders, produce this information. In the absence of mandatory disclosure, this information might instead be generated by traders who wish to capitalize on this information in their trading. If the cost to traders of generating this private information is higher than the cost to the firm of

127. *But see* Romano, *The Need for Competition*, *supra* note 2 (suggesting that contractual devices and supermajority voting rules are sufficient to prevent opportunistic mid-stream switching); *cf.* Rock, *supra* note 114 (emphasizing importance of credible ex ante commitment).

128. See *infra* Part VI for further discussion of this empirical evidence. *See also supra* Part III.

129. *See*, *e.g.*, John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717, 733 (1984) ("[A] major significance of a mandatory disclosure system is that it can reduce these [duplicative investment] costs."); Easterbrook & Fischel, *supra* note 13, at 682.

disclosing the information, then mandatory disclosure can play the socially beneficial role of ensuring that these unnecessary costs are avoided.[130]

Paul Mahoney has argued that this reasoning is unconvincing because there is no clear evidence that public disclosures required by mandated disclosure actually contain information that has not already been impounded into the stock price by privately informed traders prior to the public disclosure.[131] There is, however, substantial evidence that the information contained in mandatory disclosures can have the effect of displacing private information not already reflected in the stock price.[132]

Consider the empirical literature on the effect a firm's mandated public disclosures have on the bid-ask spread[133] of that firm's stock. If the public information contained in the firm's mandatory disclosure acts as a substitute for private information then the effect of increased public disclosure by a firm should be to reduce informational asymmetry (the disparity between uninformed and informed investors). This should, in turn, result in a reduction of the bid-ask spread, given the well-established fact that a reduction in informational asymmetry in a stock will reduce the bid-ask spread of that stock, all else being equal.[134]

Indeed studies have borne this out. The SEC requirement that firms report their performance broken down by business segment when the firm is in more than one line of business has been found to reduce bid-ask spreads.[135] Similarly, the mandated disclosure of the value of oil and gas reserves was also found to reduce bid-ask spreads.[136] Firm disclosures of management's forecasts of what the future might hold for the company also reduce bid-ask spreads.[137]

The reason that the "duplicative investment" argument is not a reason standing *alone* to favor mandatory disclosure is that there are good reasons, both theoretical and empirical, to believe that higher levels of informed trading do in fact result in higher expected returns. However, as the expected return on a firm's security rises, so does the cost of external

130. Often relied upon in this context is the seminal paper by Jack Hirshleifer, *The Private and Social Value of Information and the Reward to Incentive Activity*, 61 AM. ECON. REV. 561 (1971) which provides a model in which there can be socially inefficient levels of investment in generating information.

131. *See* Paul G. Mahoney, *Mandatory Disclosure as a Solution to Agency Problems*, 62 U. CHI. L. REV. 1047, 1097 (1995).

132. Marilyn Magee Greenstein & Heibatollah Sami, *The Impact of the SEC's Segment Disclosure Requirement on Bid-Ask Spreads*, 69 ACCT. REV. 179, 180 (1994).

133. This is the difference between the price at which a dealer is willing to buy an investor's security and the price at which a dealer is willing to sell the same security to an investor.

134. MAUREEN O'HARA, MARKET MICROSTRUCTURE THEORY 54 (1995). *See generally id.*

135. Greenstein & Sami, *supra* note 132. This requirement was first imposed in 1970. *Id.*

136. Jeffery P. Boone, *Oil and Gas Reserve Value Disclosures and Bid-Ask Spreads*, 17 J. ACCT. & PUB. POL'Y 55, 56 (1998).

137. Maribeth Coller & Teri Lombardi Yohn, *Management Forecasts and Information Asymmetry: An Examination of Bid-Ask Spreads*, 35 J. ACCT. RES. 181 (1997).

finance for that firm. If those in charge of the firm wish to minimize the cost of external finance, they will take this fact into account in deciding whether to commit to a demanding disclosure regime.[138] An exchange, for instance, with a lax disclosure regime might for this reason be unattractive to a firm *if* one were willing to assume that those in charge of the firm care to minimize the cost of external finance. Refusal to make such an assumption forms the real basis of the case for mandatory disclosure.

Why might higher levels of informed trading result in higher expected stock returns? Several important papers have recently addressed this question.[139] Consider an uninformed investor who buys an optimally diversified portfolio. Despite diversifying, this investor will nevertheless do worse on average than investors with private information, who are better able to select stocks in constructing their portfolios. Whether the uninformed investor transacts frequently or not, the investor will likely end up holding poorly performing stocks relative to the portfolio held by informed investors.[140] A reduction in the amount of private information held by other traders will reduce this difference in the portfolios held by informed and uninformed traders, and, as a result, reduce the risk to uninformed investors that they will end up holding comparatively poorly performing stocks in their portfolios.

This reasoning implies that the inferior ability of uninformed investors to pick stocks cannot be diversified away. Consider an uninformed investor who decides to purchase a diversified portfolio and hold it indefinitely. If there is private information at the time the investor constructs the portfolio then he will be more likely to hold stocks that are comparatively poor performers. Moreover, the decision to hold the same portfolio indefinitely will levy a real cost if the investor needs to rebalance his portfolio in response to changes over time in wealth, liquidity needs and risk preferences. Uninformed but rational investors, knowing of this cost *ex ante*, will require a higher rate of return to compensate them for the costs created by this inflexibility.

One might object that this reasoning relies on the assumption that there are two categories of investors: those who hold private information and those who do not. What if the analysis is moved back a step? Suppose it is unclear *ex ante* whether any particular investor will acquire private information at some point in the future? What if all investors know is that in the future there will be asymmetrical information, but not whether they

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138. *Cf.* Ian Ayres & Stephen Choi, *Internalizing Outside Trading*, 101 MICH. L. REV. 313, 337–39 (2002).

139. *See* David Easley & Maureen O'Hara, *Information and the Costs of Capital*, 59 J. FIN. 1553 (2004) (modeling the effect of private information on expected stock returns); Nicolae Gârleanu & Lasse Heje Pedersen, *Adverse Selection and the Required Return*, 17 REV. FIN. STUD. 643 (2004) (modeling the effect of future private information on expected stock returns).

140. Easley & O'Hara, *supra* note 139, at 1564–65.

themselves will be the holders of private information? If this is true then it might appear that informational asymmetry does not create, on net, costs for investors. If an investor ends up being a holder of private information then he will earn more, given his increased ability to buy attractive stocks and sell unattractive stocks, than those who do not have this information. On the other hand, if an investor ends up being an uninformed investor then he will earn less than his informed counterparts by exactly the amount that the informed investors benefit from their private information. Viewed in this way, these two effects of informational asymmetry are *ex ante* a wash and, as a result, investors will not demand a higher rate of return on stocks that have higher levels of informational asymmetry.

But this reasoning ignores, as a recent model by Nicolae Garleanu and Lassa Pedersen illustrates, that in the presence of informational asymmetry, investors will anticipate that the portfolios they will hold in the future will differ from what would otherwise be the case in a situation where there was no informational asymmetry.[141] Given the presence of private information, there will be times when an informed investor will refuse to sell a stock despite having a liquidity reason to do so. This will occur if the investor has sufficiently good private news about the stock. At the same time, there will be times when an informed investor will sell a stock if he has sufficiently bad private news about the stock, despite having no other reason to alter his portfolio.[142]

In other words, the introduction of informed traders changes the portfolio decisions that investors would otherwise make because of a desire to take advantage of private information. This represents a cost, albeit a cost informed investors are willing to bear to take advantage of their information. While the direct effect on investors of future private information is zero because the bid-ask spread does not represent a net cost, there is a change in the portfolio decisions of investors from what would otherwise be the case. Therefore, it follows that adverse selection increases costs through its effect on portfolio decisions as portfolio decisions are distorted as the result of the presence of private information. The costs of these distortions should be reflected in stock returns.

There is empirical evidence that informational asymmetry does, in fact, appear to have an important effect on stock returns.[143] David Easley, Soeren Hvidkjaer and Maureen O'Hara employ an empirical measure, developed in

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141. *See* Gârleanu & Pedersen, *supra* note 139 (modeling the effect of these allocative inefficiencies on expected stock returns).

142. *Id.*

143. Another possibility, with mixed empirical support, is that wider bid-ask spreads result in higher expected returns, given the increase in transaction costs faced by investors. In other words, the bid-ask spread is treated as if it were an exogenous cost. *See* Yakov Amihud & Haim Mendelson, *Asset Pricing and the Bid-Ask Spread*, 17 J. FIN. ECON. 223 (1986).

a series of earlier papers,[144] that measures how much private information-based trading occurs in a stock (the so-called PIN measure) in order to investigate the effect of private information on expected stock returns.[145]

Looking at NYSE-listed stocks for the 1983–1998 period they found that stocks with higher probabilities of private information-based trading, controlling for a number of factors, had higher rates of return than otherwise comparable stocks with lower levels of private information-based trading.[146] Importantly, the probability of private information-based trading still affected stock returns even after a control for bid-ask spreads was implemented. Indeed, bid-ask spreads did not have any role in explaining stock returns in their study.[147]

While important research, the Easley, Hvidkjaer and O'Hara study does have some shortcomings that should be kept in mind. First, market beta and the coefficients on book-to-market and firm size had no statistical significance in explaining the cost of capital in their study. This is inconsistent with prior empirical research that has found these factors have power to explain stock returns.[148] Moreover, it is conceptually puzzling that commonly identified sources of systematic risk, in particular stock market co-movement, have no measurable effect on stock returns.

Second, the study did not control for the level of public information concerning firm value. While more private information was associated with higher expected returns,[149] the study did not control for whether this association still held when controlling for the amount of public information available. This failure to control for the level of public information is problematic, given the fact that private and public information, whether they are substitutes or complements, could very well be correlated. This calls into some question the results of the study's regressions.

VI. THE EMPIRICAL EVIDENCE ON THE RELATIVE SUCCESS OF MANDATORY DISCLOSURE REGIMES

While there are strong reasons to believe that mandatory disclosure requirements can be socially and economically beneficial, this obviously does not mean that the actual implementation and administration of any particular mandatory disclosure regime will prove to be so. It is not hard to imagine the various ways in which government regulation of disclosure could go awry. Regulators will inevitably have imperfect information

144. *See* David Easley et al., *Liquidity, Information, and Infrequently Traded Stocks*, 51 J. FIN. 1405 (1996).

145. David Easley, Soeren Hvidkjaer, & Maureen O'Hara, *Is Information Risk a Determinant of Asset Returns?*, 57 J. FIN. 2185, 2186 (2002).

146. They controlled for market beta, firm size, book-to-price ratio and bid-ask spreads. *Id.*

147. *Id.* at 2208.

148. Dongchelo Kim, *A Reexamination of Firm Size, Book to Market, and Earnings Price in the Cross Section of Expected Stock Returns*, 57 J. FIN. & QUANTITATIVE ANALYSIS 463, 464 (2002).

149. *See* Easley et al., *supra* note 145.

concerning which pieces of information, if disclosed, will improve the performance of the capital markets. Moreover, regulators will have imperfect incentives to seek out the needed information.

An example of a regulatory regime gone astray would be a mandatory disclosure regime that focuses on requiring irrelevant information to be released. Indeed, some commentators have argued that this is what the SEC has done in regulations implementing the Securities Act of 1933 and the Exchange Act of 1934.[150] Even if disclosure requirements mandate the release of potentially relevant information, firms might subvert the regulatory regime by meeting the technical requirements of the disclosure regime while actually avoiding disclosure of specific pieces of information they would rather keep hidden.[151]

At the end of the day, it is fair to say that whether any particular mandatory disclosure regime, as actually instituted and administered, is socially beneficial is an empirical question. Whatever the benefits, there might be more-than-offsetting costs. The empirical evidence that directly attempts to measure the effects of mandated disclosure (some of which has already been discussed) can help address this question.

A. WHAT TO TEST FOR?

A major weakness in the empirical literature on the effects of mandatory disclosure has been a lack of a firm theoretical basis for the testing that has been conducted. Fortunately, recent theoretical research has begun to provide the necessary theory to provide a solid basis for focusing on stock returns, volatility and the size of a country's equity market. Understanding this theory is crucial as it provides the necessary framework with which to interpret the empirical findings on mandatory disclosure.

1. Stock Returns

Empirical research on mandatory disclosure has typically measured the effects of changes in mandatory disclosure on the stock returns of firms affected by these changes. Measuring these effects has a solid theoretical basis: If an unexpected improvement in mandatory disclosure requirements reduces agency costs, such as reducing the diversion of corporate resources, this should result in positive abnormal returns for the set of companies affected by the change.[152] The lower level of future expected agency costs will be capitalized into the current stock price to the benefit of current shareholders.

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150. The studies of the effect of SEC disclosures on bid-ask spreads tend to undercut this argument. *See supra* notes 134, 137, 138 and accompanying text.

151. See generally HOMER KRIPKE, THE SEC AND CORPORATE DISCLOSURE: REGULATION IN SEARCH OF A PURPOSE 1–60 (1979), for a critique of the effectiveness of the SEC's disclosure regime.

152. *See* Shleifer & Wolfenzon, *supra* note 46.

Whether stock returns of firms subject to and affected by more demanding disclosure requirements, once the benefits of lower agency costs have been capitalized into the stock price, depends on whether the costs borne by shareholders on an ongoing basis to minimize agency costs are reduced by the change in mandatory disclosure. If more demanding disclosure requirements reduce these costs, such as monitoring and auditing costs, then risk-adjusted stock returns should be *lower*.[153] This is because with lower expected costs, shareholders can be induced to hold equity with a lower expected return. Net of costs, shareholders will do just as well as before. Conversely, if the costs borne by shareholders are unaffected by a more demanding disclosure regime, stock returns of affected firms should not be affected, once the future benefits of reduced agency costs are capitalized into the stock price.

2. Volatility

Several empirical studies of mandatory disclosure have measured the volatility of stock returns pre- and post-implementation of mandatory disclosure. Assuming that the effect of mandatory disclosure, if it is working, is to cause the earlier release of information by firms, then the variance-bound finance literature indicates that this should result in lower stock-return volatility.[154] Earlier release of information ensures that the information has less of an impact on a firm's stock price assuming a positive discount rate. In other words, information concerning a more distant future event is more heavily discounted than information concerning an event in the immediate future. As a result, information released earlier in time will have less of an impact on a firm's stock price.

Unfortunately, there is also literature that suggests high levels of volatility can be a sign of more informed stock prices. In cross-country studies, markets with high levels of stock-price synchronicity (defined as the extent to which stocks tend to move together) tend to be in less-developed, more volatile, markets.[155] Moreover, firms with high levels of firm-specific volatility have stock prices that better predict future earnings of the company.[156] This all suggests that volatility may or may not be a useful variable in testing the effects of mandatory disclosure on stock prices.

153. *See* Lombardo & Pagano, *supra* note 70.

154. *See* Kenneth D. West, *Dividend Innovations and Stock Price Volatility*, 56 ECONOMETRICA 37 (1988); Stephen F. LeRoy & Richard D. Porter, *The Present-Value Relation: Tests Based on Implied Variance Bounds*, 49 ECONOMETRICA 555 (1981).

155. *See* Randall Morck, Bernard Yeung & Wayne Yu, *The Information Content of Stock Markets: Why Do Emerging Markets Have Synchronous Stock Price Movements?*, 58 J. FIN. ECON. 215, 215 (2000).

156. *See* Artyom Durnev et al., *Does Greater Firm-Specific Return Variation Mean More or Less Informed Stock Pricing?*, 41 J. ACCT. RES. 797 (2003).

3. Size of the Equity Market

A number of studies have examined the effect of legal rules, including mandatory disclosure requirements, on financial development. One standard proxy for financial development is the size of a country's stock market capitalization held by non-controlling shareholders, scaled by a country's GDP. Increases in financial development can, in theory, be caused by legal rules, including mandatory disclosure requirements, that reduce private benefits of control, and thereby enable more extensive use of external finance by firms.

On a cautionary note, however, establishing such a causal link through correlations between financial development and legal rules is difficult, given the need to convincingly control for country-specific factors besides differences in legal regimes across countries. Moreover, reverse causation is also a plausible possibility, in that financial development may create a shareholder constituency that demands, and ultimately receives, improved legal protections.[157]

B. THE UNITED STATES AS A CASE STUDY

Though the United States has a substantially higher incidence of dispersed ownership structures than other countries,[158] the effect of mandatory disclosure in the United States is still quite useful in assessing the possible effects of mandatory disclosure in other countries for several reasons. First, a nontrivial portion of companies in the United States have concentrated ownership structures.[159] The mean ownership of the three largest shareholders in the United States is approximately 20%.[160] Moreover, the levels of concentrated ownership in the U.S. were substantial in some earlier markets, such as the over-the-counter market circa 1962.[161] Therefore, the United States is not as drastically different from, and as a result provides a more reasonable point of comparison to, those countries that have concentrated ownership structures, one might first believe.

Second, mandatory disclosure arguably serves a similar function in the United States as in countries with concentrated ownership in terms of controlling agency costs even though there are differences in the nature of

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157. *See* Coffee, *supra* note 109, at 7–10.

158. This is relevant because the effects of mandatory disclosure in the United States, given the different dominant ownership structure, might be different than in other countries having predominantly more concentrated ownership structures. *See* discussion *supra* Parts III.A–B.

159. *See generally* Clifford G. Holderness & Dennis P. Sheehan, *The Role of Majority Shareholders in Publicly Held Corporations: An Exploratory Analysis*, 20 J. FIN. ECON. 317 (1988); Andrei Shleifer & Robert W. Vishny, *Large Shareholders and Corporate Control*, 94 J. POL. ECON. 461 (1986).

160. *See* La Porta et al., *Law and Finance*, *supra* note 16, at 1146.

161. *See* SEC & EXCH. COMM'N, REPORT OF SPECIAL STUDY OF SECURITIES MARKETS, Chapter VII, at 533 (1963), *available at* http://www.sechistorical.org/collection/papers/1960/1963_SS_Sec_Markets/Chapter_ 07_1.pdf.

the agency problem.[162] Finally, many of the studies of mandatory disclosure have focused on the United States because of the availability of data, which is high due to the United States' now fairly long history of mandating disclosure. Ignoring these studies would be to ignore much of the available evidence on the effects of mandatory disclosure.

An obvious way to observe the effects (such as on stock returns and volatility), if any, of mandatory disclosure is to examine any fundamental changes in the scope of mandatory disclosure in the United States. There have been two such changes. The Securities Act of 1933 and the Exchange Act of 1934 represent the first of these fundamental changes. These two statutes placed extensive mandatory disclosure requirements on exchange-listed firms (Exchange Act of 1934) and firms issuing securities to the public (Securities Act of 1933). The Securities Act Amendments of 1964 represents the second fundamental change in mandatory disclosure requirements in the United States.[163] The Securities Act Amendments of 1964 extended the mandatory disclosure requirements of the Exchange Act of 1934 to most non-listed firms (the over-the-counter market).[164]

In addition to these two fundamental changes, there have been several other smaller but important changes to mandatory disclosure in the U.S. that are promising candidates for measuring the effects of mandatory disclosure requirements. These changes include the requirement imposed by the SEC in December of 1980 that managers, in the Managerial Discussion and Analysis section of an annual report, discuss managers' analysis of the future prospects of the company.[165] A second important change occurred in 1999 when the SEC mandated that the Exchange Act's disclosure requirements be extended to firms trading on the OTC Bulletin Board.[166] These firms constitute most of the remaining over-the-counter firms not already subject to mandatory disclosure requirements as a result of the Securities Act Amendments of 1964.

1. Studies of the Securities Act of 1933 and the Exchange Act of 1934

George Stigler conducted the first empirical study of the effects of mandatory disclosure.[167] His groundbreaking study focused on the

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162. *See*, *e.g.*, Lucian Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833 (2005) (discussing and reviewing the literature on the agency problem between managers and widely-dispersed shareholders); Bebchuk, Cohen & Ferrell, *supra* note 17 (providing empirical evidence that entrenched managers harm firm value). The typical agency problem in the U.S. takes the form of managers not acting in the interests of shareholders.

163. Act of Aug. 20, 1964, Pub. L. No. 88-467, § 3(c), 78 Stat. 565, 566–68.

164. *Id.* at 565–569.

165. *See* 17 C.F.R. § 229.303 (2005).

166. Self-Regulatory Organizations, SEC Release No. 34-40606, 63 Fed. Reg. 59,610 (Oct. 27, 1998).

167. George J. Stigler, *Public Regulation of the Securities Markets*, 37 J. BUS. 117 (1964).

Securities Act of 1933, which regulates the disclosure requirements of new issues of securities.[168] He compared the performance of new issues of securities pre-mandatory disclosure (1920s) to post-mandatory disclosure (1950s). The study concluded that there was no meaningful change in the stock return performance of new issues of securities pre- and post-mandated disclosure. However, the study did find that the variance of returns of new issues was substantially lower in the post-mandated disclosure period.[169] A subsequent study confirmed Stigler's results.[170]

Based on these results, Stigler concluded that the Securities Act of 1933 was unnecessary.[171]

However, there are serious questions as to whether Stigler's results are very informative about the desirability of the Securities Act of 1933. First, Stigler's post-mandatory disclosure time period is several decades after the change in disclosure. It is unclear why one would expect, at this late period, stock return performance of new issues to be affected by mandatory disclosure requirements. The effects of mandatory disclosure, if any, were presumably capitalized into stock prices years earlier. Second, Stigler used no control group, beyond the market index, thereby making it almost impossible for him to control for changing market conditions over this long period of time.

Carol Simon also examined the Securities Act of 1933.[172] Her study found that the cross-sectional variance of monthly abnormal returns of new issues in the pre-mandated disclosure period (1926–1933) was larger than the cross-sectional variance of monthly abnormal returns of new issues in the post-mandated disclosure period (1934–1939) for non-NYSE, unseasoned companies.[173] Using the cross-sectional variance as a proxy for investor uncertainty about a firm's future prospects, she concluded that the Securities Act of 1933 reduced investor uncertainty for this group of firms. As with Stigler's study, however, it is difficult to draw any firm conclusions from these results. Perhaps the most serious problem with the study is the failure to provide a strong theoretical basis for using the cross-sectional variance as a proxy for investor uncertainty. Moreover, as with the Stigler study, there is no control group that was used to control for changing market conditions over the time period studied.

In perhaps the most influential of all the mandated disclosure studies, George Benston examined the relative effect of the Exchange Act on two

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168. *Id.*

169. Stigler, *supra* note 167, at 122.

170. Gregg A. Jarrell, *The Economic Effects of Federal Regulation of the Market for New Security Issues*, 24 J.L. & ECON. 613 (1981).

171. Stigler, *supra* note 167, at 124.

172. Carol J. Simon, *The Effect of the 1933 Securities Act on Investor Information and the Performance of New Issues*, 79 AM. ECON. REV. 295 (1989).

173. *See id.* at 313.

sets of firms.[174] This study compared the effects that the imposition of mandated disclosure had on a set of firms that were not voluntarily disclosing sales information prior to the Exchange Act, relative to a set of firms that were already voluntarily disclosing sales information. The set of voluntarily disclosing firms, in other words, served as Benston's control group. Benston found that there was no difference in stock return performance between the two groups around the period of the enactment of the Exchange Act. Moreover, while the variance of stock prices for both groups declined, there was no relative change in the variance of the two groups.[175] Based on these results, Benston—along with a number of legal academics[176]—concluded that the Exchange Act was not socially beneficial.

The strength of Benston's conclusions rests on how convincingly the study controls for changing market conditions through using the set of voluntarily disclosing firms as a control group. There are, however, serious problems with this control group. First, further examination of this group of voluntarily disclosing firms reveals that many of these firms were not disclosing a number of pieces of information that the Exchange Act later required be disclosed.[177] Second, the Exchange Act introduced new liability standards that changed the legal consequences of making misleading disclosures. This important change introduced by the Exchange Act would affect both disclosing and non-disclosing firms.[178]

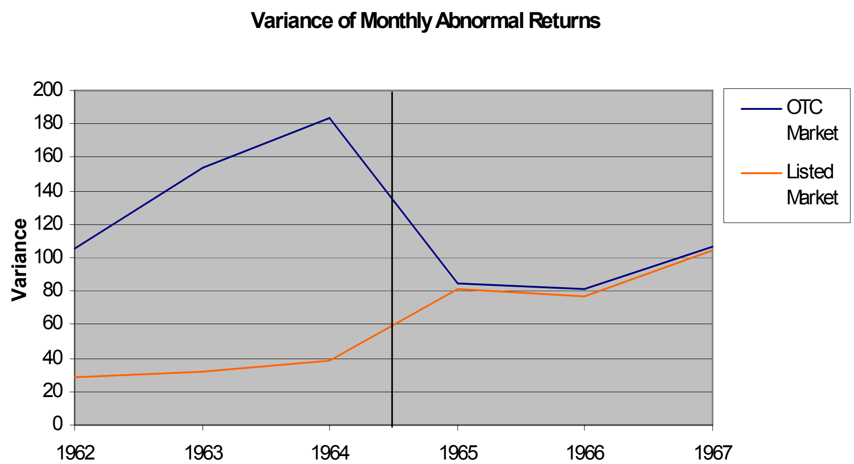
2. Studies of the 1964 Securities Act Amendments

A fairly recent study by the author looked at the effects of the 1964 Securities Act Amendments' imposition of mandatory disclosure on the over-the-counter market.[179] Unlike some of the earlier studies, there exists a natural control group to control for changing market conditions for the time period studied (1962–1968): the listed companies that had been subject to mandatory disclosure requirements since 1934. The study used a unique database that consisted of stock price information three years prior to the effective date of the 1964 Securities Act Amendments (1962–65) and three years after these mandatory disclosure requirements were imposed (1965–68).

The study found that there was a substantial reduction in the volatility of over-the-counter stocks in the aftermath of the Securities Act Amendments. In the post-mandatory disclosure period (1965–68), there was

174. Benston, *supra* note 1.
175. *See id.* at 148–49.
176. *See* scholars cited *supra* note 1.
177. *See generally* Fox, *Retaining Mandatory Securities Disclosure*, *supra* note 3, at 1373–79 (discussing Benston's two groups of firms).
178. *Id.*
179. Allen Ferrell, *Mandatory Disclosure and Stock Returns: Evidence from the Over-the-Counter Market*, 36 J. LEGAL STUD. 213 (2007).

no statistically significant difference in the volatility of the over-the-counter stocks and that of the listed stocks.[180] In the pre-mandatory disclosure period, in contrast, over-the-counter stocks experienced significantly higher levels of volatility compared to the listed market.[181] This can be seen in the following graph of the yearly average variances of stocks in the over-the-counter market and the listed market. The vertical black line marks the passage of the Securities Act Amendments.[182]



180. *Id.* at 21.
181. *Id.*
182. *Id.* at 18.

In terms of abnormal stock returns, the study found that over-the-counter stocks experienced a positive abnormal return of approximately 6% in 1963. The year 1963 was chosen because this was the year the market first learned that the Securities Act Amendments were being considered and were likely to be enacted. Consistent with this finding, a contemporaneous study found a positive abnormal return in the over-the-counter market in 1963 in the range of 8%.[183]

3. Studies of Other Mandated Disclosure Changes in the U.S.

Another study focused on the requirement that managers discuss their firms' likely future prospects and found that this improved firms' share-price accuracy.[184] The study based this conclusion on two findings. First, it found that in the immediate aftermath of this requirement, the number of firms with below-average returns temporarily increased.[185] This suggested that poorly performing firms were forced to disclose information that they would have otherwise attempted to keep hidden as a result of this requirement. In addition, the study found that the group of firms with average stock-return performance had lower levels of stock price synchronicity.[186] Using stock-price synchronicity as a proxy for share price accuracy, this suggests that average performing companies had more informed stock prices.

A second study examined the effect of the imposition, in 1999, of mandatory disclosure requirements on OTC Bulletin Board companies.[187] These firms are typically much smaller than NASDAQ- or NYSE-listed firms. OTC Bulletin Board firms that did not wish to comply with the new mandatory disclosure requirements could elect to be removed from the OTC Bulletin Board. The study found that firms that were already complying with the mandatory disclosure requirements experienced significant positive abnormal stock returns. However, firms that elected to move (approximately 76% of all firms not already in compliance) and firms that were not already in compliance but choose not to move experienced significantly lower returns than the firms already in compliance. These findings suggest that for a significant number of small, illiquid firms the

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183. Greenstone, Oyer & Vissing-Jorgensen, *supra* note 46. The small difference in the two abnormal-returns findings is not surprising given the fact that this study used a database consisting of a somewhat different mix of over-the-counter firms.

184. *See* Fox et al., *supra* note 4. This requirement was first imposed in 1980. *See* Amendments to Annual Report Form, Related Rules, Regulations, and Guides; Integration of Sec. Acts Disclosure Systems, SEC Release No. 33-6231, 45 Fed. Reg. 63,630 (Sept. 25, 1980) (codified at 17 C.F.R. § 229.303).

185. Fox et al. *supra* note 4.

186. *Id.*

187. *See* Brian J. Bushee & Christian Leuz, *Economic Consequences of SEC Disclosure Regulation: Evidence from the OTC Bulletin Board*, 39 J. ACCT. & ECON. 233 (2005).

benefits of mandatory disclosure can often be outweighed by the costs that it imposes.

4. Cross-Country Evidence

Several studies have found that more demanding mandatory disclosure regimes are correlated with higher levels of financial development.[188] This is consistent with the hypothesis that mandatory disclosure increases the use of external finance as a result of increasing the ability of controlling shareholders to credibly commit to return their firms' profits to investors rather than diverting them to themselves.

Increases in a country's mandated disclosure requirements, as measured by a "disclosure index," have been found to be associated with an increase in listed firms per capita (as well as increases in other proxies for financial development).[189] A two-standard deviation increase in a country's "disclosure index" was associated with an impressive 52% rise in the number of listed firms per capita.[190]

Consistent with these findings, another recent study employing the same "disclosure index" found that in a dataset consisting of forty countries over the 1992–2001 period, countries with more demanding disclosure requirements had significantly lower costs of external finance.[191] This effect on cost of capital was strongest in countries with segmented capital markets, i.e. countries in which there were impediments to foreign capital flowing into the country. Mandatory disclosure requirements, however, did continue to reduce firms' cost of external finance even in countries relatively open to international capital flows.

D. EVIDENCE FROM THE STATE COMPETITION LITERATURE

Some commentators have stressed that the beneficial effects of allowing firms to select their state of incorporation, and thereby their governing corporate law, provides powerful evidence that mandatory disclosure requirements should be removed.[192] If regulatory competition between the

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188. Most of the "law and finance" studies have not focused, however, on mandatory disclosure requirements, but rather have used indexes, such as the "anti-directors" index, that measure the strength of a country's investor rights along other dimensions. *See supra* note 47 and accompanying text.

189. *See* La Porta et al., *supra* note 31. The "disclosure index" is the average of six disclosure proxies: requirements that a prospectus be delivered to potential investors; disclosure of insiders' compensation; disclosure of ownership by large shareholders; disclosure of inside ownership; disclosure of contracts outside the normal course of business; and disclosure of transactions with related parties. *Id.*

190. *Id.* at 16.

191. *See* Luzi Hail & Christain Leuz, *International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?*, 44 J. ACCT. RES. 485 (2006).

192. *See, e.g.*, Romano, *supra* note 1, at 2383 ("The most important data bearing on the question whether the federal securities regime should be eliminated is . . . the research on the impact on shareholder welfare of state competition for charters.").

states works well in the corporate law area, it should work as well in the securities field. More specifically, proponents of state competition have relied heavily on the argument that the empirical evidence indicates that the corporate law of Delaware, the winner of this competition for incorporations, improves firm valuation.

Even granting the premise that the evidence on the merits of state competition in the provision of corporate law is central to evaluating the desirability of mandatory disclosure, this argument is unconvincing. The evidence that Delaware improves firm value is actually weak. While there is one study that claims to find that Delaware incorporation increases firm valuation,[193] subsequent empirical studies have failed to find that Delaware law consistently improves firm valuation. Two of these subsequent studies found that Delaware incorporation increased firm value in the early 1990s, but in the later half of the 1990s the Delaware firm valuation effect was either nonexistent or negative.[194] Another study found no effect of Delaware incorporation on firm value in the 1990s.[195]

VII. CONCLUSION

The theoretical case for mandatory disclosure for countries with concentrated ownership structures is strong. In other words, the case for mandatory disclosure is strong for virtually all countries around the world. Controlling shareholders will prefer a lax disclosure regime to serve the twin goals of protecting their private benefits of control and suppressing competition in both the market for capital and in the product market.

As for the first goal, protecting private benefits of control, the evidence clearly demonstrates that controlling shareholders' private benefits of control are substantial in many countries. Theory and evidence indicate that mandatory disclosure can reduce these private benefits of control substantially. Accordingly, existing controlling shareholders will tend to have a preference for a lax disclosure regime.

As for the second goal, suppressing competition, there are again strong theoretical reasons, backed by an impressive body of empirical evidence, that mandatory disclosure can have the socially desirable effect of increasing competition between firms for capital and competition in the product market. Competition for capital will increase because some firms will find their access to external finance enhanced as a result of being able to credibly commit to a demanding disclosure regime. Firms that were able

193. *See* Robert Daines, *Does Delaware Law Improve Firm Value?*, 62 J. FIN. ECON. 525 (2001).

194. Paul Gompers, Joy Ishii & Andrew Metrick, *Corporate Governance and Equity Prices*, 118 Q. J. ECON. 107 (2003); Guhan Subramanian, *The Disappearing Delaware Effect*, 20 J.L. ECON. & ORG. 32 (2004).

195. Lucian Bebchuk & Alma Cohen, *The Costs of Entrenched Boards*, 78 J. FIN. ECON. 409 (2005).

to raise capital under a lax disclosure regime will have to compete with more firms for capital in the presence of a mandatory disclosure regime. Competition in the product market will increase as potential competitors have an enhanced ability to raise external finance to fund their operations.

The empirical evidence on the effects of mandatory disclosure on stock returns, volatility and financial development is consistent with mandatory disclosure often having socially beneficial effects. In particular, several recent important empirical studies have provided new evidence pointing to mandated disclosure playing a socially beneficial role.

Whether countries around the world should adopt or strengthen their mandatory disclosure requirements is a pressing policy question. The legal academic debate has largely ignored, however, the merits of mandatory disclosure regulation for most countries around the world, i.e. countries with concentrated ownership structures. This article has argued that mandatory disclosure requirements in securities regulation can play an important and socially beneficial role for these countries.

APPENDIX

Eastman Kodak Co.,

DIRECTORS
ANNUAL REPORT

Year Ending December 31,
1903

DIRECTORS:
GEORGF EASTMAN,
HENRY A. STRONG,
CHARLES S. ABBOTT,
GEORGE ELLWANGER,
WALTER S. HUBBELL,
WILLIAM H. CORBIN,
SIR JAMES PENDER,
LORD KELVIN.

EASTMAN KODAK COMPANY,
OF NEW JERSEY.

PRINCIPAL OFFICE, 83 MONTGOMERY ST., JERSEY CITY, N.J
EXECUTIVE OFFICES, ROCHESTER, N.Y.

REPORT OF THE DIRECTORS

To be presented at the third annual meeting of the shareholders, to be held at 83 Montgomery St., Jersey City, N. J., on Tuesday, April 5th, 1904, at twelve o'clock noon.

The Directors submit herewith the audited statement of account for the year ending the 31st of December, 1903, being the first full year of business of the company.

In the balance sheet presented the earnings of all the subsidiary companies are included for the period mentioned.

The balance sheet shows carried to surplus for the twelve months the amount of $612,023.64 after paying quarterly dividends for the year at the rate of 6% per annum on its preferred stock and warrants and 10% on its common stock and warrants, and after charging off liberal amounts for depreciation on the various plants and $78,404.18 for special reserves.

Attention is again called to the fact that the Company is paying dividends upon a large amount of capital which has been in but which has not been invested. The amount uninvested at the close of the period was about $3,000,000**.**

The progress of the company during the past year was fully covered by the directors' preliminary report which was sent to the shareholders early in January.

The Directors retiring in conformity with the By-Laws are Messrs. George Eastman, Sir James Penders and Lord Kelvin. These gentlemen, being eligible, offer themselves for re-election. A director is also to be elected to fill the vacancy caused by the death of Mr. Edwin.

The Auditors, Messrs. Price, Waterhouse & Company, also retire and offer themselves for re-election.

By order of the Board.

W. S. HUBBELL,
Secretary

EASTMAN KODAK COMPANY OF NEW JERSEY COMBINED BALANCE SHEET, 311

LIABILITIES

CAPITAL STOCK:	
Preferred Stock authorized…	$10,000,000
of which there has been issued,	$6,170,368.01
Common Stock authorized, ...	25,000,000
of which there has-been issued,	19,356,000.67
	$25,526,368.68
LESS: Calls unpaid ……………………….	705,292.50
	$24,821,076.18
CAPITAL STOCK OF SUBSIDIARY COMPANIES OUTSTANDING ……………………………	$42,000.00
CURRENT LIABILITIES:	
Accounts Payable, ………………………….	554,031.28
Preferred Stock, Dividends payable January 1st, 1904 ……………………………………	90,080.07
Common Stock, Dividends payable January 1st, 1904 ……………………………………	470,872.56
	$1,114,983.91
SURPLUS:	
Balance of 31st December, 1902 per Balance Sheet ………………………………….	$468,999.29
Profits of Combined Companies for the year Ending 31st December 1903.	2,925,691.16
	$3,394,690.45
DEDUCT:	
Dividends and Interest,	
6% on Preferred Stock………………	$368,058.57
10% on Common Stock ……………	1,866,804.77
	$2,234,863.34
On Outstanding Stock of Sub-sidiary Companies ……………	400.00
	$2,235,863.34
Special Reserves ………………….	78,404.18
	$2,313,667.52
$1,081,022.93	
$27,081,022.93	

AND ITS SUBSIDIARY COMPANIES.
31ST DECEMBER, 1903.

ASSETS

COST OF PROPERTY, including Real Estate, Buildings, Plant, Machinery, Patents and Good Will,	$17,513,685.54
CURRENT ASSETS:	
Merchandise, Materials and Supplies, ………………	2,512,325.17
Accounts and Bills Receivable, ………………………..	1,043,996.45
Railway Bonds and other Investments, …………….…...	1,753,594.58
Call Loans, ………………………………………………..	650,000.00
Cash at Banks and on Hand, ……………………………	3,200,269.58
Miscellaneous, …………………………………………..	285,211.70
	$9,545,397.48
	$27,059,083.02

We have examined the books of the Eastman Kodak company of New Jersey, and of Kodak Limited for the year ending December 31' 1903 and we have been furnished with certified returns from the American and European Branches, The Kodak Gesellschaft and the Societe Anonymè Francaise for the same period and we certify that the Balance Sheet at that date is correctly prepared therefrom.

We have satisfied ourselves that during the year only actual additions and extensions have been charged to cost of property and that ample provision has been made for Depreciation.

We are satisfied that the valuations of the Inventories of stocks on hand, as certified by the responsible officials, have been carefully and accurately, full provision has been made for Bad and Doubtful Accounts Receivable and for all ascertainable Liabilities.

We have verified the cash and securities by actual inspection and by certificates from the depositories, and are of opinion that the stocks and bonds are fully worth the value at which they are stated in the Balance Sheet.

And we certify that in our opinion the Balance Sheet is properly drawn up so as to show the true financial position of the Company and its Subsidiary Companies, and the Profits thereof for the year ending at that date.

(Signed) PRICE, WATERHOUSE & Co.
Chartered Accountants
54 William Street,
New York City
28th March, 1904