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Too Big to Disclose: Firm Size and Materiality Blindspots in Securities Regulation

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ABSTRACT

This Article argues that the securities disclosure regime contains previously unexamined structural deficiencies that pertain to the information provided by the largest public companies. These deficiencies arise from the operation of the materiality standard, a core element of the disclosure regime that is used in a number of SEC disclosure rules. The materiality standard is designed to limit firms' disclosure to information that would be of importance to investors, and to prevent the overproduction of information. I suggest, however, that in the case of large firms the materiality standard can also lead to the underdisclosure of information—or to "materiality blindspots." The materiality standard determines whether firm-specific information must be disclosed by assessing its importance relative to the size of the firm and the "total mix of information" about that firm. Since the threshold for what is material increases as firms get bigger, however, at the very largest firms even matters that are significant or sizeable in absolute terms may be deemed immaterial and remain undisclosed. Such firms are "too big to disclose" and, in a perfectly legal manner, take advantage of the materiality standard to avoid disclosure of important matters.

To illustrate the existence of materiality blindspots, I analyze the SEC rules in three key disclosure areas (material contracts, material legal proceedings, and material business spending) and then present original case studies and survey evidence based on the disclosure practices of large firms. After revisiting generally accepted theories on disclosure regulation through the prism of firm size and analyzing examples from the case studies, I identify two sets of potential harms. First, materiality blindspots may undermine investor protection and corporate governance, including by diminishing the accuracy of security prices and by making inside and outside monitoring for fraud or suboptimal management practices more difficult. Second, the operation of the materiality standard may give systematic advantages to large firms relative to smaller firms by enabling large firms to minimize the interfirm costs of disclosure; this can lead to market distortions and in effect serve as a regulatory subsidy for bigness. To remedy these problems, I propose that certain disclosure requirements that currently rely only on the principles-based materiality standard should be supplemented with targeted rules employing quantitative thresholds for disclosure. This would provide a safety net against materiality blindspots by requiring large firms to disclose additional information that is not captured by the existing materiality standard, but that is nonetheless significant or sizeable in absolute terms.

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INTRODUCTION

Being a public company entails an implicit bargain: Public companies enjoy access to large and highly liquid pools of capital, which enables them to raise funds quickly and efficiently, but in return they are required to provide investors and the Securities and Exchange Commission (SEC) with information, known as disclosure, about their activities on a regular basis.[1] This includes information about results of operations, financial condition, trends and risks affecting the business, significant contracts, pending litigation, and commitments to future projects, to name a few. The information enables investors to evaluate a company's performance and prospects, and to decide whether to buy, sell, or hold its securities. In addition, the information released in response to disclosure requirements is believed to help ensure the accurate pricing of firms' securities, improve corporate governance, and contribute to allocative efficiency within the economy. As a collateral benefit, such information also gives society an insight, at times difficult to obtain through other means, into the activities of corporate entities.[2] The SEC disclosure regime covers a large part of the economy: The total market capitalization of the approximately 5,200 public companies listed in the United States amounts to $26.68 trillion, a figure that is roughly 50 percent greater than annual U.S. GDP.[3]

This Article argues that the existing securities disclosure regime contains previously unexamined structural deficiencies that pertain to the information

1. A "public company" is one that is subject to the periodic and current reporting requirements under Section 13 or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"). *See* 15 U.S.C. §§ 78m, 78o-6 (2012). A company becomes subject to these reporting requirements when it lists debt or equity securities on a national securities exchange (Section 12(b) of the Exchange Act), if its assets and shareholders of record exceed certain thresholds (Section 12(g) of the Exchange Act), or if it makes a public offering of securities in the United States without listing on an exchange (Section 15(d)). *See id.* §§ 78l(b), 78l(g), 78o-6. Unless the context requires otherwise, I use "public company," "company," and "firm" interchangeably and in lieu of specialized securities law terms such as "issuer," "registrant," and "reporting company."
2. *See generally* JOEL SELIGMAN, THE TRANSFORMATION OF WALL STREET: A HISTORY OF THE SECURITIES AND EXCHANGE COMMISSION AND MODERN CORPORATE FINANCE (3d ed. 2003) (describing the underlying philosophy of U.S. securities regulation and the role of disclosure). The various benefits of the disclosure regime are also discussed in Parts I, III, and IV *infra*.
3. As of November 30, 2016, the total number of companies listed on the NYSE and NASDAQ was 5,200 (4,329 domestic and 871 foreign), and their market capitalization was $26.68 trillion. WORLD FED'N OF EXCHS., MONTHLY REPORT (2016), http://www.world-exchanges.org/home/index.php/statistics/monthly-reports. U.S. GDP for 2015 stood at $17.94 trillion. U.S. DEPT. OF COMMERCE, BUREAU OF ECON. AFFAIRS, NATIONAL INCOME AND PRODUCT ACCOUNTS (2016), https://www.bea.gov/newsreleases/national/gdp/2016/gdp4q15_3rd.htm.

provided by the *largest* public companies. These deficiencies arise from the operation of the materiality standard, a core element of the disclosure regime that is used in a number of disclosure rules. At its most basic, the materiality standard is designed to limit companies' disclosure to information that would be of importance to investors, and to prevent the overproduction of information. I suggest, however, that in the case of large companies the materiality standard can also lead to the underproduction of information—or to "materiality blindspots." Since the threshold for what is material increases as firms get bigger, at the very largest firms even matters that are significant and sizeable in absolute terms may be deemed immaterial and remain undisclosed. In other words, firms can become "too big to disclose" and, in a perfectly legal manner, take advantage of the materiality standard to avoid the disclosure of important information.

Consider the following examples:

(1) The disclosure regime requires companies to release information about material contracts, including the key terms of any "material definitive agreement," and the full text of "any material plan of acquisition" of a business.[4] In May 2011, Microsoft announced that it had entered into an agreement to acquire Skype, an internet telecommunications company, for $8.5 billion. Microsoft was the third-largest U.S. public company at the time, and this was the largest-ever deal in its 36-year history. The purchase price represented 7.8 percent of Microsoft's total assets. Yet, Microsoft did not report the key terms of the acquisition agreement and did not file its full text with the SEC. In fact, over a recent 10-year period Microsoft acquired 76 private companies but did not disclose any of the acquisition agreements, including for two deals that led to $13 billion in write-offs. Presumably, this is because Microsoft concluded that none of the acquisition agreements were material.[5]

(2) Public companies are also required to disclose "material pending legal proceedings" as well as any known "trend, demand, commitment, event or uncertainty" reasonably likely to have a material effect on their financial condition or results of operation.[6] Berkshire Hathaway, the fourth-largest U.S. public company, has sprawling operations in regulated and litigation-heavy industries such as insurance, utilities and energy, railroads, and financial products. Yet, Berkshire Hathaway did not disclose any individual legal proceedings over the past five years, presumably because none were material. The company's annual reports acknowledge that Berkshire Hathaway is party to "a variety of legal actions," but

4. *See infra* notes 130–131 and accompanying text.
5. *See infra* notes 142–151& 231 and accompanying text.
6. *See infra* notes 152–159 and accompanying text.

then go on to state that it "does not believe that [pending] litigation will have a material effect on [its] financial condition or results of operations."[7]

(3) Public companies are also asked to disclose historical information about individual capital expenditures and operating expenses that materially affect their financial condition and results of operations (including, for example, expenses on research and development (R&D)).[8] Google (recently reorganized as Alphabet)[9] ranks as the second-largest U.S. public company and derives the vast majority of its revenues from its successful internet search and advertising business. Google is also known to make substantial investments in a wide variety of projects with transformative potential in fields as diverse as biotechnology, consumer electronics, and transportation. As in prior years, Google's 2015 annual report disclosed heavy aggregate spending on capital projects and R&D, in the amount of $9.9 billion and $12.3 billion, respectively. The company, however, did not disclose information about the specific projects to which this spending was directed, presumably because the amounts, though large, were not material to the tech giant's financial condition or results of operations.[10]

According to the SEC and the Supreme Court, information is material if there is a "substantial likelihood that a reasonable investor would attach importance [to it] in determining whether to buy or sell [a security]"[11] or, in other words, "if there is a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[12] The matters discussed in the preceding examples are significant and sizeable in absolute terms, and could entail poor decision-making and financial losses that are also substantial in absolute terms. But these matters have been deemed immaterial because the public companies to which they relate are so big that disclosure arguably would not alter the "total mix" of information made available to investors. The materiality standard judges such matters by assessing their size or importance against the size of the company, and not, for example, by assessing their size or importance against an independent reference point. The larger the company, then, the less likely it is that any individual acquisition, legal proceeding, or investment project, however

7. *See infra* notes 165–171 and accompanying text.
8. *See infra* notes 180–184 and accompanying text.
9. In August 2015, Google changed its corporate structure and created a new holding company for its various businesses, Alphabet. To avoid confusion, I refer to both the pre- and post-reorganization company as Google. While the reorganization had an impact on the company's financial reporting structure, the changes do not affect the analysis presented here.
10. *See infra* notes 186–190 and accompanying text.
11. *See infra* note 103 and accompanying text.
12. *See infra* notes 94–99 and accompanying text.

substantial, would be material in the context of the total informational mix. Such substantial—but undisclosed—matters constitute materiality blindspots: pieces of information that remain hidden due to the operation of the materiality standard in the context of large firms' disclosure obligations.

On its face, the materiality standard is intended to treat small firms and large firms alike. In practice, however, it exacerbates some of the unique challenges that large firms pose, both for investors and for the overall economy. For example, the combined market capitalization of the 100 largest U.S. public companies accounts for approximately 51 percent of the total market capitalization of the Russell 3000 index (a proxy for the entire U.S. stock market). The combined market capitalization of the 300 largest companies (a mere tenth of the companies included in the index) accounts for approximately 73 percent of the total market capitalization of the index.[13] As a result, investors who seek to diversify by holding a slice of the entire market (the "market portfolio") end up being disproportionately exposed to the securities of large firms. And when large firms suffer financial losses due to fraud or poor corporate governance, these losses are amplified within the market portfolios of diversified investors.[14] Consequently, events that fall well below the threshold of materiality, as assessed by large firms for purposes of their disclosures, can nonetheless lead to substantial losses within investors' portfolios.

I examine the impact of materiality blindspots by drawing on original case studies of large firms' disclosure practices and by revisiting generally accepted theories on disclosure regulation through the prism of firm size. I identify two sets of potential harms. First, materiality blindspots may undermine investor protection and corporate governance, the very core of securities regulation: At a most basic level, the non-disclosure of information can lead to inaccurate pricing of firms' securities, thereby harming investors and preventing the efficient allocation of capital.[15] In the realm of internal corporate governance, materiality blindspots can make it easier for management to engage in fraud, waste, or suboptimal practices (e.g., when pursuing M&A transactions or investing in business projects), and can hinder monitoring by a firm's board of directors, other insiders, or advisers.[16] In the realm of external corporate governance, materiality blindspots can make it more difficult for those not involved in the day-to-day operation of

13. Author's calculations based on Bloomberg data as of December 16, 2016. For information on the Russell 3000 index, see http://www.ftse.com/products/indices/russell-us.
14. *See* George S. Georgiev, Optimizing Securities Disclosure for the Universal Investor (unpublished manuscript) (on file with author).
15. *See infra* Part III.A.
16. *See infra* Part III.B.

the company, such as investors and information intermediaries, to monitor management and detect fraud, waste, or suboptimal practices.[17]

Second, I suggest that the materiality standard can lead to market distortions and provide advantages to large firms simply due to their size. When large firms are able to avoid the disclosure of matters such as acquisition agreements, legal proceedings, and business projects, they gain an advantage over smaller competitors and counterparties that face the same issues but are unable to avoid disclosure.[18] For example, a large firm's ability to acquire a private company and avoid disclosure of the acquisition agreement (which often contains sensitive information) can give it an advantage over a smaller public bidder that, due to materiality, would be required to make the disclosure. Similarly, the ability to invest significant resources into capital projects and R&D without disclosing the nature of the projects—i.e., to operate in secrecy—gives large firms a potential competitive advantage over smaller public firms, which are required to develop similar projects under the direct scrutiny of investors and competitors.[19] By providing such systematic advantages to large firms, the securities disclosure regime may distort product and capital markets, and, in effect, confer a regulatory subsidy upon large firms.[20] Though somewhat outside the traditional scope of securities regulation, I argue that paying attention to such concerns is warranted because the SEC is required by statute to consider whether its rules "promote efficiency, competition, and capital formation" (in addition to investor protection).[21]

In light of the potential harms from the existence of materiality blindspots, I argue that we should reconsider the extent of our reliance on the principles-based materiality standard in certain key disclosure areas. I suggest that, in addition to materiality, such disclosure areas should also employ specific quantitative thresholds to trigger the disclosure of additional information by large firms. To avoid replicating the distortions produced by the materiality standard, the quantitative thresholds should be expressed as absolute dollar amounts (and not as percentages). The thresholds should be carefully calibrated by the SEC and subject to periodic updates. These add-on requirements would serve as a safety net against materiality blindspots by requiring the disclosure of additional information that is significant or sizeable in absolute terms, but that is not caught by the existing materiality standard.[22] Such rules can be adopted alongside

17. *See infra* Part III.C.
18. *See infra* Part IV.A.
19. *See infra* Part IV.B.
20. *See infra* Part IV.C.
21. *See infra* Part IV.D.
22. *See infra* Part V.A.

other worthwhile reforms aimed at modernizing the disclosure framework by, for example, removing duplicative disclosures and improving the usability of information provided by all firms.[23] By reversing the loss of information that occurs as a result of the operation of the materiality standard in the context of large firms, this disclosure-based policy solution targets both sets of harms caused by the materiality standard: It safeguards the investor protection and corporate governance benefits of disclosure, and it seeks to remove some of the special advantages enjoyed by large firms.

The Article has implications within each of the three planes it engages: the use of materiality, the design of the securities disclosure regime, and the effects of firm size. At a most immediate level, the Article provides a novel entry to the catalog of problems associated with how materiality is defined by regulators and courts, and applied by firms and their advisers.[24] While I do not question the overall utility of materiality to securities regulation, the materiality blindspots phenomenon suggests that we should seek to clarify the definition and use of materiality in corporate reporting.[25] More broadly, the Article has implications for the important scholarly debate about the appropriate design of the public company disclosure regime in light of significant changes in the structure of securities markets and recent legislation aimed at facilitating small-firm capital formation, such as the JOBS Act and the FAST Act.[26] For example, if the disclosure regime's treatment of large firms distorts the capital formation options of small firms, as suggested in Part IV, this dynamic should be taken into account when assessing the expected effectiveness of providing small firms with further disclosure exemptions, a popular (de-)regulatory strategy.[27] Finally, the suggestion that through materiality the disclosure regime provides a regulatory subsidy for bigness adds to the long list of reasons why large firms may require additional

23. *See infra* Part V.B.
24. *See infra* Part I.C.
25. *See* George S. Georgiev, "Materiality" in Corporate Reporting: Context, Function, and Meaning (working paper) (on file with author).
26. *See, e.g.*, Donald C. Langevoort & Robert B. Thompson, *"Publicness" in Contemporary Securities Regulation After the JOBS Act*, 101 GEO. L.J. 337 (2013); Henry T.C. Hu, *Too Complex to Depict? Innovation, "Pure Information," and the SEC Disclosure Paradigm*, 90 TEX. L. REV. 1601 (2012); Michael D. Guttentag, *Patching a Hole in the JOBS Act: How and Why to Rewrite the Rules That Require Firms to Make Periodic Disclosures*, 88 IND. L.J. 151 (2013); Jeff Schwartz, *The Twilight of Equity Liquidity*, 34 CARDOZO L. REV. 531 (2012); Onnig H. Dombalagian, *Principles for Publicness*, 67 FLA. L. REV. 649 (2016).
27. *See infra* notes 55–61 and accompanying text; *see also* Jeff Schwartz, *The Law and Economics of Scaled Equity Market Regulation*, 39 J. CORP. L. 347 (2014) (discussing the use of exemptions and scaling of disclosure requirements).

scrutiny and more customized regulatory strategies.[28] In recent years, scholars have associated large firms with problems such as "too big to fail,"[29] "too big to jail,"[30] structural corporate degradation,[31] and empire-building,[32] to name but a few, and have also observed a shift in the role (and power) of large corporations within society.[33]

This Article also comes at a unique and important regulatory moment: The SEC is in the midst of a Disclosure Effectiveness Initiative, a comprehensive, once-in-a-generation review of numerous aspects of the securities disclosure framework.[34] This initiative presents opportunities for swift and wide-ranging reforms that improve both the usefulness of disclosure documents to investors and firms' ability to raise capital. However, it also carries the risk that the disclosure regime, so crucial to investor protection, may be weakened by industry lobbying or by deliberations that ignore known and suspected structural defects, including those related to the materiality standard.

The Article's primary goal is to provide proof-of-concept for the existence of materiality blindspots and to propose a focused regulatory strategy to address their negative effects. Part I sketches out the relevant features of the securities disclosure regime and then explains how and when materiality blindspots occur.

28. It bears noting that the ideas developed in this Article do not stem from an *a priori* position about the optimal size of public companies: I do not argue that "big is bad," but simply that large firms present special and hitherto unexamined challenges for the securities disclosure regime.

29. *See generally* DAVID SKEEL, THE NEW FINANCIAL DEAL: UNDERSTANDING THE DODD-FRANK ACT AND ITS (*UNINTENDED*) CONSEQUENCES (2011) (noting that one of the two principal goals of Dodd-Frank was to limit the damage caused by the failure of large financial institutions).

30. *See generally* BRANDON L. GARRETT, TOO BIG TO JAIL: HOW PROSECUTORS COMPROMISE WITH CORPORATIONS (2014) (arguing that prosecutors apply lax standards in enforcement actions against large corporations).

31. *See* Mark J. Roe, *Structural Corporate Degradation Due to Too-Big-to-Fail Finance*, 162 U. PA. L. REV. 1419 (2014) (arguing that financial conglomerates are not subject to certain corporate structural pressures, which leads to inefficiencies and exacerbates systemic risk).

32. *See, e.g.*, Andrei Shleifer & Robert W. Vishny, *A Survey of Corporate Governance*, 52 J. FIN. 737, 742 (1997) ("Greater costs are incurred when managers have an interest in expanding the firm beyond what is rational, reinvesting the free cash, [and] pursuing pet projects . . . .").

33. *See, e.g.*, Hillary A. Sale, *The New "Public" Corporation*, 74 LAW & CONTEMP. PROBS. 137, 138 (2011) (arguing that the relationship between corporations and society has changed, which requires that the notion of the "public corporation" be updated); *see also* Hillary A. Sale, *J.P. Morgan: An Anatomy of Corporate Publicness*, 79 BROOK. L. REV. 1629 (2014).

34. *See Disclosure Effectiveness*, U.S. SEC. & EXCH. COMM'N, http://www.sec.gov/spotlight/disclosure-effectiveness.shtml (providing an overview of various studies and rulemakings falling within the umbrella of the Disclosure Effectiveness Initiative); Concept Release on Business and Financial Disclosure Required by Regulation S-K, Securities Act Release No. 10,064, Exchange Act Release No. 77,599, 81 Fed. Reg. 23,916 (Apr. 22, 2016) [hereinafter *Regulation S-K Modernization Concept Release*] (discussing potential reform of Regulation S-K and soliciting stakeholder input).

Part II illustrates the materiality blindspots phenomenon by analyzing disclosure rules in three key subject areas and by presenting original case studies of the actual disclosure practices of large firms. The next two Parts examine the resulting harms: Part III discusses the potential adverse effects of materiality blindspots on investor protection and corporate governance, whereas Part IV discusses the negative implications for market efficiency and competition, which suggest that the materiality standard can function as a regulatory subsidy for bigness. Part V develops a policy proposal, discusses it within the context of the SEC's Disclosure Effectiveness Initiative, and addresses potential objections. The Appendix presents a simplified theoretical framework illustrating how and when the various features of the securities disclosure regime give rise to materiality blindspots.

I. THE SOURCES OF MATERIALITY BLINDSPOTS WITHIN THE SEC DISCLOSURE REGIME

This Part locates the sources of materiality blindspots at the intersection of two important, yet not entirely consistent, features of the securities disclosure regime. One is the standardization of disclosure requirements by way of specific and detailed rules, which is aimed at allowing investors to compare the disclosures of different firms, including firms of different sizes. The second feature is the widespread use of an imprecise standard, materiality, both to scale certain disclosure requirements in order to avoid the disclosure of trivial information, and to serve as a gap-filler requiring the disclosure of information not anticipated by the specific disclosure rules. I begin with a brief overview of the SEC disclosure regime, and then examine the role of firm size and, respectively, materiality within it.

A. Overview of the SEC Disclosure Regime

The disclosure regime traces its origins back to the New Deal and an effort by Congress to protect investors from the kinds of abuses that led to the stock market crash of 1929. In quick succession, Congress adopted the Securities Act of 1933 and the Securities Exchange Act of 1934, which also created the SEC.[35] The two foundational statutes placed investor protection at the center of the regulatory regime and adopted mandatory disclosure as the primary regulatory tool.[36]

35. *See* SELIGMAN, *supra* note 3, at 39–72.
36. *Id.* at 604–21. The use of mandatory disclosure requirements as a regulatory tool predates the federal securities laws, but such requirements were rare and imposed at the state level. *See* STUART BANNER, ANGLO-AMERICAN SECURITIES REGULATION: CULTURAL AND POLITICAL ROOTS, 1690–1860, at 224 (1998).

The mandatory disclosure requirements provide a baseline for the information all public companies must disclose to investors. Firms are free to disclose other information on a voluntary basis as long as it is not false or misleading. The disclosure framework has grown considerably in both size and complexity over the years, guided by the premise that the availability of detailed information about the business and financial condition of public companies would result in the protection of investors.[37] Even though the precise meaning of investor protection remains somewhat ambiguous, the disclosure regime has always been viewed as a key part of securities regulation.[38]

The disclosure regime is based on a descriptive model that entails a series of ex ante judgments by the SEC and Congress about the type of information investors need and the format of information they are able to process.[39] Firms are required to produce information based on predetermined templates (the disclosure rules), and the target audience is the "reasonable investor," a fictional construct.[40] In the aggregate, disclosure is meant to provide investors with a description of firms' operations and to enable each individual investor to make an informed investment decision.[41] A more limited subset of disclosure rules fulfills a prophylactic function by guarding against opportunistic behavior by management,[42] whereas another set of disclosure requirements seeks to mold firms' behavior by steering them away from, or toward, certain governance choices.[43] To promote accuracy and deter fraud, firms—as well as their directors, officers, and certain agents—can be held liable for misrepresentations or omissions in disclosures pursuant to the public and private enforcement provisions of the securities laws.[44]

The SEC enjoys substantial discretion in formulating and promulgating disclosure requirements, though Congress provided initial guidance and has

37. This philosophy was articulated upon the creation of the federal securities laws in 1933. *See, e.g.*, H.R. REP. NO. 73-85, at 4 (1933) (stating that the purpose of the disclosure requirements is "to bring into the full glare of publicity those elements of real and unreal values which may lie behind a security").
38. *See* Michael D. Guttentag, *Protection From What? Investor Protection and the JOBS Act*, 13 U.C. DAVIS BUS. L.J. 207, 210–18 (2013) (discussing different conceptions of "investor protection" and highlighting the role of disclosure).
39. *See* Henry T.C. Hu, *Disclosure Universes and Modes of Information: Banks, Innovation, and Divergent Regulatory Quests*, 31 YALE J. ON REG. 565, 586–89 (2014).
40. *See infra* Part I.C.2.
41. *See* Hu, *supra* note 39, at 584–85.
42. *See infra* notes 85 & 219 and accompanying text.
43. *See infra* note 89 and accompanying text.
44. *See generally* 4 THOMAS LEE HAZEN, TREATISE ON THE LAW OF SECURITIES REGULATION §§ 7.0–7.17, 12.1–13.2 (6th ed. 2009).

periodically stepped in to prescribe additional disclosure mandates.[45] The core disclosure rules are contained in Regulation S-K, which prescribes the substance and form of non-financial disclosure,[46] and Regulation S-X, which together with various accounting pronouncements establishes a common standard for the form and substance of financial disclosure.[47] All disclosures are required to be in an SEC-prescribed "common language," which is a combination of the language of financial accounting (for financial statements) and "plain English" for most narrative information.[48] The SEC also prescribes the format and the method of submission and dissemination of firm disclosures. By some estimates, approximately 95 percent of the mandated financial and descriptive disclosure falls into the category of historical information, with the remainder devoted to information about plans and projections.[49]

B. Disclosure Requirements and Firm Size

To enable investors to make effective decisions, the disclosure regime seeks to ensure comparability among companies through the standardization of disclosure requirements. These requirements are largely identical, with the exception of some limited differentiation based on such firm characteristics as industry classification,[50] foreign status,[51] and size.[52] For example, the SEC requires companies in certain industries to provide investors with additional and more narrowly-tailored information under the notion that companies in such industries are more complex and investors may need specialized information not captured by the general disclosure rules.[53] Yet there is no corresponding requirement to provide additional information for companies that are more complex due to their size. As a result, the materiality standard has assumed an important role in defining the

45. *Id.*, §§ 1.30–1.31.
46. *See* Regulation S-K, 17 C.F.R. § 229 (2014).
47. *See* Regulation S-X, 17 C.F.R. § 210 (2014).
48. *See id.*; Plain English Disclosure, Securities Act Release No. 7497, Exchange Act Release No. 39,593, Investment Company Act Release No. 23,011, 63 Fed. Reg. 6370, 6377 (Feb. 6, 1998).
49. *See* REINIER KRAAKMAN ET AL., THE ANATOMY OF CORPORATE LAW: A COMPARATIVE AND FUNCTIONAL APPROACH 284 n.45 (2d ed. 2009).
50. The SEC requires additional standardized information to be provided by public companies in certain specified industries, including firms with oil and gas operations (Industry Guide 2), bank holding companies (Industry Guide 3), and property-casualty insurance underwriters (Industry Guide 6), among others. *See* U.S. SEC. & EXCH. COMM'N, INDUSTRY GUIDES 2–12, 32–34, https://www.sec.gov/about/forms/industryguides.pdf.
51. *See generally* Steven M. Davidoff (Solomon), *Rhetoric and Reality: A Historical Perspective on the Regulation of Foreign Private Issuers*, 79 U. CIN. L. REV. 619 (2010).
52. *See infra* notes 55–61 and accompanying text.
53. *See* U.S. SEC. & EXCH. COMM'N, *supra* note 50.

content of the information large firms are required to release, and in determining the aggregate volume of such information.[54]

The absence of differentiation in the disclosure requirements applicable to large firms is notable when contrasted with the multiple disclosure exemptions provided to small firms. For example, "smaller reporting companies," which generally have a public float of less than $75 million[55] are required to disclose less historical financial information; they also receive exemptions from certain provisions of the Sarbanes-Oxley Act and the Dodd-Frank Act and have more time to file their reports.[56] In addition, the JOBS Act created the category of "emerging growth company" (EGC) for firms with gross annual revenue of less than $1 billion.[57] EGCs enjoy substantially reduced disclosure requirements, both under the Securities Act as part of the IPO process, and under the Exchange Act for purposes of their ongoing reporting obligations (for up to five years).[58] The JOBS Act also raised the shareholder threshold for compliance with the Exchange Act's mandatory disclosure obligations from 500 to 2,000 shareholders,[59] enabling more firms to remain private. The so-called Regulation A+ enables firms to raise small amounts of capital without complying with the full disclosure regime.[60] The trend has continued with the FAST Act, adopted by Congress in December 2015, which directed the SEC to provide further disclosure exemptions to small firms.[61] In addition to their specific mandates, both the JOBS Act and the FAST Act required the SEC to study and issue reports on existing disclosure

54. *See infra* Part I.C and Appendix.
55. *See* 17 C.F.R. § 240.12b-2 (2014). In the case of non-public companies with Exchange Act reporting obligations, the requirement is to have annual revenue of $50 million or less. *See id.*
56. *See* Smaller Reporting Company Regulatory Relief and Simplification, Securities Act Release No. 8876, Exchange Act Release No. 56,994, Investment Company Act Release No. 2451, 73 Fed. Reg. 934 (Jan. 4, 2008).
57. Jumpstart Our Business Startups Act, Pub. L. No. 112-106, § 101, 126 Stat. 306, 307 (2012) [hereinafter JOBS Act].
58. *See* 15 U.S.C. § 77g(a)(2) (setting out registration requirements for EGCs); JOBS Act §§ 102-4, 126 Stat. at 310 (2012).
59. *See* JOBS Act § 501, 126 Stat. at 325. For non-financial issuers, the 2,000 shareholder threshold applies as long as more than 1,500 shareholders are accredited investors. *See id.*
60. Adopted in April 2015, the rules referred to as Regulation A+ revise Regulation A to create two separate tiers of exempt securities offerings not exceeding $20 million and $50 million, respectively, in any 12-month period. *See* Amendments for Small and Additional Issues Exemptions Under the Securities Act (Regulation A), Securities Act Release No. 9741, Exchange Act Release No. 74,578, Trust Indenture Act Release No. 2501, 80 Fed. Reg. 21,806 (Apr. 20, 2015).
61. *See* U.S. Sec. & Exch. Comm'n, Announcement: Recently Enacted Transportation Law Includes a Number of Changes to the Federal Securities Laws (Dec. 10, 2015), https://www.sec.gov/corpfin/announcement/cf-announcement---fast-act.html (summarizing relevant securities law provisions contained in the Fixing America's Surface Transportation (FAST) Act).

requirements, with a view to scaling down or simplifying such requirements primarily for the benefit of small firms.[62]

To be sure, despite the SEC's recent focus on small firms, it has not ignored large firms entirely. For example, certain rules apply only to large firms that are "well-known" and "seasoned" and enable such firms to raise capital more expediently.[63] These rules, however, are related purely to the mechanics of issuing securities and do not alter the overall content or volume of information that firms disclose. In addition, decades-old SEC rules requiring firms to break out some information by separate lines of business, also known as "segment reporting,"[64] affect larger firms more often than they do smaller firms. Nonetheless, the segment reporting rules apply to all companies alike, without regard to size. Moreover, these rules are fairly narrow: They were borne out of a concern with the underproduction of financial information during the conglomerate merger wave of the 1960s, and, as such, relate only to several categories of financial information.[65]

C. Disclosure Requirements and the Materiality Standard

In the general absence of disclosure requirements that take into account firm size outside the context of small firms, the disclosure regime relies on an imprecise standard—materiality—both to scale certain disclosure requirements in order to avoid the disclosure of trivial information, and to serve as a gap-filler triggering the disclosure of important developments that were not anticipated by the specific disclosure rules. To set the stage for the remainder of the Article, this sub-Part first outlines the uses of materiality within the disclosure regime, and then examines the contours of the materiality standard.

Materiality is an expansive concept. The notion of materiality is central not only to the securities disclosure regime but also to securities litigation.[66] Within

62. *See* JOBS Act § 108; Fixing America's Surface Transportation (FAST) Act, Pub. L. No. 114-94, § 72003, 129 Stat. 1312, 1785 (2015).
63. *See* Securities Offering Reform, Securities Act Release No. 8591, Exchange Act Release No. 52,056, Investment Company Act Release No. 26,993, 70 Fed. Reg. 44,722, 44,722 (Aug. 3, 2005) (discussing rules relating to the "well-known seasoned issuer" (WKSI) and "seasoned issuer" designations).
64. *See* Segment Reporting, Securities Act Release No. 7620, Exchange Act Release No. 40,884, 64 Fed. Reg. 1728 (Jan. 12, 1999).
65. *See* Jeffrey N. Gordon, *The Rise of Independent Directors in the United States, 1950-2005: Of Shareholder Value and Stock Market Prices*, 59 STAN. L. REV. 1465, 1551 (2007) (discussing the history and content of the segment reporting requirements).
66. For example, investors must prove the materiality of a misstatement or omission as one of the elements of a fraud claim under Rule 10b-5 of the Exchange Act; the government must prove

securities regulation, the key role played by materiality has generated a substantial body of judicial and administrative doctrine.[67] Scholars and commentators have identified various problems relating to materiality, arguing that the standard is imprecise, that it is difficult for reporting firms, judges, and juries to work with, and that it may lead to underdisclosure of information or underenforcement of the securities laws.[68] In light of the size of the literature, this Article does not aim to provide a comprehensive survey of existing scholarship on materiality and, unless directly relevant, does not engage in a discussion of materiality in areas of securities regulation outside the disclosure regime. My focus is on identifying a new conceptual problem—the interaction between the imprecise materiality standard and firm size, and the resulting materiality blindspots.

1. The Use of Materiality in the SEC Disclosure Regime

A number of disclosure rules (though not all) incorporate and place heavy reliance on the materiality standard. For example, the discussion of results of operations and financial performance under Item 303 of Regulation S-K is built around the notion of materiality, and requires disclosure of all "demands, commitments, events or uncertainties" that would have a material effect, either positive or negative, on the firm.[69] This would include information relating to spending on material business projects pursued by the firm.[70] The requirements to describe the general development of a firm's business under Item 101 of Regulation S-K are also framed in part by reference to materiality.[71] Similarly,

materiality in insider trading cases; and proof of materiality is also required under the liability provisions of the Securities Act.

67. *See generally* HAZEN, *supra* note 44, § 12.9.

68. The literature is too voluminous to cite, but representative examples include Stephen M. Bainbridge & G. Mitu Gulati, *How Do Judges Maximize? (The Same Way Everybody Else Does—Boundedly): Rules of Thumb in Securities Fraud Opinions*, 51 EMORY L.J. 83 (2002) (showing that concept of materiality has given rise to judicial heuristics which result in dismissal of securities litigation); Joan MacLeod Heminway, *Materiality Guidance in the Context of Insider Trading: A Call for Action*, 52 AM. U. L. REV. 1131 (2003) (arguing that ambiguity in the materiality standard creates problems for lawyers and clients in evaluating the risks and benefits of disclosure); James J. Park, *Assessing the Materiality of Financial Misstatements*, 34 J. CORP. L. 513 (2009) (discussing the challenges posed by materiality with respect to financial statements); Richard C. Sauer, *The Erosion of the Materiality Standard in the Enforcement of the Federal Securities Laws*, 62 BUS. LAW. 317 (2007) (discussing enforcement difficulties stemming from materiality).

69. Regulation S-K, Item 303, 17 C.F.R. § 229.303 (2014).

70. *See infra* Part II.C.

71. Regulation S-K, Item 101(a)(1), 17 C.F.R. § 229.101(a)(1) (2014) (requiring that "information shall be given as to matters such as the following: . . . the acquisition or disposition of any *material* amount of assets otherwise than in the ordinary course of business; and any *material* changes in the mode of conducting the business" (emphasis added)).

disclosure requirements relating to contracts the firm has entered into[72] and pending legal proceedings[73] rely on the materiality standard, with very limited guidance on how materiality should be assessed. Other rules, such as those relating to risks faced by the firm[74] and certain aspects of executive compensation,[75] also refer to materiality but contain more extensive guidance on what would be deemed material. In each of these cases, materiality guides firms' disclosures, first about whether they ought to disclose certain types of information, and then about the required level of detail of such disclosures.

Firms also have a catch-all obligation to disclose "[i]n addition to the information expressly required to be included in a statement or report, . . . such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made not misleading."[76] This requirement turns materiality into a general gap-filling principle within the disclosure regime.

There is no general duty to disclose *all* material information. However, the interactions among the various specific disclosure requirements, judicial doctrine interpreting those requirements, and certain additional stock exchange disclosure requirements in effect create something approaching such a rule for historical information.[77] In general, if historical information is material to a firm's business or financial condition, it must be disclosed, either in real time or at the time of the firm's next quarterly filing with the SEC.[78] A lower disclosure obligation applies to material forward-looking information, which has to be disclosed under more limited circumstances,[79] to management forecasts, which generally are not

72. *See infra* Part II.A.
73. *See infra* Part II.B.
74. Regulation S-K, Item 903, 17 C.F.R. § 229.903 (2014) (calling for the disclosure of activities or events that constitute a "material risk").
75. Regulation S-K, Item 402, C.F.R. § 229.402 (2014) (defining the materiality threshold of compensation information by enumerating a list of material elements of the compensation).
76. Exchange Act Rule 12b-20, 17 C.F.R. § 240.12b-20 (2014); *see also* Securities Act Rule 408, 17 C.F.R. § 230.408 (2014) (providing for a similar obligation in registration statements under the Securities Act).
77. *See, e.g.*, Steven E. Bochner & Samir Bukhari, *The Duty to Update and Disclosure Reform: The Impact of Regulation FD and Current Disclosure Initiatives*, 7 STAN. J.L. BUS. & FIN. 225, 229–30 (2001) (outlining "duty to disclose to make other disclosure accurate," "duty to disclose when engaging in market transactions," and "duty to disclose when filing SEC reports"). Unlike historical information, certain categories of forward-looking information, such as forecasts, need not be disclosed.
78. *See* SEC Form 10-Q (setting out information that firms must disclose on a quarterly basis); SEC Form 8-K (providing a narrower list of categories of information that firms must disclose within four business days of the occurrence of a covered event).
79. *See, e.g.*, Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations, Securities Act Release No. 8350, Exchange Act Release No. 48,960, 68 Fed. Reg. 75,056, 75,062 (Dec. 29, 2003) (footnotes omitted) ("Not all

required to be disclosed,[80] and to information "the disclosure of which would affect adversely the [firm's] competitive position," which need not be disclosed.[81] Subject to these limited exceptions, firms are routinely required to assess the materiality of risks, uncertainties, expenditures, contracts, and other business matters when determining the precise content of various disclosure obligations under the securities laws.

Although the materiality standard is central to a number of disclosure requirements and serves a general gap-filling function, the disclosure regime also contains certain rules that are stated as hard and fast requirements. Such rules are sometimes called "line-item disclosure requirements" or "prescriptive disclosure requirements" or "rules-based requirements," in contrast to requirements employing materiality, which are called "principles-based disclosure requirements."[82] Instead of the open-ended materiality standard, prescriptive disclosure requirements rely on other means of eliciting information from firms.[83] Some are phrased as absolute requirements.[84] Some are based on prespecified numerical thresholds, such as rules requiring the disclosure of a firm's transactions with its directors or other related parties that exceed $120,000,[85] or executive compensation that falls within certain parameters.[86] Other rules rely on

forward-looking information falls within the realm of optional disclosure. In particular, material forward-looking information regarding known material trends and uncertainties is required to be disclosed as part of the required discussion of those matters and the analysis of their effects. In addition, forward-looking information is required in connection with the disclosure in MD&A regarding off-balance sheet arrangements.").

80. *See* Donald C. Langevoort & G. Mitu Gulati, *The Muddled Duty to Disclose Under Rule 10b-5*, 57 VAND. L. REV. 1639, 1650 (2004).

81. Regulation S-K, Item 101(c)(ii), 17 C.F.R. § 229.101(c)(ii) (2014).

82. *See* Regulation S-K Modernization Concept Release, *supra* note 34, at 23,925.

83. Under one conception of materiality, the categories of information covered by such rules could be viewed as "per se material" or "presumptively material" to investors. The fact that the SEC (and, if relevant, Congress) did not include the materiality standard in a rule may indicate a policy determination that the information covered by the rule is so important to investors that it should always be disclosed, without going through a case-by-case materiality assessment. *See* Georgiev *supra* note 25.

84. The requirements to file documents as exhibits pursuant to Item 601 of Regulation S-K are qualified by materiality in the case of certain documents (e.g., material contracts), and not qualified by materiality in the case of other documents, including underwriting agreements, bylaws and articles of incorporation, and instruments defining the rights of security holders, including indentures. *See* Regulation S-K, Item 601(b)(1)–(10), 17 C.F.R. § 229.601(b)(1)–(10) (2014).

85. For example, Item 404 of Regulation S-K requires annual disclosure of all transactions that exceed $120,000 in value and in which directors, executive officers, or a shareholder of more than five percent of any class of their voting securities has a material interest. 17 C.F.R. § 229.404 (2014).

86. *See, e.g.*, Executive Compensation and Related Person Disclosure, Securities Act Release No. 8732A, Exchange Act Release No. 54,302A, Investment Company Act Release No. 27,444A, 71 Fed. Reg. 53,158, 53,176 (Sept. 8, 2006) (introducing requirement to disclose perquisites and other personal benefits to executive officers exceeding $25,000).

objective, percentage-based significance tests that render certain matters disclosable if they exceed the objective percentage threshold.[87] Other requirements call for information that does not easily lend itself to qualification by way of materiality, such as information about the identity of the disclosing company,[88] information intended to induce certain types of behavior or corporate governance practices,[89] and information that has been judged important as a matter of policy, often for purposes unrelated to securities regulation.[90]

2. The Contours of the Materiality Standard

After mapping out the use of the materiality standard within the SEC disclosure regime, I now turn to examining the content of the standard and the various challenges associated with applying it. At their core, many of the materiality determinations that firms are called upon to make involve the application of vague regulatory and judicial guidance as part of an intensely fact-specific inquiry that often involves predictions about effects in future time periods. Firms deciding whether a matter should be disclosed must evaluate it by applying the materiality standard ex ante. By contrast, in contested cases the regulator and private litigants have the benefit of hindsight to assess whether the matter in question met the

87. For example, Item 2.01 of Form 8-K requires the disclosure of certain information about the acquisition or disposition of a significant amount of assets, where an acquisition or disposition is significant if the investment or amount paid or received for the assets exceeds 10 percent of the firm's and its subsidiaries' total assets. Rule 3-09 of Regulation S-X requires separate financial statements for each equity method investee that meets or exceeds 20 percent significance by applying either the investment or income tests set forth in Rule 1-02(w) of Regulation S-X. While resembling materiality, these significance tests do not entail the open-ended materiality judgment required under rules that specifically incorporate a materiality standard.
88. *See, e.g.*, Regulation S-K, Item 401, 17 C.F.R. § 229.401 (2014) (requiring information about the directors and executive officers of the company); SEC Form S-1 (requiring identifying information such as jurisdiction of incorporation or organization and company address to be provided on cover page of registration statement).
89. Most corporate governance requirements introduced under the Sarbanes-Oxley Act and the Dodd-Frank Act take this form. For example, Section 406 of Sarbanes-Oxley requires firms to disclose whether they have adopted a code of ethics for senior officers, and if not, why not; Section 407 of Sarbanes-Oxley requires companies to disclose whether at least one member of their audit committee is an "audit committee financial expert" and if not, why not. Sarbanes-Oxley Act of 2002, §§ 406, 407, 116 Stat. 745, 789–90 (codified as amended at 15 U.S.C. §§ 7263–65 (2012)). Section 972s of the Dodd-Frank Act requires companies to disclose whether they split the role of Chairman of the Board and CEO, and if not, why not. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 972s, 124 Stat. 1376, 1915 (2010) (codified as amended at 15 U.S.C. § 7265 (2012)).
90. Recent examples include Dodd-Frank's requirement to provide conflict minerals disclosure and mine safety disclosure. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 1502, 1503 (codified as amended at 15 U.S.C. §§ 78m(p), 78m-2 (2012)).

threshold for materiality.[91] However, proving materiality ex post involves a different set of difficulties.[92] Despite the uncertainty, and the fact that materiality is the subject of frequent litigation, courts and the SEC have resisted providing bright-line rules.[93]

The classic definition of materiality comes from a 1976 U.S. Supreme Court decision holding that "[a]n omitted fact is material if there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote."[94] The Court went on to note that "[p]ut another way, there must be a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[95] The Court also noted that "materiality may be characterized as a mixed question of law and fact, involving . . . the application of a legal standard to a particular set of facts."[96] The threshold of significance is amorphous: For information to be deemed material under this test, such information need not necessarily result in a change in the reasonable investor's investment decision, and the investor only needs to view it as "significantly altering the 'total mix' of information available."[97] This test for materiality, however vague, has been adopted in a variety of securities law liability contexts,[98] and has been recently reaffirmed by the Supreme Court.[99]

91. *See, e.g.*, STEPHEN J. CHOI & A.C. PRITCHARD, SECURITIES REGULATION: CASES AND ANALYSIS 49 (14th ed. 2015) ("There is an important timing aspect to the determination of materiality. Corporate officers, with the assistance of corporate counsel, must frequently consider the materiality of corporate information they choose to disclose or not to disclose. . . . knowing that their decision may be later second-guessed . . . .").

92. *See, e.g.*, HAZEN, *supra* note 44, § 12.9[12], at 115 (noting that "it is frequently extremely difficult to predict the outcome of a particular case" involving materiality).

93. *See, e.g.*, Matrixx Initiatives, Inc. v. Siracusano, 563 U.S. 27, 37–38 (2011) (rejecting the use of a bright-line test of "statistical significance" of the non-disclosed information for determining whether an investor-plaintiff in a securities fraud action has adequately pled the materiality of a misstatement or omission).

94. TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976) (defining materiality in the context of a proxy fraud action under Rule 14a-9).

95. *Id.*

96. *Id.* at 450.

97. *See* SEC v. Mayhew, 121 F.3d 44, 52 (2d Cir. 1997) ("[T]he information need not be such that a reasonable investor would necessarily change his investment decision based on the information, as long as a reasonable investor would have viewed it as significantly altering the 'total mix' of information available.").

98. *See* Basic Inc. v. Levinson, 485 U.S. 224, 231–32 (1988) (adopting *TSC Industries* materiality definition in the context of securities fraud actions under Rule 10b-5); Landmen Partners, Inc. v. Blackstone Grp., 659 F. Supp. 2d 532, 540 (2d Cir. 2011) (adopting *TSC Industries* materiality definition in the context of Securities Act Sections 11 and 12(a)(2), which prohibit material misstatements or omissions in disclosure documents).

99. *See* Matrixx Initiatives, Inc. v. Siracusano, 563 U.S. 27, 38 (2011); *see also* Halliburton Co. v. Erica P. John Fund, Inc., 134 S. Ct. 2398, 2413 (2014).

The SEC has defined materiality in several different areas of the disclosure regime, and has maintained that its conception of materiality conforms to the Supreme Court's definition[100] and to standards of materiality used in financial accounting.[101] Rule 405 under the Securities Act states that "when used to qualify a requirement for the furnishing of information as to any subject, [materiality] limits the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security registered."[102] Rule 12b-2 under the Exchange Act defines materiality with reference to information "to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to buy or sell the securities registered."[103]

As a practical matter, determining whether any particular piece of information is substantially likely to be important to a reasonable investor and whether it affects "the total mix" is fraught with challenges.[104] Because courts assess materiality ex post, they have the benefit of additional facts and empirical evidence, including market reactions, in adjudicating the actual importance of information to investors.[105] Given the amorphous nature of the judicial test and the lack of sufficient SEC guidance, with time firms and their auditors developed "rules of thumb" when evaluating matters for materiality. These included percentage rules, most frequently 5 percent, whereby a matter would be deemed material if it affects earnings by more than 5 percent, or amounts to more than 5 percent of assets.[106] Firms also developed even more arbitrary heuristics, such as the "five

100. *See, e.g.*, Adoption of Integrated Disclosure System, Securities Act Release No. 6383, Exchange Act Release No. 18,524, Investment Company Act Release No. 12,264, 47 Fed. Reg. 11,380, 11,393–94 (Mar. 16, 1982) (stating that Rule 405 conforms to *TSC Industries*).
101. *See, e.g.*, SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,155 (Aug. 19, 1999) (SAB 99 "is not intended to change current law or guidance in the accounting or auditing literature").
102. 17 C.F.R § 230.405 (2014).
103. 17 C.F.R § 240.12b-2 (2014).
104. *See, e.g.*, Roger J. Dennis, *Materiality and the Efficient Capital Market Model: A Recipe for the Total Mix*, 25 WM. & MARY L. REV. 373 (1984) (discussing the tensions between the standard of materiality and the efficient market hypothesis underlying modern securities fraud litigation).
105. A number of courts have acknowledged this informational advantage and have raised concerns about the biases it might introduce in adjudicating securities fraud cases. *See generally* Mitu Gulati, Jeffrey J. Rachlinski & Donald C. Langevoort, *Fraud by Hindsight*, 98 NW. U. L. REV. 773 (2004).
106. *See* SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,151 (Aug. 19, 1999) (reporting 5 percent threshold as a rule of thumb); *see also* Elizabeth MacDonald, *SEC Readies New Rules for Companies About What Is 'Material' for Disclosure*, WALL STREET J., Nov. 3, 1998, at A2 ("Most auditors—and their corporate clients—define materiality as any event of news that might affect a company's earnings, positively or negatively, by 3 percent to 10 percent. . . . [This] has become standard practice in corporate America. Thus, if a particular charge or event does not meet the 3% to 10% level, companies feel they don't have to disclose it.").

minute rule," whereby a matter is material if it merits more than a five-minute discussion by the board of directors.[107] The challenge highlighted the classic tension between rules and standards, and the ex ante versus ex post definition of the law.[108] In the absence of a clear definition of the standard, firms adopted and started applying their own rules of thumb.

Perhaps unsurprisingly, the lack of clear guidance on the materiality standard prompted frequent calls for reform from advocates who worried that firms were underdisclosing information.[109] These came to a head in 1998 when the SEC released Staff Legal Bulletin No. 99 (SAB 99), which contained an expansive discussion of approaches to determining the materiality of financial information.[110] SAB 99 was issued in response to the perceived overuse of percentage-based guidelines in making materiality determinations, the underreporting of material information, and firms' ability to smooth out earnings by timing their disclosures strategically.[111] The SEC rejected firms' widely used rules of thumb. Instead, under SAB 99's methodology for materiality analysis, firms and their auditors must consider a long and non-exhaustive list of "qualitative" factors, which could make information material even when it falls below the percentage-based rules of thumb.[112] In addition, auditors must give weight to the context in which a user of the financial statements would view the item, which in effect requires them to anticipate the market's reaction to particular information, a difficult task.[113] The introduction of qualitative factors made materiality judgments more difficult and

107. *See, e.g.*, Kathleen Wailes, *Inquiring Minds Want to Know: Just What Is Materiality?*, LEVICK (Apr. 7, 2011), https://perma.cc/R5B6-MR8Y.

108. *See, e.g.*, Louis Kaplow, *Rules Versus Standards*, 42 DUKE L.J. 557 (1992).

109. *See, e.g.*, Sauer, *supra* note 68 (describing the SEC's push for considering information about managerial competence or ethical violations as material); Sam M. Woolsey, *Approach to Solving the Materiality Problem*, J. ACCT. 47, 47 (1973) (representing an early call for introducing qualitative materiality standards that do not rely on numerical rules of thumb).

110. SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,155 (Aug. 19, 1999).

111. In a speech entitled "The Numbers Game," SEC Chairman Arthur Levitt argued: "[S]ome companies misuse the concept of materiality. They intentionally record errors within a defined percentage ceiling. They then try to excuse that fib by arguing that the effect on the bottom line is too small to matter. . . . When either management or the outside auditors are questioned about these clear violations of GAAP, they answer sheepishly. . . . 'It doesn't matter. It's immaterial.'" *See* Arthur Levitt, Chairman, Sec. & Exch. Comm'n, Remarks at the NYU Center for Law and Business: The "Numbers Game" (Sept. 28, 1998), https://www.sec.gov/news/speech/speecharchive/1998/spch220.txt.

112. Qualitative considerations under SAB 99 include, for example, whether non-disclosure "masks a change in earnings or other trends," "hides a failure to meet analysts' consensus expectations for the enterprise," "changes a loss into income or vice versa," and whether it "concerns a segment or other portion of the [firm's] business that has been identified as playing a significant role in [its] operations or profitability." SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,152 (Aug. 19, 1999).

113. *See id.*

uncertain, and the reforms introduced by SAB 99 have been criticized as unworkable.[114] The SEC made an additional attempt to provide materiality guidance when it adopted Regulation FD a year after SAB 99.[115] Ultimately, that too has been seen as having limited utility.[116]

Certain other features of the materiality standard further complicate firms' disclosure analysis, as well as the interpretation and use of disclosure by investors. The most prominent of these is the requirement that materiality be evaluated with respect to the "reasonable investor"—an artificial judicial construct.[117] Courts require this investor to absorb all information available in markets, use it to analyze risk, and disregard statements of optimism.[118] These general duties are difficult for any specific investor to follow.[119] Securities fraud cases are not evaluated with respect to the actual investor, but the reasonable investor, and there is only one type of reasonable investor across all markets.[120] As a result, firms must determine materiality not with reference to what their own investor base might require, however unique it may be, but with reference to what the always-rational and all-knowing reasonable investor should require.

Alongside the concept of the reasonable investor, judges deciding securities cases have developed a series of materiality-based heuristics to help them dispose of cases more expediently.[121] While useful to judges, such heuristics can lead to erroneous findings of no liability (false negatives).[122] Judicial heuristics also interfere with the definition of the materiality standard within the disclosure regime. At the stage when firms decide whether to disclose specific matters, the

114. *See, e.g.*, Park, *supra* note 68, at 517–19, 527–28 (providing an overview of the literature).
115. Regulation FD provided a non-exhaustive list of categories of information that could be material and trigger the requirement to disclose information outside of the firm's periodic reports. Selective Disclosure and Insider Trading, Securities Act Release No. 7781, Exchange Act Release No. 43,154, Investment Company Act Release No. 24,599, 65 Fed. Reg. 51,716 (Aug. 24, 2000).
116. *See* Bochner & Bukhari, *supra* note 77, at 237–38 (presenting a critique of Regulation FD's impact on materiality).
117. *See, e.g.*, David A. Hoffman, *The "Duty" to Be a Rational Shareholder*, 90 MINN. L. REV. 537, 543 (2006).
118. *See id.* at 538.
119. Indeed, some courts have asserted that "the 'reasonable investor' is the market itself." Dunn v. Borta, 369 F.3d 421, 430 (4th Cir. 2004).
120. *See, e.g.*, Tom C.W. Lin, *Reasonable Investor(s)*, 95 B.U. L. REV. 461 (2015); Amanda M. Rose, *The "Reasonable Investor" of Federal Securities Law: Insights from Tort Law's "Reasonable Person" & Suggested Reforms*, 43 J. CORP. L. (forthcoming 2017), https://papers.ssrn.com/abstract_id=2840993.
121. *See* Bainbridge & Gulati, *supra* note 68, at 119–26 (identifying four heuristics relating to materiality: puffery, bespeaks caution, zero price change, and trivial matters).
122. *Id.*

heuristics can lead to the non-disclosure of certain information, or to the disclosure of information that appears lopsided.[123]

Overall, the SEC's difficulties in providing guidance on the materiality standard stem from the fact that whether something is material or immaterial depends on a probabilistic determination of how specific matters occurring in the present would affect the "total mix of information" and investors' decisions at some point in the future. Both SAB 99 and Regulation FD inched closer to making materiality contingent on markets' expected reactions to particular information, and courts have embraced the use of price impact as a proxy for materiality, to problematic ends.[124] Firms must make determinations about expected market impact ex ante; these determinations are tested ex post by regulators, private litigants, and courts, with the benefit of evidence and hindsight.

3. The Materiality Standard and Large Firms

The multiple ambiguities inherent in the materiality standard give large firms opportunities to avoid disclosure. On a conceptual level the larger the firm, the less likely it is that any individual matter would alter the "total mix" of available information. The size and complexity of large firms gives them a much larger "total mix," which—in turn—sets a very high threshold for what should stand out within this total mix of information and be disclosed. As discussed, firms' materiality determinations most often are not guided by specific rules, and instead rely on the general definition provided by the SEC and the courts. This leaves large firms with much leeway for interpretation of what is, in fact, material. The remainder of the Article is devoted to exploring this dynamic in greater detail. Part II illustrates the materiality blindspots phenomenon in the disclosures of three large firms using case studies. The Appendix proposes a simplified theoretical framework showing more generally how the materiality standard

123. For example, under the puffery doctrine courts treat vague statements of optimism by firm officers as immaterial. *Id.* at 119. And because such statements are treated as immaterial, firms are not required to moderate them or place them in context by disclosing additional explanatory information. Experimental evidence suggests that, contrary to the assumptions embedded in the case law, investors do not necessarily recognize and discount statements of puffery, and may in fact regard statements of puffery as material. *See* Stefan J. Padfield, *Is Puffery Material to Investors? Maybe We Should Ask Them*, 10 U. PA. J. BUS. & EMP. L. 339, 341 (2008) (reporting evidence showing that when actual investors were presented with statements deemed immaterial puffery by courts, anywhere from 33 percent to 84 percent of them found the statements to be material to a potential investment decision).

124. *See* Michael J. Kaufman & John M. Wunderlich, *Regressing: The Troubling Dispositive Role of Event Studies in Securities Fraud Litigation*, 15 STAN. J.L. BUS. & FIN. 1 (2010).

causes firms' disclosure outputs to vary as a function of firm size and how it gives rise to materiality blindspots.

II. MATERIALITY BLINDSPOTS IN KEY AREAS OF THE SEC DISCLOSURE REGIME

This Part combines analyses of specific disclosure requirements and case studies of the SEC filings of large firms to illustrate how the materiality standard enables large firms to avoid the disclosure of information that is significant or sizeable in absolute terms. First, I examine the requirements relating to the disclosure of material contracts and present the results of a survey of Microsoft's disclosure practices with respect to private M&A agreements over a 10-year period; the survey shows that Microsoft avoided disclosure in all 76 acquisitions during that time period. Next, I consider the complex legal and accounting rules requiring the disclosure of pending legal proceedings; an examination of the SEC filings of Berkshire Hathaway and one of its subsidiaries over a five-year period reveals the existence of sizeable legal matters that escaped disclosure by Berkshire Hathaway, but that were disclosed by a subsidiary. I then consider rules that require disclosures relating to material spending on business projects; upon examination, Google's disclosures over a five-year period contain very limited financial information about the large projects that the company is known to be pursuing. Finally, I briefly show how materiality blindspots can also occur in disclosure areas relating to environmental, social, and governance (ESG) matters.[125]

In the general case, if companies do not make disclosures about specific matters, investors do not know about the existence of such matters. The examples presented in this Part are illuminating because they highlight specific, sizeable matters that were not disclosed, but that have become known through some mechanism independent of the company's SEC filings. These examples should be viewed as proof-of-concept, calling attention to structural deficiencies in the disclosure regime that should be studied further and remedied. My goal is not to second-guess the disclosures of specific companies but to illustrate the materiality blindspots phenomenon. Indeed, in each case of non-disclosure I assume that

125. The three primary disclosure areas were chosen because they make substantial use of the materiality standard and deal with matters that are among the most significant sources of capital outlays for most companies. In addition, these areas highlight how the materiality standard leads to information blindspots under rules encompassing three different types of information: non-financial information (material contracts), financial information (material spending on business projects), and a blend of financial and non-financial information (material spending on legal proceedings and the associated loss contingency disclosures).

the firm in question applied the materiality standard correctly and was in compliance with the disclosure rules.

This Part is fairly technical due to the substantial complexity of the relevant disclosure requirements. Readers who are less interested in the minutiae of SEC disclosure rules can skip to the case studies, which show the rules' application to Microsoft, Berkshire Hathaway, and Google. Parts III and IV use examples from the case studies to illustrate the adverse implications of the use of the materiality standard in the context of large firms' disclosure obligations.

A. Material Contracts

1. Content and Analysis of the Disclosure Requirements

The requirement that public companies provide investors with information about their material contracts dates back to the original Securities Act of 1933.[126] Today's securities disclosure regime contains several interrelated provisions that require the disclosure of a range of material contracts and agreements.[127] Under Regulation S-K, companies are required to file the full text of (i) material contracts not made in the ordinary course of business,[128] (ii) material contracts belonging to various specified categories, regardless of whether they were made in the ordinary course of business,[129] and (iii) material acquisition agreements.[130] In addition, Form 8-K requires companies to disclose the key terms of any "material definitive agreement" they enter into, as well as certain information about the termination of any such agreement, in both cases within four days of the event's

126. *See* Securities Act of 1933, Schedule A (24), (30), ch. 38, 48 Stat. 74, 90–91 (codified as amended at 15 U.S.C. § 77aa (2012)) (requiring disclosure of "dates of and parties to, and the general effect concisely stated of every material contract made, not in the ordinary course of business" and a copy of all covered material contracts).

127. Unless the context requires otherwise, I use "material contracts" as a general term to refer to the types of contractual documents required to be disclosed under the provisions referenced in notes 128–136 *infra*, though some of the rules use more specific terms. I use "acquisition agreements" to refer to contracts relating to mergers and acquisitions (M&A). Despite some variations in the provisions relating to different types of contracts, the point about materiality blindspots generally applies to all contracts where disclosure is determined using the materiality standard.

128. *See* Regulation S-K, Item 601(b)(10)(i), 17 C.F.R. § 229.601(b)(10)(i) (2014).

129. *See* Regulation S-K, Item 601(b)(10)(ii)–(iii), 17 C.F.R. § 229.601(b)(10)(ii)–(iii) (2014) (requiring full-text disclosure of material related-party contracts, material contracts on which the company's business is substantially dependent, such as licensing agreements and contracts to purchase or sell large amounts of goods or services, material leases, and certain material executive compensation contracts).

130. *See* Regulation S-K, Item 601(b)(2), 17 C.F.R. § 229.601(b)(2) (2014) (calling for the filing as an exhibit of "[a]ny material plan of acquisition, disposition, reorganization, readjustment, succession, liquidation or arrangement and any amendments thereto").

occurrence.[131] The Form 8-K requirements were introduced in 2004 partly in response to the Sarbanes-Oxley Act mandate to require disclosure "on a rapid and current basis" of material information regarding changes in a company's financial condition or operations.[132]

As in other areas of the disclosure regime, the SEC has provided scant guidance on what constitutes a material contract. For the most part, companies must evaluate contracts and make disclosure decisions using the general principles of materiality discussed in Part I.C, with all of the attendant challenges. There are some limited exceptions. For example, in the area of executive compensation, the SEC has indicated that certain types of contracts are exempt from filing,[133] while other types are specifically covered and must be disclosed.[134] Similarly, in the area of M&A the rules contain some narrow guidance on applying the relevant disclosure requirements under Regulation S-K[135] and Form 8-K.[136]

Contracts relating to the acquisition of a business (i.e., acquisition agreements) provide a particularly helpful device to illustrate the materiality blindspots phenomenon, since most M&A transactions are high-profile and can be observed even in the absence of an SEC filing. Moreover, transactions between

131. *See* SEC Form 8-K, Item 1.01, Item 1.02. Form 8-K is used for "current reports" of certain key business matters required to be disclosed in real time and in advance of the company's next quarterly report on Form 10-Q. A related disclosure requirement contained in Item 2.01 of Form 8-K ("Completion of Acquisition or Disposition of Assets") is not qualified by reference to the materiality standard and instead relies on percentage thresholds. *See infra* note 136.

132. *See* Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, § 409, 116 Stat. 745, 791; Additional Form 8-K Disclosure Requirements and Acceleration of Filing Date, Securities Act Release No. 8400, Exchange Act Release No. 49,424, 69 Fed. Reg. 15,594, 15,595 (Mar. 25, 2004) (describing new Form 8-K disclosure requirements).

133. *See* Regulation S-K, Item 601(b)(10)(iii)(C), 17 C.F.R. § 229.601(b)(10)(iii)(C) (2014) (indicating that certain routine compensation agreements need not be filed).

134. *See* Regulation S-K, Item 601(b)(10)(iii)(B), 17 C.F.R. § 229.601(b)(10)(iii)(B) (2014) (clarifying that certain equity compensation plans issued in connection with a merger are specifically covered under the provisions governing the full text disclosure of material compensation plans).

135. Whereas the general requirement relating to the disclosure of material M&A contracts in Item 601(b)(2) does not contain an "ordinary course" exception, the disclosure provision relating to one sub-type of M&A transaction—the acquisition or sale of property, plant or equipment assets—provides an "ordinary course" exception that applies unless the assets purchased or sold represent more than 15 percent of the company's fixed assets. *See supra* note 130; Regulation S-K, Item 601(b)(10)(ii)(C), 17 C.F.R. § 229.601(b)(10)(ii)(C) (2014).

136. Item 2.01 of Form 8-K requires disclosure of the "acquisition or disposition of a significant amount of assets" and Instruction 4 to this Item includes a "10% of the total assets" test for significance. SEC Form 8-K, Item 2.01. In its Adopting Release for Form 8-K, the SEC made clear that the Item 2.01 requirement is intended to be narrower than the requirement to disclose material definitive agreements under Item 1.01, and that the latter may still trigger disclosure of agreements not required to be disclosed under Item 2.01. *See* Additional Form 8-K Disclosure Requirements and Acceleration of Filing Date, Securities Act Release No. 8400, Exchange Act Release No. 49,424, 69 Fed. Reg. 15,594, 15,598 (Mar. 25, 2004).

a public company (subject to disclosure obligations), and a private company (not subject to disclosure obligations) allow us to isolate individual disclosure decisions relating to specific transactions. If an M&A transaction takes place but no contract is disclosed, we can infer that the public company has concluded that the contract was not material. By contrast, in public-public company M&A, each party to the transaction would be required to make its own materiality determination, which as a practical matter makes it more likely that the acquisition agreement would be disclosed by at least one of the parties. In the context of public-private company M&A, the public company can single-handedly avoid the disclosure of the contract (if it deems it immaterial), which would allow it either to reap the full benefits of non-disclosure or to share them with its private counterparty.

The Microsoft case study discussed below focuses on public-private M&A transactions over a 10-year period. Before proceeding, however, it is useful to outline the specific disclosure requirements and voluntary disclosure practices for public-private M&A transactions:

- Item 602(b)(2) of Regulation S-K: requires the company to file the full text of any "material plan of acquisition, disposition, reorganization, readjustment, succession, liquidation or arrangement and any amendments thereto";[137]
- Item 1.01 of Form 8-K: requires the company to disclose the key terms of any "material definitive agreement";[138]
- Item 8.01 of Form 8-K: allows the company to voluntarily disclose "other events" which are not otherwise called for by Form 8-K, but which the company "deems of importance" to its investors;[139]
- Company Press Releases: companies often voluntarily disclose information to investors via their websites, including press releases about M&A transactions not filed with the SEC.[140]

137. *See supra* note 130.

138. Specifically, Item 1.01 calls for the disclosure of the date of the agreement, names of the parties, any material relationship between the company and any of the parties, and "a brief description of the terms and conditions of the agreement or amendment that are material to the [company]." SEC Form 8-K, Item 1.01(a)(1)–(2).

139. SEC Form 8-K, Item 8.01.

140. The SEC has issued guidance on the use of company websites to disseminate information to investors, noting that such information is subject to the antifraud provisions of the Exchange Act. *See* Commission Guidance on the Use of Company Websites, Exchange Act Release No. 34-58288, 73 Fed. Reg. 45,862, 45,869 (Aug. 7, 2008).

2. Case Study: Microsoft

The disclosure practices of a large and highly-acquisitive company, such as Microsoft, illustrate how the materiality standard gives significant latitude to large firms. During the 10-year period between September 1, 2006 and August 31, 2016, Microsoft acquired 80 companies: 76 of the acquisition targets were private companies and four were public companies. Table 1 provides a summary of hand-collected data and analysis of Microsoft's disclosure practices with respect to private company acquisitions.

TABLE 1: MICROSOFT'S DISCLOSURE PRACTICES IN PRIVATE M&A DEALS (Q3 2006 – Q3 2016)[141]

Total Number of Acquisitions	76
Full Text of Acquisition Agreement Disclosed (Reg. S-K/601(b)(2))	0
Summary of Acquisition Agreement Disclosed (Form 8-K/1.01)	0
Acquisition Press Release Disclosed (Form 8-K/8.01)	1
Purchase Price Not Contained in Any of Microsoft's SEC Filings	72
Purchase Price Not Available from Third-Party Sources	53

Among the 76 private deals, the acquisition of Skype in May 2011 stands out because of its sheer size. Microsoft, the third-largest U.S. public company at the time,[142] agreed to a purchase price of $8.5 billion, the largest-ever deal in its 36-year history.[143] The purchase price represented 7.8 percent of Microsoft's total assets,[144] and the deal was among the largest U.S. M&A deals of 2011.[145] Despite the deal's size, however, Microsoft filed neither a summary of the key terms of the acquisition agreement on Form 8-K, nor its full text pursuant to the requirements of Item 601(b)(2) of Regulation S-K, presumably because it

141. Source: Author's survey of Microsoft's EDGAR filings with the SEC and other publicly available information relating to all Microsoft acquisitions between September 1, 2006 and August 31, 2016 listed on Microsoft's Investor Relations website. *See Acquisition History*, MICROSOFT INV. REL., https://perma.cc/L67U-CNU8.

142. *See* FINANCIAL TIMES, FT GLOBAL 500 INDEX (2011), http://im.ft-static.com/content/images/33558890-98d4-11e0-bd66-00144feab49a.pdf.

143. *See* Nick Wingfield, *Microsoft Dials Up Change*, WALL STREET J. (May 11, 2011), https://perma.cc/9AJB-YE36.

144. Microsoft Corp., [2010] Annual Report (Form 10-K) (July 28, 2011), http://www.sec.gov/Archives/edgar/data/789019/000119312511200680/d10k.htm (reporting that Microsoft's total assets as of June 30, 2011 amounted to 108.7 billion).

145. PRICEWATERHOUSECOOPERS, US TECHNOLOGY M&A INSIGHTS: ANALYSIS AND TRENDS IN US TECHNOLOGY M&A ACTIVITY 2012, at 10 (2012).

concluded that the agreement was not material.[146] The materiality standard thus allowed Microsoft to avoid disclosure of the Skype acquisition agreement. By contrast, any company other than a few of the very largest companies in the S&P 500 would have found the $8.5 billion agreement material and would have had to disclose it.

The Skype transaction was not an isolated example. During the 10-year period under analysis, Microsoft did not disclose the agreements relating to other substantial acquisitions, such as Nokia (deal size: $5 billion)[147] and Minecraft (deal size: $2.5 billion).[148] As shown in Table 1, in 72 (or 95 percent) of the transactions, Microsoft's SEC filings did not contain even the most basic deal information, such as deal price. In 53 (or 70 percent) of the transactions, this information was not available from third-party sources either. Though unlikely, the deal price in each of these 53 transactions could have amounted to as much as $8.5 billion, since we know that Microsoft did not consider this amount to be material in the Skype transaction. Moreover, the situation is not unique to Microsoft. Large companies such as Cisco and Apple have similarly opted not to disclose recent acquisition agreements for, respectively, $5 billion[149] and $3 billion,[150] presumably because they deemed them non-material in spite of the substantial transaction size. A survey of large M&A deals between private and public companies in 2014 reveals that the acquisition agreement was not disclosed in more than 60 percent of the deals.[151]

Recall that acquisition agreements represent just one among the various types of contracts that, if material, are required to be disclosed under the SEC

146. Microsoft filed a copy of the brief public press release announcing the transaction under Item 8.01 (Other Events) of Form 8-K, which allows voluntary disclosure of information not required to be disclosed elsewhere on Form 8-K. In opting for Item 8.01 instead of Item 1.01, Microsoft in effect confirmed that it did not consider the agreement to be material and subject to disclosure. The press release did not contain a summary of the key terms of the acquisition agreement and would not have met the requirements of Item 1.01.
147. Press Release, Microsoft, Microsoft to Acquire Nokia's Devices & Services Business, License Nokia's Patents and Mapping Services (Sept. 3, 2013), https://perma.cc/K3C6-X5SX (announcing acquisition of certain Nokia businesses for EUR 3.79 billion or approximately $5 billion).
148. Press Release, Microsoft, Minecraft to Join Microsoft (Sept. 15, 2014), https://perma.cc/G83D-ETTY (announcing acquisition of Mojang and the company's Minecraft franchise for $2.5 billion).
149. Press Release, Cisco, Cisco Completes Acquisition of NDS (July 31, 2012), https://perma.cc/BTB2-4CQF (announcing acquisition of NDS Group Ltd. for approximately $5 billion).
150. Press Release, Apple, Apple to Acquire Beats Music & Beats Electronics (May 28, 2014), https://perma.cc/PC4S-TSSN (announcing acquisition of Beats Music and Beats Electronics for approximately $3 billion).
151. Author's survey of public-private M&A transactions with a purchase price over $3 billion announced between January 1, 2014 and December 31, 2014 using the Zephyr M&A database.

disclosure regime. The fact that an M&A transaction took place usually cannot remain hidden, regardless of whether firms disclose the acquisition agreement. Given the scope of operations of large companies, however, there are a number of other large commercial deals involving significant capital outlays (and potential waste) that *can* remain completely hidden if the associated contracts are deemed immaterial under the materiality standard. If we are to quantify the magnitude of the materiality blindspots phenomenon, the large acquisition agreements discussed in this sub-Part likely represent only the visible tip of the iceberg, and there could be numerous other contracts that are large in absolute terms but that remain undisclosed.

B. Material Legal Proceedings

The SEC disclosure regime requires companies to disclose material pending legal proceedings, including government investigations, in two general ways: as part of narrative or non-financial disclosure under Regulation S-K, and in the audited financial statements and notes thereto. Each requirement uses the materiality standard in a slightly different way, but in both cases materiality has the same effect on the disclosures provided by large firms.

1. Content and Analysis of the Regulation S-K Disclosure Requirements

Like material contracts, the requirement for the disclosure of material pending legal proceedings dates back to the inception of the SEC disclosure regime.[152] The current framework requires narrative disclosure of such proceedings in one direct and two indirect ways. Item 103 of Regulation S-K calls for a description of "any material pending legal proceedings, other than ordinary routine litigation incidental to the business, to which the [company] or any of its subsidiaries is a party or of which any of their property is the subject," including "any such proceedings known to be contemplated by governmental authorities."[153] There is an additional requirement to disclose material litigation where a party related to the company is adverse to the company,[154] as well as a heightened

152. *See* Securities Act Release No. 33-167, 1934 WL 28449 (May 18, 1934) (calling for the disclosure of "legal proceedings which might affect the value of the registered securities").
153. Regulation S-K, Item 103, 17 C.F.R. § 229.103 (2014).
154. *See id.* (Instruction 4) (requiring companies to disclose material proceedings to which an officer, director or a holder of more than five percent of any class of company stock is a party adverse to the company).

disclosure standard for environmental claims.[155] Item 103 provides only limited guidance on making the materiality determination in the context of pending legal proceedings by indicating that claims for damages amounting to less than 10 percent of the current consolidated assets of the company need not be disclosed.[156] Claims invoking remedies other than damages need to be assessed using the non-quantitative materiality guidance discussed in Part I.C.

In addition to Item 103 of Regulation S-K, pending legal proceedings may be required to be disclosed under Item 303 (MD&A disclosures) or Item 503 (risk factor disclosures) of Regulation S-K. A legal proceeding must be disclosed under Item 303 if it represents a "trend, demand, commitment, event or uncertainty [that] is both presently known to management and reasonably likely to have material effects on the [company's] financial condition or results of operation."[157] This requirement focuses on the materiality of the *effect* of the pending legal proceeding on the company's future operations, rather than on the materiality of the pending legal proceeding.[158] Material legal proceedings may also be captured by another provision of Regulation S-K: Item 503 requires a company to provide "under the caption 'Risk Factors' a discussion of the most significant factors that make [a debt or equity issuance transaction] speculative or risky."[159]

2. Content and Analysis of the Accounting Disclosure Requirements

Pending legal proceedings may also implicate the complex financial accounting rules relating to loss contingency accounting and disclosure. Like the Regulation S-K requirements discussed above, the accounting rules rely on the notion of materiality and can lead to blindspots in the disclosures of large firms.

The relevant rules are contained in Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 450 (ASC 450).[160] ASC 450

155. *See id.* (Instruction 5) (providing that certain material environmental proceedings cannot be deemed "ordinary routine litigation incidental to the business" and must be disclosed).

156. *See id.* (Instruction 2) (clarifying that provisions involving substantially similar legal and factual issues should be aggregated for purposes of the ten percent threshold).

157. Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures, Securities Act Release No. 6835, Exchange Act Release No. 26,831, Investment Company Act Release No. 16,961, 54 Fed. Reg. 22,427, 22,429–31 (May 24, 1989) (clarifying the disclosure requirements contained in Regulation S-K, Item 303(a)(1)–(3)).

158. The SEC sought to clarify that "[Item 303] mandates disclosure of specified forward-looking information, and specifies its own standard for disclosure—*i.e.*, reasonably likely to have a material effect. . . . The probability/magnitude test for materiality approved by the Supreme Court in *Basic* . . . is inapposite to Item 303 disclosure." *Id.* at 22,430 n.27.

159. Regulation S-K, Item 503, 17 C.F.R. § 229.503(c) (2014).

160. FINANCIAL ACCOUNTING STANDARDS BOARD, CONTINGENCIES (TOPIC 450): DISCLOSURE OF CERTAIN LOSS CONTINGENCIES (2010).

defines a "contingency" as "an existing condition, situation, or set of circumstances involving uncertainty as to possible gain (gain contingency) or loss (loss contingency) to an entity that will ultimately be resolved when one or more future events occur or fail to occur."[161] Pending or threatened litigation is one example of a loss contingency. ASC 450 divides loss contingencies into three categories depending on the probability that they will occur ("remote," "reasonably possible," and "probable"), and each contingency has a different impact on the financial statements depending upon this classification and on whether the magnitude of the loss can be estimated.[162] As a result, a company may need to record an accrual expense in the liabilities section of its balance sheet, which provides investors with a snapshot of the company's financial position.[163] Alternatively, the company may need to disclose the nature of the contingency and describe why it is unable to estimate the amount of the loss.[164]

Notably, only loss contingencies that can result in a "material loss" need to be analyzed under ASC 450, and, as a result, only such contingencies are subject to accruals or disclosure. The materiality analysis uses the SAB 99 standards for qualitative materiality discussed in Part I.C. If the company (or its accountants) conclude that the potential loss resulting from the pending litigation would not be material, then the matter would not lead to an accrual or require disclosure as part of the notes to the financial statements. As in other areas, the larger the company, the higher the threshold for materiality. Here, materiality can also have a direct impact on the financial statements, leading to inaccuracies. The rules do not make provisions for a scenario where a number of immaterial and unrelated losses would occur at the same time; presumably, each of these losses can be exempted from analysis under ASC 450 simply because it is immaterial, without considering the aggregate effect of the various losses.

3. Case Study: Berkshire Hathaway

Berkshire Hathaway, the fourth-largest U.S. public company,[165] has sprawling operations in industries such as insurance, utilities and energy, railroads, and

161. *Id.* at 167.
162. *See generally* KING & SPALDING, PUBLIC COMPANY ADVISOR, A "ROADMAP" TO ACCRUALS AND DISCLOSURE REQUIREMENTS UNDER ASC 450 (Mar. 29, 2013), http://perma.cc/QPJ5-JSWJ.
163. This would be the case if the loss contingency is both probable and reasonably estimable. *Id.* at 3.
164. This would be the case if the loss contingency is either (a) probable or (b) reasonably possible, and not reasonably estimable. If the loss contingency is reasonably possible and estimable, then the company would need to provide an estimate of the amount or range of the loss. *Id.* at 3–4.
165. Bloomberg data as of December 16, 2016.

financial products.[166] Berkshire Hathaway is the prototypical conglomerate. Its wholly-owned subsidiaries include household brands such as Geico, Dairy Queen, Fruit of the Loom, Benjamin Moore & Co., See's Candies, and Duracell; its assorted other businesses include an executive plane fleet company, an auto dealership chain, power plants, natural gas lines, wind farms, solar projects and hydroelectric dams, to name but a few.[167] The company's 2015 Annual Report lists 229 subsidiaries;[168] if those subsidiaries were independent, nine of them would be included in the Fortune 500 ranking of the largest U.S. companies.[169] Berkshire Hathaway has approximately 331,000 employees worldwide and its total consolidated assets amounted to $552 billion in 2015.[170]

Many of the industries in which Berkshire Hathaway operates are regulated and litigation-heavy. Yet Berkshire Hathaway generally does not disclose the existence of any material pending legal proceedings pursuant to either the financial or the non-financial disclosure requirements described above. In each of its annual reports for the past five years, Berkshire Hathaway acknowledges that it is party to a "a variety of legal actions arising out of the normal course of business" but then goes on to state that it "does not believe that [pending] litigation will have a material effect on [its] financial condition or results of operations."[171] It is not difficult to see why this happens: With total assets of $552 billion in 2015, even large, multi-billion dollar matters would not be material. Recall that Item 103 specifically exempts from disclosure pending litigation if the claim for damages represents less than 10 percent of the company's assets, which, in Berkshire Hathaway's case, would amount to a threshold of $55.2 billion. This applies even if a matter is in fact material to one of Berkshire Hathaway's operating

166. *See* Erik Holm, *What Is Berkshire Hathaway?*, WALL STREET J. (Apr. 30, 2015), http://perma.cc/J5L8-R9YC.
167. *See id.* In addition to its wholly-owned subsidiaries, Berkshire Hathaway holds substantial stakes in American Express, Coca-Cola, Wells Fargo, IBM, Goldman Sachs, Bank of America, and Wal-Mart. *See id.* These holdings are not consolidated for purposes of the company's financial statements.
168. Berkshire Hathaway Inc., [2015] Annual Report (Form 10-K) Exhibit 21 (Feb. 26, 2016), https://perma.cc/LLK7-PSAS.
169. *See* Holm, *supra* note 166.
170. Berkshire Hathaway, *supra* note 168, at 1, 31.
171. *Id.* at 30; Berkshire Hathaway Inc., [2014] Annual Report (Form 10-K) 30 (Feb. 27, 2015), https://perma.cc/GE5N-B3BH; Berkshire Hathaway Inc., [2013] Annual Report (Form 10-K) 28 (Feb. 28, 2014), http://perma.cc/5H5X-A2QZ; Berkshire Hathaway Inc., [2012] Annual Report (Form 10-K) 27 (Mar. 1, 2013), http://perma.cc/36AN-KF8J; Berkshire Hathaway Inc., [2011] Annual Report (Form 10-K) 27 (Feb. 24, 2012), https://perma.cc/AQ8V-ZZEW.

subsidiaries. Subject to a limited exception, materiality is evaluated at the firm level, and not at the level of subsidiaries.[172]

Of course, the fact that a large company such as Berkshire Hathaway did not disclose any material pending legal proceedings does not, in and of itself, establish that there were in fact large proceedings that escaped disclosure due to immateriality. In the case of Berkshire Hathaway, however, we can actually observe some of the materiality blindspots due to an unusual feature of the firm's financial reporting structure. One of Berkshire Hathaway's subsidiaries, BNSF Railway Company (BNSF), makes separate periodic filings with the SEC.[173] This represents a natural controlled experiment, since we are able to observe Berkshire Hathaway's operations at two levels: the overall firm level, and at the level of a substantial subsidiary, which employs 44,000 people and contributed $21.97 billion, or 10 percent, to Berkshire Hathaway's total revenues in 2015.[174] As a result, any significant and sizeable pending legal proceedings reported by BNSF but excluded from Berkshire Hathaway's Annual Reports would illustrate the materiality blindspots in Berkshire Hathaway's SEC filings.

A survey of BNSF's Annual Reports for each of the five years between 2011 and 2015 reveals numerous disclosures relating to pending legal proceedings and the loss contingencies associated with such proceedings.[175] These disclosures are both narrative and financial, in accordance with the requirements of Regulation S-K and ASC 450 discussed above. In each of the five years, BNSF disclosed the

172. A recent Second Circuit decision enunciated a very limited exception to this principle. Relying on the qualitative conception of materiality, the court held that when a company has multiple segments, if a misstatement is significant to "a *particularly important* segment of [the company's] business" it may be material even if it is "quantitatively small compared to [its] firm-wide financial results." Litwin v. Blackstone Grp., 634 F.3d 706, 720 (2d Cir. 2011) (emphasis added). In the specific case involving private equity firm Blackstone, the court reasoned that investors would be interested in details about Blackstone's private equity investments because private equity is Blackstone's "flagship segment." *See id.* Most conglomerates, including Berkshire Hathaway, are unlikely to meet this narrow standard since they have a number of segments that, individually, are not "particularly important" to them in the way that the private equity segment was important to Blackstone.

173. This is a function of debt financing arrangements. In 2010, Berkshire Hathaway bought BNSF but did not redeem or transfer its debt securities which were registered with the SEC. As a result, BNSF retained its SEC registration and makes regular filings under the ongoing reporting provisions of the 1934 Act. BNSF does not, however, make filings under the proxy rules since it does not have voting securities.

174. *See* Berkshire Hathaway, *supra* note 168, at 14, 115.

175. BNSF Railway Co., [2015] Annual Report (Form 10-K) (Feb. 26, 2016), https://perma.cc/6N4Y-SRRL; BNSF Railway Co., [2014] Annual Report (Form 10-K) (Feb. 27, 2015), https://perma.cc/7UZQ-M47F; BNSF Railway Co., [2013] Annual Report (Form 10-K) (Feb. 28, 2014), https://perma.cc/5HFJ-CZM9; BNSF Railway Co., [2012] Annual Report (Form 10-K) (Mar. 1, 2013), https://perma.cc/CAM4-9MUM; BNSF Railway Co., [2011] Annual Report (Form 10-K) (Feb. 27, 2012) https://perma.cc/Q2XP-7ES9.

status of an antitrust class action relating to alleged price fixing of fuel surcharges, where the plaintiffs were seeking injunctive relief and unspecified treble damages.[176] In addition, BNSF disclosed that federal tax returns for it and its subsidiaries were under examination, and that state tax returns for it and its subsidiaries were "in the process of examination, administrative appeal or litigation."[177] BNSF also disclosed details about asbestos claims, employee work-related injury claims, third-party injury claims, with estimated losses ranging from $330 million to $445 million, and environmental claims, with estimated losses ranging from $285 million to $500 million, as of Dec. 31, 2015.[178] Similar liabilities and ranges were also reported in the preceding years.[179] These proceedings and potential liabilities, albeit large and material for BNSF, were not material for Berkshire Hathaway and, consequently, were not disclosed in Berkshire Hathaway's filings.

C. Material Spending on Business Projects

1. Content and Analysis of the Disclosure Requirements

One of the most important provisions of the disclosure regime requires companies to present an analysis of their financial condition and results of operations that would enable investors to see the company "through the eyes of management."[180] These disclosure requirements are contained in Item 303 (MD&A) of Regulation S-K, and the SEC has issued multiple releases and other guidance clarifying their format and content.[181] As part of the MD&A disclosures, companies are required to report historical and forward-looking information about individual capital expenditures and operating expenses, including on research and development (R&D), that materially affect their financial condition

176. *See, e.g.*, BNSF Railway Co., [2015] Annual Report (Form 10-K), *supra* note 175, at 8 (summarizing proceedings in *In re Rail Freight Fuel Surcharge Antitrust Litigation*, MDL No. 1869).
177. *Id.* at 28. As of December 31, 2015, the unrecognized tax benefits for the years ended December 31, 2015, 2014, and 2013, amounted to $69 million, $78 million, and $56 million, respectively. *Id.*
178. *See id.* at 37–38.
179. *See supra* note 175.
180. Concept Release on Management's Discussion and Analysis of Financial Condition and Operations, Securities Act Release No. 6711, Exchange Act Release No. 24,356, 52 Fed. Reg. 13,715, 13,717 (Apr. 24, 1987).
181. *See* Amendments to Annual Report Form, Related Forms, Rules, Regulations, and Guides; Integration of Securities Acts Disclosure Systems, Securities Act Release No. 6231, Exchange Act Release No. 17,114, 45 Fed. Reg. 63,630 (Sept. 25, 1980); Securities Act Release No. 5520, Exchange Act Release No. 10,961, 39 Fed. Reg. 31,894 (Sept. 3, 1974); Interpretive Releases Relating to Securities Act of 1933 and General Rules and Regulations Thereunder, Securities Act Release No. 4936, 33 Fed. Reg. 18,617 (Dec. 17, 1968).

and results of operations.[182] To be sure, aggregate capital expenditures and operating expenditures are disclosed in the financial statements. The SEC has recognized, however, that the financial statements alone do not provide sufficient information to investors.[183] As a result, it requires companies to provide a different kind of disclosure: an analysis of material trends in the various types of expenditures and an explanation of how they have affected the company's past results, and how they might affect its future results.[184] In the aggregate, the disclosure of capital and operating expenditures allows investors to understand the business investments a company is making and what its future might look like.

2. Case Study: Google/Alphabet

Google, recently reorganized under the name Alphabet,[185] is the second-largest U.S. public company, with a market capitalization of $475.2 billion.[186] In addition to its core internet search and advertising businesses, Google invests in a wide variety of projects with transformative potential in fields as diverse as biotechnology, consumer electronics, and transportation. Some of these projects include driverless cars, smart home systems, drone delivery services, virtual wireless networks, virtual reality-enabled smartphones, and various life extension technologies.[187]

As in prior years, Google's 2015 annual report disclosed heavy aggregate spending on capital projects and R&D, in the amount of $9.9 billion and $12.3

182. *See* Regulation S-K, Item 303, 17 C.F.R. § 229.303 (2014).

183. Concept Release on Management's Discussion and Analysis of Financial Condition and Operations, Securities Act Release No. 6711, Exchange Act Release No. 24,356, 52 Fed. Reg. 13,715, 13,717 (Apr. 24, 1987) ("[A] numerical presentation and brief accompanying footnotes alone may be insufficient for an investor to judge the quality of earnings and the likelihood that past performance is indicative of future performance. MD&A is intended to give the investor an opportunity to look at the company through the eyes of management by providing both a short and long-term analysis of the business of the company. The Item asks management to discuss the dynamics of the business and to analyze the financials.").

184. *See id.*; *see also* Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures, Securities Act Release No. 6835, Exchange Act Release No. 26,831, Investment Company Act Release No. 16,961, 54 Fed. Reg. 22,427, 22,431 (May 24, 1989) (stating that "discussion should address those matters that have materially affected the most recent period presented but are not expected to have short or long-term implications, and those matters that have not materially affected the most recent period presented but are expected materially to affect future periods").

185. *See infra* note 9.

186. Bloomberg data as of December 16, 2016.

187. *See* Richard Waters, *Google: Letters of Intent*, FIN. TIMES (Aug. 14, 2015), http://perma.cc/Z5YS-MS7T; Selena Larson, *Google Unveils Its Pixel Smartphone and VR Headset*, CNN MONEY (Oct. 4, 2016), https://perma.cc/6GKG-RMXG.

billion, respectively.[188] Even though capital expenditures amounted to 13.2 percent of revenues and R&D amounted to 16.3 percent of revenues, the company did not disclose information about the specific projects to which this spending was directed, presumably because the individual amounts were not material to the tech giant's financial condition or results of operations as a whole. Google also did not explain which parts of its business were responsible for the 34.7 percent increase in capital expenditures between 2013 and 2015.[189] Similarly, Google provided no meaningful detail on what led to the 72.1 percent increase in R&D expenses during the same period.[190]

The amounts underlying these fluctuations are undoubtedly large in absolute terms but, because of Google's size, they were not material in the context of the firm's financial condition and results of operations and no additional information was disclosed. Consequently, investors have no way of distinguishing the relative priority given to Google's various non-internet projects and the resources devoted to them. Indeed, most of these projects are barely mentioned in Google's annual reports, and the only information we have about them is from selective company publicity and third-party sources. This lack of disclosure of information about sizeable spending on projects with transformative implications represents another example of materiality blindspots.

D. Other Applications: ESG Disclosures

In recent years, the securities disclosure regime has been supplemented with disclosure requirements extending beyond the financial and business performance information that has traditionally been at its core. Such new reporting obligations relate to the use of conflict minerals, resource extraction payments to foreign governments, health and safety violations in mining-related facilities, and the impact of climate change on business activities.[191] These new requirements fall within the general rubric of environmental, social, and governance (ESG) disclosures. As a disclosure area, ESG has been a fast-growing space: There has been a dramatic increase in voluntary reporting of ESG information by companies.[192] In

188. Alphabet Inc. and Google Inc., [2015] Annual Report (Form 10-K) 4, 23 (Feb. 11, 2016), https://perma.cc/VYW6-S9DA.
189. *See id.* at 95.
190. *See id.* at 32 (attributing increases in R&D expense primarily to "labor and facilities-related costs" associated with the "Other Bets" reporting segment, which houses projects for which no disclosure is provided).
191. *See* Regulation S-K Modernization Concept Release, *supra* note 34, at 23,969–73.
192. *See Eighty One Percent of the S&P 500 Index Companies Published Corporate Sustainability Reports in 2015*, GOVERNANCE & ACCOUNTABILITY INST. (Mar. 15, 2016), https://perma.cc/R4YR-

addition, large institutional investors demand the disclosure of ESG information from firms and report that they find such information useful.[193] Finally, there have been multiple calls for the SEC to clarify the applicability of existing risk disclosure requirements to ESG information or require standardized ESG disclosures through additional rules.[194] ESG reporting can be a controversial issue,[195] and it is beyond the scope of this Article to take a normative position on the desirability of mandating ESG disclosures as a whole or in any particular area. It is worth highlighting, however, that when disclosure rules pertaining to ESG matters rely on the materiality standard and are applied to large companies, the resulting disclosures may suffer from materiality blindspots similar to those identified in other areas of the disclosure regime. Brief examples pertaining to two highly visible ESG topics—climate change and corporate political spending—illustrate the point.

In the area of climate change, the SEC issued an interpretive release in 2010 clarifying that already-existing disclosure obligations require public companies to disclose the impact on their business, operations, and financial performance, if material, of climate change matters.[196] Such matters include the impact of climate change regulation, legislation, and international accords; the indirect consequences of climate change regulation, such as increased/decreased demand for goods or energy sources; and the physical impacts of climate change, such as potential "catastrophic harm to physical plants and facilities" and disruption of manufacturing and distribution processes resulting from severe weather events, such as hurricanes and floods.[197] Notably, the existing rules used by the SEC as the source of the climate change disclosure obligations incorporate the materiality

KVNM (showing that 81 percent of S&P 500 companies reported on ESG matters in 2015, compared to 20 percent in 2011).

193. *See* BLACKROCK INVESTMENT INSTITUTE, THE PRICE OF CLIMATE CHANGE: GLOBAL WARMING'S IMPACT ON PORTFOLIOS 7 (2015), https://perma.cc/M3J2-9VHW ("ESG factors cannot be divorced from financial analysis. We view a strong ESG record as a mark of operational and management excellence. Companies that score high on ESG measures tend to quickly adapt to changing environmental and social trends, use resources efficiently, have engaged (and, therefore, productive) employees, and face lower risks of regulatory fines or reputational damage.").

194. *See* William Thomas & Annise Maguire, Willkie Farr & Gallagher LLP, SEC Studying Change of Regulation S-K to Require ESG Disclosures (Nov. 7, 2016), https://perma.cc/53RA-7CHR (summarizing ESG disclosure matters discussed in the Regulation S-K Modernization Concept Release and SEC public meetings).

195. *See, e.g.*, Regulation S-K Modernization Concept Release, *supra* note 34, at 23,972 (summarizing arguments in opposition to requiring ESG disclosures).

196. *See* Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 9106, Exchange Act Release No. 61,469, 75 Fed. Reg. 6290 (Feb. 8, 2010).

197. *Id.* at 6295–97.

standard.[198] As a result, the threshold for disclosure for a large firm is much higher than that for a smaller firm; indeed, a large firm may be able to justify complete non-disclosure if it can absorb the effects of climate change on its business, even when those effects are sizeable in absolute terms.[199]

The materiality blindspots phenomenon discussed in this Article also has some bearing on the contested area of corporate political spending disclosure. In 2011 and in the wake of the Supreme Court's decision in *Citizens United v. Federal Election Commission*, a group of ten preeminent corporate law scholars petitioned the SEC to develop a rule requiring disclosure of political spending by public companies.[200] The petition has since generated a record number of public comment letters to the SEC,[201] and an extensive academic and policy debate.[202] Assessing the merits of a corporate political spending disclosure rule is beyond the scope of this Article. However, one of the arguments against the rule illustrates the problem with the current use of the materiality standard by large firms. Specifically, a former SEC Commissioner has argued that no special disclosure rule is needed because, if material, corporate political spending expenditures are already required to be disclosed on the company's income statement.[203] Instead

198. These include the Regulation S-K requirements relating to disclosure of: material effects of compliance with regulation (Item 101(c)(1)(xii)); material legal proceedings (Item 103); significant risks (Item 503(c)); and material trends and uncertainties (Item 303). *Id.* at 6293–95. A number of these requirements are discussed in Parts II.B-C *supra*.

199. As a category, ESG disclosures often convey information that may not have a direct impact on the company's bottom line, but may be of importance to investors for non-financial reasons and may still inform their investment decisions. ESG disclosures may also be beneficial from a social welfare perspective, even when irrelevant to individual investors. Therefore, the non-disclosure of ESG information due to the operation of the materiality standard may implicate problems that extend beyond the investor protection and economic efficiency concerns discussed in Parts III and IV.

200. Committee on Disclosure of Corporate Political Spending, Petition for Rulemaking (Aug. 3, 2011), https://www.sec.gov/rules/petitions/2011/petn4-637.pdf.

201. *See* Lucian Bebchuk & Robert J. Jackson, Jr., *Hindering the S.E.C. From Shining a Light on Political Spending*, N.Y. TIMES (Dec. 21, 2015), https://perma.cc/7NPM-RB47 (noting that the SEC has received more than 1.2 million comments on the proposal).

202. *See, e.g.*, Lucien A. Bebchuk & Robert J. Jackson, Jr., *Shining Light on Corporate Political Spending*, 101 GEO. L.J. 923 (2013) (presenting the policy case for a corporate political spending disclosure rule); John C. Coates IV, *Corporate Politics, Governance, and Value Before and After* Citizens United, 9 J. EMPIRICAL LEGAL STUD. 657 (2012) (presenting empirical evidence linking corporate political spending to poor corporate governance); Michael D. Guttentag, *On Requiring Public Companies to Disclose Political Spending*, 2014 COLUM. BUS. L. REV. 593 (2014) (arguing against disclosure of corporate political spending because of poor fit with the SEC's system of mandatory disclosure); Paul Atkins, *Materiality: A Bedrock Principle Protecting Legitimate Shareholder Interests Against Disguised Political Agendas*, 3 HARV. BUS. L. REV. 363 (2013) (arguing that a corporate political spending rule would not provide investors with material information).

203. *See* Atkins, *supra* note 202, at 367 n.23 (citing to Rule 210.5-03 of Regulation S-X, which requires income statement line-item disclosure of "material amounts" of "operating costs and expenses" and "general expenses").

of bolstering the case against a corporate political spending rule, however, this argument in fact serves to underscore the ineffectiveness of the materiality standard in ESG disclosure areas. If disclosure is left solely to the materiality standard, a large firm would be able to make very sizeable political donations (wasting resources or causing significant externalities) without making any disclosures, while a smaller firm would be required to disclose much lower levels of spending. Such instances of sizeable but undisclosed political spending by large firms could represent materiality blindspots. If disclosure in this area is warranted, the way to elicit it would be through dollar thresholds such as those discussed in Part V, and not through the materiality standard.

III. IMPLICATIONS FOR INVESTOR PROTECTION AND CORPORATE GOVERNANCE

After identifying the materiality blindspots phenomenon on a conceptual level in Part I and illustrating it with real-life examples in Part II, I now turn to the potential negative implications: first for investor protection and corporate governance in this Part, and then for market efficiency and competition in Part IV. By introducing the variable of firm size to the existing literature, I show on a conceptual level that materiality blindspots may undermine investor protection and corporate governance in several related ways. First, they can lead to inaccurate market pricing of firms' securities, thereby harming investors holding such securities and preventing the efficient allocation of capital. Second, in the realm of internal corporate governance, materiality blindspots can make it easier for management to engage in fraud, waste, or suboptimal practices; lack of information can also hinder monitoring by a firm's board of directors, other insiders, and the firm's advisers. Third, in the realm of external corporate governance, materiality blindspots can make it more difficult for those not involved in the day-to-day operation of the company, such as investors, third-party monitors, and information intermediaries, to detect fraud, waste, or poor corporate governance.

The existence of positive links between disclosure, on the one hand, and investor protection and corporate governance, on the other, is well established in the extensive literature on disclosure regulation and financial reporting.[204] There is, however, a debate about the optimal design of disclosure systems, with some

204. *See, e.g.*, Reinier H. Kraakman, *Disclosure and Corporate Governance: An Overview Essay*, *in* REFORMING COMPANY AND TAKEOVER LAW IN EUROPE 95, 96 (Guido Ferrarini et al. eds., 2004) (reporting a "consensus" among most academics and regulators, premised on disclosure's benefits for the efficient pricing of securities, and "practical concerns associated with the governance and regulation of public companies").

scholars suggesting that some or all of the benefits of disclosure may also obtain under regimes that eschew mandatory disclosure requirements.[205] I take the existing mandatory disclosure regime as a given here and throughout most of this Article; I engage with some of its alternatives in Part V.C. By way of methodology, I seek to highlight the negative implications of materiality blindspots in this sphere by linking generally accepted theory with specific examples from the case studies in Part II. Proving that the existing system does not produce optimal disclosure outcomes is a necessary step in improving the system, but—to be sure—it is only the first step; I discuss potential regulatory solutions in Part V. Finally, because the focus is on large firms' disclosures, even small deviations from the optimal level of disclosure would have large implications on investors' portfolios due to investors' outsized exposure to the securities of large firms.[206]

A. Accuracy of Security Prices

One of the primary benefits associated with mandatory disclosure relates to the improved accuracy of prices of firms' securities. On a theoretical level, the more information is incorporated into the price of a security, the more the price of such security correctly anticipates the future prospects of the company.[207] Investors benefit from this because the link between their investment and their expected return is strengthened, and their capital is allocated to the highest-valued user of capital. In addition, mandatory disclosure contributes to price accuracy by economizing on investor information costs. When disclosure is absent or lacking, it becomes more expensive or even impossible for investors to distinguish between high- and low-quality firms, which can lead to adverse selection

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205. A large part of the debate focuses on the relative merits of mandatory versus voluntary disclosure regimes, and Professors Roberta Romano and Merritt B. Fox are among the most prominent proponents of opposing views. *See, e.g.*, Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L.J. 2359, 2372 (1998) (finding that "little empirical evidence suggests that the federal [securities regulation] regime has affirmatively benefited investors" and arguing against a system of mandatory disclosure); Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 VA. L. REV. 1335 (1999) (arguing in favor of mandatory disclosure and interpreting empirical evidence as supportive of this position). For a behavioral perspective on the debate, see generally Stephen M. Bainbridge, *Mandatory Disclosure: A Behavioral Analysis*, 68 U. CIN. L. REV. 1023 (2000). For a potential alternative disclosure regime focused on portability and reciprocity across national borders, see generally Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903 (1998).

206. *See supra* notes 13–14 and accompanying text.

207. *See* Merritt B. Fox, *Securities Disclosure in a Globalizing Market: Who Should Regulate Whom*, 95 MICH. L. REV. 2498, 2540 n.80 (1997); *see also* Merritt B. Fox, *Why Civil Liability for Disclosure Violations When Issuers Do Not Trade*, 2009 WISC. L. REV. 299 (2009) ("[m]ore disclosure makes share prices more accurate").

problems and market unraveling.[208] Efficient stock prices are also important because they improve the effectiveness of the market for corporate control as a disciplining device on firm performance by decreasing the costs of identifying underperforming firms as potential targets.[209]

Empirical evidence generally supports the positive correlation between disclosure and security price accuracy (and stock price accuracy in particular).[210] A related question about the extent to which stock prices are in fact informationally efficient (often framed as the efficient market hypothesis) is subject to intense debate.[211] Notwithstanding the validity or precise formulation of the efficient market hypothesis, however, there is a near consensus in the literature that disclosure contributes to investor welfare by way of price accuracy, because the informational content of security prices is greater with disclosure than without it.[212] Applying this theory in the context of non-disclosure of information due to the operation of the materiality standard yields several pertinent observations.

First, the disclosures of one firm do not only affect that firm's security prices, but also become part of the total informational environment and can contribute to the efficiency of other firms' stock prices. This virtuous dynamic breaks down when a large firm is able to withhold information because of the materiality standard. The Microsoft case study discussed in Part II.A presents a particularly troubling example. As shown, Microsoft did not deem any of its 76 private M&A transactions over a 10-year period to be material, and did not disclose the acquisition agreements or a summary of the agreements' key terms. What is

208. *See* Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 637–39 (1984).

209. *See* John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717, 747 (1984).

210. *See* Merritt B. Fox et al., *Law, Share Price Accuracy, and Economic Performance: The New Evidence*, 102 MICH. L. REV. 331, 370–81 (2003); *see also* Allen Ferrell, *Measuring the Effects of Mandated Disclosure*, 1 BERKELEY BUS. L.J. 369, 372 (2004) (providing an assessment of the various empirical studies and noting that "[t]he concept of stock price accuracy is well accepted and commonly employed in the accounting and finance literature").

211. *See, e.g.*, Donald C. Langevoort, *Judgment Day for Fraud-on-the-Market: Reflections on* Amgen *and the Second Coming of* Halliburton, 57 ARIZ. L. REV. 37, 48–54 (2015) (presenting a discussion of recent research on and judicial use of the efficient capital markets hypothesis); Lynn A. Stout, *The Mechanisms of Market Inefficiency*, 28 J. CORP. L. 635, 635 (2003) ("[T]he weaknesses of the efficient market theory are, and were, apparent from a careful inspection of its initial premises, including the presumptions of homogeneous investor expectations, effective arbitrage, and investor rationality."); Yesha Yadav, *How Algorithmic Trading Undermines Efficiency in Capital Markets*, 68 VAND. L. REV. 1607 (2015) (arguing that the rise of algorithmic trading may be undermining stock price accuracy and the allocative efficiency of capital markets).

212. *See* Ferrell, *supra* note 210, at 371; Marcel Kahan, *Securities Laws and the Social Costs of "Inaccurate" Stock Prices*, 41 DUKE L.J. 977 (1992).

more, Microsoft did not disclose even the most basic term—deal price—in 95 percent of the cases, and this information was not available from third-party sources in 70 percent of the cases. The absence of price information has likely made it much more difficult for companies similar to those acquired by Microsoft to adequately value their business. Investors in such companies, whether public or private, would have been better off if Microsoft had disclosed deal price information because this would have improved the investors' ability to accurately value their holdings. Any investor loss due to inaccurate stock prices in this case can be attributed, at least in part, to Microsoft's application of the materiality standard. Of course, such peer effects are difficult to estimate in any given case, especially because the information needed for the analysis falls within a materiality blindspot. However, recent empirical evidence supports the existence of peer firm information effects, and suggests that such effects are most important in the case of early-lifecycle firms—precisely the kinds of firms being acquired by Microsoft.[213]

Second, the existence of large swings in stock prices resulting merely from a change in disclosure practices suggests that the non-disclosure of sizeable matters by large firms due to the materiality standard may serve to undermine security price accuracy more generally. For example, Google's announcement in August 2015 that it would change its reporting structure and provide more granular information in six months' time led to an immediate 7 percent increase in its stock price.[214] Amazon's decision in April 2015 to disclose information about its profitable cloud storage business, which it had hitherto considered immaterial, countered a stock price slide caused by the poor financial results it announced on the same day.[215] Whether and when *additional* disclosure would improve stock price accuracy in the aggregate is an empirical question. The point is simply that when large firms choose to disclose more information, even information they consider immaterial, such information does affect stock prices in non-trivial ways and could make stock prices more informationally efficient.

Finally, the impact of errors in materiality determinations and the resulting non-disclosure of information differs in the case of small firms and large firms. If a firm erroneously determines that a piece of information is immaterial, then the absence of this information, and the resulting stock price inaccuracy, would have

213. *See* Nemit Shroff, Rodrigo S. Verdi, and Benjamin P. Yost, *When Does Peer Information Matter?* (Oct. 10, 2016), https://ssrn.com/abstract=2741231 (showing that information released by competitors affects the cost of both debt and equity for firms that are early in their lifecycle).

214. *See* Mari Saito & Julia Love, *Google Morphs Into Alphabet; Investors Cheer Clarity*, REUTERS (Aug. 11, 2015), https://perma.cc/CSU3-DMWL.

215. *See* Miriam Gottfried & Dan Gallagher, *Amazon Needs More Cloud Cover*, WALL STREET J. (Apr. 23, 2015), http://perma.cc/PX29-VFQD.

a much larger effect on overall market efficiency than a similar error relating to a small firm due to investors' outsized exposure to the securities of large firms. This suggests that we should pay particular attention to large firms' materiality determinations.

B. Internal Corporate Governance

The visible output of the disclosure process is the release of information that is filed with the SEC and made available to investors. Once released, the information is no longer secret and firms are legally liable for its accuracy and completeness.[216] The disclosure system, however, exerts an influence on corporate governance long before disclosure is made, or even if no disclosure is required. Firms and corporate insiders are usually well aware of the content of specific disclosure requirements and may adjust their behavior accordingly. The changes in behavior take place along two vectors: on the one hand, away from self-dealing and other actions that harm the firm, and, on the other hand, toward specific actions, strategies, or modes of internal organization.[217] In addition, the disclosure process improves managerial consciousness and facilitates better intra-firm and external monitoring of corporate performance.[218]

The first mechanism through which disclosure provides internal governance benefits relates to the amelioration of self-dealing or tunneling behaviors, which can result in fraud, waste, or suboptimal practices (i.e., in agency costs).[219] At its core, tunneling represents the extraction of corporate wealth by managers, controlling shareholders, and other insiders.[220] The disclosure process seeks to

216. *See supra* note 44 and accompanying text.

217. *See* Robert B. Thompson & Hillary A. Sale, *Securities Fraud as Corporate Governance: Reflections upon Federalism*, 56 VAND. L. REV. 859, 860 (2003) (describing this mechanism as "information-forcing-substance regulation").

218. *See, e.g.*, Louis Lowenstein, *Financial Transparency and Corporate Governance: You Manage What You Measure*, 96 COLUM. L. REV. 1335 (1996) (arguing that disclosure can improve managerial performance simply by forcing managers to become more aware of reality).

219. *See, e.g.*, Paul G. Mahoney, *Mandatory Disclosure as a Solution to Agency Problems*, 62 U. CHI. L. REV. 1047, 1048 (1995) (arguing that the SEC's mandatory disclosure requirement was initially designed to reduce the agency costs created by promoters of companies); *see also* Lucian Arye Bebchuk & Christine Jolls, *Managerial Value Diversion and Shareholder Wealth*, 15 J.L. ECON. & ORG. 487 (1999) (discussing the ways in which firm insiders are able to transfer value from shareholders to themselves).

220. *See* Simon Johnson et al., *Tunneling*, 90 AM. ECON. REV. 22, 22 (2000); *see also* Vladimir Atanasov, Bernard Black & Conrad S. Ciccotello, *Law and Tunneling*, 37 J. CORP. L. 1, 2 (2011). Cash flow tunneling involves the extraction by insiders of some of the firm's current cash flows, for example by entering into related-party transactions on non-arm's length terms, or by obtaining excessive perks. *See id.* at 11–13. Asset tunneling involves transactions in which insiders buy (or

deter or prevent tunneling through a variety of disclosure rules.[221] These rules are not styled as prohibitions, but they can effectively shape the behavior of firms or insiders because the disclosure of non-standard or off-market terms or transactions would have a negative signaling effect and potentially draw the attention of investment analysts, investors, or regulators. By its very nature, the deterrent effect of the disclosure process on these undesirable practices can be difficult to observe. Nonetheless, empirical research has found a positive link between firms' efforts to avoid disclosure and potential self-dealing.[222] All this suggests that it would be problematic if the materiality standard enables firms to avoid disclosure of information that would be helpful in preventing fraud, waste, or suboptimal practices.

The second mechanism through which disclosure provides internal governance benefits deals with the production, flow, and consumption of information by management, other insiders, and the firm's board of directors. Independent directors, for example, are tasked with important monitoring functions in corporate governance, and they cannot fulfill those without sufficient information.[223] More generally, corporate insiders continuously collect, organize and analyze information about their firms to be able to compile information for disclosure and then certify its veracity under threat of legal liability. This increase in knowledge may have a positive effect on managerial and corporate performance.[224] In addition, it may solve information asymmetries that exist between headquarters and branch offices, or among the firm's various subsidiaries.

The disclosure process also facilitates monitoring by firms' lawyers, auditors, and underwriters by way of legal, accounting, and financial due diligence.

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sell) assets from (or to) the firm at below (or above) market prices. *See id.* at 7–8. Equity tunneling involves insiders acquiring firm equity at below market prices. *See id.* at 8–9.

221. Item 404 of Regulation S-K requires the disclosure of any firm transaction with a value greater than \$120,000 in which a director or executive officer had a material interest. *See* Regulation S-K, Item 404, 17 C.F.R. § 229.404 (2014). Item 4.08 of Regulation S-X requires that material related party transactions that affect the financial statements be disclosed in appropriate financial statement or notes thereto. *See* 17 C.F.R. § 210.4-08.

222. *See* Christian Leuz et al., *Why Do Firms Go Dark? Causes and Economic Consequences of Voluntary SEC Deregistrations*, 45 J. ACCT. & ECON. 181, 181–85 (2008) (finding evidence that firm insiders choose to exit the SEC reporting regime in order to protect their private benefits of control, including "perk consumption, loans on favorable terms, generous compensation packages, the investment of free cash flows into projects that serve insiders' interests, or self-dealing with other companies in which insiders hold stakes").

223. *See* Hillary A. Sale, *Independent Directors as Securities Monitors*, 61 BUS. LAW. 1375 (2006) (describing the monitoring role of independent directors as an aspect of the information-forcing-substance disclosure model that the SEC has used to achieve improved corporate governance).

224. *See* Merritt B. Fox, *Required Disclosure and Corporate Governance*, 62 LAW & CONTEMP. PROBS. 113, 123–25 (1999).

Information prepared for disclosure is generally vetted carefully, because the legal regime imposes liability on underwriters for misstatements and omissions in disclosure documents,[225] and because lawyers and auditors are asked to deliver legal opinions, negative assurance letters, and auditor comfort letters, which function as reputational bonds.[226] Taken as a whole, the involvement of underwriters, lawyers, and auditors results in active monitoring of corporate conduct. Such monitoring, however, would be ineffective if matters that are sizeable in absolute terms do not have to be disclosed due to the operation of the materiality standard.[227]

The benefits of monitoring for solving information asymmetries and preventing suboptimal decision-making should be even more pronounced in large firms that operate in multiple product and geographic markets. Yet, those are precisely the kinds of firms where we would expect materiality blindspots would occur. Berkshire Hathaway shows that in the absence of detailed disclosure requirements this beneficial coordination and monitoring does not materialize. The firm's latest annual report notes that its operations are highly decentralized; it has approximately 331,000 employees worldwide, but only 25 of them work in corporate headquarters and perform a coordinating function.[228] It is safe to assume that if Berkshire Hathaway were required to provide additional disclosures, it would need to engage in much greater internal coordination.

The Microsoft case study discussed in Part II.A provides several examples of how materiality blindspots may undermine investor protection and corporate governance. Recall that Microsoft was able to avoid disclosure of the agreement relating to its $8.5 billion acquisition of Skype. While there is no evidence of any self-dealing in this transaction, the deal may have been suboptimal at the very least. At the time, Microsoft's shareholders were alarmed that Microsoft paid a 40 percent premium over Skype's own valuation of its business as part of an imminent IPO.[229] Moreover, this transaction represented a sale of a private company (Skype) by a private equity firm to a public company (Microsoft), and the non-transparent structure of private equity generally has been described as "a

225. *See* Securities Act of 1933 §§ 11, 12(a)(2), 17, 15 U.S.C. §§ 77k, 77l(a)(2), 77q (2012); Securities Exchange Act of 1934, 15 U.S.C. § 78j(b) (2012).
226. *See, e.g.*, Andrew F. Tuch, *Multiple Gatekeepers*, 96 VA. L. REV. 1583 (2010).
227. To be sure, this governance benefit may be redeemed in part when lawyers and auditors are assisting firms in making materiality determinations at the margins.
228. *See* Berkshire Hathaway, *supra* note 168, at 1.
229. *See* Tara Lachapelle & Dina Bass, *Skype Gets 40% Markup as Microsoft Surprised Owners: Real M&A*, BLOOMBERG BUS. (May 11, 2011), http://perma.cc/93LL-ZGRD (summarizing negative reactions to Skype acquisition by a number of institutional investors holding Microsoft stock).

breeding ground for agency costs."[230] In this case, the agency costs may have stemmed from acquisition agreement terms such as service agreements for key executives, purchase price adjustments, and earnout provisions. Because the agreement was not disclosed, we have no way of knowing whether any of these terms were suboptimal, or worse. We do know, however, that Microsoft's track record of acquisitions has been criticized repeatedly. Two recent acquisitions for which no contract was disclosed resulted in a $13 billion write-off, a destruction of firm value with direct and negative consequences for investor protection and corporate governance.[231] Overall, Microsoft's ability to avoid disclosure of M&A agreements due to the operation of the materiality standard eliminates a check on self-dealing, fraud, or poor decision-making through the securities laws.

C. External Corporate Governance

The external corporate governance benefits of disclosure stem from its role in informing investors' decisions, and facilitating external monitoring by hedge funds, investment analysts, rating agencies, proxy advisory firms, and other informational intermediaries. Unlike the internal governance benefits, which are derived from the disclosure *process* and the actions of corporate insiders and their advisers, the external governance benefits of disclosure depend on the actual existence of disclosure and the actions of investors.[232] Because investors are the original intended beneficiaries of the disclosure regime, the external governance benefits of disclosure are closely intertwined with the principle of investor protection embedded in U.S. securities law. These benefits are diminished when large firms are able to avoid disclosure of information as a result of the operation

230. James C. Spindler, *How Private Is Private Equity, and at What Cost?*, 76 U. CHI. L. REV. 311, 331 (2009).

231. *See* Nick Wingfield, *With LinkedIn, Microsoft Looks to Avoid Past Acquisition Busts*, N.Y. TIMES (Dec. 8, 2016), https://perma.cc/Q2PX-MYU3 (reporting that Microsoft "has not had a great track record of acquisitions" and that it had to write off $13 billion, nearly the entire book value, of its acquisitions of aQuantive and Nokia's mobile unit); *see also* Don Clark, *Microsoft Has Mixed Record of Success on Big Acquisitions*, WALL STREET J. (June 13, 2016), http://www.wsj.com/articles/microsoft-has-mixed-record-of-success-on-big-acquisitions-1465851304 (suggesting that few financial benefits have emerged from Microsoft's M&A activities and reporting investor sentiment that "[m]any of [Microsoft's] big deals haven't worked out as planned").

232. The dividing line between internal and external corporate governance is not clearly demarcated: Governance mechanisms that involve shareholders are sometimes labeled as "internal" corporate governance, since shareholders do have a formal role within the corporation. In the disclosure context, I have reserved "internal corporate governance" for actions by those who are involved in the day-to-day management of the corporation and their advisors. Because shareholders and other investors are not involved in day-to-day management and (generally) do not have access to company information unless it is formally disclosed through a process controlled by insiders, it seems more apt to include them in the "external" category.

of the materiality standard. I start by sketching out the theoretical case and then discuss the potential harms from materiality blindspots.

Even though shareholders do not participate in the day-to-day governance of public companies, they have three types of rights, to "vote, sell [stock], or sue."[233] In each case, the information provided through the disclosure regime is essential. For example, shareholders receive periodic information about the firm's performance, and special disclosure materials in connection with votes they are asked to cast, either as a matter of course (e.g., to elect the board of directors), or as a result of extraordinary corporate events (e.g., to vote to approve a statutory merger or an asset sale).[234] In a related vein, not just shareholders but all investors, including bondholders, benefit from disclosure because it removes information asymmetries and levels the information playing field for buying or selling securities.[235] Disclosure also plays a role in informing investors when they exercise litigation rights (e.g., derivative suits under state law or securities fraud suits under federal law), as well as certain special rights under state law, such as dissenter rights or appraisal rights.[236] Finally, disclosure facilitates ongoing monitoring and engagement by activist shareholders, a growing force in corporate governance.[237] The success of activists depends in part on their ability to gather, process, and analyze information; as such, activists are avid consumers of information, including that contained in firms' disclosure documents.[238]

Setting aside the work done by investors, the monitoring conducted by information intermediaries, such as investment analysts, rating agencies, and proxy advisory firms, also confers potential governance benefits on firms.[239] First, information intermediaries supply retail and institutional investors with information that facilitates those investors' ability to exercise their governance rights. Second, firms' management and boards learn from the analytical work done by

233. Robert B. Thompson, *Preemption and Federalism in Corporate Governance: Protecting Shareholder Rights to Vote, Sell, and Sue*, 62 LAW & CONTEMP. PROBS. 215, 216 (1999).
234. *See* Fox, *supra* note 173, at 1364; *see also* Fox, *supra* note 224, at 127.
235. *See* Guttentag, *supra* note 38, at 224–27. The SEC has adopted Regulation FD in order to safeguard the same goal. *See supra* note 115 and accompanying text.
236. For example, Exchange Act Rule 13e-3 and DGCL § 262. *See* 17 C.F.R. § 240.13e-3 (2014); DEL. CODE ANN. tit. 8, § 262 (2011).
237. *See* Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights*, 113 COLUM. L. REV. 863, 899 (2013).
238. *See* Alon Brav, Wei Jiang, Frank Partnoy & Randall Thomas, *Hedge Fund Activism, Corporate Governance and Firm Performance*, 63 J. OF FIN. 1729 (2008) (discussing the mechanisms and effects of informed shareholder monitoring in proposing strategic, operational, and financial remedies).
239. *See, e.g.*, Gilson & Kraakman, *supra* note 208 (discussing the role of information intermediaries); Jill E. Fisch & Hillary A. Sale, *The Securities Analyst as Agent: Rethinking the Regulation of Analysts*, 88 IOWA L. REV. 1035 (2003) (discussing the role of investment analysts).

information intermediaries and frequently change strategy in order to accommodate their recommendations. Crucially, any monitoring by information intermediaries is dependent on the availability of sufficient information about firms' activities, and the disclosure regime is the primary avenue for the provision of such information.

The effects of materiality blindspots on external corporate governance are not dissimilar from their effects on internal corporate governance. If the materiality standard prevents useful information about large firms' activities from being disclosed, then it would have an adverse impact on monitoring by investors and information intermediaries. Going back to the Microsoft case study, the non-disclosure of acquisition agreements is also problematic from an external corporate governance perspective because it removes this additional check on fraud, waste, or suboptimal decision-making. It is impossible to prove that Microsoft would have struck a better deal for Skype if it had to disclose the acquisition agreement, or that the $13 billion write-off in respect of two M&A transactions could have been avoided. We do know, however, that the requirement for the disclosure of acquisition agreements seeks to protect investors from fraud or loss, that the agreements in question were not disclosed due to the peculiar operation of the materiality standard to large firms such as Microsoft, and that investors were harmed by the destruction of $13 billion in firm value.[240] Whether or not this is sufficient to justify reform of the disclosure rules may come down to a policy judgment, as discussed in Part V. For their part, investors and analysts have bemoaned Microsoft's acquisition track record,[241] and, more generally, the disclosure practices of Google,[242] and Berkshire Hathaway.[243]

240. It is true that if they suffer a loss, shareholders may attempt recovery through litigation, but they must overcome the business judgment rule and, moreover, they can litigate only matters they know about. The essence of the materiality blindspots phenomenon is that it prevents information from being disclosed in the first place: Recall that many of the examples from the case studies in Part II are exceptions that prove the rule, because we know of the existence of the non-disclosed matters through some other means.

241. *See* Clark, *supra* note 231.

242. *See* Alice Truong, *Wall Street Is Really Excited by Google's Restructuring—But It Isn't Exactly Sure Why*, QUARTZ (Aug. 10, 2015), https://perma.cc/V3XA-G82G (quoting industry analyst who notes that even post-reorganization Google "won't provide all the transparency investors need to value" parts of its business, and expresses skepticism over Google's intent to break out cash flow items, such as capital expenditures, that are "particularly crucial for Google").

243. *See* Stephen Foley, *Warren Buffett Faces Pressure for More Disclosure*, FIN. TIMES (Feb. 8, 2015), on.ft.com/1zLKvNO (reporting on concerns voiced by investment analysts that the disclosures of Berkshire Hathaway contain far less detail than companies of a similar size, and demanding that disclosures be expanded); *see also* Lynnley Browning, *Warren Buffett's Transparency Problem*, NEWSWEEK (Feb. 24, 2015), https://perma.cc/67D5-KTBB (noting that Berkshire Hathaway is one of "the least transparent corporations in America" and quoting an investment analyst opinion

IV. THE MATERIALITY STANDARD AS A REGULATORY SUBSIDY FOR BIGNESS

The application of the materiality standard to the disclosures of large firms—and the resulting materiality blindspots—may have negative implications that extend well beyond investor protection and corporate governance. The relationship between firms and investors is undoubtedly important, since investors serve as suppliers of capital, but firms also interact with a number of other economic actors, such as employees, other suppliers, customers, potential acquisition targets, and potential acquirers; firms also compete with other firms. The availability of information is a crucial element in each of these interactions. When the mandatory disclosure regime regulates public firms' informational outputs, therefore, it has the capacity to impact these interactions and the markets in which they take place. The externalities created by firms' mandatory disclosures are known on a theoretical level, but the literature has not considered the effects of the disparate informational inputs provided by firms of different sizes due to the operation of the materiality standard. Relying on economic analysis and the case studies discussed in Part II, I suggest that the operation of the materiality standard can provide competitive advantages to large firms over smaller firms, and that it can also lead to distortions in product and capital markets. By virtue of these effects, the materiality standard can be seen as conferring a regulatory subsidy upon large firms. I conclude this Part by showing that concerns about efficiency and competition do not lie outside the scope of modern securities regulation.

A. Firm Size and the Interfirm Costs of Disclosure

A large number of commentators on the securities disclosure regime have suggested that the disclosure of information by a public firm benefits the firm's competitors, suppliers, and customers.[244] For example, one firm's disclosure

that "[t]here's actually a tremendous amount we don't know about parts of this company [which] makes it incredibly difficult to assess the quality of earnings").

244. *See, e.g.*, Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 672–73, 685 (1984); Coffee, *supra* note 209, at 721–23; Lucian Arye Bebchuk, *Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law*, 105 HARV. L. REV. 1435, 1490–92 (1992); ROBERT CHARLES CLARK, CORPORATE LAW § 17.5.3 (1986); Edmund W. Kitch, *The Theory and Practice of Securities Disclosure*, 61 BROOK. L. REV. 763, 846–74 (1995); Fox, *supra* note 205, at 1356–58; Fox, *supra* note 207, at 2533–50. *But see* Roberta Romano, *The Need for Competition in International Securities Regulation*, 2 THEORETICAL INQUIRIES L. 387, 434–35 (2001) (questioning the theoretical basis for the generalization that the disclosure of information by a public firm confers benefits on the firm's

about the industry in which it operates may reveal private information about the industry or about that firm's anticipated production; this information can be useful to other firms in planning their own operations.[245] If a firm discloses that a particular line of business is profitable, competitors could use this information to direct resources to the same line of business and compete with the disclosing firm.[246] Similarly, major customers or suppliers of the disclosing firm can use the information to drive harder bargains with the firm.[247] In other words, mandatory disclosure can force firms to signal the existence of economic rents (or economic profits) resulting from a favorable competitive position, and to share those rents with competitors, suppliers, and customers.[248]

The *benefits* that disclosure confers on competitors, suppliers, and customers are *costs* from the disclosing firm's perspective. The disclosing firm gives away information about its future plans or profitability, which competitors, suppliers, and customers can then use to their advantage. The costs of disclosure to the disclosing firm have been termed "interfirm costs."[249] In social welfare terms, it is presumed that the interfirm costs of disclosure are balanced out by the corresponding benefits that disclosure confers on other firms.[250] As a result, interfirm costs do not result in social costs. This dynamic is key to the argument that in the absence of an SEC disclosure regime, voluntary disclosure by firms would be lower than the socially optimal level.[251] Without mandatory disclosure requirements, firms have an incentive to underproduce information about their strategy and economic performance, especially in markets with barriers to entry, and where firms have market power and reap economic (as opposed to accounting) profits.[252]

Notably, the existing literature has not considered how interfirm costs vary as a function of firm size. I suggest that materiality upends the balance between the interfirm costs of disclosure and the corresponding benefits to other firms. As shown in Part II, the materiality standard enables large firms to avoid disclosure

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competitors, suppliers, and customers, and suggesting that the effects of disclosure on other firms may be negative).

245. *See* Easterbrook & Fischel, *supra* note 244, at 685.

246. *See* Merritt B. Fox, *The Issuer Choice Debate*, 2 THEORETICAL INQUIRIES L. 563, 570 (2001).

247. *See id.*

248. This has benefits in terms of static efficiency and costs in terms of dynamic efficiency. Disclosure informs competitors about profit opportunities, which can lead to production at levels where marginal costs equal marginal benefits and can lead to better resource allocation under a static efficiency model. *See* Fox, *supra* note 205, at 1346 n.20. At the same time, disclosure may diminish firms' incentives to produce private information under a dynamic efficiency model. *See id.*

249. Fox, *supra* note 207, at 2550–51.

250. *See* Fox, *supra* note 205, at 1345–46, 1350 n.25; *infra* note 259 and accompanying text.

251. *Id.* at 1346 ("[A]t all levels of disclosure, an issuer's private marginal costs will exceed its social marginal cost by an amount equal to these interfirm costs.").

252. *Cf. id.*

of matters that are sizeable in absolute terms. If disclosure of such matters were required, this would result in interfirm costs to the individual firm and corresponding benefits to competitors, suppliers, and customers. When large firms take advantage of the materiality standard and avoid disclosure, however, they are able to minimize their own interfirm costs. At the same time, they reap the benefits from the disclosures of smaller firms that cannot use materiality in a similar manner to avoid the disclosure of sizeable matters. Finally, large firms impose additional costs on smaller firms, which now have to invest more in order to get information that is not disclosed. The peculiar ways in which the materiality standard affects the interfirm costs and the interfirm benefits of small and large firms can lead to undesirable effects on two fronts: in the competition between large and small firms (giving large firms an advantage), and in product and capital markets (causing distortions).

B. The Size Advantage

The materiality standard enables large firms to minimize their interfirm costs. The larger the firm, the greater this ability. Consider the disclosure of business projects discussed in Part II.C. As shown, Google does not have to break down or explain its capital expenditures and R&D spending, and, as a result, does not have to disclose individual business projects, even sizeable ones, since they are not material.[253] Thus, Google can avoid the interfirm costs that such disclosure would entail. In turn, Google's competitors, customers, and suppliers cannot reap the benefits that would have resulted from Google's disclosures.[254] By contrast, most if not all smaller competitors that invest in business projects of a magnitude equal to Google's would have to disclose their investment in such business projects because they would be material to the smaller firm. The smaller firm then incurs the interfirm cost of disclosure, while its competitors (including Google), its customers, and its suppliers reap the corresponding benefits from disclosure.

253. *See supra* Part II.C.

254. To be sure, the SEC disclosure requirements are not the only mechanism through which information about large firms' activities becomes known. Even in the absence of a duty to disclose, firms release information voluntarily when they deem it advantageous from a business perspective. However, there can be real benefits to avoiding (or at least delaying) the disclosure of positive information and to hiding negative information. In a related vein, large firms are also subject to greater scrutiny from the media, industry analysts, and others; this too can supply the market with additional information. However, discovering private firm-specific information can involve substantial search costs, and there is no guarantee of success. For example, even in a highly visible area such as M&A, third parties were unable to obtain the most basic term, purchase price, in 70 percent of Microsoft's private company acquisitions over the 10-year period surveyed in Part II.A.

In effect, the materiality standard provides Google with a two-fold advantage, and the smaller firm with a two-fold disadvantage. Google, the world's second-largest company, can (1) minimize its own interfirm costs by scaling its disclosures, and (2) continue to benefit from the disclosures of smaller competitors, smaller suppliers, and smaller customers (i.e., everyone else). On the other hand, the smaller firm (1) is unable to minimize its own interfirm disclosure costs, and (2) is also unable to benefit from Google's disclosures. The ability to invest sizeable resources into capital projects and R&D without disclosing the nature of the projects gives the large firm, Google, a competitive advantage over the smaller public firms with which it interacts. In other words, while Google can develop projects in secrecy, the materiality standard would require smaller firms to develop projects of a similar size under the direct scrutiny of competitors and investors.

This dynamic replicates itself in the other disclosure areas discussed in Part II. Recall that large public companies can avoid disclosure of sizeable acquisition agreements if such agreements are immaterial. A large firm's ability to acquire a private company and avoid disclosure of the acquisition agreement (which often contains sensitive information) can give it an advantage over a smaller public bidder required to make the disclosure. Consider the following thought experiment. A private company such as Skype has the option of being acquired either by public Company S, which is small and would therefore be required to disclose in full the acquisition agreement for the transaction, or by a company such as Microsoft, which is so large that the acquisition would not be material and no disclosure would be required. It would be safe to assume that disclosure would entail non-trivial interfirm costs for Skype.[255] When choosing between the two bidders, Skype would have an incentive to select Microsoft's purchase offer over the offer from Company S, so long as all else—including offer price—is equal. If Skype enters into a deal with Company S, the two contracting parties would have to bear the interfirm cost of disclosure, because Company S is required to disclose the terms of the agreement. By contrast, if Skype enters into a deal with Microsoft, the two contracting parties can avoid the interfirm costs, because Microsoft is not required to disclose the terms of the agreement. Thus, the large firm (Microsoft) gains an advantage merely due to its size and ability to avoid disclosure.

255. At the time of the sale to Microsoft, Skype was owned by a consortium of private equity firms. Private equity firms are repeat players in the M&A markets and disclosure of the terms of one deal could undermine their bargaining position in future deals, since future contractual counterparties could demand equal or better treatment. Examples of commercially sensitive terms include indemnities, service agreements for key executives, purchase price adjustments, earnout provisions, and the existence (and amounts) of any break-up fees (payable by the target to the acquirer) or reverse break-up fees (payable by the acquirer to the target).

The disclosure of information relating to material pending litigation can also involve interfirm costs. As shown in Part II, the disclosure requirements for legal proceedings entail an assessment of the firm's probability of success and, in certain cases, the disclosure of the firm's estimate of the magnitude of the expected loss. This information can signal the value of the dispute to the opposing party; conversely, the non-disclosure of such information can confer a settlement advantage. The Berkshire Hathaway case study presented in Part II.C illustrates the point: The operation of the materiality standard enables the firm to avoid disclosure both of the existence of customers' antitrust class action relating to alleged price fixing. Even though litigation information is available through court databases such as PACER, such information is often incomplete and cannot function as an adequate substitute for firm-provided disclosure. The disclosure rules on material pending litigation seek to elicit information beyond what a court database could provide. For example, the rules under ASC 450 require firms to assess and disclose the probability and magnitude of loss resulting from litigation. This information is more helpful to investors and third parties (and more costly for firms to disclose) than the unfiltered information contained in a court docket.[256]

C. Market Distortions

Large firms' ability to minimize the interfirm costs of disclosure can also cause distortions in product and capital markets. These effects are closely related to but distinct from the size advantages discussed above. When firms are able to avoid disclosure, a number of potential benefits of disclosure fail to obtain. These include disclosure's positive effect on capital market efficiency and economy-wide capital and asset allocation, as well as disclosure's potential to remove information asymmetries in specific product markets and thereby enhance competition.[257] The link between lack of disclosure and lack of market competition has been demonstrated by empirical studies.[258]

256. *See supra* Part II.B.
257. *See, e.g.*, Coffee, *supra* note 209, at 721–23; Kahan, *supra* note 212, at 1013 n.158. Even commentators who argue against the federal mandatory disclosure regime and in favor of a system of voluntary disclosure acknowledge the role of information in determining security prices, which in turn contributes to allocative efficiency. *See, e.g.*, George J. Benston, *An Appraisal of the Costs and Benefits of Government-Required Disclosure: SEC and FTC Requirements*, 41 LAW & CONTEMP. PROBS. 30, 32–33 (1977); Romano, *supra* note 244, at 464–93 (2001).
258. *See* Christine A. Botosan & Mary Stanford, *Managers' Motives to Withhold Segment Disclosures and the Effect of SFAS No. 131 on Analysts' Information Environment*, 80 ACCT. REV. 751 (2005) (showing that firms took advantage of latitude in accounting disclosure requirements to withhold information about business segments operating in less competitive industries and inferring that such non-disclosures are motivated by a desire to protect profits in less competitive industries);

In product markets, large firms' ability (and small firms' inability) to minimize the interfirm costs of disclosure can lead to suboptimal allocation of resources. In any product market where a *large firm* enjoys an advantage and is able to reap economic profits, the large firm's lack of disclosure would fail to provide a signal to smaller firms. Without new market entrants who can compete away the economic profits, the large firm's advantage will persist over time. This can diminish consumer welfare, result in a deadweight loss, and further enhance the market power of the large firm.

In any product market where a *smaller firm* enjoys an advantage and is able to reap economic profits, the small firm's securities disclosures can provide a signal to other firms to enter the market, which will enhance competition and lead to static efficiency. But over time, large firms will enjoy an advantage in such a market as well. Disclosure has the effect of diminishing firms' incentives to produce private information by reducing the rewards for innovation.[259] When we apply this general effect to firms of different sizes, we again observe disparate outcomes. Smaller firms' incentives to generate private information and innovate would be reduced because of the public disclosures they are required to provide, whereas larger firms' incentives to generate private information and innovate would not be impacted since the materiality standard enables them to avoid providing similar disclosure. This can lead to the suboptimal allocation of R&D resources across firms, with large firms spending more on R&D, and small firms spending less. As a result, large firms will be more innovative than smaller firms and may come to dominate product markets. To be sure, there could be other effects at play; the analysis here deliberately isolates the impact of firms' disclosure practices on the markets in which they operate while holding all else equal. On a theoretical level, the application of the materiality standard, and the resulting divergence in large and small firms' interfirm costs of disclosure, can privilege large firms in product markets, diminish competition, and lead to oligopolistic market structures.

A similar distortion can occur in capital markets. Because of the operation of disclosure requirements, smaller firms have limited discretion over what to disclose. Small firms have to disclose *both* positive and negative information, whereas large firms may be able to avoid disclosure of negative information if such information falls below the threshold of materiality. Consider a small firm facing two events: a $1 billion capital expenditure that would enhance its profitability

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Mary Stanford Harris, *The Association Between Competition and Managers' Business Segment Reporting Decisions*, 36 J. ACCT. RES. 111 (1998) (showing that firms are less likely to provide segment disclosure of operations in less competitive industries and arguing that this stems from a desire to protect abnormal profits and market share in less competitive industries).

259. *Cf.* Fox, *supra* note 207, at 2551–52.

(positive information), and a $1 billion contingent liability that would impact its results of operations adversely (negative information). If $1 billion is a material amount to the small firm, then the firm will have to disclose *both* matters to investors. Faced with the same two events, however, a large firm for which $1 billion is not a material amount will have the option of not disclosing the negative information and disclosing *only* the positive information. This behavior would be consistent with theoretical predictions, since all firms generally provide voluntary disclosure of information that will reduce their cost of capital.[260] The large firm can reduce its cost of capital by strategic disclosure of positive information only, whereas the small firm does not enjoy such discretion. The non-disclosure of information due to the materiality standard can thus lead to distortions whereby large firms systematically benefit from a lower cost of capital compared to smaller firms.[261] This, in turn, would have negative implications for the economy-wide allocation of capital.

D. Disclosure, Efficiency, and Competition

The evidence highlighting the potential adverse effects of materiality blind-spots on market efficiency and competition does not, in and of itself, justify using securities regulation to mitigate any such effects. Given the disclosure regime's original and enduring focus on investor protection, one could argue that any size advantages and market distortions caused by the materiality standard should be irrelevant to securities regulation, and that, instead, such concerns could be addressed through antitrust law or some other regulatory regime. Despite its conceptual neatness and intuitive appeal, however, such an argument would be misplaced. This sub-Part highlights the SEC's sometimes-forgotten statutory mandate to consider factors beyond investor protection in rulemaking, and presents recent economic evidence suggesting that concerns about market distortions and large firms' size advantages may be well founded.

260. *See, e.g.*, MICHAEL P. DOOLEY, FUNDAMENTALS OF CORPORATION LAW 390 (1995) (noting that firms have positive incentives to disclose information "up to the point where the marginal cost of additional disclosure is equal to the marginal benefit to the firm in reducing its cost of capital"); *see also* Romano, *supra* note 205, at 2426–27 (suggesting that, given a choice, firms will opt for disclosure practices that minimize their cost of capital).

261. Of course, there can be many other reasons why large firms benefit from a lower cost of capital compared to smaller firms, such as greater financial resources or lower risk through effective diversification. The point here is only that, holding all else equal, the disclosure or non-disclosure of information as a result of materiality may distort capital markets and suppress the cost of capital for large firms.

Scholars have often made the case for a more expansive conception of securities regulation based on theory[262] and the legislative history of the foundational statutes,[263] but the SEC generally did not look beyond investor protection in its rulemaking.[264] This began to change after the D.C. Circuit struck down several SEC rules and called specific attention to provisions of the securities laws requiring the SEC to consider factors beyond investor protection when engaging in rulemaking.[265] The provisions, adopted by Congress in 1996, require the SEC to consider "in addition to the protection of investors, whether the [rulemaking] will promote efficiency, competition, and capital formation."[266] The D.C. Circuit read the "efficiency, competition, and capital formation" (ECCF) mandate as requiring the SEC to conduct a cost-benefit analysis of proposed rules as part of the rulemaking process.[267] This interpretation has generated significant controversy because it altered and likely constrained the SEC's rulemaking abilities,[268] and because financial regulation may be particularly ill-suited for the cost-benefit analysis toolkit.[269] Also problematic is the lack of congressional guidance on the

262. *See, e.g.*, Coffee, *supra* note 209, at 734 ("[I]f we view the securities market as the principal allocative mechanism for investment capital, the behavior of securities prices is important not so much because of their distributive consequences on investors but more because of their effect on allocative efficiency. In this light, it is important not only that the game be fair, but that it be accurate—that is, that capital be correctly priced."); Zohar Goshen & Gideon Parchimovsky, *The Essential Role of Securities Regulation*, 55 DUKE L.J. 711, 713 (2006) (rejecting "the widespread . . . belief that securities regulation aims at protecting the common investor" and arguing that, instead, "the ultimate goal of securities regulation is to attain efficient financial markets and thereby improve the allocation of resources in the economy").

263. *See, e.g.*, Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1210, 1235–45 (1999) (arguing that, in addition to the goal of investor protection, the Exchange Act gives the SEC the authority to promote "market efficiency" and require disclosure "as necessary or appropriate in the public interest").

264. *See, e.g.*, Yoon-Ho Alex Lee, *The Efficiency Criterion for Securities Regulation: Investor Welfare or Total Surplus?*, 57 ARIZ. L. REV. 85, 89–90 (2015).

265. *See* Bus. Roundtable v. SEC, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011) (invaliding SEC proxy access rule mandated by the Dodd-Frank Act); *see also* Am. Equity Inv. Life Ins. Co. v. SEC, 613 F.3d 166, 177–79 (D.C. Cir. 2009) (invalidating SEC rule on fixed index annuities); Chamber of Commerce v. SEC, 412 F.3d 133, 142–44 (D.C. Cir. 2005) (invaliding SEC rule imposing director independence requirements on mutual funds).

266. Securities Act of 1933, 15 U.S.C. § 77b(b) (2012); Securities Exchange Act of 1934, 15 U.S.C. § 78c(f) (2012). In 1999, the same provision was added to the Investment Company Act of 1940 and applies to rulemaking thereunder. Investment Company Act of 1940, 15 U.S.C. § 80(a)-2(c) (2012).

267. *See* Bruce Kraus & Connor Raso, *Rational Boundaries for SEC Cost-Benefit Analysis*, 30 YALE J. ON REG. 289, 300 (2013).

268. *See, e.g.*, Donna M. Nagy, *The Costs of Mandatory Cost-Benefit Analysis in SEC Rulemaking*, 57 ARIZ. L. REV. 129 (2015).

269. *See, e.g.*, John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882 (2015).

meaning of the ECCF factors,[270] as well as the ECCF factors' inherent ambiguity.[271] Despite these challenges, the SEC has done extensive work to expand its cost-benefit analysis capabilities and has issued a guidance memo on its understanding of costs and benefits, which embraces the ECCF factors.[272]

The ECCF mandate need not be an anti-regulatory tool, even though it came to prominence through court decisions striking down SEC rules. Where appropriate, the ECCF factors can be used to justify additional regulation or the expansion of existing regulations. For example, when considering a new disclosure rule, the ECCF factors allow the SEC to take into account disclosure benefits related to improving competition and efficiency. As shown in sub-Parts IV.A–C, the application of the materiality standard—and the resulting materiality blindspots—can lead to market distortions (undermining efficiency) and impose significant interfirm costs on small firms vis-à-vis large firms (undermining competition). Therefore, if it considers a rule addressing the materiality blindspots phenomenon, the SEC would be able to take into account the rule's efficiency and competition benefits, alongside its investor protection benefits.[273]

Because the SEC is already engaged in new rulemaking as part of the Disclosure Effectiveness Initiative and pursuant to congressional mandates under the JOBS Act and the FAST Act, the efficiency and competition concerns discussed here have immediate relevance. The cost-benefit analysis of potential revisions to the disclosure regime, including Regulation S-K, ought to consider the ECCF evidence discussed in this Part, and not just the evidence related to investor protection discussed in Part III. Encouragingly, the SEC's Regulation S-K Modernization Concept Release acknowledges that the SEC is required to consider the ECCF factors as part of its rulemaking.[274] The few academic studies cited by the Release point to the benefits of disclosure not just in terms of investor protection, but also in terms of firms' cost of capital and growth expectations.[275]

270. Congress did not define the terms "efficiency, competition, and capital formation," did not specify a dominant factor or how the factors should be balanced against each other (or against investor protection), and did not require that the consideration of these factors yield a net positive outcome. *See* Jill E. Fisch, *The Long Road Back:* Business Roundtable *and the Future of SEC Rulemaking*, 36 SEATTLE U. L. REV. 695, 713–16 (2013).

271. *See* Lee, *supra* note 264; *see also* Yoon-Ho Alex Lee, *SEC Rules, Stakeholder Interests, and Cost–Benefit Analysis*, 10 CAP. MKTS. L.J. 311 (2015).

272. *See* Memorandum from the SEC Div. of Risk, Strategy, and Fin. Innovation and the Office of the Gen. Counsel, Current Guidance on Economic Analysis in SEC Rulemakings 12–15 (Mar. 16, 2012), http://perma.cc/DT6K-A386.

273. Of course, the same goes for the rule's costs. However, we can expect the benefits of rules requiring additional disclosure by large firms to outweigh the costs of such rules.

274. Regulation S-K Modernization Concept Release, *supra* note 34, at 23,922.

275. *Id.* at 23,930 & n.167-9.

Yet, the SEC could do a lot more to consider the theoretical and empirical evidence about the effects of disclosure on competition and efficiency as well as the disparate impact of the materiality standard on large and small firms discussed in this Part. This view is supported by the SEC's own cost-benefit analysis guidance, which states that SEC cost-benefit analysis may consider the benefits of a rule, including a disclosure rule, in terms of "better information sharing, which can result in lower risk premiums and better allocation of capital," and "enhanced competition, which can lead to reduced prices or higher quality."[276]

Recent economic evidence indicates that the potential problems discussed on a theoretical level in this Part, namely market distortions and size advantages for large firms, can be observed in the real economy. For example, the percentage of small-firm IPOs that are unprofitable over a three-year period has increased considerably since the late 1990s, when compared both with contemporaneous large-firm IPOs and with earlier small-firm IPOs.[277] In addition, returns on invested capital for publicly-traded non-financial U.S. firms have become increasingly concentrated within a smaller segment of the market: In 2014, the 90th percentile firm in terms of size saw returns on investment in capital that are more than five times that of the median firm (up from two times 25 years earlier).[278] Firm entry rates, an indicator of business dynamics, have declined almost twofold over the same time period,[279] whereas the share of revenues enjoyed by the 50 largest firms in most industries has increased over time.[280]

To be sure, the origins of these undesirable phenomena are highly complex, and it would be misguided to attribute them to any single regulatory domain, much less to securities regulation alone. In view of the theoretical discussion presented in this Part, however, we should be open to the idea that securities regulation might be one contributing factor among many. At a minimum, securities regulation should not add to the size advantages already enjoyed by large firms.

For their part, policymakers have already acknowledged that concerns over distorted, concentrated, or uncompetitive markets cannot be solved through traditional antitrust law alone, as evidenced by an April 2016 Executive Order directing all "agencies with authorities that could be used to enhance

276. *See supra* note 272, at 11.
277. Xiaohui Gao, Jay R. Ritter & Zhongyan Zhu, *Where Have All the IPOs Gone?*, 48 J. FIN & QUANT. ANALYSIS 1663, 1669–71 (2013).
278. WHITE HOUSE COUNCIL OF ECONOMIC ADVISERS, ISSUE BRIEF: BENEFITS OF COMPETITION AND INDICATORS OF MARKET POWER 5 (2016), https://perma.cc/9U7D-KXDR.
279. *Id.*
280. *Id.* at 4.

competition" to "use those authorities to promote competition."[281] Even though the Executive Order "strongly encouraged" independent agencies, such as the SEC, to comply with its directives, the SEC does not appear to have taken any action thus far. Yet, acting to remove, or at least mitigate, the regulatory subsidy for bigness embedded in the securities disclosure regime could enhance competition and would therefore fit within the scope of the Executive Order. This provides one additional reason for the SEC to focus on the application of the materiality standard to the disclosures of large firms.

V. PROPOSED SOLUTION

This Part develops a regulatory approach that can be deployed to address materiality blindspots: supplementing the disclosure regime's current reliance on the materiality standard with the expanded use of specific numerical thresholds that would ensure the disclosure of matters of particular importance. The proposed disclosure requirements would take the form of precise disclosure rules, independent of the principles-based materiality standard. The new requirements should be targeted to apply to a limited set of transactions or matters that, although substantial in absolute terms, are deemed immaterial by large firms.

My proposal takes the existing mandatory disclosure regime as a given and works within it to address both sets of harms caused by materiality blindspots. A disclosure-based solution is attractive on feasibility grounds. Using the broad-based authority at its disposal, the SEC can modify disclosure rules with relative ease pursuant to standard notice-and-comment rulemaking and as part of the ongoing Disclosure Effectiveness Initiative. While other solutions are possible, they could consume more of the SEC's resources,[282] or fail to address both sets of harms identified in this Article.[283] In addition, disclosure is generally recognized

281. Exec. Order No. 13,725, Steps to Increase Competition and Better Inform Consumers and Workers to Support Continued Growth of the American Economy (Apr. 15, 2016), 81 Fed. Reg. 23,417 (Apr. 20, 2016). The Executive Order noted that independent agencies, such as the SEC, "are strongly encouraged to comply" and spoke about the importance of the flow of information within the economy. *Id.*, at 23,418.

282. Such solutions could entail greater oversight and enforcement by the SEC, both as a means of eliciting additional disclosure ex ante and enforcing disclosure omissions ex post.

283. It is possible to address the regulatory subsidy for bigness by allowing a greater number of smaller firms to benefit from the reduced disclosure requirements currently applicable to EGCs and smaller reporting companies. In effect, this would provide such firms with a "regulatory rebate" and put them on a more equal footing with their larger counterparts. While preferable to doing nothing, such a solution would be less desirable than the one proposed here, because it does not address the potential harms to investor protection and corporate governance. It could help smaller firms compete with larger firms, but would not lead to larger firms providing more information to investors.

as a less intrusive mode of regulation compared to other alternatives.[284] To be sure, disclosure requirements can be ineffectual and their expansion could have undesirable effects.[285] To account for this possibility, I consider several potential objections to my proposal. I find that, while potentially salient in other circumstances, these objections hold limited sway in the context of large firms' disclosure practices.

A. Quantitative Thresholds as a Disclosure Safety Net

The SEC could address materiality blindspots by introducing specific quantitative thresholds within certain existing disclosure rules. These quantitative thresholds would trigger a requirement to disclose information without first engaging in an analysis using the principles-based materiality standard. To avoid replicating materiality's shortcomings, such thresholds should be expressed as specific dollar amounts and not as percentages. Using percentage-based rules would replicate the problems inherent in the materiality standard, since such rules expressly incorporate the size of the firm that is making a materiality assessment: The larger the firm, the higher the value of the disclosure threshold in absolute terms. By contrast, quantitative thresholds expressed as dollar amounts would be constant in absolute terms, and firm size would not be part of the materiality assessment. Instead, the disclosure obligation would be the same for firms of various sizes and, as a practical matter, could be designed to serve as a safety net capturing large matters or transactions that would not be disclosed otherwise. The thresholds would make the most sense in disclosure areas that are of substantial importance because of the utility of the disclosed information for investor protection, corporate governance, market efficiency, competition, or, potentially, the public interest. This could include, for example, some of the areas discussed in Part II. If the thresholds are set appropriately, the impact of the new requirements could be limited to large firms and to potentially troubling non-disclosures of the sort presented in the case studies.

Consider for example the rules on disclosure of material acquisition agreements discussed in Part II.A. The rules could be supplemented to require disclosure of agreements whose value exceeds a certain specified dollar amount, say \$1 billion; this would be in addition to the current requirement to disclose

284. In invalidating SEC rules prescribing specific governance practices for mutual funds in *Chamber of Commerce v. SEC*, the D.C. Circuit held that the Commission's failure to consider disclosure as the less burdensome alternative violated the Administrative Procedures Act. Chamber of Commerce v. SEC, 412 F.3d 133, 144 (D.C. Cir. 2005).

285. *See, e.g.*, Steven A. Bank & George S. Georgiev, *Paying High for Low Performance*, 100 MINN. L. REV. HEADNOTES 14 (2016) (arguing that disclosure rules in the area of executive compensation could be manipulated and may be counterproductive).

material agreements. Most firms do not engage in such large acquisitions, so they would not be impacted by the new requirement; instead they would continue to analyze whether or not an agreement should be disclosed by using the materiality standard in the current rules. For large firms, however, the quantitative thresholds would require the disclosure of additional acquisition agreements, such as Microsoft's $8.5 billion acquisition of Skype. Recall that this agreement was deemed immaterial by Microsoft and was not disclosed. The add-on quantitative requirements would serve as a safety net against materiality blindspots by requiring the disclosure of information that is significant or sizeable in absolute terms, but that may not be caught by the existing materiality standard.

This proposal outlines a conceptual approach to augmenting disclosure requirements; it does not prescribe the content of specific disclosure requirements. The SEC could develop and test specific policy proposals, including specific quantitative thresholds, pursuant to its standard rulemaking process.[286] Such requirements should be reviewed and updated periodically, to account for inflation or changing economic realities. In setting quantitative thresholds, the SEC could use easily-obtainable and objective benchmarks. For example, disclosure could be required if a deal's size exceeds the average market capitalization of U.S. public companies, or the market capitalization of the median public company, or a percentage of the total market capitalization of all public companies. The Skype transaction was valued at $8.5 billion in 2011, which amounted to $9.1 billion in 2016 dollars. This amount is higher than the average market capitalization of firms in the Russell 3000 index (a proxy for the size of the U.S. market), and also higher than the market capitalization of the median firm in the Russell 3000 index.[287]

Specific thresholds are already part of our regulatory arsenal and are particularly common in areas outside securities law that employ disclosure-based regulation.[288] Even in securities regulation, specific numerical thresholds are sometimes used in lieu of the principles-based materiality standard, such as in the

286. This conceptual approach is consistent with other recent work in the area of disclosure regulation. *See, e.g.*, Langevoort & Thompson, *supra* note 26, at 379–80 (indicating that the SEC should determine the specific features used to distinguish between the two proposed issuer classes and the content of the disclosure requirements that should apply to the non-public issuer class).

287. According to calculations based on Bloomberg data as of November 30, 2016, the average market capitalization of firms in the Russell 3000 index was approximately $8.7 billion, and the market capitalization of the median firm was approximately $1.6 billion.

288. The regulation of financial companies relies on specific thresholds much more heavily than on notions of materiality. In antitrust law, the Hart-Scott-Rodino filing thresholds are stated in absolute terms and not with respect to materiality. Disclosure obligations in the area of environmental law also contain specific thresholds.

context of environmental liability disclosures,[289] transactions with related parties,[290] or the executive compensation context.[291] The specific levels at which quantitative thresholds are set is a separate issue from the use of such thresholds. Some of the existing thresholds may be set too low and may need to be updated upwards. The proposed quantitative thresholds aimed at addressing the materiality blindspots phenomenon should be set by the SEC at a level where they would capture important information, such as that discussed in Part II, but where they would not result in additional disclosure that is too voluminous. The approach proposed here does not seek to write out the materiality standard from existing rules. Instead, it would enhance such rules by ensuring that large firms disclose information that is significant or sizeable in absolute terms, but that is not caught by the existing materiality standard.

The use of quantitative disclosure thresholds could also facilitate the release of "pure information" by firms: For example, the full text of an important contract would be pure information, whereas a summary of the contract would not. In certain cases, pure information might be more helpful to decisionmakers than so-called intermediary depictions.[292] It would be up to the SEC to determine whether or not it is warranted to require pure information in any specific disclosure area, but in the very least there exists a theoretical case for the expanded use of pure information when analyzing complex entities.[293]

In the context of material contracts, the use of pure information is not inconsistent with the original approach outlined by Congress in 1933, an approach that is still contained in Schedule A of the Securities Act, but has been superseded by subsequent SEC rulemaking. For example, Congress imposed a requirement for the disclosure of any contract with a public utility company that provides for the "giving or receiving of technical or financial advice or service (if such contract may involve a charge to any party thereto at a rate in excess of $2,500 per year . . .)."[294]

289. *See* Regulation S-K, Item 103, Instruction 5.A.C (requiring the disclosure of environmental enforcement proceedings by governmental entities in which monetary sanctions could exceed $100,000).

290. *See, e.g.*, Regulation S-K, Item 404, 17 C.F.R. § 229.404 (2014) (requiring annual disclosure of all transactions that exceed $120,000 in value and that involve a director, executive officer, or a shareholder of more than five percent of any class of voting securities).

291. *See* Executive Compensation and Related Person Disclosure, Securities Act Release No. 8732A, Exchange Act Release No. 54,302A, Investment Company Act Release No. 27,444A, 71 Fed. Reg. 53,158 (Sept. 8, 2006).

292. *See* Hu, *supra* note 26 (discussing the advantages and disadvantages of a pure information model in the context of financial regulation).

293. *Id.*

294. Securities Act of 1933, Schedule A (24) ch. 38, 48 Stat. 74, 90 (codified as amended at 15 U.S.C. § 77aa (2012)).

The threshold set by Congress in 1933 was very low: $2,500 amounts to approximately $46,500 in 2016 dollars. A higher disclosure threshold would be warranted nowadays in order to avoid the disclosure of extraneous contracts. It appears odd, however, that Congress deemed a $46,500 contract to be per se material in 1933, whereas today the disclosure regime tolerates the non-disclosure of an $8.5 billion contract (Microsoft's acquisition of Skype). The low value set by Congress for the disclosure of public utility contracts was likely driven by the potential for abuse in such contracts. As discussed in Parts III and IV, however, public/private M&A deals can also give rise to potentially troublesome agency costs that harm investor protection and market efficiency.

B. The SEC's Disclosure Effectiveness Initiative

Since 2012, the SEC has been engaged in a Disclosure Effectiveness Initiative, which originated with a congressional mandate contained in the JOBS Act.[295] This initiative has expanded to encompass a once-in-a-generation review of the substance of disclosure requirements, their format, and the means of delivering information to investors. Specifically, the SEC is reviewing certain financial reporting and disclosure requirements in Regulation S-X, the business and financial disclosure requirements in Regulation S-K, and the disclosure requirements in Regulation S-K relating to management, security holders, and corporate governance matters.[296] The SEC has also proposed rule amendments to expand the use of hyperlinks in firms' filings, and other amendments to "eliminate redundant, overlapping, outdated, or superseded disclosure provisions."[297] This sub-Part does aim to evaluate the merits of the many reform proposals, but only to show that by improving the quality and accessibility of information, the SEC could ameliorate any potentially undesirable effects from the additional disclosure requirements proposed by this Article. Moreover, the regulatory review occasioned by the Disclosure Effectiveness Initiative presents an excellent opportunity to study and address the materiality blindspots phenomenon. The benefits of doing so for "efficiency, competition, and capital formation," discussed in Part IV.D, provide an additional justification for the SEC to focus in this area.

295. *See supra* note 62 and accompanying text.
296. *See* Mary Jo White, Chair, U.S. Sec. & Exch. Comm'n, Testimony on "Examining the SEC's Agenda, Operations, and FY 2018 Budget Request" (Nov. 15, 2016), https://www.sec.gov/news/testimony/white-testimony-sec-agenda-fy2018-budget-request.html (summarizing SEC actions as part of the Disclosure Effectiveness Initiative).
297. *Id.*

The Disclosure Effectiveness Initiative has already started to address rules that are duplicative or obsolete. One example of duplication is in the disclosure of legal proceedings, discussed in Part II.B: Such information is often repeated in several separate sections of firms' filings such as Legal Proceedings, Risk Factors, MD&A, and in the notes to the financial statements.[298] More generally, there is significant overlap between the SEC's disclosure requirements under SEC Regulations S-K and S-X, on the one hand, and accounting rules set by the Financial Accounting Standards Board on the other.[299] Finally, the current rules require companies to provide some information that is easily available elsewhere or, in certain cases, not needed.[300]

The outdated format of company disclosures presents additional opportunities for reform. One proposal envisages a "company file" approach that contains more up-to-date information than is currently provided.[301] Other reforms could involve the greater use of graphs, charts, and tables to convey information, as well as more extensive use of cross-references. The SEC has already taken steps to make company filings more interactive through a requirement to tag financial information in a machine-readable format (XBRL).[302] The SEC can also deploy a strategy of layered disclosure where firm information is presented both in summary form and with greater specificity. Detailed information can also be ordered according to its importance. Under this strategy, investors can choose the layer at which they wish to consume information based on their preferences and sophistication, and they can also move across layers. This would address the different informational needs of different investors and ensure that firms' disclosures serve multiple audiences.

In sum, removing duplicative or obsolete rules in the disclosure regime can make room for additional disclosure requirements aimed at reducing materiality

298. *See supra* Part II.B.

299. *See, e.g.*, Keith F. Higgins, Dir., Div. of Corp. Fin, U.S. Sec. & Exch. Comm'n, Shaping Company Disclosure: Remarks Before the George A. Leet Business Law Conference (Oct. 3, 2014), https://www.sec.gov/News/Speech/Detail/Speech/1370543104412.

300. For example, Item 201 of Regulation S-K requires companies to provide a table showing historical stock prices for the preceding two years. Regulation S-K, 17 C.F.R. § 229.201 (2014). This information is easily available through the Internet in real time and investors are unlikely to rely on company filings to obtain it. Another obsolete requirement relates to boilerplate disclosure making reference to the availability of companies' annual reports in the SEC's Public Reference Room. 17 C.F.R. § 229.101(e)(2).

301. *See* Higgins, *supra* note 299.

302. *See* Interactive Data to Improve Financial Reporting, Securities Act Release No. 9002, Exchange Act Release No. 59,324, Investment Company Act Release No. 28,609, 74 Fed. Reg. 6776, 6776 (Feb. 10, 2009). Once financial data is in the XBRL format, financial statements can be downloaded directly into spreadsheets, analyzed in a variety of ways using commercial software, and used within investment models in other software formats. *Id.*

blindspots. Reforms relating to improving the usability of information would make the current disclosures easier to work with and would minimize any additional complexity resulting from the proposal outlined here. Despite this opportunity to propose additional requirements that would be beneficial to investors, the SEC has hinted that revisions to the disclosure framework may place even greater reliance on "principles-based requirements" and the materiality standard.[303] In light of the arguments presented in this Article, greater use of the materiality standard, without retaining existing quantitative thresholds and including additional ones, should be a cause of concern, particularly in the case of large firms.

C. Responses to Potential Objections

My proposed solution to the materiality blindspots problem entails a modest increase in the disclosure requirements applicable to a limited subset of public companies, those that engage in the largest transactions. Even so, it might provoke objections in light of existing debates about the utility of the mandatory disclosure regime,[304] and arguments suggesting the limits of disclosure.[305] Here, I give brief consideration to a few such objections. While they may have purchase in the case of small- and average-sized companies, I find that the objections do not undermine my proposal, which is aimed at addressing the materiality blindspots in large firms' disclosures.

1. Costs of Disclosure

The first line of potential objection focuses on the costs of producing additional disclosure. These costs can take several forms, each with different anticipated effects. They can be real compliance costs, in which case companies subject to the new disclosure requirements would arguably divert resources from other potentially more productive uses in order to comply with the requirements. The costs can also be anticipated (but unrealized) compliance costs. The mere

303. *See, e.g.*, Mary Jo White, Chair, U.S. Sec. & Exch. Comm'n, Speech at the National Association of Corporate Directors Leadership Conference: The Path Forward on Disclosure (Oct. 15, 2013), http://www.sec.gov/News/Speech/Detail/Speech/1370539878806 (noting that the disclosure regime is "fundamentally grounded on the standard of 'materiality'"); *see also* Regulation S-K Modernization Concept Release, *supra* note 34, at 23,924-8 (summarizing comments and framing directions for further study).

304. *See, e.g.*, Romano, *supra* note 205, at 2361.

305. *See, e.g.*, Steven M. Davidoff (Solomon) & Claire A. Hill, *Limits of Disclosure*, 36 SEATTLE U. L. REV. 599 (2013).

anticipation of the new disclosure requirements could lead companies to deregister their securities, either by "going dark" (i.e., becoming a private company) or by seeking an alternative stock market listing in a jurisdiction with less stringent disclosure requirements. Finally, the costs of disclosure could relate to the potentially diminished economic prospects of a company as a result of the disclosure of proprietary information, or the diminished competitive position of a company as a result of the potential disclosure of more information than the company's peer group. Ultimately, each of these objections is premised on the notion that the benefits of additional disclosure would not outweigh the costs in terms of data collection and regulatory intrusiveness.[306]

On a theoretical level each of the potential costs of disclosure for the largest public companies should be either minimal or, given the size of the companies in question, easily affordable. Any proposal to address materiality blindspots would likely require companies to provide information they already have (e.g., a contract exceeding a certain quantitative threshold), or which they can easily produce using their existing sophisticated systems and internal controls (e.g., loss contingency disclosure). Those systems and internal controls would not represent an additional cost since they are already needed to comply with other reporting requirements and for purposes of day-to-day business management.[307]

Available empirical evidence also suggests that large firms are unlikely to change their behavior as a result of the additional disclosure requirements proposed here. As producers of disclosure, large firms appear to have much lower sensitivity to disclosure obligations than smaller firms.[308] Recent studies show that the decline of small-firm IPOs—often blamed on the allegedly excessive regulatory burden of being a public company—is actually explained by mutual fund investors' diminished demand for such IPOs.[309] Research into the effects of the Dodd-Frank

306. *See, e.g.*, Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647, 735–42 (2011).

307. *See, e.g.*, Kitch, *supra* note 244, at 775–76 ("[S]ince management needs to collect and organize the same information in order to manage the business, the cost of requiring the additional step of disclosing it is small.").

308. *See* Robert P. Bartlett III, *Going Private But Staying Public: Reexamining the Effect of Sarbanes-Oxley on Firms' Going-Private Decisions*, 76 U. CHI. L. REV. 7, 10, 43 (2009) (using empirical evidence to show that the rate at which large, formerly publicly traded companies have chosen to remain subject to the SEC disclosure requirements significantly increased following the enactment of additional disclosure obligations as part of the Sarbanes-Oxley Act).

309. *See* Robert P. Bartlett III, Paul Rose & Steven Davidoff Solomon, *What Happened in 1998? The Demise of the Small IPO and the Investing Preferences of Mutual Funds*, (U.C. Berkeley Public Law Research Paper No. 2718862, 2016), https://ssrn.com/abstract=2718862 (showing that the decline in small-firm IPOs started in 1998, well before the adoption of the Sarbanes-Oxley the Dodd-Frank Acts, and is attributable to a decrease in demand by institutional investors and not to supply-side factors such as the cost of being a public company); *see also* Paul Rose & Steven Davidoff Solomon, *Where*

Act's registration and disclosure requirements for private funds indicates that, despite the industry's warnings, the new requirements did not have a negative effect on private fund earnings.[310] Finally, scholars report that when eligible non-U.S. firms decide against entering the U.S. securities disclosure regime, they are most often not influenced by the burden of increased transparency.[311]

As shown in Part IV, the required disclosure of information by firms has economic and competitive costs and benefits. Those effects cannot be estimated without careful study, and will likely be based on the characteristics of the firms providing the additional disclosure. We can expect, however, that the costs would be inversely related to firm size, whereas the benefits of additional disclosure will increase as firm size increases. Therefore, it should be quite possible for the SEC to minimize the economic and competitive costs by setting the scope of additional disclosure requirements and the compliance thresholds at levels where the net benefits of the new rules are maximized.[312]

2. "Information Overload"

In addition to the costs incurred by companies in producing disclosure, investors also incur costs when consuming disclosure. The notion of "information overload" has intuitive appeal and has been applied to the securities disclosure regime to argue against the expansion of disclosure requirements.[313] It is certainly possible to imagine that firms' disclosures could be so voluminous as to be burdensome or even impossible to process by even the most dedicated investor (be it retail or institutional); ultimately, this is the reason behind the need for

Have All the IPOs Gone: The Hard Life of the Small IPO, 6 HARV. BUS. L. REV. 83, 87 (2016) ("We suggest that market forces independent of regulation are likely to explain almost the entire decline [in small IPOs]. . . . It simply appears that small IPOs historically have not been supportable by the market, as they have not been suitable to investors."); Gao, Ritter & Zhu, *supra* note 277 (rejecting a "regulatory overreach" hypothesis for the decline in the number of small-firm IPOs in favor of a "economies of scope" hypothesis that focuses on the advantages enjoyed by large firms).

310. *See* Wulf A. Kaal, Barbara Luppi & Sandra Paterlini, *Did the Dodd-Frank Act Impact Private Fund Performance? Evidence From 2010–2015* (Mar. 15, 2016), https://papers.ssrn.com/abstract_id=2629347.

311. *See* KRAAKMAN ET AL., *supra* note 49, at 301.

312. It is conceivable that greater disclosure may result in another set of costs, namely an increase in shareholder and/or investor litigation due to the additional information provided by firms. It is uncertain that this would occur and, even if it does, the net effect is indeterminate. An increase in meritorious litigation could serve to improve external corporate governance, as discussed in Part III. By contrast, an increase in frivolous litigation would be undesirable, but it could be controlled through other means.

313. *See, e.g.*, Troy A. Paredes, *Blinded by the Light: Information Overload and Its Consequences for Securities Regulation*, 81 WASH. U. L.Q. 417 (2003) (outlining arguments against mandatory disclosure on the grounds of information overload).

scalability in the disclosure system that is achieved by way of materiality. Without some degree of scalability, the disclosure system could become unusable, and it is for this reason that the information overload argument receives occasional mention by the SEC.[314]

The information overload argument has its roots in consumer regulation and has been exported to various other areas of regulation because of its intuitive appeal and the near omnipresence of disclosure regulation within the modern administrative state. The argument, however, remains most persuasive in its original setting: consumer regulation.[315] In consumer regulation, the users of disclosure are potentially unmotivated and unsophisticated, and mandated disclosure is used in lieu of more traditional regulatory modalities, such as outright prohibitions or limitations on high-risk activities or products, or undesirable contract terms.[316] By contrast, the users of disclosure in securities regulation are more sophisticated on average and have an economic interest in processing the disclosure. Securities markets and consumer markets are different in another important way: In securities markets, information is transmitted in the price of the security and, therefore, disclosure's utility should be assessed with respect to the marginal user of the information, and not the average user of information.

Empirical evidence that information overload in securities regulation is an actual problem is lacking. When asked to justify the assertion that investors are experiencing information overload in July 2016, SEC Chair Mary Jo White was unable to cite recent studies of securities investors; instead, she referenced an eight-year-old telephone survey of investors, and summoned evidence from the field of consumer regulation.[317] Often, evidence that investors do not find certain disclosure rules or disclosure formats helpful is interpreted to mean that investors

314. *See, e.g.*, Sarah N. Lynch, *SEC Chief Concerned Investors Face 'Information Overload'*, REUTERS (Oct. 15, 2013), https://perma.cc/59D6-QBFU; White, *supra* note 303.

315. *See generally* OMRI BEN-SHAHAR & CARL E. SCHNEIDER, MORE THAN YOU WANTED TO KNOW: THE FAILURE OF MANDATED DISCLOSURE (2014) (discussing the case against mandatory disclosure through the lens of consumer regulation). Moreover, the classic article on information overload in securities regulation relies on studies from consumer regulation and accounting studies that pre-date the widespread use of computer technology to analyze information, including information presented in XBRL format. *See* Paredes, *supra* note 313, at 436–43, 475 (citing James R. Bettman et al., *Constructive Consumer Choice Processes*, 25 J. CONSUMER RES. 187 (1998); Russell Korobkin, *The Efficiency of Managed Care "Patient Protection" Laws: Incomplete Contracts, Bounded Rationality, and Market Failure*, 85 CORNELL L. REV. 1 (1999)).

316. The case against mandatory disclosure is far from clear-cut even in the area of consumer regulation. *See, e.g.*, Ryan Bubb, *TMI? Why the Optimal Architecture of Disclosure Remains TBD*, 113 MICH. L. REV. 101 (2015).

317. *See* Letter from Mary Jo White, Chair, Sec. & Exch. Comm'n, to Sen. Elizabeth Warren, at 6 n.21–22 (July 22, 2016), https://perma.cc/2LD7-V65V.

are overloaded with information.[318] On the flipside, there is ample anecdotal evidence that institutional investors are not overloaded with company information, but actually demand additional disclosure.[319] In addition, the SEC Investor Advisory Committee—a committee representing the views of actual investors—concluded in 2016 that "the reality from an overall market perspective is that the bulk of market participants do not feel that they are inundated with useless information."[320]

There are additional reasons why the information overload argument should not deter the SEC from addressing the materiality blindspots problem. First, the quantum of additional disclosure resulting from my proposal is likely to be modest. Correspondingly, the marginal cost of processing the additional disclosure is unlikely to be high since investors are already familiar with the disclosures produced by the firms in question. In addition, the information overload argument often assumes that disclosure is pitched only at retail investors or unsophisticated investors. However, the realities of modern finance point to declines in the number of retail investors and to the rise of sophisticated institutional investors.[321] Institutional investors often have large teams and complex computer models that are capable of handling vast amounts of information. Equally important, retail investors can avail themselves of significant secondary analyses by investment analysts, rating agencies, and other information intermediaries, since the largest companies are followed widely. Instead of resulting in information overload, the proposal to address materiality blindspots is likely to improve the quality of secondary analyses, thereby benefitting both retail and institutional investors. From the point of view of investors, the concern described as "information overload" relates to the effective presentation of information by firms, and the SEC is already addressing this concern as part of the Disclosure Effectiveness Initiative.

318. *See, e.g.*, DAVID F. LARCKER ET AL., STANFORD GRADUATE SCH. OF BUS., 2015 INVESTOR SURVEY: DECONSTRUCTING PROXY STATEMENTS—WHAT MATTERS TO INVESTORS 1–2 (2015), https://perma.cc/MG3D-ZEGY.

319. *See, e.g.*, Eleanor Bloxham, *Do Investors Have Too Much Information?*, FORTUNE (Oct. 29, 2013), https://perma.cc/72JY-75LD (providing information on an informal survey of professional investors and finding that they disagree with the investor overload theory and would like to see additional information disclosed by firms); *see also* Foley, *supra* note 243 (suggesting that Berkshire Hathaway's disclosures should be expanded); Browning, *supra* note 243 (detailing a number of areas where Berkshire Hathaway's current disclosures omit information important to investors).

320. *See* Letter from SEC Investor Advisory Committee to Division of Corporation Finance, U.S. Securities & Exch. Comm'n (June 15, 2016), https://www.sec.gov/comments/s7-06-16/s70616-22.pdf.

321. *See, e.g.*, Donald C. Langevoort, *The SEC, Retail Investors, and the Institutionalization of the Securities Markets*, 95 VA. L. REV. 1025, 1025–26 (2009).

3. The Voluntary Disclosure Alternative

The academic debate about the desirability and effectiveness of the federal system of mandatory disclosure, as compared to a system of voluntary disclosure, is among the longest-running and most extensive debates in securities regulation.[322] In short, the objection to mandatory disclosure is that it is superfluous and wasteful because companies already have an incentive to voluntarily disclose the amount of information that is most efficient, as determined by investor demand.[323] In response, defenders of the mandatory disclosure regime have argued that mandatory disclosure is the best tool for addressing contracting and coordination problems,[324] and that in the absence of mandatory disclosure, companies have a score of incentives to underproduce information.[325]

If materiality blindspots occur under the current system of mandatory disclosure, it is likely that they will also occur in a system of voluntary disclosure, unless investors' effectiveness in bargaining for information were somehow enhanced. There is no reason to believe that this would be the case and, in fact, large firms present additional challenges in this context. The size of such firms, the ubiquity of their securities, and investors' need for diversification in effect make them required holdings in investor portfolios, which in turn diminishes investors' bargaining power. Instead of pursuing an extensive information bargaining strategy, investors are more likely to simply accept whatever disclosures are provided.[326] The case studies in Part II suggest that large firms already tend to underdisclose information even when investors and analysts go on the record to criticize the firms' disclosure practices or request additional information.[327]

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322. *See supra* note 205 and accompanying text.

323. *See* Jonathan R. Macey, *Administrative Agency Obsolescence and Interest Group Formation: A Case Study of the SEC at Sixty*, 15 CARDOZO L. REV. 909, 928 (1994) (arguing that market efficiency obviates the need for the mandatory disclosure regime, since information that was supplied by the statutory regime will be supplied by the marketplace); Romano, *supra* note 205, at 2426–28 (arguing in favor of a system of competitive federalism and issuer choice); *see also* Choi & Guzman, *supra* note 205, at 907–08 (proposing a voluntary disclosure regime through portable reciprocity); Stephen Choi, *Regulating Investors Not Issuers: A Market-Based Proposal*, 88 CAL. L. REV. 279, 282–84 (2000) (proposing a system allowing sophisticated investors to decide what, if any, disclosure they require).

324. *See* 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, 691–93 (1999); Edward Rock, *Securities Regulation as Lobster Trap: A Credible Commitment Theory of Mandatory Disclosure*, 23 CARDOZO L. REV. 675, 685–88 (2002).

325. *See id.*; *see also* Fox, *supra* note 205.

326. Even though activist hedge funds do engage with companies, often successfully, their goal is to demand specific corporate actions or strategies and not merely additional disclosure. *See, e.g.*, Brav, Jiang, Partnoy & Thomas, *supra* note 238.

327. *See infra* notes 242, 243, 319 and accompanying text.

CONCLUSION

A widely read recent article on securities regulation opens by observing that "[s]ecurities regulation is under extraordinary stress today."[328] Other prominent commentators have spoken of a "paradigm shift" in federal securities regulation due to factors such as growing economic complexity, efforts to contain systemic risk, and the rise of private markets that are largely beyond the reach of the SEC disclosure regime.[329] This Article identifies an additional phenomenon that too might suggest a need to rethink parts of the existing system of securities regulation. Materiality blindspots occur when the materiality standard, a core component of the disclosure regime, is applied to large firms. Even though the materiality standard was originally designed to scale information and reduce its complexity, in the case of large firms it can also have the effect of obscuring complexity and hiding important information. As this Article shows, the materiality standard enables marquee firms such as Microsoft, Berkshire Hathaway, and Google to avoid disclosure of significant and sizeable matters simply by virtue of the firms' size. Such non-disclosures, in turn, have the potential to cause market distortions and harm investors, a dynamic that runs counter to the core goals of securities regulation.

The SEC, as part of its Disclosure Effectiveness Initiative and its ongoing supervision of the disclosure regime, should take the opportunity to study further the causes of materiality blindspots, their magnitude, and any potential reforms that could prevent them or at least mitigate their harmful effects. In addition, the very existence of materiality blindspots cautions against increased reliance on principles-based disclosure requirements, such as those anchored in the materiality standard, to the exclusion of more specific rules-based requirements. While principles-based disclosure requirements have a role to play in the disclosure framework, this Article shows that such requirements could also have undesirable effects, particularly as they apply to large firms; these effects are difficult to observe and have been largely ignored. In addition, instead of abandoning disclosure requirements that utilize quantitative thresholds, the SEC should study whether

328. Langevoort & Thompson, *supra* note 26, at 337.

329. *See, e.g.*, Hu, *supra* note 26 (arguing that the model of information at the core of the disclosure system is inadequate and is failing in the face of complex realities engendered by financial innovation); Steven M. Davidoff (Solomon), *Paradigm Shift: Federal Securities Regulation in the New Millennium*, 2 BROOK. J. CORP. FIN. & COM. L. 339 (2008) (suggesting that public capital markets are challenged by the rise of private financial markets, among other forces); Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1 (2004) (arguing that the complexity of certain financial transactions prevents even sophisticated investors from incorporating disclosed information into their investment decisions).

such requirements could serve as a safety net to prevent the underdisclosure of information. Ultimately, the SEC should determine the appropriate balance between principles-based and rules-based disclosure requirements as part of its mission to ensure that the disclosure regime produces the rich information environment that is needed for capital formation, market efficiency, a competitive economy, and, above all, investor protection.

APPENDIX: A SIMPLIFIED THEORETICAL FRAMEWORK

This Appendix presents a simplified theoretical framework that seeks to illustrate how and when the various features of the securities disclosure regime give rise to materiality blindspots. This theoretical framework draws on the information presented in the main Parts of the Article, including the discussion of the architecture of the disclosure regime, the definition and use of the materiality standard, the analysis of specific disclosure requirements, and the three case studies of large firms' disclosure outputs over five- and ten-year periods. As with any theoretical model, the framework contains certain simplifying assumptions and makes necessary generalizations across disparate categories (in this case, disclosure requirements and reporting entities). This general theoretical framework could be refined or adapted to specific circumstances. The current iteration is intended to serve as a departure point for regulators' and academics' future study of the materiality blindspots phenomenon, and—more generally—the interaction between firm size and firms' information outputs. The theoretical framework seeks to supplement the Article's analysis of materiality blindspots, but the validity of this analysis and the merits of the associated policy recommendations are not contingent on the descriptive power of the theoretical framework.

With these caveats in mind, the Appendix proceeds as follows: Part A shows how the materiality standard affects the disclosure outputs of firms of different sizes. Part B defines a regulatory criterion—size neutrality—and applies it to the existing disclosure regime to illustrate the presence of materiality blindspots at the large-firm end of the size spectrum.

A. The Materiality Standard and the Required Amount of Disclosure

The volume of information that firms are required to disclose is determined by the regulatory requirements of the securities disclosure regime, as applied to the idiosyncratic characteristics of individual firms. To isolate the volume of disclosure as a function of firm size, we can either assume that firms are homogenous in all ways except with respect to their size or, alternatively, examine one firm as it grows in size over time. We can measure firm size in a variety of ways: with reference to some of the metrics currently used in the disclosure regime, such as public float, gross annual revenue, and shareholders of record;[330] with reference to other objective metrics such as market capitalization or enterprise value; with

330. *See supra* notes 55–59 and accompanying text.

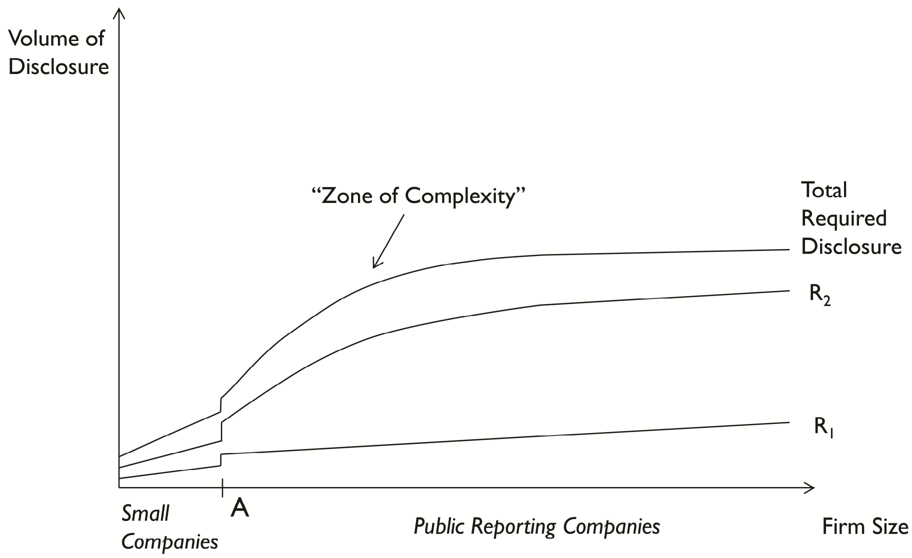
reference to number of employees, value of assets, or number of subsidiaries; or by using a composite metric.[331]

Operationalizing the dependent variable, volume of disclosure, presents a somewhat greater challenge. We can think of volume of disclosure in terms of the units of information produced by firms pursuant to disclosure requirements. For example, under the requirement to disclose material contracts, the volume of disclosure could refer to the units of information contained in such material contracts.[332] When a requirement calls for the disclosure of the firm's financial condition and results of operations, the level of detail with which financial information is presented could translate into units of information.[333] We should further assume that each standardized unit of information has an equal and constant marginal utility.

Figure 1 illustrates the volume of required information as a function of firm size. The x-axis represents the size of the firm, whereas the y-axis represents the volume of disclosure that is required to be produced pursuant to the mandatory disclosure requirements.[334]

331. *See* Georgiev, *supra* note 14 (discussing the advantages and disadvantages of different firm size metrics).
332. See *supra* Part II.A for a discussion of the disclosure requirements pertaining to material contracts and related examples.
333. See *supra* Part II.C for a discussion of the disclosure requirements pertaining to financial information and related examples.
334. Even though firms sometimes disclose information voluntarily, the volume of voluntary disclosure cannot be predicted and is not included in the theoretical framework. The omission of voluntary disclosure from the framework would be problematic only if large firms voluntarily disclose important information the mandatory disclosure requirements fail to capture because of the operation of the materiality standard. As discussed in Part V.C, it is unlikely that firms compensate for materiality blindspots through voluntary disclosure. To the contrary, firms generally prize the ability to avoid disclosure: Recall from Part II.A that when Microsoft was not required to disclose the acquisition agreements for its 76 private M&A transactions, it did not disclose any of the agreements voluntarily; in the vast majority of cases, it also did not disclose even minimal information about the transactions in question.

FIGURE 1. REQUIRED AMOUNT OF DISCLOSURE AS A FUNCTION OF FIRM SIZE



As discussed in Part I.C, the disclosure regime contains rules that employ the materiality standard and rules that do not. The Total Required Disclosure curve is the sum of two constituent curves, R_1 and R_2. The first constituent curve, R_1, represents information disclosed pursuant to disclosure requirements that are not qualified by the materiality standard. We could expect that the volume of disclosure required to be produced pursuant to such requirements would increase roughly proportionately with firm size. For example, the larger the firm, the more related party transactions it would need to disclose under Regulation S-K.[335] Disclosure requirements expressed as percentages (e.g., percentage of assets)[336] provide an even stronger link, since pursuant to our simplifying assumptions the dependent variable, volume of disclosure, would be a percentage of the independent variable, firm size (represented here by assets).

The second constituent curve (R_2) represents information produced pursuant to disclosure requirements qualified by materiality. We can expect that such disclosures increase as firms get bigger, but that—crucially—the rate of growth starts to decrease after a certain point, because as the firm gets bigger each marginal matter (e.g., a transaction, litigation, or investment project) is less likely to be

335. *See supra* notes 85 & 221 and accompanying text.
336. *See supra* notes 87 & 156 and accompanying text.

material to the firm. In other words, when the firm enters what I have labelled as "the zone of complexity," R_2 begins to flatten. The larger and more complex the firm, the less likely it is that additional matters would affect the "total mix of information"—the yardstick embedded in the materiality standard. As a result, the larger the firm, the less likely it is that the additional matters would be material and result in disclosure. In fact, it is possible that R_2 would begin trending downwards for the largest of firms, since for those firms virtually nothing alters the total mix of available information. Combining R_1 and R_2 produces the Total Required Disclosure curve. Just like R_2, the Total Required Disclosure curve is also influenced by the materiality standard. The required amount of disclosure does not increase linearly with firm size. Instead, when firms surpass a certain size, the Total Required Disclosure curve exhibits an area where the marginal rate of required disclosure diminishes (and may even become negative).

A peculiar feature of the required disclosure curves is the break that occurs at point A on the x-axis. This reflects the disclosure exemptions received by EGCs and smaller reporting companies discussed in Part I.B. In effect, the disclosure requirements change after point A: Firms are no longer small enough to take advantage of the disclosure exemptions and instead become subject to the full disclosure regime.[337] While the shapes of the three disclosure curves are not derived empirically, they are informed by an analysis of the relevant disclosure requirements, firms' disclosure practices discussed in Part II, and the general operation of the materiality standard.

B. The Size-Neutral Rate of Disclosure

In order to define materiality blindspots with precision, we need to have at least a general conception of the amount of disclosure that should be required of firms of different sizes. It is beyond the scope of this Article to derive an optimal rate of required disclosure, which would hinge on policy preferences and various technical assumptions.[338] Instead, this Article adopts a general regulatory criterion—size neutrality—that provides one common-sense way to define

337. I have grouped EGCs and smaller reporting companies under the single category of "small companies" for simplicity, since this does not affect the analysis. See *supra* Part I.B for a description of the specific requirements pertaining to EGCs and smaller reporting companies.

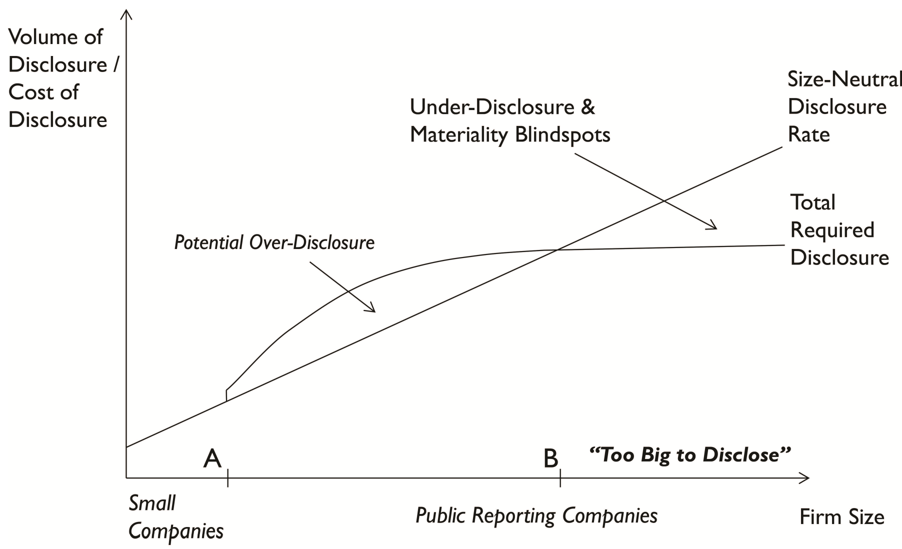
338. One way to conceptualize the optimal rate of disclosure as a function of firm size would be by taking into account the marginal benefits of disclosure to investors (improved monitoring) and to firms (improved corporate governance), and the marginal costs of disclosure to investors (information processing) and to firms (producing disclosure and interfirm effects). We could expect that the marginal benefits would increase as a function of firm size, whereas the marginal costs would decrease, resulting in a situation where the optimal disclosure curve is upward sloping and concave.

the required volume of disclosure for firms of different sizes. The Size-Neutral Disclosure Rate would be the rate of disclosure at which the relative costs of disclosure do not differ for firms of different sizes. If all firms are required to disclose at the Size-Neutral Disclosure Rate, from a cost perspective the disclosure regime would not advantage some firms and disadvantage others, and this would eliminate the size advantages and market distortions discussed in Part IV. There may be valid policy reasons to deviate from the Size-Neutral Disclosure Rate in the case of small firms by requiring them to disclose less information in an effort to facilitate capital formation. Indeed, this has been the driving force behind the JOBS Act and the FAST Act. It is much harder to justify deviations from the Size-Neutral Disclosure Rate to enable large firms to underdisclose information.

One way to think of the costs that firms bear as a result of disclosure, including the compliance costs and interfirm costs, is as a "regulatory tax." Disclosure requirements can be formulated in a way that "taxes" firms of different sizes at the same rate. For example, the regime can seek to set compliance and interfirm costs for all firms at one percent of their own market capitalization. Under this scenario, the regulatory tax rate for all firms would be the same, one percent. Such a disclosure rate would be size-neutral: neither regressive (benefitting large firms vis-à-vis small firms) nor progressive (benefitting small firms vis-à-vis large firms).

Assuming that one unit of disclosure carries one unit of cost, the size-neutral rate of disclosure would be represented by a straight line, as shown in Figure 2. The slope of the line would depend on the rate that is chosen. Combining the insights relating to the amount of Total Required Disclosure, discussed in Part A, with the Size-Neutral Disclosure Rate derived here yields a theoretical framework for the materiality blindspots phenomenon, as illustrated by Figure 2.

FIGURE 2. REQUIRED DISCLOSURE AND THE SIZE-NEUTRAL RATE OF DISCLOSURE



The interaction between the Total Required Disclosure curve (influenced by the materiality standard) and the Size-Neutral Disclosure Rate line results in three separate categories of firms along the x-axis: small firms, firms that are "too big to disclose," and those in between. When firms are larger than point B on the x-axis, the Size-Neutral Disclosure Rate exceeds the required amount of disclosure. In this area, the disclosure rules require a level of disclosure that is below the Size-Neutral Disclosure Rate. In other words, we observe the under-disclosure of information due to the materiality standard. A policy intervention seeking to address the materiality blindspots phenomenon could implement additional disclosure requirements that would raise the Total Required Disclosure curve in this area and match it to the Size-Neutral Disclosure Rate.

To be sure, these curves are not empirically derived and they could have different slopes, which may cause them to intersect at different points along the x-axis. As a matter of geometry, however, the existence of under-disclosure by large firms and of materiality blindspots depends on two conditions. The first condition is the policy decision to apply a Size-Neutral Disclosure Rate to all firms: assuming that the marginal cost of disclosure is constant, the Size-Neutral Disclosure Rate is represented by a straight line. The second condition is that the Total Required Disclosure curve exhibits an area where the marginal rate of disclosure diminishes (or becomes negative); this is buttressed by the judicial definition of the materiality standard and its application to firms of varying sizes. A Total Required Disclosure curve that exhibits this characteristic will always lie at least in part beneath an upward sloping straight line (the Size-Neutral Disclosure Rate), which means that in theory there will always be a set of firms that under-disclose information.[339]

As drawn here, for the intermediate category of firms (between points A and B) the Total Required Disclosure curve sits higher than the Size-Neutral Disclosure Rate. This suggests that firms in this intermediate category may be required to disclose more information (and bear higher costs) than their larger counterparts. If that is the case, then the disclosure requirements for this intermediate category of firms may be set too high. This outcome, however, is not required by the geometry of the lines, and would depend on the actual shape of the Total Required Disclosure curve and the level at which we set the Size-Neutral Disclosure rate.

This framework is useful, because it illustrates the regulatory subsidy for bigness in the current disclosure regime. As a result of the application of materiality, firms that are "too big to disclose" (those to the right of point B on the x-axis) are required to disclose information at a rate that is below the Size-Neutral Disclosure Rate, meaning that they are in a privileged position over smaller firms (those to the left of point B). If we wish to eliminate this subsidy and ensure size-neutrality, the Total Required Disclosure curve (the regulatory regime) should track the Size-Neutral Disclosure rate. The additional disclosure produced by the largest firms pursuant to the proposal in Part V would begin to address the materiality blindspots phenomenon.

Notably, the simplified theoretical framework takes into account only the costs of disclosure to firms, without taking into account the net benefits discussed in Part III that stem from disclosure's effects on investor protection and corporate governance. The policy goal behind using a Size-Neutral Disclosure Rate is merely to treat firms of different sizes alike. If we wanted to take into account the full net benefits of disclosure for investor protection and corporate governance, it is likely that the optimal disclosure curve would sit above the Size-Neutral Disclosure Rate. Those additional benefits would provide an independent justification for increasing disclosure requirements for large firms in order to solve the problem of materiality blindspots discussed in this Article.

339. It is, however, possible that this would be an empty set if the Size-Neutral Disclosure Rate line intersects the Total Required Disclosure Curve to the right of the largest firm on the x-axis.