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Disclosure Procedure

Andrew K. Jennings

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DISCLOSURE PROCEDURE

ANDREW K. JENNINGS[*]

Securities disclosure is a human process. Each year, public companies collectively spend over fifteen million hours producing disclosures that undergird an equities market with tens of trillions in market capitalization. The procedures they follow in doing so affect whether their disclosures contain misstatements or omissions—errors that can cause trading losses for investors, and litigation for issuers. Yet despite the importance of the disclosures that firms produce, the literature says little about how they do it, including whether they are spending too much, too little, or just enough on their disclosure procedures. To fill that gap, this Article uses original surveys and interviews with in-house lawyers and accountants at S&P 1500 companies to give an institutional account of how disclosure is produced and how disclosure procedure affects firms and investors. In short, on a risk-adjusted basis, higher-quality procedures are likelier to produce higher-quality disclosures. That relationship promises social gains if procedures can be identified as higher- or lower-quality and firms adopt the higher-quality options. As a first step toward that promise, this Article compares S&P 1500 firms' procedures and presents tentative evidence of divergence among them. It closes by explaining the need for firms to say more about their procedures in order to generate information that supports market-wide best practices.

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INTRODUCTION

Securities disclosure is a human process. Each year, public companies in the United States spend over fifteen million people-hours producing

securities disclosures.[1] This undertaking carries big stakes: Those disclosures undergird a domestic equities market with tens of trillions in capitalization.[2] Yet little is known about the procedures firms use to produce such consequential information, meaning it is unknown whether they are spending too much, too little, or just enough on disclosure.

Although little has been written about *how* disclosure is produced, there are clear standards for *what* firms are to produce. Public-company securities regulation relies on an elaborate disclosure regime prescribing what firms must or may say and how they are to say it.[3] This regime puts firms' disclosures—which encompass but are broader than their financial reporting[4]—at the center of investors' decisions whether to buy, sell, or hold securities.[5] Just how firms choose what to say varies across idiosyncratic disclosure procedures.[6] That is, what they say is the product of evolving

1. As of June 2021, there were 4,100 domestic and 1,107 foreign issuers listed on the New York Stock Exchange or Nasdaq. *Market Statistics – June 2021*, WORLD FED'N OF EXCHS. (May 1, 2021), https://focus.world-exchanges.org/issue/june-2021/market-statistics. Producing one annual and three quarterly reports takes domestic issuers an estimated 2,887 hours. *See* SEC. & EXCH. COMM'N, OMB 3235-0063, FORM 10-K: ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934, GENERAL INSTRUCTIONS (2023) [hereinafter FORM 10-K]; SEC. & EXCH. COMM'N, OMB 3235-0070, FORM 10-Q: GENERAL INSTRUCTIONS (2019) [hereinafter FORM 10-Q]. One annual and one semiannual report for foreign issuers takes an estimated 2,653.11 hours. *See* SEC. & EXCH. COMM'N, OMB 3235-0288, FORM 20-F (2023); SEC. & EXCH. COMM'N, OMB 3235-0116, FORM 6-K: REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13A-16 OR 15D-16 UNDER THE SECURITIES AND EXCHANGE ACT OF 1934 (2022). These firms also produce a myriad of other disclosures.

2. *See Market Statistics – June 2021*, *supra* note 1 (summing the market capitalizations of the New York Stock Exchange and Nasdaq).

3. *See generally, e.g.*, Regulation S-K, 17 C.F.R. pt. 229 (2023) (non-financial disclosure); Regulation S-X, 17 C.F.R. pt. 210 (2023) (financial disclosure); Rule 10b-5, 17 C.F.R. § 240.10b-5 (2023) (disclosure fraud); Regulation FD, 17 C.F.R. pt. 243 (2023) (selective disclosure); Regulation G, 17 C.F.R. pt. 244 (2021) (non-GAAP financial disclosure); Rule 14a-9, 17 C.F.R. § 240.14a-9 (2023) (proxy fraud).

4. *See* Certification of Disclosure in Companies' Quarterly and Annual Reports, Release No. 33-8124, 67 Fed. Reg. 57,276, 57,281 (Sept. 9, 2002) [hereinafter SEC Release 33-8124]. The regulation explains:

> [Disclosure] procedures are intended to cover a broader range of information than is covered by an issuer's internal controls related to financial reporting. For example, the procedures should ensure timely collection and evaluation of information potentially subject to disclosure . . . . The procedures should capture information that is relevant to an assessment of the need to disclose developments and risks that pertain to the issuer's businesses. They also should cover information that must be evaluated in the context of the disclosure requirement of Exchange Act Rule 12b-20 [regarding the duty to disclose all material information].

Id. (footnote omitted).

5. Randall S. Thomas & James F. Cotter, *Measuring Securities Market Efficiency in the Regulatory Setting*, 63 L. & CONTEMP. PROBS. 105, 105–06, 106 n.4 (2000) (describing the SEC's integrated-disclosure framework as being designed to disseminate information to investors and facilitate market efficiency).

6. *See infra* Part II (providing a taxonomy of disclosure procedures).

collaborations between accountants, lawyers, investor-relations and communications professionals, senior managers and business leaders, and members of boards and board committees.[7]

Failures in these collaborative processes—from the inclusion of outright falsehoods to inartful drafting—can render a firm's disclosures misleading.[8] Misleading disclosures could in turn cause losses for some investors.[9] Imagine, for example, those who buy a company's stock without knowing that it had uncovered a massive breach of its consumer data; when the news breaks, the stock price will drop, leaving those investors with securities worth less than expected.[10] Disclosure errors can also lead to substantial costs for firms themselves.[11] Consider the firm that fails to timely acknowledge a consumer-data breach. As a result, it will face securities litigation *in addition to* consumer litigation for the underlying breach.[12] Higher-quality procedures can prevent such errors through controls that force the identification and disclosure of material information. Because procedural quality matters to substantive quality, the procedures firms choose can have meaningful downstream effects for other firms and their investors.[13]

The optimal design of disclosure procedure is thus of critical concern for investors and firms. Yet it is a subject missing from the legal and, to a great extent, accounting literatures, despite the latter field's frequent study of

7. *See infra* Section II.A.1 (reviewing the roles and interactions of disclosure participants); *see also In re* Omnicare, 769 F.3d 455, 477 (6th Cir. 2014) (attributing knowledge underlying a firm's disclosures to any agent "who authorized, requested, commanded, furnished information for, prepared (including suggesting or contributing language for inclusion therein or omission therefrom), reviewed, or approved the statement in which the [statement] was made").

8. *See infra* note 244 and accompanying text (explaining why Comcast Corporation's procedures might produce misleading disclosures).

9. *See* Halliburton Co. v. Erica P. John Fund, Inc., 573 U.S. 258, 283–84 (2014) (holding that in Rule 10b-5 actions, plaintiffs satisfy the reliance element "by invoking a presumption that a public, material misrepresentation will distort the price of stock traded in an efficient market, and that anyone who purchases the stock at the market price may be considered to have done so in reliance on the misrepresentation"). This case reaffirmed the holding of *Basic Inc. v. Levinson*, 485 U.S. 224 (1988). *Id.*

10. *In re* Altaba Inc., Securities Act Release No. 10485, Exchange Act Release No. 83096, 2018 WL 1919547, at *6 (Apr. 24, 2018) ("Yahoo did not maintain disclosure controls and procedures designed to ensure that reports from Yahoo's information security team raising actual incidents of the theft of user data, or the significant risk of theft of user data, were properly and timely assessed to determine how and where data breaches should be disclosed in Yahoo's public filings, including, but not limited to, in its risk factor disclosures or MD&A.").

11. *Id.*

12. *Id.*; *see also In re* Yahoo! Inc. Customer Data Sec. Breach Litig., No. 16-MD-02752-LHK, 2020 WL 4212811 (N.D. Cal. July 22, 2020) (consumer class-action litigation).

13. *See infra* Section IV.A (describing the potential salutary effects of high-quality disclosure procedure for investor protection and liability reduction).

the narrower subject of control over financial reporting.[14] This gap is regrettable because the study of disclosure procedure could provide an empirical foundation for designing higher-quality procedures. If adopted by firms, those higher-quality procedures could reduce the risks of misleading information. In short, this procedure-substance relationship represents big social stakes. Its importance grows as investors increasingly demand—and firms increasingly produce—environmental, social, and governance ("ESG") disclosures.[15] Such disclosures, after all, do not yet benefit from a long-standing regulatory, practice, and scholarly focus on traditional financial reporting.[16]

With those stakes in mind, this Article introduces the direct relationship between procedural and substantive disclosure quality and the indirect relationship between procedural quality and risk. It does so in three parts.

Part I provides an account of how disclosure procedure works. In doing so, it uses original survey data from S&P 1500 companies and supplements those data through interviews with in-house lawyers and accountants at publicly traded companies. These sources help highlight four core procedures that produce periodic, earnings, episodic, and governance disclosures. The procedures used to produce these disclosures can be understood using a taxonomy of disclosure factors and characteristics, and this taxonomy in turn can support comparisons between firms.

Part II introduces the concept of procedural quality—which I adapt from the accounting concepts of audit and financial-reporting quality[17]—as reflecting the degree to which disclosure procedures tend to produce

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14. *See* Thomas R. Weirich & Lori Olsen, *An Analysis and Taxonomy of Disclosure Controls and Procedures Effectiveness*, 10 CURRENT ISSUES IN AUDITING A28, A29 (2016) (contrasting the broad accounting literature on internal control over financial reporting with the fact that "very little has been reported on the topic of Disclosure Controls & Procedures (DC&P)").

15. *See* Comment Letter on Concept Release Regarding Business and Financial Disclosure Required by Regulation S-K from Heather Slavkin Corzo, Dir. of Off. of Inv., Am. Fed'n of Lab. and Cong. of Indus. Orgs., to Brent J. Fields, Sec'y, U.S. Sec. & Exch. Comm'n, at 12 (July 21, 2016), https://www.sec.gov/comments/s7-06-16/s70616-305.pdf ("[G]iven the clear and growing demand from investors for environmental, social and governance ('ESG') information, the Commission must begin requiring ESG related line-item disclosures as well as a process to incorporate emerging ESG metrics into disclosure in the future."). *But see S&P 500 ESG Reporting*, CTR. FOR AUDIT QUALITY, https://www.thecaq.org/sp-500-and-esg-reporting (last visited Apr. 14, 2023) (finding that nearly 300 firms in the S&P 500 used ESG-reporting frameworks and roughly 6% receive some form of auditor assurance over ESG reporting).

16. *See generally* Virginia Harper Ho, *Nonfinancial Risk Disclosure and the Costs of Private Ordering*, 55 AM. BUS. L.J. 407 (2018) (analyzing the costs arising from a lack of SEC-mandated standardization in ESG reporting).

17. *See infra* notes 56–59 and accompanying text.

disclosures that are free of misstatements or omissions.[18] That measure reflects the substantive quality of disclosures.

Part III reviews results from the survey data. It demonstrates how disclosure procedure can be scored across firms and examines the extent to which procedure converges along disclosure types and among firms of different sizes and regulatory environments. Scoring would enable further study into the disclosure procedure/substance relationship and the identification of superior procedures. Such research could teach more optimal procedures, whose adoption by firms would in turn reduce disclosure-related risk.

Part IV considers disclosure about disclosure procedure itself, or "meta-disclosure," as a mechanism that could mitigate procedure-related risk and enable further research. It addresses three questions. First, should firms produce meta-disclosure? Second, do they do so already, and if so, to what extent? And third, what form should meta-disclosure take? In discussing these questions, this Part summarizes key findings and concludes. An Appendix with survey results follows.

I. PROCEDURAL AND SUBSTANTIVE QUALITY IN SECURITIES DISCLOSURE

This Part theorizes the relationship between disclosure procedure and disclosure quality. It begins by introducing the concept of disclosure procedure, situating those procedures in light of securities-law mandates. It then uses the accounting literature to theorize how the procedures used to produce disclosure relate to the quality—the absence of errors—of disclosure. This closes with a description of the methodology used in Part II's descriptive taxonomy and Part III's comparative analyses of disclosure procedure.

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18. There might be other characteristics that contribute to views on the "quality" of a disclosure, including whether it contains irrelevant information, is well-written and formatted, uses graphics when visual representations of information are likely to be helpful, and so on. *See* Alastair Lawrence, *Individual Investors and Financial Disclosure*, 56 J. ACCT. & ECON. 130, 144 (2013) ("[I]ndividuals' shareholdings are increasing in firms with clearer and more concise financial disclosures . . . ."); Haifeng You & Xiao-jun Zhang, *Financial Reporting Complexity and Investor Underreaction to 10-K Information*, 14 REV. ACCT. STUD. 559, 585 (2009) ("[O]ur results indicate that the complexity of accounting information does affect the extent to which investors can incorporate that information into price. This lends support to making 10-K information more intelligible to the average investor."). At bottom, though, disclosures need to be faithful sources of information. It is the inclusion of misstatements or omissions that can cause some investors to suffer investment losses or that can subject the firm to securities litigation or government enforcement. *See infra* notes 56–57.

A. Introducing Disclosure Procedure

Before going further, some introduction to the terms "disclosure" and "disclosure procedure" is in order.

A *disclosure* is a written or oral statement, or collection of statements,[19] made in a firm's name or by a person speaking on its behalf.[20] This definition excludes, at least in this Article, statements for which external parties have substantial responsibility. This exclusion avoids complicating a core analysis of the *organizational* production of disclosure; it instead permits focus on disclosures that are produced internally rather than those that are also the product of outsiders' processes.[21] Some examples of statements that fall within this definition are reports submitted to the Securities and Exchange Commission ("SEC") and press statements made by management. Statements that fall outside include offering and merger disclosures that have been substantially drafted by external counsel, or statements made by underwriters.[22] *Disclosure procedure* is the set of practices, policies, or processes that insiders follow in producing disclosures for public consumption. When disclosures will be submitted to the SEC, their procedures are synonymous with disclosure controls and procedures ("DCP") under the Sarbanes-Oxley Act of 2002; throughout this Article, I will often speak of them at the same time.[23] These procedures are not necessarily written down by, or even expressly articulated among,

19. For instance, an annual report might go well over a hundred pages; identifying each "statement" within it would border impossible. In contrast, imagine a single sentence that "the company denies the allegations and looks forward to its day in court" offered to a reporter seeking comment. It has one or two statements: that the company denies whatever the reported allegation is, and perhaps that it intends to litigate the issue fully.

20. Lorenzo v. Sec. & Exch. Comm'n, 139 S. Ct. 1094, 1101 (2019) (observing that SEC Rule 10b-5's prohibition on false statements, among other things, "capture[s] a wide range of conduct").

21. *See* Telephone Interview with Interviewee #1 (notes on file with author) (noting that outside counsel usually does not participate in disclosure procedures because "[w]e're pretty self-sufficient on '34 Act reporting"). Interviews were done by telephone from July to September 2020. They also included discussion on how the COVID-19 pandemic affected firms' disclosure procedures. I did not view these COVID-19 experiences, however, as altering my analysis. To preserve interviewee confidentiality, interviewees are identified with a number rather than their names, titles, or institutional affiliations.

22. Of course, a firm's *internal* disclosure procedures can create offering liability if they produce disclosures that are incorporated by reference into secondary offerings. 17 C.F.R. § 240.12b-23(a) (2023) (incorporation by reference into registration statements). Procedural quality as a concept can be applied to offering- or merger-related disclosures, too. Section 11's strict-liability standard makes disclosure quality especially important when there is a registered offering. 15 U.S.C. § 77k(a). But these disclosures are largely in the hands of those outside the firm, including external counsel and underwriters. They are excluded from this analysis because the one-off role of outsiders cannot be reliably accounted for, whereas the recurring work of insiders in day-to-day securities compliance can.

23. *See infra* notes 239–241 (discussing the scope of DCP requirements); Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, § 302(a)(4), 116 Stat. 745 (2022).

participants in disclosure production.[24] The final act of production is not always submitting a document to the SEC; it might include issuing a press release, posting a document to a company website, or speaking with a reporter.[25] It can even take the form of posts to a CEO's personal social media account.[26] Despite the innumerable forms disclosure can take, my interviews with in-house accountants and attorneys point to there being four core types of disclosure.[27]

First, *periodic disclosures* are annual and quarterly reports (Forms 10-K and 10-Q for domestic issuers).[28] Second, *earnings disclosures* are adjuncts to periodic reports that distill, or tout, firms' results for a completed quarter.[29] They include earnings press releases or reports, scripts for analyst conference calls, and the content of the calls themselves. Third, *episodic disclosures* are ad hoc disclosures likely to contain information that is colorably material to investors. Examples include current reports on Form 8-K and some press releases.[30] And fourth, *governance disclosures* are (usually

24. *See* Telephone Interview with Interviewee #7 (notes on file with author) ("I think we fall on the informal side of things . . . [it's] based on people being in similar roles for lengthy amount[s] of time and sticking to a routine we've set up since we've been a public company."); Telephone Interview with Interviewee #8 (notes on file with author) ("We don't have formal written policies with the exception of the charter for our disclosure committee.").

25. *See, e.g.*, SEC v. Nutra Pharma Corp., 450 F. Supp. 3d 278 (E.D.N.Y. 2020) (securities-fraud allegations related to misstatements in press releases); United States v. Treacy, 603 F. Supp. 2d 670, 672–73 (S.D.N.Y. 2009) (requiring a journalist to testify whether a securities-fraud defendant in fact made a statement attributed to him).

26. Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: Netflix, Inc., and Reed Hastings, Exchange Act Release No. 69279, 2013 WL 5138514 (Apr. 2, 2013) (approving use of personal social-media accounts to disclose corporate information); *see also* Complaint at 7–8, SEC v. Tesla, Inc., No. 1:18-cv-8947 (S.D.N.Y. Sept. 29, 2018), https://www.sec.gov/divisions/enforce/claims/docs/complaint-tesla-filed-09292018.pdf (alleging that Tesla, Inc. lacked DCPs to determine whether information published by CEO Elon Musk to his personal Twitter account was required to be disclosed on Form 8-Ks filed with the SEC and to ensure that statements he published to that account were accurate and complete).

27. It mostly is not important for this Article whether disclosures are mandatory or voluntary. In a few spots, I highlight potential differences, especially when discussing procedural objectivity in Section I.B.4. But for the most part, all firms produce mandatory disclosures (as they must), all firms also produce voluntary disclosures, and the risks associated with low disclosure quality would not necessarily vary between the two.

28. Annual and quarterly reports are taken together because both contain financial statements that are subject to unique regulatory requirements that would be expected to affect their disclosure procedures. For example, CEOs and CFOs must certify that they have reviewed these reports, that to their knowledge the reports do not contain material misstatements or omissions, and so on. 17 C.F.R. § 240.13a-14 (2023).

29. Request for Comment on Earnings Releases and Quarterly Reports, 83 Fed. Reg. 65,601, 65,603 (Dec. 21, 2018) ("Many companies required to file Form 10-Q also voluntarily communicate certain quarterly financial results through earnings releases.").

30. A release announcing a donation to a scholarship foundation, for example, might serve some business purpose—like painting the firm in a positive light—although it would not matter

annual) disclosures related to shareholders' governance rights. They are generally synonymous with proxy statements and contain information about boards of directors and their committees, executive compensation, and voting items.[31]

These disclosure types proceed from a long history.[32] Some corporate charters granted by nineteenth-century state legislatures obliged firms to produce periodic disclosures.[33] By the early twentieth century, state securities regulators began mandating disclosure by issuers, as did stock exchanges with their listed issuers.[34] The Securities Exchange Act of 1934 imposed ongoing disclosure requirements on public firms.[35] This national regime effected three important investor protections: Firms were to disclose prescribed information;[36] they were to prepare financial statements in accord with uniform accounting principles and to obtain independent audits of those statements;[37] and their disclosures were not to contain material misstatements or omissions.[38] These protections served to force information production and to make that information credible.[39]

Congress's response to the corporate scandals of the early 2000s included two interconnected mandates meant to bolster those protections: Firms were to establish new internal controls and to evaluate whether they

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much to investors. But a press release denying damaging allegations in news reporting would certainly interest them. *See* Nat'l Beverage Corp., Current Report, Exhibit 99.1 (Form 8-K) (July 3, 2018) (press release denying *Wall Street Journal* reporting, which had the "potential to cause economic and reputational harm"). Although both releases might be found on a "Press Releases" section of a company's investor-relations webpage, only the latter is the type of disclosure covered here. Many press releases are also filed with the SEC on a Form 8-K, even when filing the form is not strictly mandatory. *See generally* SEC, FORM 8-K: CURRENT REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934 (2021) [hereinafter FORM 8-K].

31. *See* 17 C.F.R. § 240.14a-101 sched. 14A (2023) (proxy requirements); *id.* § 240.14c-101 sched. 14C (information statements).

32. *See* STUART BANNER, ANGLO-AMERICAN SECURITIES REGULATION: CULTURAL AND POLITICAL ROOTS, 1690–1860, at 201, 243–44 (1998); Joel Seligman, *The Historical Need for a Mandatory Corporate Disclosure System*, 9 J. CORP. L. 1, 9 (1983).

33. *See* BANNER, *supra* note 32.

34. *See generally* DEBORAH S. GARDNER, MARKETPLACE: A BRIEF HISTORY OF THE NEW YORK STOCK EXCHANGE (1982); Jonathan R. Macey & Geoffrey P. Miller, *Origin of the Blue Sky Laws*, 70 TEX. L. REV. 347 (1991).

35. *See* Securities Exchange Act of 1934, Pub. L. No. 73-291, §§ 12–13, 48 Stat. 881, 892–95 (establishing continuous reporting by securities issuers).

36. *Id.*

37. Section 13(b) of the Securities Exchange Act instructed the SEC to prescribe uniform accounting standards, although with few exceptions, it has delegated this responsibility to industry bodies. JOEL SELIGMAN, THE TRANSFORMATION OF WALL STREET: A HISTORY OF THE SECURITIES AND EXCHANGE COMMISSION AND MODERN CORPORATE FINANCE 116 (3d ed. 2003).

38. *See* Exchange Act § 10, 48 Stat. at 891 (prohibiting securities fraud).

39. *See generally* Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669 (1984).

had effective DCP and internal control over financial reporting ("ICFR").[40] These mandates were meant to thwart intentional frauds, such as those made possible through management overrides or excessive amounts of accounting discretion.[41] They also addressed the risk of unintentional misstatements or omissions, such as those caused by inappropriate accounting treatment or inadequate staffing.[42] As illustrated below, DCP—which covers the production of both financial and non-financial information—largely encompasses ICFR. ICFR, in contrast, concerns only financial disclosure.[43]

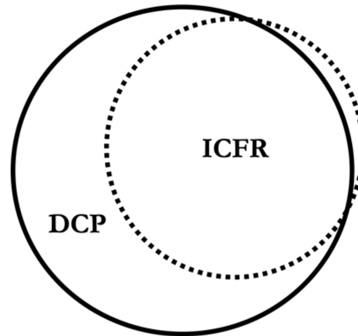
40. *See* Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, §§ 302, 404, 116 Stat. 745, 777, 789; *see also* Disclosure Required by Sections 404, 406 and 407 of the Sarbanes-Oxley Act of 2002, 67 Fed. Reg. 66,208, 66,221 (proposed Oct. 30, 2002) (codified at 17 C.F.R. pts. 210, 228, 229, 240, 249, 270, 274) (referring to "disclosure controls and procedures" as "a newly-defined term reflecting the concept of controls and procedures related to disclosure embodied in section 302(a)(4) of the Sarbanes-Oxley Act").

41. *See* Robert Charles Clark, *Corporate Governance Changes in the Wake of the Sarbanes-Oxley Act: A Morality Tale for Policymakers Too*, 22 GA. ST. U. L. REV. 251, 259 (2005) ("The headline scandals . . . tended to involve accounting frauds or presentations of obscure, confusing, incomplete, and misleading financial data and business relationships. Given this fact, it is not surprising that many of the most important post-SOX governance changes relate to the processes of auditing and presenting financial data.").

42. *See, e.g.*, Hertz Glob. Holdings, Inc., Annual Report (Form 10-K) 94 (July 16, 2015) (attributing "the distraction caused by the multiple, conflicting business initiatives; challenges related to managing complex, inefficient legacy systems; the lack of a sufficient complement of personnel with an appropriate level of knowledge, experience, and training with GAAP; unclear reporting structures, reporting lines, and decisional authority in the organization" to prior "inappropriate accounting").

43. *See* Management's Report on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, Release No. 33-8238, 68 Fed. Reg. 36,636, 36,645 (June 18, 2003) [hereinafter SEC Release 33-8238] ("We . . . believe that while there is substantial overlap between internal control over financial reporting and disclosure controls and procedures, many companies will design their disclosure controls and procedures so that they do not include all components of internal control over financial reporting.").

Figure 1
DCP and ICFR Overlap



Following the introduction of the DCP and ICFR mandates, scholars and practitioners have overwhelmingly focused on the latter. This Article's interviewees described the ICFR mandate as an inflection point in their disclosure practices, forcing their procedures to become more rigorous, often including the creation of disclosure committees of senior management and other key disclosure participants.[44] This heavy focus on financial reporting is sensible. Valuation of a firm's securities ultimately turns on what can be predicted about its future financial condition.[45] Enormous efforts are required to account accurately and consistently for the millions (or billions) of transactions, large and small, that a public firm enters into annually.[46] Indeed, the bulk of the work of securities disclosure occurs around financial reporting.[47]

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44. *See* Telephone Interview with Interviewee #4 (notes on file with author) (describing significant changes to procedures and increased controls after the passage of the Sarbanes-Oxley Act); Telephone Interview with Interviewee #11 (notes on file with author) (acknowledging post-Sarbanes-Oxley time-costs for testing controls); Telephone Interview with Interviewee #20 (notes on file with author) ("[Before Sarbanes-Oxley] I feel like it used to be just the lawyer and the controller would get together and do it and you might get a few comments from management . . . but today there's definitely a lot more focus from senior management on the whole document, the 10-Q, the press release, the investor Q&A, the earnings script, all that stuff."); *infra* note 170 (citing Interviewee #7 who suggests that fewer business leaders would be asked to participate in disclosure productions had it not been for the Sarbanes-Oxley Act). *But see* Sarah C. Rice, David P. Weber & Biyu Wu, *Does SOX 404 Have Teeth? Consequences of the Failure to Report Existing Internal Control Weaknesses*, 90 ACCT. REV. 1169, 1196 (2015) (concluding that ICFR enforcement mechanisms do not create sufficient incentives for management to detect and disclose material weaknesses).

45. *See* Robert J. Shiller, *Do Stock Prices Move Too Much to Be Justified by Subsequent Changes in Dividends?*, 71 AM. ECON. REV. 421, 421 (1981).

46. *See supra* note 1 (discussing the estimated person-hours required to prepare periodic SEC reports).

47. *See supra* note 1.

But producing proper financial statements is not the whole of it. Broad swaths of non-financial information must be provided to investors.[48] Firms volunteer even more.[49] Non-accounting procedures produce those disclosures and can also generate errors.[50] Those procedures could also affect the preparation of financial disclosures.[51] In short, procedural failures can cause misleading disclosure.[52] For instance, poor version control over a draft could lead to a document being filed with outdated financial information or missing non-financial information.[53] The SEC has largely left firms on their own in designing DCPs.[54] In contrast, firms must adopt a prescriptive framework for ICFR, and the SEC has expressly endorsed the COSO Framework for implementing ICFR and evaluating its effectiveness.[55] Scholars, investors, practitioners, and regulators understand that ICFR is critical for well-functioning capital markets and investor protection. It thus merits considerable study. But that is true for DCP, too, a topic on which much work remains.

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48. *See infra* Section II.B.4 (discussing voluntary disclosures).

49. *See infra* Section II.B.4 (discussing voluntary disclosures).

50. That is, producing financial statements is one part of producing disclosures. Other parts, such as, for example, disclosure of the risk factors facing a company's business or information about its directors and officers does not directly, or necessarily, flow to the company's financial statements. *See* FORM 10-K, *supra* note 1; FORM 10-Q, *supra* note 1.

51. For example, sub-certification requirements might force business leaders to provide new information (e.g., contingencies) that must be incorporated into financial statements. *See infra* notes 146–150 and accompanying text.

52. Imagine that early in a firm's quarterly disclosure procedure, its accounting team provides a shell disclosure document to a broader disclosure group that is subject to revision. Imagine too that because there are mistakes in the revision process, some financial revisions do not make it into the final document and that this issue also causes important information supplied by operating business leaders to be omitted.

53. When I say "filed with the SEC" or words to that effect, I also include "furnished to the SEC." For this Article's purposes, the distinction is not important. *Cf.* Andrew W. Winden, *Jumpstarting Sustainability Disclosures*, 76 BUS. LAW. 1215, 1246 (2021) (calling on the SEC to permit firms to *furnish* their sustainability reports, making them not subject to Section 11 strict liability).

54. *See* SEC Release 33-8124, *supra* note 4, at 57,280 ("[W]e are not requiring any particular procedures for conducting the required review and evaluation. Instead, we expect each issuer to develop a process that is consistent with its business and internal management and supervisory practices."). The SEC *does* police non-financial DCP through ex post enforcement, however. *See supra* notes 10 (Yahoo case), 26 (Tesla case).

55. *See* SEC Release 33-8238, *supra* note 43, at 36,642 (endorsing the Committee of Sponsoring Organizations of the Treadway Commission, Internal Control—Integrated Framework ("COSO Framework") "as an evaluation framework for purposes of management's annual internal control evaluation and disclosure requirements" but recognizing that other appropriate frameworks may emerge). For further detail, see COMM. OF SPONSORING ORGS. OF THE TREADWAY COMM'N, INTERNAL CONTROL—INTEGRATED FRAMEWORK: EXECUTIVE SUMMARY (2013) [hereinafter COSO Framework].

B. Disclosure's Procedural and Substantive Qualities

This Section makes the Article's main point. *Disclosure quality* is the degree to which disclosure lacks misstatements or omissions.[56] It is an expression of how misleading (or not) disclosure is.[57] *Procedural quality* is the degree to which procedure affects disclosure quality.[58] This relationship is a direct one: Higher-quality procedures would be expected to produce higher-quality disclosures, and vice versa.[59] In talking about disclosure quality, this Article mostly drops the materiality qualifier that unlocks liability under the securities laws.[60] That is for a few reasons. First, conscientious professionals responsible for producing disclosure would strive to avoid even immaterial errors. All equal, investors would also prefer error-free disclosures.[61] Second, even immaterial errors can signal trouble, rightly or wrongly. They raise questions about what other (potentially material) errors might be lurking.[62] Third, whether an error is material is a

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56. I adapt this concept from the closely related concept of *financial-reporting quality*. One meta-study on financial-reporting quality "define[s] higher quality financial reports as those that are more complete, neutral, and free from error and [that] provide more useful predictive or confirmatory information about the company's underlying economic position and performance." Lisa Milici Gaynor et al., *Understanding the Relation Between Financial Reporting Quality and Audit Quality*, 35 AUDITING, Nov. 2016, at 1, 14 (emphasis omitted).

57. This Article excludes other worthwhile considerations, like readability and relevance. *Cf. id.* at 4 (collecting studies that "measure[] financial reporting quality using differences in the financial reports themselves, [and] measure perceived reporting quality by examining how useful the information in the financial reports is to users").

58. I adapt this concept from the related concept of *audit quality*. *See* Mark DeFond & Jieying Zhang, *A Review of Archival Auditing Research*, 58 J. ACCT. & ECON. 275, 276 (2014) (defining a high-quality audit as one that offers "greater assurance that the financial statements faithfully reflect the firm's underlying economics, conditioned on its financial reporting system and innate characteristics").

59. *Cf. id.* ("Audit quality improves financial reporting quality by increasing the credibility of the financial reports. Thus, audit quality is a component of financial reporting quality.").

60. 15 U.S.C. § 77k(a) (materiality and Section 11 liability); 17 C.F.R. § 240.10b-5(b) (2023) (materiality and Rule 10b-5 liability); *see also* Carliss N. Chatman, *Corporate Family Matters*, 12 U.C. IRVINE L. REV. 1, 6–7 (2021) (discussing the potential for gamesmanship in structuring corporate affairs to avoid materiality thresholds); George S. Georgiev, *Too Big to Disclose: Firm Size and Materiality Blindspots in Securities Regulation*, 64 UCLA L. REV. 602, 607–08 (2017) ("The larger the company, then, the less likely it is that any individual acquisition, legal proceeding, or investment project, however substantial, would be material in the context of the total informational mix.").

61. After all, a court might not rule against a lawyer's position simply for glaring typos in a brief, and a client might not fire the lawyer for that reason either. But it's embarrassing for all—especially the lawyer—nonetheless.

62. *See* Preeti Choudhary, Kenneth Merkley & Katherine Schipper, *Immaterial Error Corrections and Financial Reporting Reliability*, 38 CONTEMP. ACCT. RSCH. 2423, 2454 (2021) (providing evidence that immaterial financial-reporting errors predict "future immaterial and material financial reporting errors, future disclosures of material weaknesses in internal controls over financial reporting, and future SEC comment letters").

mixed question of law and fact.[63] If litigated, even if this question is ultimately decided in a defendant firm's favor, the firm will still bear litigation costs.[64] And fourth, immaterial errors can sometimes be material in the aggregate.[65]

As a subject of study, disclosure procedures matter because their stakes are quite high. If, on a risk-adjusted basis,[66] they cause a firm to produce low-quality disclosures—the kinds that are actionably misleading—then markets will inaccurately price the firm's securities, leading to trading losses for some investors and then to private litigation, public enforcement, or both. From 2016 to 2020, for instance, 416, or 14.9%, of standalone enforcement actions brought by the SEC involved disclosure issues.[67] Though many of those actions related to audit and accounting issues, others addressed non-financial DCP failures.[68] And, of course, firms frequently face private securities litigation over disclosure-related claims. In 2020, for instance, one in twenty-three publicly traded firms faced securities litigation over disclosures

63. TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 450 (1976).

64. *See* Emily Strauss, *Is Everything Securities Fraud?*, 12 U.C. IRVINE L. REV. 1331, 1341 (2022) (reviewing the potential for securities litigation to be meritless but nevertheless to "create the opportunity for plaintiffs' lawyers to extract large settlements").

65. *Cf.* SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,153 (Aug. 19, 1999) (codified at 17 C.F.R. pt. 211) ("Even though a misstatement of an individual amount may not cause the financial statements taken as a whole to be materially misstated, it may nonetheless, when aggregated with other misstatements, render the financial statements taken as a whole to be materially misleading.").

66. By "risk-adjusted basis" I mean that procedures should adjust for the disclosure risk of a given firm. If a small software company adopted the procedures of a global financial services firm, disclosure costs would exceed expected costs of disclosure-related risks, which would on net reduce firm value.

67. These statistics are excerpted from the SEC's 2016, 2017, 2018, 2019, and 2020 enforcement reports. *See Reports and Publications*, SEC, https://www.sec.gov/reports?aId=edit-tid&year=All&field_article_sub_type_secart_value=All&tid=39 (last visited Apr. 17, 2023); SEC, DIV. OF ENF'T, ANNUAL REPORT (2016) (on file with author); SEC, DIV. OF ENF'T, ANNUAL REPORT: A LOOK BACK AT FISCAL YEAR 2017 (2017), https://www.sec.gov/files/enforcement-annual-report-2017.pdf; SEC, DIV. OF ENF'T, ANNUAL REPORT (2018), https://www.sec.gov/files/enforcement-annual-report-2018.pdf; SEC, DIV. OF ENF'T, 2019 ANNUAL REPORT (2019), https://www.sec.gov/files/enforcement-annual-report-2019.pdf; SEC, DIV. OF ENF'T, 2020 ANNUAL REPORT (2020), https://www.sec.gov/files/enforcement-annual-report-2020.pdf.

68. *See, e.g.*, Complaint, *supra* note 26, at 1–2 (alleging that Tesla, Inc. failed to maintain DCP due to misstatements posted to its CEO's personal Twitter account); *In re* Altaba Inc., Securities Act Release No. 10485, Exchange Act Release No. 83096, 2018 WL 1919547, at *6 (Apr. 24, 2018) (alleging that "Yahoo did not maintain disclosure controls and procedures designed to ensure that reports from Yahoo's information security team raising actual incidents of the theft of user data, or the significant risk of theft of user data, were properly and timely assessed to determine how and where data breaches should be disclosed in Yahoo's public filings").

(excluding M&A-related disclosures).[69] In my survey, 18.6% of respondent firms reported disclosure-related securities litigation in the last five years, with another 4.9% facing government investigations and 7.8% experiencing both.[70]

These stakes point to a need for a more comprehensive study of disclosure environments. Financial reporting, the most scrutinized aspect of disclosure, is well covered in the accounting literature.[71] Yet there has been limited study of disclosure's non-financial aspects—such as risk factors, business trends, litigation contingencies, related-party transactions,[72] and so forth—despite the SEC's efforts to elevate DCP as a management concern.[73] Given this empirical gap, and pending the results of future studies, it would be sensible to anticipate that, all equal, low-quality procedures yield low-quality disclosures, rendering pricing of underlying securities less certain and investments in them riskier.[74]

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69. CORNERSTONE RSCH., SECURITIES CLASS ACTION FILINGS: 2020 YEAR IN REVIEW 12 (2021), https://www.cornerstone.com/Publications/Reports/Securities-Class-Action-Filings-2020-Year-in-Review.

70. *See infra* Appendix A, Table 2.

71. *See generally, e.g.*, Rice et al., *supra* note 44; Parveen P. Gupta, Thomas R. Weirich & Lynn E. Turner, *Sarbanes-Oxley and Public Reporting on Internal Control: Hasty Reaction or Delayed Action?*, 27 ACCT. HORIZONS 371 (2013).

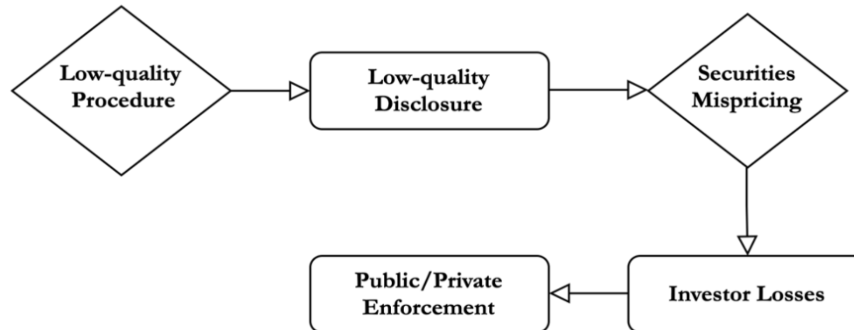
72. *But see* Essam Elshafie, *The Information Content of Disclosure Controls and Procedures* (2017) (unpublished manuscript) (on file with author); Weirich & Olsen, *supra* note 14; Parveen P. Gupta & Nandkumar Nayar, *Information Content of Control Deficiency Disclosures Under the Sarbanes-Oxley Act: An Empirical Investigation*, 4 INT'L J. DISCLOSURE & GOVERNANCE 3 (2007); Geeyoung Min, *The SEC and the Courts' Cooperative Policing of Related Party Transactions*, 2014 COLUM. BUS. L. REV. 663, 729 (questioning firm discretion in whether to disclose related-party transactions).

73. For example, see SEC Release 33-8124, *supra* note 4, at 57,279–80, explaining:

> We have defined the term "disclosure controls and procedures" to make it explicit that the controls contemplated by Section 302(a)(4) of the [Sarbanes-Oxley] Act are intended to embody controls and procedures addressing the quality and timeliness of disclosure. We also have included this definition to differentiate this concept of disclosure controls and procedures from the pre-existing concept of "internal controls" that pertains to an issuer's financial reporting and control of its assets . . . . We make this distinction based on our review of Section 302 of the [Sarbanes-Oxley] Act as well as to effectuate what we believe to be Congress' intent—to have senior officers certify that required material non-financial information, as well as financial information, is included in an issuer's quarterly and annual reports.

74. *See* Merritt B. Fox, *Required Disclosure and Corporate Governance*, 62 L. & CONTEMP. PROBS. 113, 120 (1999) (observing that "[m]ore information . . . result[s in] increase in price accuracy" and that greater information reduces the risk involved in securities valuation).

Figure 2
Disclosure Procedure's Relationship to Investor Losses and Securities Enforcement



Procedures directly affect the quality of their resulting disclosures by increasing or decreasing their accuracy and completeness.[75] Given that impact, disclosure procedures are themselves informationally valuable because they have the capacity to calibrate the confidence that investors have when acting based on the information in a firm's disclosures.[76] Disclosure's procedure, in other words, precedes its substance. The following vignettes draw on that intuition.

> **Loose Corporation ("LooseCo").** *LooseCo is a publicly traded manufacturer of bolts and fasteners. Although it has no policy, written or otherwise, for how producing disclosures is to be done, after each quarter close, its controller sends the general counsel a draft Form 10-Q, working financial data and footnote text into a template that is used quarter after quarter. The general counsel reads the draft, edits it in a few parts, and sends an email to peers at LooseCo's headquarters: "Please let me know by the end of the week if you are aware of anything that should be disclosed or corrected in our draft 10-Q." Two days before the filing deadline, the general counsel sends a copy of the 10-Q to the CEO and CFO and to the chair of the audit committee: "Please let me know by end of business tomorrow if this is ready to file." All three reply with words to the effect of "looks ready to file." The general counsel files the Form 10-Q. Meanwhile, the*

75. *See* Weirich & Olsen, *supra* note 14, at A29 ("This information is useful to investors and auditors as they seek to gain knowledge about the effectiveness of issuers' disclosure systems and hence, the completeness of information provided.").

76. *See infra* Section IV.B.

vice president of investor relations has used the draft 10-Q to write an earnings release and script for management's quarterly earnings call; the vice president posts the release to the company's website and sends the script to the CEO, who edits the script.

Tight Corporation ("TightCo"). *TightCo is also a publicly traded manufacturer of bolts and fasteners. Its quarterly reporting process is prescribed in a document titled "TightCo Disclosure and SEC Reporting Policy." A few days after each quarter close, the controller sends a draft Form 10-Q, based on a template, to a disclosure committee comprising senior legal and accounting leaders, functional leaders (like the chief human resources and information officers and the vice president of investor relations), and operating-unit leaders. The disclosure committee members meet for three hours to identify information that must be or that voluntarily will be disclosed. The general counsel's paralegal takes careful notes of edits to be made. The committee membership is set by a charter and all committee members must provide backup documentation to validate factual claims. For example, the head of sales must supply a list of contracts from the company's customer database to support claims about new accounts signed. Members must also sign sub-certifications that as far as their areas of responsibility go, the draft accurately reflects all material developments.*

A week later, the general counsel sends a revised draft of the Form 10-Q to the company's outside counsel and members of the disclosure committee for comments, and this cycle is completed once more before the document is shared for review by the CEO, CFO, and audit committee, as well as for CEO/CFO certification. Once these actors approve filing, the general counsel documents the approvals, the CEO's and CFO's certifications, the sub-certifications from disclosure-committee members, backup materials, and a general counsel's certification that all disclosure controls have been followed. Because all securities filings must be authorized by two officers, the controller reviews the general counsel's documentation and approves the filing. The concurrent process for drafting the earnings release and call script is also prescribed by the "TightCo Disclosure and SEC Reporting Policy." This process is similar to that for drafting the Form 10-Q, but it is led by the vice president of investor relations and,

because it uses that document as its source, it involves a smaller group.

Which firm's quarterly report would be less likely to contain inaccuracies? In other words, in which firm's quarterly report should investors place the greatest confidence that they are not being misled? The first vignette drops unnuanced hints that things might not be shipshape at LooseCo. A reasonable intuition is that TightCo's more rigorous approach—which forces actors who are likely to be aware of disclosure-relevant information to participate in disclosure procedures, requires validation of factual claims, and subjects drafts to multiple rounds of review—is less likely to contain errors. Perhaps given a choice between the two, all equal, investors would prefer TightCo's approach.[77] But rigor is not costless. A firm designing its disclosure procedures will want to satisfy investor information-production and disclosure-quality preferences so as to support demand for its securities.[78] At the same time, it will want to economize disclosure costs, such as internal time spent producing disclosures and fees paid to outside vendors.[79] As management designs its procedures, it will also weigh the costs of a given approach against the need to manage the risk that the procedures produce disclosures that lead to securities litigation, government enforcement, or reputational harm.[80] In parallel with those firm-level objectives, individual disclosure participants will favor procedures that

77. At the same time, LooseCo's more streamlined approach might avoid over-disclosure—which could be caused by inclusion of irrelevant information as a precaution against future allegations of omission—that make the document less useful to investors. Investor preferences for the LooseCo or TightCo approach might cut in different directions. Perhaps some investors would care most about a disclosure procedure that gets it right—even if it yields some bloat—because in making investment decisions they rely foremost on completeness. Or, they might prefer a document that can be consumed quickly even if it carries a higher risk of errors.

78. Investors' aggregate preferences, that is. Those preferences are not monolithic. Some might actually *prefer* lower-quality disclosure if they believe they can identify misleading parts: Such errors would give them greater incentives to develop and trade on (correct) private information. *See* Yifeng Guo & Joshua Mitts, *Going Public or Staying Private: The Cost of Mandated Transparency* 6 (Ctr. for L. & Econ. Stud., Colum. L. School, Working Paper No. 649, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3465919 (concluding that "in equilibrium, informed investors tend to prefer private markets, where they can capture the gains to [] investments in information acquisition"); Cathy Hwang & Yaron Nili, *Shareholder-Driven Stakeholderism*, U. CHI. L. REV. ONLINE, Apr. 15, 2020, at *1, *5 (finding that increased ESG disclosure among the S&P 1500 is driven by investor demand).

79. *See, e.g.*, ADVANCED MICRO DEVICES, INC., 2019 ANNUAL REPORT ON FORM 10-K 81 (2020) ("[O]ur management recognizes that any [disclosure] controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.").

80. See *infra* Section IV.A for a discussion on how new voluntary disclosure can increase litigation and enforcement risk. *See also* Winden, *supra* note 53, at 1236 (addressing concerns that voluntary ESG disclosures create incremental litigation risk under Section 11).

reduce their personal time-costs while minimizing the likelihood that they will be fired, sued, imprisoned, or hauled into a conference room for questioning.[81]

With these questions in the air, this Article's survey and interview data admittedly do not point to obvious designs that will consistently achieve high procedural quality on a risk-adjusted basis. Nevertheless, it is doubtful that firms generally *do* have procedures that optimize between disclosure quality and cost. One reason for this doubt is that any given firm has only limited knowledge of other firms' disclosure procedures. These include its own procedures, those of other firms its in-house lawyers and accountants formerly worked at, and those of firms about which outside lawyers and accountants have shared (aggregated) information about.[82] That is mostly it.[83] Considering that those who do the work of producing disclosure have such limited opportunities to compare their procedures to those of others, outside researchers have even less opportunity to account for firm-to-firm practices and variations. Understanding the relationship between procedural and substantive disclosure will require foundational work.[84]

As a start, it is meaningful that the sort of data needed to analyze disclosure procedure already exist for ICFR.[85] With the benefit of ICFR disclosures, the accounting literature helps predict relationships between disclosure procedure and substance. For instance, there is evidence that increases in financial-reporting quality increase investment efficiency (i.e., total risk, return, and agency costs borne in investing in a given firm's securities).[86] Extending this result to disclosure procedure more broadly would mean anticipating a similar result for procedural improvements. After

81. *See* Andrew K. Jennings, *Follow-Up Enforcement*, 70 DUKE L.J. 1569, 1582–83, 1583 nn. 55–56 (2021) (reviewing motivations of corporate insiders to avoid personal consequences for violations of law).

82. *See infra* Part II, Section III.B (discussing the origins of disclosure procedure and convergence among firms); *see also* Elisabeth de Fontenay, *Market Information and the Elite Law Firm* 3 (Duke L. Sch. Pub. L. & Legal Theory Series No. 2017-32, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2947104 (theorizing a role for law firms as aggregators of private market information).

83. *But see infra* note 104 and accompanying text (discussing peer networks of in-house attorneys who share information about their firms' disclosure practices).

84. *See infra* Section IV.A (discussing future disclosure-procedure research).

85. *See infra* Section IV.B (reviewing results of firms' mandatory DCP effectiveness/ineffectiveness evaluations).

86. *See generally, e.g.*, Mei Cheng, Dan Dhaliwal & Yuan Zhang, *Does Investment Efficiency Improve After the Disclosure of Material Weaknesses in Internal Control Over Financial Reporting?*, 56 J. ACCT. & ECON. 1 (2013); Gary C. Biddle, Gilles Hilary & Rodrigo S. Verdi, *How Does Financial Reporting Quality Relate to Investment Efficiency?*, 48 J. ACCT. & ECON. 112 (2009); Maureen F. McNichols & Stephen R. Stubben, *Does Earnings Management Affect Firms' Investment Decisions?*, 83 ACCT. REV. 1571 (2008); Gary C. Biddle & Gilles Hilary, *Accounting Quality and Firm-Level Capital Investment*, 81 ACCT. REV. 963 (2006).

all, the mechanisms would be similar: Firms' procedural improvements would lead to their producing more accurate information, which in turn would support more efficient securities pricing. Indeed, firms with disclosed ICFR deficiencies tend to have higher costs of equity, whereas those costs go down as firms remediate already disclosed deficiencies, evidencing that investors require higher returns to compensate for disclosure-related risk.[87] High-quality disclosure procedures would thus be expected to avoid added risk premium. The benefits to procedural improvements would not be limited to individual firms. Efforts at one firm could also improve industry-level investment efficiency because high-quality disclosure would motivate private information production.[88] As disclosure becomes less costly to consume and provides greater certainty about firms' conditions, the trading value of private information increases, thus offering greater incentive to produce it.[89]

C. Survey and Interview Methods

I conducted interviews with in-house attorneys and accountants and surveyed companies in the S&P 1500 Composite Index ("S&P 1500"). This composite includes the mega-/large-capitalization S&P 500 index, the S&P MidCap 400 index, and the S&P SmallCap 600 index.[90] Together, they represent approximately 90% of U.S. equities by capitalization and serve as a proxy for the U.S. equities market.[91] The S&P 1500 offers an added advantage in that it allows for segmenting survey respondents by the three component indices: Whether a firm falls in the mega-/large-cap, mid-cap, or

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87. Hollis Ashbaugh-Skaife et al., *The Effect of SOX Internal Control Deficiencies on Firm Risk and Cost of Equity*, 47 J. ACCT. RSCH. 1, 40–41 (2009); *accord* Jeffrey T. Doyle, Weili Ge & Sarah McVay, *Accruals Quality and Internal Control over Financial Reporting*, 82 ACCT. REV. 1141, 1166 (2007) (finding that firms with weak ICFR have lower earnings quality).

88. *See* Brad Badertscher, Nemit Shroff & Hal D. White, *Externalities of Public Firm Presence: Evidence from Private Firms' Investment Decisions*, 109 J. FIN. ECON. 682, 703 (2013).

89. Itay Goldstein & Liyan Yang, *Information Diversity and Complementarities in Trading and Information Acquisition*, 70 J. FIN. 1723, 1726 (2015); Oliver Kim & Robert E. Verrecchia, *Market Liquidity and Volume Around Earnings Announcements*, 17 J. ACCT. & ECON. 41, 60 (1994); Robert E. Verrecchia, *Information Acquisition in a Noisy Rational Expectations Economy*, 50 ECONOMETRICA 1415, 1428 (1982).

90. S&P DOW JONES INDICES, S&P U.S. INDICES: METHODOLOGY 11 (2023), https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-us-indices.pdf.

91. PHILLIP BRZENK, HAMISH PRESTON & AYE SOE, THE S&P COMPOSITE 1500®: AN EFFICIENT MEASURE OF THE U.S. EQUITY MARKET 1, 3 (2020), https://www.spglobal.com/spdji/en/documents/research/research-the-sp-composite-1500-an-efficient-measure-of-the-us-equity-market.pdf; *cf.* Jens Frankenreiter et al., *Cleaning Corporate Governance*, 170 U. PA. L. REV. 1, 5 (2021) (using the S&P 1500 to proxy U.S. public companies); Richard J. Gentry et al., *A Database of CEO Turnover and Dismissal in S&P 1500 Firms, 2000–2018*, 42 STRATEGIC MGMT. J. 968 (2021) (using the S&P 1500 to proxy U.S. public-company CEOs).

small-cap index would roughly proxy for its relative complexity.[92] Complexity would be expected to be reflected in disclosures and the resources spent producing them, such as staffing levels for accounting and legal functions.

I started by conducting semi-structured confidential interviews with disclosure principals.[93] These interviews allowed me to refine questions for the larger-scale survey. They also offered textured qualitative, historical, and cultural information that could not be captured with a survey method. Of the firms covered, twenty-one were S&P 1500 components; three had recently gone public and had not yet met one or more inclusion criteria for S&P indices.[94] At some firms I interviewed more than one person. Twenty-six interviewees were in legal roles and four were in accounting roles. I conducted an additional interview with a senior member of a Big Four accounting firm.

In March and April 2021, I sent emails to general counsels, controllers, or similar roles at S&P 1500 firms requesting that they complete an anonymous survey about their firms' disclosure procedures.[95] Response rates varied by question, with 107 being the highest and 49 being the lowest.[96] For all questions, S&P 500 components comprised the largest group. I report results in the Appendix.[97]

II. TAXONOMY OF DISCLOSURE PROCEDURE

Part I covered four types of procedure; the next two Sections cover procedural production factors and characteristics. Together, they form a taxonomy of disclosure procedures in which (A) four disclosure types are produced through (B) three factors that (C) are classifiable along four characteristics.

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92. *See* Kobi Kastiel & Yaron Nili, *The Corporate Governance Gap*, 131 YALE L.J. 782, 848 (2022) (rejecting the possibility that divergence in large-versus-small company governance "is merely a function of the unique attributes of smaller firms").

93. *See supra* note 21.

94. *See* S&P DOW JONES INDICES, *supra* note 90, at 6–7 (listing criteria for inclusion on S&P indices).

95. *See* Cindy R. Alexander et al., *Economic Effects of SOX Section 404 Compliance: A Corporate Insider Perspective*, 56 J. ACCT. & ECON. 267, 269–71 (2013) (using a similar survey design).

96. *Compare infra* Appendix B, Table 1, *with infra* Appendix E.

97. *See infra* Appendices A, B, C, D, E, F.

Table 1
Disclosure Procedures, Production Factors, and Characteristics

Procedures	Production Factors	Characteristics
Periodic Earnings Episodic Governance	Participants Authorities Technologies	Authority Participation Review Objectivity

Before introducing the taxonomy, it is worth discussing origins—where do disclosure procedures come from? And before presenting Part III's comparative analysis, it is worth considering potential reasons for procedural convergence and divergence among firms. My interviews point to disclosure procedure as having both endogenous and exogenous origins. Procedure emerges endogenously from interactions among those involved in disclosure production, who will soon be introduced as *participants*.[98] A board of directors might impose a code of ethics with disclosure-related requirements,[99] or members of a disclosure group might develop know-how for procedure production based on many quarters working together.[100] Procedure also emerges exogenously from external sources (such as SEC rulemaking, enforcement actions, or statements) or sources that cross-pollinate know-how between firms.

There are three origins: outside service providers, prior work experience, and peer learning. First, firms seek advice from outsiders.[101] Those advisers (lawyers and accountants) aggregate know-how between their clients.[102] Second, in-house attorneys or accountants often previously worked at other public companies or in private practice; they bring know-how from

98. *See infra* Section II.A.1.

99. *See infra* Section II.B.1.

100. *See infra* Section II.B.1.

101. For example, one interviewee at a company that recently went public relied "heavily" on the law firm that handled the public offering to help set up the company's disclosure procedures. Telephone Interview with Interviewee #14 (notes on file with author). Another interviewee reported seeking external counsel's advice in adapting the company's procedures after the outbreak of COVID-19. Telephone Interview with Interviewee #28 (notes on file with author).

102. Telephone Interview with Interviewee #2 (notes on file with author) (noting that new public companies can look to large law firms for questionnaires, checklists, and other procedural materials).

prior jobs to their new firms.[103] Third, in-house attorneys and accountants form peer networks for trading know-how.[104]

Part III shows incomplete convergence in public-firm disclosure procedures.[105] I suspect there are a few explanations. First, public firms subject to U.S. securities laws have a common set of disclosure-related mandates.[106] They can also observe disclosure-related conduct at other firms that led to securities litigation, government enforcement, or investor criticisms (or perhaps even investor praise).[107] As a result, there is a great deal of information available to them about what procedural practices are punished. They would be expected to avoid those. Given their common ability to make these observations, firms would converge in avoiding disfavored practices. There is also some information about what disclosure outcomes are rewarded, in that firms might see public approval from investors about their peers' disclosures or hear about it privately.[108] Participants can also observe what disclosures their peers produce or what comment letters they receive from the SEC.[109] Although these substantive disclosures do not reveal the procedures behind them, reverse engineering could lead to similar practices.

There is no metaphorical manual for designing disclosure procedures,[110] but an explanation for convergence is that exogenous advice, insiders' external experiences, and peer networks serve to cross-pollinate procedures

103. Telephone Interview with Interviewee #5 (notes on file with author) ("[My colleague] and I come from much older companies, much more established. That might be why our processes are similar[,] because we helped build them."); *see also infra* note 163 (Interviewee #1 discussing the procedural impact of a new chief accounting officer joining the company from a Big Four accounting firm).

104. Telephone Interview with Interviewee #8, *supra* note 24 ("We rely heavily on talking to peers at other companies on what they've done and what works. Our general counsel and I have meetings and lunches with other companies to benchmark, and we have a listserv for informal information sharing on what works and what doesn't work.").

105. *See infra* Section III.B.

106. *See supra* note 3 (listing some disclosure-related regulations).

107. *See supra* note 104; *see also* Telephone Interview with Interviewee #3 (notes on file with author) ("[W]e follow our peer group pretty closely . . . ."); Telephone Interview with Interviewee #10 (notes on file with author) (noting that before the interviewee's company went public, its personnel observed disclosure practices at public peer firms).

108. *See, e.g.*, Ben Maiden, *Nominations Open for Corporate Governance Awards 2021*, CORP. SEC'Y (May 11, 2021), https://www.corporatesecretary.com/articles/boardroom/32571/nominations-open-corporate-governance-awards-2021 (calling for nominations for a number of relevant categories, including "[b]est ESG reporting").

109. *See* Regulation S-T, 17 C.F.R. § 232.10 (2023) (requiring electronic submission of mandatory disclosures via the SEC's publicly accessible EDGAR system); *see also* Telephone Interview with Interviewee #3, *supra* note 107 ("I think there's quite a lot of disclosure out there and in general, we follow our peer group pretty closely . . . .").

110. Telephone Interview with Interviewee #8, *supra* note 24 ("There isn't really a manual and you find out you're doing it the wrong way the hard way, more often than not.").

among firms, giving rise to market norms. Disclosure's regulatory regime, and the markets for disclosure services, thus promote convergence. But as this Part and Part III explain, there is still ample variation among firms. Three explanations for divergence seem most promising. First, although regulations do mandate a level of uniformity in disclosures themselves, firms must decide how to comply.[111] Common disclosure mandates might lead firms independently to adopt similar disclosure procedures, but those procedures will vary for idiosyncratic reasons. Some firms have large capitalizations, and some smaller;[112] some are operationally complex, and others simple;[113] some are highly regulated, and others lightly regulated;[114] and some have informal cultures, whereas others more formal.[115] Second, the exogenous influences that promote convergence are self-limiting. One law or accounting firm might have knowledge of procedures at the public companies it represents. However, it would not have knowledge about companies who are not its clients, and so it can aggregate and share information only among a limited set of firms. Insiders with experience at other firms are still only exposed to a narrow sample of possible procedures, and peer networks might be further limited by industry or geography.[116]

A. Procedural Production Factors

This Section frames disclosure procedure as an interaction between three production factors: the *participants* who prepare disclosure, the *authorities* they follow, and the *technologies* they use.

1. Participants

The accountants, lawyers, investor-relations and communications professionals, senior executives and other business leaders, external advisers, and board members who regularly participate in a procedure comprise its disclosure group. Group composition varies with the disclosure being produced. Annual or quarterly SEC filings, for instance, might require

111. *Cf.* SEC Release 33-8124, *supra* note 4, at 57,280 ("[W]e are not requiring any particular procedures for conducting the required [DCP/ICFR] review and evaluation. Instead, we expect each issuer to develop a process that is consistent with its business and internal management and supervisory practices.").

112. *See infra* Section III.B.2.

113. *See infra* Section III.B.2.

114. *See infra* Section III.B.3.

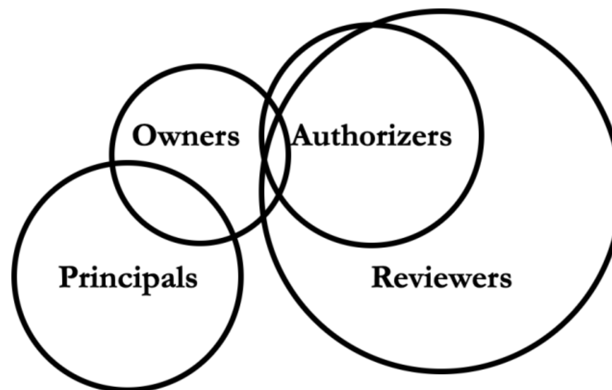
115. *See infra* Section III.B.1.

116. *See supra* note 104 (Interviewee #8).

participation by dozens of individuals; press releases, however, might be handled by two or three.[117]

Within a disclosure group, there are four (sometimes overlapping) roles: principals, owners, reviewers, and authorizers. The following diagram represents the interplay between those participant roles.

Figure 3
Disclosure Participants



First, principals draft disclosures, manage reviews of those drafts, and monitor compliance with legal and internal rules.[118] Principals are overseen by, and might include, owners—the executives who have ultimate responsibility for a given disclosure procedure (even if they do not have the final say in authorizing the disclosure's release).[119] For example, for disclosures that include financial reporting, principals include accounting staff and in-house securities lawyers, while an owner might be the controller, or perhaps in some firms, the CFO.[120] In contrast, investor-relations or

117. In any given disclosure production, individuals who are not typically involved could join on an ad hoc basis. For example, although a payroll analyst might not be part of the group that handles Form 8-Ks, when a report is needed for a senior executive's appointment, he might be asked to provide information about the compensation impacts. FORM 8-K, *supra* note 30, at 15 (requiring disclosure of financial arrangements for new executives). Although individuals like the payroll analyst might literally be participants in discrete productions, a disclosure group is only those who regularly participate in a given procedure. On the other hand, the payroll analyst will likely be a participant in preparing proxy statements due to their regular need for executive-compensation data.

118. *See* Telephone Interview with Interviewee #1, *supra* note 21 (describing the work of principals); Telephone Interview with Interviewee #8, *supra* note 24 (same); Telephone Interview with Interviewee #15 (notes on file with author) (same); Telephone Interview with Interviewee #17 (notes on file with author) (same).

119. Interviewee #1, *supra* note 21 ("[W]e call it ownership: Who has control and responsibility between financial reports and proxy statements.").

120. *See infra* Appendix E.

communications staff might be principals for day-to-day press releases, with additional participation by an in-house lawyer.[121] That lawyer would be the principal for non-financial, securities-law-focused disclosures, such as proxy statements, Form 8-Ks, and material press releases,[122] whereas the company's general counsel would be the procedure's owner. These examples point to a procedural commonality: Although principals vary by what expertise a given disclosure most requires, in-house lawyers are almost always involved.[123] This participation reflects that every production is a legally meaningful act.[124]

Although production largely reflects the efforts of principals and the supervision of owners, disclosure groups include two other participants: reviewers and authorizers. Reviewers review all or parts of drafts. Their input might cover factual corrections, new information, stylistic edits, or simply indicate that they have nothing to add.[125] Firms' annual reports on Form 10-Ks are their most elaborate disclosures and so help to illustrate sub-roles among reviewers. Senior leaders like CEOs, CFOs, or general counsels; boards of directors; and outside advisers (e.g., external counsel) review one or more complete drafts.[126] Meanwhile, leaders in operating or functional areas, like heads of business units or IT, review draft sections relevant to their areas of responsibility.[127]

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121. *See* Telephone Interview with Interviewee #19 (notes on file with author) (explaining that marketing press releases may not receive legal review). *But see* Telephone Interview with Interviewee #8, *supra* note 24 ("There are no formal procedure controls for something like a press release. They're done more ad hoc. They're reviewed and validated by the legal team, but there are no formal signoff procedures from executives. But the communications team knows press releases need to go through legal.").

122. *See* Telephone Interview with Interviewee #17 (notes on file with author) (describing the legal function as "running" the proxy process); Telephone Interview with Interviewee #31 (Sept. 30, 2020) (notes on file with author) (reporting that the legal function owns non-financial press releases and Form 8-Ks).

123. Telephone Interview with Interviewee #1, *supra* note 21 (noting that earnings releases involve a smaller disclosure group but always include two key in-house lawyers); Telephone Interview with Interviewee #5, *supra* note 103 ("Non-financial disclosures, like 8-Ks, that's always more legally driven so I'll usually draft those and give accounting a heads up."); Telephone Interview with Interviewee #9 (notes on file with author) (describing the proxy process as being "entirely driven" by in-house counsel); Telephone Interview with Interviewee #23 (notes on file with author) ("We [lawyers] always know anything that will be up for disclosure.").

124. *See* JOHN C. COFFEE, JR., GATEKEEPERS: THE PROFESSIONS AND CORPORATE GOVERNANCE 192–93 (2006) ("Because [mandatory SEC filings] carried a risk of liability, it was natural that the corporation would want them vetted by their attorneys.").

125. Telephone Interview with Interviewee #1, *supra* note 21 (observing that comments are given orally and in hand markups and that the chief accounting officer implements them).

126. *See infra* Appendix E.

127. *See, e.g.*, Telephone Interview with Interviewee #2, *supra* note 102 ("[B]usiness heads and segment heads must review their respective portions and sign off that it's materially accurate and doesn't have any omissions.").

Authorizers, who ought also to be reviewers, authorize release.[128] In the case of SEC filings, authorizers might include the board of directors or audit committee, the CEO and CFO, the general counsel, or some combination of those roles.[129] For routine press releases, approval by just the head of communications or just the general counsel might suffice.[130]

2. Authorities

Disclosure authorities govern participants as rules, policies, and know-how for disclosure production.[131] Authorities can be external or internal to the firm, as well as prescriptive or guiding.[132]

External authorities include controlling statutes, SEC rules and guidance, accounting standards, contractual disclosure obligations, and advice from external professionals.[133] Internal authorities are internal to the firm itself and might include accounting and financial-reporting policies, policies on financial and non-financial information, disclosure-committee charters, precedent and template documents, or calendars.[134]

Prescriptive authorities are mandatory. Federal statutes, SEC regulations, and accounting standards, or, internal written disclosure policies or charters, collectively prescribe when disclosure must be produced, what must be said and how, who must participate, who must authorize releases,

128. Those who authorize disclosures without first reviewing them—such as a CEO or board member who signs an annual report without first reading it—would be derelict, but it would be naïve to think it doesn't happen. Authorization without review might be more benign in other circumstances, such as when a disclosure is routine and unnuanced. *Cf.* Telephone Interview with Interviewee #[redacted] ("The CEO has never commented on a quarterly filing.").

129. *See, e.g.*, Telephone Interview with Interviewee #1, *supra* note 21 (describing the general counsel as the authorizer for SEC filings); Telephone Interview with Interviewee #14, *supra* note 101 (explaining that periodic disclosures are first authorized by the disclosure committee, then by the audit committee, after which only non-substantive edits may be made); *see also* 17 C.F.R. § 240.13a-14 (2023) (requiring CEO and CFO certification of periodic disclosures).

130. *See* Telephone Interview with Interviewee #1, *supra* note 21 ("Non-financial releases are managed by the corporate communications area and it's really up to her discretion whether she gets legal review . . . . [S]he'll certainly clear with relevant members of the C-Suite . . . [t]hey're not material from an SEC perspective, so I don't worry about them too much. . . .").

131. An important related concept, the characterization of a firms' authorities as formal, semiformal, or informal, is discussed in Section II.B.1.

132. As factors in disclosure production, authorities would be expected to affect disclosure quality.

133. After this Section, I look almost exclusively at internal authorities, given my focus on the organizational production of disclosure.

134. *See, e.g.*, Telephone Interview with Interviewee #16 (notes on file with author) ("[W]e . . . have disclosure policies and procedures, a written document . . . . [W]ithin our [DCP] we also have procedures to prevent selective disclosure in compliance with Regulation FD . . . . [O]urs are very detailed."); Telephone Interview with Interviewee #18 (notes on file with author) ("Every 10-Q is handled the same from a process perspective. The accounting department will put together a shell of the disclosure. That shell is based on our existing disclosure at the time, from the previous quarter or previous year supplemented.").

and so on. Guiding authorities, on the other hand, are not mandatory but rather aid participants in preparing and reviewing disclosures. Examples include calendars, checklists, and professional advice.[135] The following chart organizes these distinctions.

Table 2
Disclosure Authorities

	External	Internal
Prescriptive	Federal statutes SEC regulations Accounting standards Auditing standards Contractual obligations	Accounting policies Written disclosure policies Disclosure-committee charters
Guiding	SEC staff guidance Practitioner manuals White papers Legal/accounting advice	Precedents/templates Checklists Calendars Know-how/norms

The authorities that participants follow vary by procedure, reflecting a benefit-cost analysis in procedural design. Annual and quarterly reports provide an example as their complexity requires consulting numerous external and internal, and prescriptive and guiding, authorities. Internal accounting and financial-reporting functions will rely on external accounting rules and internal policies to prepare financial statements;[136] the firm's external auditor will rely on similar authorities, as well as its own, when it audits or reviews those statements.[137] For the document itself, SEC rules,

135. *See infra* Appendix C, Table 1.

136. INST. OF INTERNAL AUDITORS, INTERNATIONAL STANDARDS FOR THE PROFESSIONAL PRACTICE OF INTERNAL AUDITING (STANDARDS) 11 (Jan. 2017), https://www.iia.org.au/sf_docs/default-source/quality/ippf-standards-2017.pdf?sfvrsn=2 ("The chief audit executive must establish policies and procedures to guide the internal audit activity."); *see* PUB. CO. ACCT. OVERSIGHT BD., AS 2605: CONSIDERATION OF THE INTERNAL AUDIT FUNCTION (2022), https://pcaobus.org/oversight/standards/auditing-standards/details/as-2605-consideration-of-the-internal-audit-function_1528 (discussing external auditors' evaluation of internal auditors' work, including their "[a]udit policies, programs, and procedures").

137. *See* PUB. CO. ACCT. OVERSIGHT BD., AUDITING STANDARDS RELATED TO THE AUDITOR'S ASSESSMENT OF AND RESPONSE TO THE RISK AND RELATED AMENDMENTS TO PCAOB STANDARDS (2010), https://assets.pcaobus.org/pcaob-dev/docs/default-source/rulemaking/docket_026/release_2010-004_risk_assessment.pdf?sfvrsn=6326eac2_0 (establishing standards for external auditors' procedures).

written disclosure policies, committee charters, disclosure-group know-how, calendars and checklists used by individual participants, and more, come into the mix.[138] These major undertakings can be contrasted with a one-off press release. There, a single written or unwritten policy might govern how the release is to be drafted, reviewed, and authorized for release, with securities laws serving as background prescriptive authorities.[139]

3. Technologies

Participants use disclosure technologies in disclosure production.[140] These technologies sometimes fit the everyday usage of "technology" as something involving a machine, such as collaborative disclosure-drafting software.[141] More often, and more importantly, they are legal technologies:[142] The organizational structures and processes that help firms meet disclosure obligations.

Two ubiquitous technologies, disclosure committees and sub-certification, are worth highlighting. Firms have discretion over what disclosure technologies they will use and for what procedures.[143] First, perhaps the most prominent technology—the disclosure committee—is a body of senior business leaders and disclosure principals that manages procedures and commits the firm to management participation in disclosure

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138. *See infra* Appendix C, Table 1; *see also* Telephone Interview with Interviewee #9, *supra* note 123 ("For the proxy, I use my calendar more as a checklist than anything else.").

139. *See, e.g.*, Telephone Interview with Interviewee #15, *supra* note 118 ("Every press release does go through legal review, even standard ones. The IR team prepares the first draft and then it goes around to a different internal working group, myself, general counsel, [and] CFO typically. Sometimes it goes to the [business leader] the press release is about.").

140. *See* Charles G. McClure, Shawn X. Shi & Edward M. Watts, *Disclosure Processing Costs and Market Feedback Around the World* 30 (Univ. Chi. Booth Sch. Bus., Working Paper No. 21-05, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3771361 (describing disclosure technologies as things that "decrease investor disclosure processing costs").

141. *See infra* Appendix B, Table 4 (reporting that 78% of survey respondents, including 90% of S&P 500 respondents, use disclosure-collaboration software); *see also The Obvious Choice for SEC Reporting*, WORKIVA, https://workiva.com/solutions/sec-reporting (last visited Apr. 17, 2023) (describing a leading disclosure software as being able to "improve data accuracy and increase productivity" and "simplify 10-Qs, 10-Ks, 8-Ks, Section 16, proxy statements, tax disclosures, and 350 other types of SEC forms with a single cloud solution").

142. *Cf.* Andrew K. Jennings, *Notice Risk and Registered Agency*, 46 J. CORP. L. 75, 78 (2020) (describing corporate registered agents as "a legal technology that facilitated the civil-procedural task of allocating notice risk between plaintiffs and defendants").

143. This control stands out because the SEC has expressly recommended its adoption, and indeed 91.6% of respondent firms have one. *See infra* note 144; *see infra* Appendix B, Table 1. In its survey of public firms, the Society for Corporate Governance found a similarly high frequency of disclosure committees, 96%. SOC'Y FOR CORP. GOVERNANCE, SOCIETY ALERT: SOX DISCLOSURE COMMITTEE PRACTICES *3 (2020) (on file with author). As an illustration of procedural variability, 97% and 74% of those committees always review periodic and earnings disclosures; only 25% and 39% do so for episodic and governance disclosures. *See infra* Appendix B, Table 3.

production. It is ubiquitous because it is one of the few technologies that the SEC has expressly endorsed.[144] Second, under Section 302 of the Sarbanes-Oxley Act, CEOs and CFOs must certify that they have read their firms' annual and quarterly reports and that to their knowledge, there are no material misstatements or omissions within them.[145] This requirement carries civil and criminal penalties for certifiers.[146] Sub-certifications replicate this obligation at lower levels of the corporate hierarchy.[147] For instance, a general counsel would sub-certify that an annual report's description of material legal proceedings is complete and accurate, something she would be expected to have personal knowledge of.[148] As a legal technology, sub-certifications work both to reduce the costs and improve the quality of disclosure. If drafts are fully covered by sub-certifications made by knowledgeable participants, then the CEO and CFO can confidently make their own certifications without personally diligencing each statement they contain.[149] Sub-certifications further improve disclosure quality by incenting candidness and diligence on the part of sub-certifying participants, who wish to avoid the consequences of signing a false certification.[150]

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144. *See* SEC Release 33-8124, *supra* note 4, at 57,280 ("We do recommend, however, that, if it has not already done so, an issuer create a committee with responsibility for considering the materiality of information and determining disclosure obligations on a timely basis."). The committee is a legal technology in that it facilitates production of complete and accurate disclosures. Its charter, on the other hand, is an authority prescribing who is to be a member of the committee, when it is to meet, what it is to do, and so on. The two need not necessarily go together: Not all disclosure committees have charters. *See infra* Appendix B, Table 2 (reporting that 36% of respondent firms with disclosure committees do not have committee charters).

145. 18 U.S.C. § 1350(a)–(b).

146. *See id.* § 1350I.

147. Ninety-three percent of respondent firms require sub-certifications for periodic disclosures, although that percentage tumbles to 40%, 10%, and 33% for earnings, episodic, and governance disclosures (which do not carry the same CEO/CFO certification requirements as periodic disclosures). *See infra* Appendix B, Table 4.

148. *See* Regulation S-K, 17 C.F.R. § 229.103 (2023).

149. *See* Telephone Interview with Interviewee #4, *supra* note 44 ("We get sub-certs for leaders across the company. There's an online tracker for that, so we can provide evidence to the auditors."); Telephone Interview with Interviewee #7, *supra* note 24 ("I know from our standpoint [that the] CEO and CFO [] are all very reliant on the sub-certs provided by [senior leaders.] It's a requirement that we have all sub-certs before the CEO or CFO will finalize their review of the Qs and Ks and sign their SoX certifications.").

150. One control that works in concert with sub-certification is documenting factual assertions. All respondent firms reported centrally retaining backup documentation for periodic disclosures, whereas 87%, 61%, and 90% did for earnings, episodic, and governance disclosures. *See infra* Appendix B, Table 4. This control helps improve disclosure quality by forcing the verification of information provided by participants. It also reduces potential litigation and enforcement costs: Central retention would reduce discovery and investigative costs by giving firms ready access to records. A related technology is codes of ethics. Codes do include requirements around fulfilling disclosure obligations, but cover far more than disclosure, and are de facto mandatory for public firms to adopt. *See* 17 C.F.R. § 229.406(a), (b)(2) (2023) (requiring firms to disclose whether they

B. Procedural Characteristics

Disclosure procedures can be understood along four characteristics: *authority*, the degree to which procedure relies on formal versus informal authorities; *participation*, the degree to which production of disclosure involves participants beyond those strictly needed to prepare and authorize it; *review*, the degree to which review of drafts is noniterative versus iterative; and *objectivity*, the degree to which production of disclosure is treated as a communications or marketing opportunity as opposed to a compliance-focused activity. These characteristics are of research interest because they allow firms' idiosyncratic disclosure procedures to be systemically compared, which Part III further demonstrates. As I discuss below, each approach covered by these characteristics presents potential disclosure-related benefits and costs.[151]

1. Authorities

Authority is the degree to which disclosure procedure is driven by prescriptive, often written, authorities, versus know-how shared by disclosure participants. This characteristic takes three forms: formal, semiformal, and informal.

a. Formal Authorities

Formal procedures are deliberate corporate policies, endorsed by boards or senior management.[152] Formal disclosure procedures rely heavily on written authorities, such as policies prescribing how disclosure production is conducted.[153] Firms with formal procedures have disclosure committees with charters.[154]

Prescriptive procedures can promote disclosure quality by forcing orderly and consistent information production and verification. In that sense, they help ensure that disclosure participants are engaged, that important

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have adopted codes of conduct for senior officers that, among other things, "promote . . . [f]ull, fair, accurate, timely, and understandable disclosure in reports and documents that [they] file[] with, or submit[] to, the [SEC]"); *see also, e.g.*, CVS HEALTH, CODE OF CONDUCT (2022), https://s2.q4cdn.com/447711729/files/doc_downloads/2022/11/Code_of_Conduct_UnLinked_November-2022.pdf (covering financial disclosure, billing integrity, kickbacks and bribery, antitrust laws, social media, environmental protection, and many other areas of conduct).

151. It is not obvious, though, what state of any one characteristic, or interaction among characteristics, is more likely to increase or decrease disclosure quality.

152. *See infra* Appendix C, Table 2.

153. *See* Telephone Interview with Interviewee #10, *supra* note 107; Telephone Interview with Interviewee #16, *supra* note 134; Telephone Interview with Interviewee #19 (notes on file with author); Telephone Interview with Interviewee #20, *supra* note 44.

154. In my survey, of nineteen firms identified as having formal procedures for periodic disclosures, seventeen had disclosure committees and thirteen had chartered committees.

information is not missed,[155] and that decisions requiring the application of judgment are made with adequate information and deliberation. Prescription also inhibits intentional introduction of misstatements because it would require deviation from established authorities (such as a requirement to collect backup documentation for factual claims) and so would be detected ex ante by participants or ex post by civil litigants or government enforcers. Would-be fraudsters are thus be deterred.[156] At the same time, formal procedures might be incomplete or fail to accommodate novel scenarios or changing market or industry practices. Because formal authorities are approved by boards or board committees,[157] disclosure participants might be reluctant to seek amendments, given the efforts required to change high-level policies. Instead, they might continue to use outdated authorities that lack full alignment with changing needs. For example, over the last decade, the SEC has scrutinized cybersecurity as a potential DCP vulnerability[158] and has begun efforts policing the explosion of ESG disclosures.[159] Outdated formal authorities might not account for such developments.

b. Semiformal Authority

Semiformal procedures emerge through consultation among participants. Their authorities are typically approved by CEOs, CFOs, or other senior managers, rather than boards or board committees.[160] Firms

155. Telephone Interview with Interviewee #9, *supra* note 123 ("The important thing is to have a calendar. If you have a calendar you should be in good shape, as long as someone's not hiding something, and you stick to the calendar and make sure you're getting the information you need.").

156. Intentional misstatements or omissions require that fraudsters have "incentive or pressure to commit [the act], a *perceived opportunity* to do so, and some rationalization of the act." AM. INST. OF CERTIFIED PUB. ACCTS., CONSIDERATION OF FRAUD IN A FINANCIAL STATEMENT AUDIT § 240.A1 (2021) (emphasis added). When prescriptive authorities foreclose opportunities to introduce misstatements or to omit information, intentional disclosure fraud will not be possible.

157. *See infra* Part III; Appendix C, Table 2.

158. DIV. OF CORP. FIN., SEC, CF DISCLOSURE GUIDANCE: TOPIC NO. 2 (2011), https://www.sec.gov/divisions/corpfin/guidance/cfguidance-topic2.htm ("[I]f it is reasonably possible that information would not be recorded properly due to a cyber incident affecting a registrant's information systems, a registrant may conclude that its disclosure controls and procedures are ineffective.").

159. *See* Statement from Allison Herren Lee, Comm'r, SEC, Public Input Welcomed on Climate Change Disclosures (Mar. 15, 2021), https://www.sec.gov/news/public-statement/lee-climate-change-disclosures; Statement from John Coates, Acting Dir., Div. of Corp. Fin., SEC, ESG Disclosure – Keeping Pace with Developments Affecting Investors, Public Companies and the Capital Markets (Mar. 11, 2021), https://www.sec.gov/news/public-statement/coates-esg-disclosure-keeping-pace-031121; Press Release, SEC, SEC Announces Enforcement Task Force Focused on Climate and ESG Issues (Mar. 4, 2021), https://www.sec.gov/news/press-release/2021-42.

160. *See infra* Part III; Appendix C, Table 2.

following semiformal procedures have disclosure committees, which also often have charters.[161]

c. Informal Authority

Informal procedures center on know-how. Their authorities tend to be unwritten and evolve based on working relationships.[162] Changes can be approved by procedure owners.[163] A firm with informal procedures likely still has a disclosure committee, perhaps with a charter.[164] Even without these controls, however, stable practices can develop around disclosure production.[165] These norms might be quality-enhancing, and personal relationships might permit candid communication that reduces the risk of error. If turnover is rare, then the same individuals will work together quarter after quarter, proxy after proxy, with know-how serving as a common authority.[166]

Informal authorities carry benefits and risks. When disclosure participants are cohesive and there is ample internal know-how, the risks of misstatements or omissions can be mitigated (although, there could be added opportunities for intentional fraud versus a more formal procedure).[167]

161. In my survey, of forty firms identified as having semi-formal procedures for periodic disclosures, thirty-six had disclosure committees and twenty-three had chartered committees.

162. *See, e.g.*, Telephone Interview with Interviewee #8, *supra* note 24 ("We don't have formal written policies with the exception of the charter for our disclosure committee."); Telephone Interview with Interviewee #31, *supra* note 122 (describing the company's procedures as "more relationship-based and unwritten").

163. Telephone Interview with Interviewee #1, *supra* note 21 ("[O]ur company culture is very relationship-based . . . . When the [current Chief Accounting Officer] joined us, he joined from [a Big Four accounting firm.] He applied a lot more rigor. The same process, but it's all documented now as part of our 302 disclosure controls."); *see id.* (describing the head of investor relations, who owns the company's earnings procedure, as more "freewheeling" than the chief accounting officer, who owns its periodic procedures).

164. In my survey, of seven firms identified as having semi-formal procedures for periodic disclosures, all had disclosure committees and six had chartered committees.

165. By "stable" I mean a few things, including a relative lack of turnover among disclosure participants, transformational acquisitions, or other major shakeups. *Cf. Regulation S-K Compliance & Disclosure Interpretations*, SEC, § 214.01 (July 3, 2008), https://www.sec.gov/divisions/corpfin/guidance/regs-kinterp (providing conditions under which firms may exclude recently acquired businesses from their ICFR assessments). One interviewee described a benefit of "history and stability" as being that disclosure procedures are "well worn." Telephone Interview with Interviewee #11, *supra* note 44. Stability's downside, however, is that procedures "can get stuck in a rut," meaning that participants do not actively work to improve them. *Id.*

166. Telephone Interview with Interviewee #11, *supra* note 44.

167. The risk that omissions occur through management's willful blindness could be reduced if there were more participants in a procedure with the knowledge to raise information and, thus, force a decision whether to include it in a disclosure. *See* J.S. Nelson, *Disclosure-Driven Crime*, 52 U.C. DAVIS L. REV. 1487, 1538–39 (2019) (identifying upper- and middle-management incentives to

Informal authorities are highly adaptable to changing needs, and responding to new needs would not require seeking board or senior-management approval. Firms that successfully adopt informal procedures would presumably be those that have existed long enough as reporting companies and that have had sufficiently stable staffing for those conditions to emerge.[168] Informal procedures at firms that lack those conditions would carry considerable risks. That is because participants will not have internalized the know-how or norms necessary for each person to support consistent, accurate disclosure production. Firms with less experience as reporting companies, or that have had unsteady securities compliance or significant disclosure-group turnover, would likely need to follow more formalized authorities.

2. Participation

Procedural *participation* reflects the extent to which disclosure groups comprise all those who might have disclosure-relevant knowledge. Because the need for principals or authorizers is largely fixed for a given procedure, the participation characteristic varies largely depending on the number of reviewers.[169]

a. Broad Participation

Broad disclosure groups include those with disclosure-relevant knowledge. Not all participants are strictly needed, but they all could contribute missing information or serve as added layers of quality control. For example, a firm's accounting staff might have sales data needed to draft narratives around revenue performance. But the sales organization's analytics manager might offer additional insights or give an informed review of the accountants' draft. Broad disclosure groups also include senior leaders, their direct reports, and outsiders like external counsel.[170] Not all members of the group are in the center scrum. Senior leaders sit on a firm's disclosure

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avoid disclosure obligations by being willfully blind). That is not to say that those with the ability to force a decision will. They might instead choose not to do so for reasons similar to management's willful blindness.

168. *See supra* note 165 and accompanying text.

169. For instance, a certain complement of accounting staff might be needed to do the basic work of preparing a quarterly report. A similar number might be needed across firms, and so adding more accounting participants would not noticeably alter the information available to the disclosure group. Similarly, if a CEO or audit committee or general counsel authorizes a given type of disclosure, adding another authorizer probably would not have an effect on the substantive disclosure.

170. *See* Telephone Interview with Interviewee #7, *supra* note 24 ("I think it would be uncommon in a pre-[Sarbanes-Oxley Act] world that VP Supply Chain or VP HR or a number of positions would be involved in the financial-reporting process. So, I think it's kind of opened up the doors a bit about having a broader team participate in the financial-reporting process.").

committee and work directly with the principals; their participation, however, could filter input by a dozen or more subordinates.[171]

Information within a firm is highly dispersed: No one person knows everything.[172] As the organization grows in scale, aggregating information becomes increasingly costly.[173] Broad disclosure groups approximate aggregate firm knowledge, at least as far as is relevant to producing disclosure.[174] Benefits to this approach include increased vigilance, making errors less likely.[175]

But the costs of broad disclosure groups go beyond aggregating knowledge (that is, the costs of asking people to spend time on disclosure production).[176] Broad participation can also reduce disclosure quality. Indirect costs include broad participation leading to irrelevant or contradictory revisions making their way into a draft, causing bloat or loss of coherence. Those revisions might also conflict with *prior* disclosures or limit flexibility in drafting *future* ones, adding incremental risk. Reviewers, especially those from the periphery, might seek trivial additions, perhaps because they wrongly believe that their proposed additions are necessary or

171. Telephone Interview with Interviewee #28, *supra* note 101 (noting that senior disclosure participants rely on their subordinates).

172. *Cf.* Mihailis E. Diamantis, *Functional Corporate Knowledge*, 61 WM. & MARY L. REV. 319, 328 (2019) ("Corporations can manipulate such a mental state by partitioning it across employees so that no one employee has it in its entirety. Today's corporate behemoths, characterized by complex operations that require a diffusion of responsibility and authority, do not even have to *try* to spread knowledge thinly.").

173. *Id.*

174. *See* Amir N. Licht, *Stakeholder Impartiality: A New Classic Approach for the Objectives of the Corporation*, *in* FIDUCIARY OBLIGATIONS IN BUSINESS 301, 315 (Arthur B. Laby & Jacob Hale Russell eds., 2021) ("[A] formal requirement to consider someone in a discussion ensures that his or her issue is indeed discussed at any level of detail rather than neglected, either knowingly or subconsciously.").

175. *See id.* ("More basically, conducting discussions in an orderly and transparent fashion likely changes the very mode of analysis from intuitive to high-level deliberation."); *cf. supra* note 167 (explaining that disclosure authorities can reduce opportunities to commit intentional fraud). It is possible, of course, that a broader disclosure group fails to prevent bad judgment. In late March 2021, for instance, Volkswagen A.G. issued and then retracted a press release that it would change its U.S. subsidiary's name to "Voltswagen of America" as a "public declaration of the company's future-forward investment in e-mobility." The company later admitted that the announcement was an April Fool's Day prank. Michael Wayland, *Volkswagen's Name Change of U.S. Operations to 'Voltswagen' Was April Fool's Marketing Prank*, CNBC (Mar. 30, 2021, 6:54 PM), https://www.cnbc.com/2021/03/30/volkswagens-name-change-of-us-voltswagen-operations-was-april-fools-marketing-prank-source-says.html. The SEC opened an investigation into the ill-advised prank. *US-Börsenaufsicht Prüft Volkswagens Aprilscherz*, DER SPIEGEL (Apr. 29, 2021, 4:00 PM), https://www.spiegel.de/wirtschaft/volkswagen-und-voltswagen-us-boersenaufsicht-prueftaprilscherz-a-9feeafe6-0002-0001-0000-000177330665.

176. Donald C. Langevoort & Robert B. Thompson, *"Publicness" in Contemporary Securities Regulation After the JOBS Act*, 101 GEO. L.J. 337, 367 (2013) (counting the direct and indirect costs of disclosure production, including "the opportunity costs in terms of the time and attention that executives and board members spend on compliance as opposed to growing the business").

because they feel pressure to make *some* contribution. The more such "contributions" made, the more principals must reconcile conflicting comments. Some of those conflicts, especially if they arise under time pressure, might be missed or inartfully reconciled.[177]

Broad participation might also encourage bystander effects, undermining the information aggregation that broad participation is supposed to achieve. If multiple participants have relevant information, and they know that others in the disclosure group do as well, they might not speak up, expecting that others will.[178] That is true especially for being the bearer of negative information: Better to leave it for others.[179] As a final concern, the broader the participation, the greater the dissemination of material non-public information and with it, the greater the risk of insider trading or selective disclosure.[180]

b. Semi-broad Participation

Semi-broad disclosure groups comprise those who are essential to producing disclosure. They also include senior leaders who, even if not essential, nevertheless participate.[181] These disclosure groups might include principals, unit leaders, CEOs and CFOs, and, sometimes, boards or board committees.

c. Narrow Participation

Narrow disclosure groups include only principals and authorizers. A narrow approach risks that errors go unchecked due to insufficient review. It also risks that individuals with disclosure-relevant knowledge are excluded. In small firms, this risk can manifest in inadequate staffing, especially in financial-reporting functions.[182] These risks do flip a key benefit, however.

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177. *Cf.* Linda S. McDaniel, *The Effects of Time Pressure and Audit Program Structure on Audit Performance*, 28 J. ACCT. RSCH. 267, 282 (1990) (concluding that financial auditors' accuracy decreases as time pressure increases).

178. *See generally* Peter Fischer et al., *The Bystander-Effect: A Meta-Analytic Review on Bystander Intervention in Dangerous and Non-Dangerous Emergencies*, 137 PSYCH. BULL. 517 (2011) (conducting a meta-analysis of the bystander effect).

179. *Id.*

180. *Cf.* FTI CONSULTING, POLICY ON INSIDE INFORMATION AND INSIDER TRADING 2 (2023), https://www.fticonsulting.com/~/media/Files/us-files/our-firm/guidelines/policy-statement-on-inside-information-and-insider-trading.pdf ("[C]onfidential information relating to the performance, operating results, and financial condition of FTI Consulting should only be communicated internally on a need to know basis and only the minimum necessary amount of information should be shared.").

181. *See supra* note 170 (Interviewee #7).

182. This problem includes lacking a sufficient staff complement to prepare compliant disclosures, apply needed technical expertise, or observe necessary segregation of duties. OLGA

Narrow disclosure groups avoid problems associated with drafting by committee that I discuss above.[183] They also save on disclosure costs in that fewer personnel hours are spent on production. These lower costs, however, can be more than offset if they lead to low-quality disclosures that create risk.

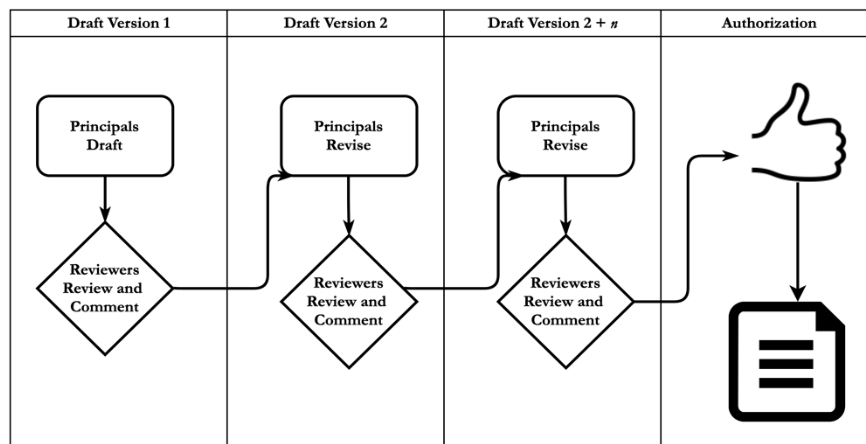
3. Review

The *review* characteristic is the extent to which disclosures are iteratively reviewed by participants versus being moved along with fewer rounds.

a. Iterative Review

Iterative procedure occurs when drafts cycle through multiple rounds, with some reviewers having two, three, even four or more bites at the apple.[184]

Figure 4
Iterative Procedure



Iterative procedures help verify that reviewers' revisions are accurately reflected, that revisions are internally consistent, and that mistakes

USVYATSKY, JOSEPH BONALDI & NICOLAS FJELLMAN, AUDIT ANALYTICS: TRENDS IN DISCLOSURE CONTROLS: 2010–2017, at 4 (2019) ("[F]or small companies with limited personnel, it might be impossible to reach the needed level of the segregation of the duties in the accounting department.").

183. *See supra* note 177 and accompanying text.

184. For example, members of the disclosure committee might first review a draft annual report prepared by the principals and review it again after their collective input has been reflected in a revision and then again after input from reviewers (like external counsel) who do not sit on the committee. Meanwhile, the CEO might review two or three times during the procedure, whereas the board would do so once. *See infra* Appendix E.

introduced during revision are identified and corrected. Like broad disclosure groups, they impose higher disclosure costs in the form of reviewer time. They also risk the introduction of new errors, especially as production deadlines approach.[185]

b. Semi-iterative Review

In semi-iterative procedures, some reviewers look once, whereas a few others review multiple times. Procedure owners are especially likely to review multiple times. For example, most members of a disclosure committee would review a draft once.[186] The controller, general counsel, or CFO, on the other hand, might review across several rounds.[187]

c. Noniterative Review

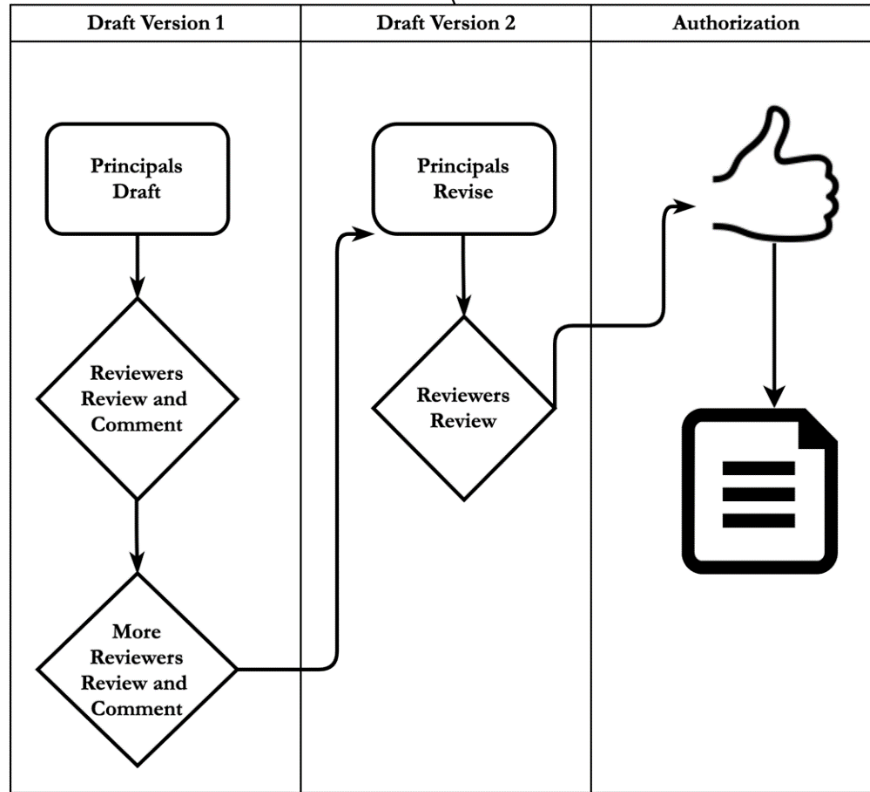
In iterative procedures, all, or almost all, reviewers review only once, moving through reviewers as an assembly line. Afterward, principals finalize the draft, it is seen once more by select reviewers as a quality control, and then it is authorized. For noniterative procedures, the benefits and costs associated with iterative procedures are largely inverted. They impose fewer direct disclosure costs and are less subject to last-moment errors. But they can also lead to misstatements or omissions because their disclosures did not undergo sufficient rounds of error detection and correction.

185. Mandatory disclosures have deadlines, which naturally limit just how iterative a review can be. *See, e.g.*, 17 C.F.R. § 249.308a (2023) (quarterly-report deadlines). For instance, large accelerated filers must file quarterly reports within forty days of the end of the quarter. *Id.* Under time pressure, inputs received a day or two before that deadline, or even the day of, could be erroneous or incorrectly incorporated into a draft, causing the filed disclosure to contain errors that prior drafts lacked. Firms might account for this "last-moment" risk. For example, final rounds of review might be limited to identifying and correcting "clear errors" unless senior management approves more substantial edits. Participants would avoid trivial edits; on the other hand, fear of annoying senior management could dissuade participants from making needed revisions, such as when last-moment information emerges.

186. Telephone Interview with Interviewee #6 (notes on file with author) (noting that after a draft has been reviewed by the disclosure committee, it moves to further stages).

187. Telephone Interview with Interviewee #7, *supra* note 24 (noting that disclosure participants from non-operating roles receive "multiple bites at the apple").

Figure 5
Noniterative Procedure



4. Objectives

Procedural *objectives* reflect whether firms treat disclosure solely as an obligation to remain compliant with legal requirements, or whether they also view it as an opportunity to *communicate* with current or prospective investors and stakeholders or to *market* the company's securities, employment opportunities, or products or services.[188] Unlike the first three characteristics, firms can have multiple objectives, even within the same disclosure.

188. *See* Telephone Interview with Interviewee #17, *supra* note 122 ("Three or four years ago, we had some semblance [that] this is an SEC document, we're not supposed to market or tell our story. I think those days are gone when it comes to the proxy. A lot of ESG and human capital. A lot is telling our story."); Telephone Interview with Interviewee #19, *supra* note 153 ("[There's] [m]ore and more ESG focus. I think ESG is going to continue to explode on the scene. But I do think the proxy, I do think the annual report ha[s] become more of a marketing [document].").

All firms would be expected to have a compliance objective. They are free to stop there: They need not say more than is mandated. Of course, no firm is so cagey. After all, it can hardly stay in business without marketing to current or potential investors, employees, or customers. All those communications, from a CEO's oral statement to a reporter,[189] to a mass email to employees,[190] to a television commercial,[191] could contain statements actionable under the securities laws.

Some companies *do*, however, take a compliance-only approach to mandatory disclosures (e.g., annual and quarterly reports, current reports on Form 8-K, and proxy statements).[192] This approach carries both benefits and risks. First, it requires the lowest possible direct disclosure costs: Disclosure groups need only spend the resources that are absolutely necessary to produce disclosures. It can also reduce indirect costs by avoiding incremental litigation and enforcement risk. That is because a firm producing voluntary disclosures most often does so because it wants to tell a positive story to its intended audience. This desire can motivate overstatement of positive information and understatement of negative information.[193] Each additional statement a firm makes increases the risk that it will be accused of making misleading statements. Indeed, the non-mandatory disclosures that firms are most eager to share might tend to be the most speculative, suggesting that they are particularly risky.[194] And although safe harbors and defenses might

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189. *See supra* note 25 (citing securities cases involving statements made to journalists).

190. *E.g.*, Beede v. Stiefel Lab'ys, Inc., No. 1:13-cv-120, 2016 WL 916418, at *4 (N.D.N.Y. Mar. 7, 2016).

191. SEC v. Save the WorldAir Inc., No. 01 Civ. 11586, 2005 WL 3077514, at *2 (S.D.N.Y. Nov. 15, 2005) (reviewing securities allegations regarding a device touted in television commercials).

192. Although earnings releases and calls are not mandatory, practically all public companies issue them. *See* Comment Letter on Earnings and Quarterly Reports from James G. Martin, Gen. Couns., Soc'y for Corp. Governance, to Vanessa Countryman, Sec'y, SEC, at 3 (Apr. 19, 2019), https://www.sec.gov/comments/s7-26-18/s72618-5412063-184508.pdf (reporting that of 243 public-company survey respondents, 100% issue earnings releases and 97% hold earnings calls). Firms view these disclosures as mandatory, practically speaking. *See id.* (reporting that 95% view earnings releases as standard practice and that 86% issue them in response to investor and analyst demand). A number of SEC rules—including Regulations FD (selective disclosure) and G (non-GAAP financial information)—especially apply to earnings disclosures. Given all this, and their adjacency to mandatory periodic disclosures, they can be viewed as practically mandatory.

193. *See* Gregory Capps, Lisa Koonce & Kathy R. Petroni, *Natural Optimism in Financial Reporting: A State of Mind*, 30 ACCT. HORIZONS 79, 88–89 (2016) (collecting studies on managerial overconfidence and motivated reasoning); M.H. Franco Wong & X. Frank Zhang, *CEO Optimism and Analyst Forecast Bias*, 29 J. ACCT., AUDITING & FIN. 367, 389 (2014) (linking CEO optimism with upward bias in analyst forecasts). *But see* Gilles Hilary & Charles Hsu, *Endogenous Overconfidence in Managerial Forecasts*, 51 J. ACCT. & ECON. 300, 312 (2011) (finding that "market participants downplay the forecasts issued by overconfident managers").

194. *Cf.* H. David Sherman & S. David Young, *The Pitfalls of Non-GAAP Metrics*, 59 MIT SLOAN MGMT. REV. 57, 62–63 (2018) ("When money-losing companies report robust profits using

shield the firm from liability over some voluntary but misleading statements, they would not protect against all litigation or enforcement costs.[195]

But circumspection carries costs, too. Firms that follow a compliance-only approach might not share truthful information that would make investors want to buy their securities, workers to join their workforces, or customers to buy their products.[196] Hiding their lamps beneath bushels could thus lead to less demand for their securities, lower-quality human capital, and fewer sales.[197] A compliance-only approach could also encourage disclosure participants to push the line on omitting information that *ought* to be disclosed, especially if it falls under Rule 12b-20's judgment-based catch-all rather than a prescriptive disclosure requirement.[198]

III. COMPARATIVE PROCEDURAL ANALYSIS

Part II introduced a taxonomy for understanding the variability of firms' disclosure procedures. Part IV considers the potential for comparative procedural analysis for identifying higher-quality procedures that can in turn increase substantive disclosure quality. This Part bridges those two discussions by offering a preliminary demonstration for how comparative procedural analysis can be done. It opens by introducing a comparative method and scoring rules and then proceeds to apply those rules to survey respondents' procedural authority, participation, review, and objectivity. It also provides comparative procedural analyses based on index membership and regulatory intensity, which points to the kinds of research questions that the study of disclosure procedure might generate.

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non-GAAP measures, people may suspect that the intent is to disguise disappointing performance with alternate facts. In many cases, that view will not be wrong.").

195. For example, the Private Securities Litigation Reform Act of 1995 would offer a safe harbor for forward-looking statements from most private securities litigation. Private Securities Litigation Reform Act of 1995, Pub. L. No. 104-67, 109 Stat. 737. Meanwhile, defenses like the puffery doctrine would cover statements of vague optimism. *See generally* Adi Osovsky, *Puffery on the Market: A Behavioral Economic Analysis of the Puffery Defense in the Securities Arena*, 6 HARV. BUS. L. REV. 333 (2016) (analyzing the puffery/corporate-optimism defense).

196. Ann M. Lipton, *Not Everything Is About Investors: The Case for Mandatory Stakeholder Disclosure*, 37 YALE J. ON REGUL. 499, 506 (2020) (observing that in addition to their use by investors, public disclosures also help foster relationships with stakeholders like customers, employees, and suppliers).

197. *Cf. id.*

198. 17 C.F.R. § 240.12b-20 (2023) ("In addition to the information expressly required to be included in a statement or report, there shall be added 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.").

A. Comparative Method

This Article demonstrates that disclosure procedures can be scored, allowing for systematic analysis of how procedural quality affects substantive quality. I use original survey data to score procedural *authority*, *participation*, *review*, and *objectivity* on 1-to-3 scales, with 1 representing approaches that tend to require the least organizational undertaking or effort, and 3 representing those requiring the most. Table 3 below lays out the scoring rules.

Table 3
Disclosure-Procedure Scoring Rules

Classification	Score	Scoring Rule	App'x
Procedural authority			
Formal	3	Authority amendments require approval by the board or a board committee (e.g., audit)	C2
Semiformal	2	Authority amendments require approval by the CEO, CFO, or other senior management, but not by the board or a board committee	
Informal	1	Authority amendments require approval by the procedure owner, but not by the board, a board committee, the CEO or CFO, or other senior management	

Procedural participation			
Broad	3	Survey response	D
Semi-broad	2		
Narrow	1		
Procedural review[199]			
Iterative	3+	Average number of reviews per participant role	E
Semi-iterative	2		
Noniterative	1		
Procedural objectivity			
Marketing	3	Survey response	F
Communication	2		
Compliance	1		

The survey data have two important limitations. First, after consulting with staff from the Society for Corporate Governance—a trade association that represents and regularly surveys the issuer community—I kept the survey anonymous in order to encourage firms to respond and to do so candidly. Although I asked respondents about certain firm attributes—like time since IPO, recent experience with disclosure-related litigation or investigations, and industry[200]—I structured response options as ranges to preserve anonymity.[201] A tradeoff of this approach was that I could not match responses to other known individual-firm attributes, including proxies of financial-reporting quality like accounting restatements, SEC comment letters and investigations, securities litigation, and so on.[202] Second, although I invited all S&P 1500 firms to take the survey, they were naturally free to not participate.[203] The 107 firms that responded thus may not be

199. These *review* scores are interval, whereas the other three are ordinal. The 1-to-3 review scale should be considered a guide to the review characteristic, and scores can go higher than 3.

200. *See infra* Appendix A.

201. For example, if questions were so granular as to ask for current market capitalization, IPO year, industry, and so forth, it would not have been hard to deanonymize respondents.

202. *See, e.g.*, Maureen F. McNichols & Stephen R. Stubben, *Does Earnings Management Affect Firms' Investment Decisions?*, 83 ACCT. REV. 1571, 1572 (2008) (using these proxies for financial reporting).

203. My response rate was about 7%. I used a recent Society for Corporate Governance (a trade association representing the issuer community) survey's count as a benchmark, and I was not too far off from a recent survey it conducted on its members' disclosure-committee practices. *See* SOC'Y FOR CORP. GOVERNANCE, *supra* note 143, at *1 (125 respondents).

representative of the entire S&P 1500 or the U.S. issuer universe. For example, participants at firms that responded might be particularly conscientious about their procedures and so were unusually enthusiastic about responding.[204] If that were the case, my sample might represent risk-adjusted higher-quality procedures compared to those of the issuer universe.

B. Procedural Convergence and Divergence: Results and Analysis

In Part IV, I lay out an agenda for increasing publicly available information about disclosure procedure.[205] But with present limitations in mind, I focus on to what degree disclosure procedures converge or diverge.[206] This question matters because identifying differences between procedures is a first step toward identifying distinct procedures whose qualities can be tested. Using the scoring rules, I look to whether there is significant divergence in disclosure characteristics between the periodic, earnings, episodic, and governance procedures (1) across the full sample, (2) between the S&P 500, S&P 400, and S&P 600 indices, and (3) among respondents in higher- versus lower-regulation industries.[207] Data tables follow discussion of results.

1. Characteristics by Procedure Type

I first looked across the full sample to see whether disclosure procedures converge in their characteristics. I found no characteristic for which there was complete convergence. For the review characteristic, all procedures had

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204. I considered the possibility that differential securities litigation experience between respondents and the universe could bias my sample. Recent litigation experience, it could be expected, might prompt changes to disclosure procedures. That possibility seems unlikely, however. Among survey respondents ($n = 102$), 26.5% reported experiencing at least one disclosure-related private action within the last five years, for an annual average of 5.3%. *See infra* Appendix A, Table 2. In contrast, from 1997 to 2019, on average 3.9% of exchange-listed firms were subject to private securities class actions per year. *See* CORNERSTONE RSCH., *supra* note 69, at 12 fig.11.

205. *See infra* Part IV.

206. *See supra* Part II (discussing the origins of disclosure procedure and theorizing why it converges between firms).

207. For all tables, when the null hypothesis of complete convergence along a characteristic is rejected under Kruskal-Wallis or one-way ANOVA tests, I indicate that result by shading the characteristic cell and star notating the level of significance. When I reject null hypotheses in these complete-convergence tests, I separately test individual independent variables against a reference level. This second-stage test is intended to identify which independent variables diverge. In this stage, for Table 4, I conduct Wilcoxon-Mann-Whitney tests with respect to the *authority*, *participation*, *review*, and *objectives* characteristics for the *earnings*, *episodic*, and *governance* levels against the *periodic* reference level. Again, I indicate significant results with cell shading and star notation. For Tables 2 through 5, I use the S&P 500 as my reference. For Tables 6 through 9, there are only two levels and so I only conduct Wilcoxon-Mann-Whitney tests.

significant divergence from the periodic reference procedure.[208] In general, periodic and earnings procedures converged, a not-surprising result given that they are conceptually and temporally linked. Earnings disclosures come soon before periodic disclosures and rely on the same information sources. One divergence between the two was in their review intensity, with periodic disclosures having an average 0.52 more rounds of review. This difference is consistent with interview data that earnings procedures build off periodic procedures and involve smaller disclosure groups.[209]

Authority scores reflected that periodic and earnings disclosures were anchored around semi-formality (i.e., procedural authority flows from senior management, not the board level). Episodic disclosures were slightly below a semi-formal average, whereas governance procedures were closest to board-level formality. Overall, these results suggest that boards or audit committees are most interested in governance disclosures—not surprising, given that proxy statements are partly about directors themselves—whereas boards and senior management are comparatively disengaged from Form 8-Ks and press releases.

The participation scores suggest that although periodic disclosures are perhaps the most sensitive and complex that firms produce, they have the narrowest disclosure groups. That is not significantly different from their analog, earnings disclosures. Meanwhile, governance and episodic disclosures have broader disclosure groups. These results are consistent with interview data. In-house securities lawyers educate senior executives to identify developments that might require filing of Form 8-Ks, and episodic disclosures also have increased involvement from communications professionals who might not be involved in other procedures. Similarly, governance procedures include participants from human resources ("HR") functions who would not be expected to participate in other procedures (e.g., for compensation disclosures). However, it was not expected that of the four disclosure procedures, governance procedures would have the broadest disclosure groups. That result was unexpected because governance disclosures require primarily legal and HR participation. It is possible, though, that governance disclosures not only uniquely include directors as

208. I chose the *periodic* procedure as the reference level because annual and quarterly reports are the quintessential Exchange Act disclosures. It is fair to say that corporate calendars revolve around these four-times-a-year procedures, a reality sometimes criticized as encouraging short-term decision-making. *See* James J. Park, *Do the Securities Laws Promote Short-Termism?*, 10 U.C. IRVINE L. REV. 991, 1014 (2020) (discussing the effects of quarterly reporting on managerial incentives). Relatedly, *earnings* disclosures are tightly linked to periodic disclosures, reflecting their common information sources and parallel productions.

209. *See* Telephone Interview with Interviewee #9, *supra* note 123 (describing the earnings disclosure group as having overlap with, but being smaller than, the periodic group); Telephone Interview with Interviewee #11, *supra* note 44 (noting that investor-relations personnel prepare earnings disclosures in parallel with those working on quarterly reports).

participants (such as through director-and-officer questionnaires),[210] but that firms also see them as an opportunity to convey voluntary information to investors. ESG disclosures, for example, are often made in proxy statements.[211] That is consistent with governance disclosures having the second-highest objectives score, suggesting that firms invest in producing voluntary disclosure in that context. If so, disclosure groups would need to be broad so as to identify relevant information for inclusion.

Last, objectives scores were largely as I expected based on interviews. Episodic disclosures scored lowest. To the extent that they center around preparing Form 8-Ks, they are produced to comply with event-based mandatory reporting. In interviews, in-house lawyers discussed episodic disclosures in terms of ensuring that information filters to the legal function so that lawyers can ensure that mandatory Form 8-Ks are prepared.[212] That is consistent with results showing that episodic procedures are the most compliance-focused. It is also not surprising that earnings procedures score highest for marketing objectives. After all, this procedure is the only one that is entirely voluntary, and it receives considerable attention from senior management, analysts, and investors. It is an occasion when management wants to tell a positive story.[213]

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210. *See* Telephone Interview with Interviewee #3, *supra* note 107 (discussing director questionnaires used in proxy production).

211. *See* Steve W. Klemash, Rani Doyle & Jamie C. Smith, *Four ESG Highlights from the 2020 Proxy Season*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Aug. 23, 2020), https://corpgov.law.harvard.edu/2020/08/23/four-esg-highlights-from-the-2020-proxy-season (discussing ESG trends during the 2020 proxy season).

212. *See* Telephone Interview with Interviewee #14, *supra* note 101 (discussing training efforts to ensure that information that might trigger an obligation to file a Form 8-K filters to the company's in-house securities lawyers).

213. *See supra* note 208 and accompanying text.

Table 4
Comparisons of Procedural Types by Characteristic

Characteristic	Periodic	Earnings	Episodic	Governance
Authority***	2.15 n = 68	2.17 n = 67	1.94* n = 63	2.44** n = 66
Participation***	1.54 n = 71	1.69 n = 71	1.96*** n = 70	1.85** n = 71
Review***	3.45 n = 49	2.93* n = 49	1.28*** n = 49	2.44*** n = 49
Objectives***	1.92 n = 52	2.40 n = 52	1.63*** n = 52	2.17 n = 52

* $p < .05$
** $p < .01$
*** $p < .001$

2. Characteristics by Equity Index

As a business becomes more complex, its likelihood of having ICFR deficiencies increases.[214] A sensible extension is that as business complexity increases, so do the chances of DCP failures. This extension would imply that larger firms will compensate for higher risk through more thorough and substantial disclosure procedures. For smaller firms, however, the costs of ICFR could reduce firm value.[215] Simply put, because smaller firms are starting with lower market capitalizations and revenues, substantial investment in disclosure compliance could reduce firm value more so than lower quality disclosures would.[216] Those firms would thus be expected to economize on their disclosure procedures. To test for such potential cost consciousness, I split the sample into its S&P 500, S&P 400, and S&P 600

214. Weili Ge & Sarah McVay, *The Disclosure of Material Weaknesses in Internal Control After the Sarbanes-Oxley Act*, 19 ACCT. HORIZONS 137, 154 (2005) (finding that "firms disclosing material weaknesses tend to have more complex operations, be smaller, and be less profitable"); *cf.* Telephone Interview with Interviewee #1, *supra* note 21 ("[O]ur process is probably more due to the fact that even though we're fairly large, it's a fairly simple business. . . . That's probably why we don't have as much structure or levels . . . because fundamentally it is a pretty straightforward business.").

215. Peter Iliev, *The Effect of SOX Section 404: Costs, Earnings Quality, and Stock Prices*, 65 J. FIN. 1163, 1193 (2010).

216. *See id.*; *see also supra* note 79 (disclosing the need for benefit-cost considerations in setting DCP levels).

components, with index membership serving as a proxy for complexity. The results offer some support for there being procedural divergence between big (S&P 500) and small (S&P 600) firms.

For periodic disclosures, I found no significant divergence between the three indices across any of the four disclosure characteristics. However, for earnings disclosures, S&P 400 and S&P 600 respondents have on average more formal disclosure authorities than those of S&P 500 respondents. Assuming that formal procedures require more organizational effort than informal procedures, this result is at odds with the idea that smaller firms will economize on their disclosure procedures.[217] At the same time, it could reflect that smaller firms are more conservative about their controls because, given their comparatively lower capitalizations and revenues, their misstatements or omissions are more likely to be material.[218] It is also possible that they have higher turnover in their disclosure groups. For instance, in-house accountants and lawyers at smaller companies might be recruiting targets for larger companies, whereas once those professionals have achieved top-of-market opportunities, they are less likely to switch employers. If smaller firms do experience comparatively higher turnover, that would deprive them of the institutional knowledge that would support informal procedures.[219]

A few significant results are consistent, though, with smaller firms economizing on procedures. For episodic and governance disclosures, S&P 600 firms conduct fewer rounds of review than S&P 500 and S&P 400 firms. One explanation for this divergence is that smaller firms are less willing to invest senior leaders' and key professionals' time in reviewing Form 8-Ks, press releases, or proxy statements. These could be seen as relatively low-risk disclosures, compared to periodic and earnings disclosures, leading smaller firms to economize. An alternative explanation would be that smaller firms have smaller staff complements and thus they have fewer eyes to do reviews. This explanation would be inconsistent, however, with the lack of significant index divergence when it comes to reviewing periodic and earnings disclosures. Last, S&P 600 firms are more likely to focus on compliance when they produce their proxy statements. This focus might reflect a desire to economize on the time-costs of producing proxy statements

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217. John L. Orcutt, *The Case Against Exempting Smaller Reporting Companies from Sarbanes-Oxley Section 404: Why Market-Based Solutions Are Likely to Harm Ordinary Investors*, 14 FORDHAM J. CORP. & FIN. L. 325, 369–77 (2009) (analyzing what influence ICFR compliance costs have on smaller companies opting out of public markets).

218. That is, if a firm is starting off with lower capitalization or revenue, misstatements or omissions are more likely to be considered material than if the same errors occurred in a firm with higher capitalization or revenues. *See* Georgiev, *supra* note 60; *supra* note 60 and accompanying text.

219. High turnover might occur due to larger firms recruiting in-house lawyers and accountants from smaller firms.

or a lack of shareholder demand for voluntary ESG disclosures relative to demands of large-firm shareholders.[220]

Table 5
Average Periodic-disclosure Characteristics by Index

Characteristic	Periodic Disclosures		
	S&P 500	S&P 400	S&P 600
Authority	2.07 n = 30	2.46 n = 13	2.08 n = 25
Participation	1.42 n = 31	1.5 n = 14	1.69 n = 26
Review	3.85 n = 22	4.67 n = 11	2.04 n =16
Objectives	2.08 n = 25	1.45 n = 11	2 n = 16

220. *Cf. supra* note 211 and accompanying text.

Table 6
Average Earnings-disclosure Characteristics by Index

Characteristic	Earnings Disclosures		
	S&P 500	**S&P 400**	**S&P 600**
Authority*	1.97 n = 30	2.47* n = 12	2.29* n = 24
Participation	1.68 n = 31	1.64 n = 14	1.73 n = 26
Review	3.69 n =22	3.41 n = 11	1.56 n = 16
Objectives	2.44 n = 25	2.18 n = 11	2.5 n = 16

* $p < .05$

Table 7
Average Episodic-disclosure Characteristics by Index

Characteristic	Episodic Disclosures		
	S&P 500	**S&P 400**	**S&P 600**
Authority	1.86 n = 29	2.17 n = 12	1.91 n = 22
Participation	2 n = 30	2.07 n = 14	1.85 n = 26
Review*	1.35 n =22	1.84 n = 11	0.80** n = 16
Objectives	1.6 n = 25	1.91 n = 11	1.5 n = 16

* $p < .05$
** $p < .01$

Table 8
Average Governance-disclosure Characteristics by Index

Characteristic	Governance Disclosures		
	S&P 500	S&P 400	S&P 600
Authority	2.3 n = 30	2.42 n = 12	2.63 n = 24
Participation	1.81 n = 56	1.71 n = 24	1.96 n = 51
Review*	2.40 n = 22	3.90 n = 11	1.49*** n = 16
Objectives*	2.48 n = 25	2.09 n = 11	1.75** n = 16

* $p < .05$
** $p < .01$
*** $p < .001$

3. Characteristics by Regulatory Intensity

Interviewees in higher-regulation industries—primarily financial services and public utilities—speculated that their firms have more rigorous disclosure procedures because they operate in riskier environments and are under closer scrutiny than less-regulated firms.[221] For their parts, interviewees in lower-regulation industries agreed.[222] Whether regulatory environment matters for choosing higher-quality disclosure procedures could

221. *E.g.*, Telephone Interview with Interviewee #30 (notes on file with author) (noting that being in a highly regulated industry with multiple regulators "adds [] layer[s] of . . . complexity" to securities disclosure). A number of interviewees in highly regulated industries, including utilities and financial institutions, also discussed the added complexity of completing both regulatory and securities disclosures. That is especially true when regulatory disclosures contain information (like confidential supervisory information ("CSI")) that would be material to investors but cannot be disclosed to them. *See* Telephone Interview with Interviewee #19, *supra* note 121 ("[That] information is considered CSI and can't be publicly disclosed. That is a bit different compared to a manufacturing company subject to little regulation."); *see also* Arthur S. Long, James O. Springer & Samantha J. Ostrom, *Gibson Dunn Discusses U.S. Banking Regulation of Confidential Supervisory Information*, CLS BLUE SKY BLOG (Oct. 2, 2020), https://clsbluesky.law.columbia.edu/2020/10/02/gibson-dunn-discusses-u-s-banking-regulation-of-confidential-supervisory-information (collecting banking regulations related to CSI).

222. *E.g.*, Telephone Interview with Interviewee #3, *supra* note 107 ("[T]here tends not to be a lot of new and difficult [disclosure] questions versus companies in more highly regulated environments or doing M&A or developing new businesses.").

matter a great deal to a firm's effort to design its own risk-adjusted procedures. For example, the regulatory environment of a regional bank is more intense than that of a major software company, notwithstanding that the major software company is likely bigger on key metrics like revenue, profitability, number of employees or customers, and so on. Optimal procedural design would need to take those regulatory differences into account.

To test for divergence based on regulatory intensity, I divided the full sample into higher-regulation and lower-regulation groups.[223] Following the management literature, I classified respondents using their survey industry identifications, with higher-regulation industries being those in which "government exercises considerable control over opportunities" and low-regulation industries being those in which "opportunities are controlled more often by markets."[224]

Those results can be reported quickly. I found no significant divergence between the two regulatory sub-samples for any disclosure procedure or characteristic. This finding supports that regulatory intensity is not predictive of firms' choices around disclosure procedures. This is an unexpected result that recommends further study.[225] But here—perhaps because my sample is biased toward unusually conscientious firms or because the anonymous survey design did not permit controlling for firm- and industry-level variables—I found convergence between higher- and lower-regulation firms.

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223. See *infra* Appendix A, Table 3 for a breakdown of these classifications.

224. Amy J. Hillman, *Politicians on the Board of Directors: Do Connections Affect the Bottom Line?*, 31 J. MGMT. 464, 470 (2005); *see also* Earl Yarbrough Jr., Michael Abebe & Hazel Dadanlar, *Board Political Experience and Firm Internationalization Strategy: A Resource Dependence Perspective*, 10 J. STRATEGY & MGMT. 401, 408 (2017) (following Hillman).

225. *Cf.* Irene Kim & Douglas J. Skinner, *Measuring Securities Litigation Risk*, 53 J. ACCT. & ECON. 290, 307 (2012) (finding evidence of industry-based securities-litigation risk).

Table 9
Average Periodic-disclosure Characteristics by Regulatory Intensity

Characteristic	Periodic Disclosures	
	Higher-Regulation	Lower-Regulation
Authority	2.06 n = 22	2.20 n = 44
Participation	1.52 n = 23	1.57 n = 46
Review	4.55 n =16	2.94 n = 32
Objectives	1.88 n = 17	1.91 n = 33

Table 10
Average Earnings-disclosure Characteristics by Regulatory Intensity

Characteristic	Earnings Disclosures	
	Higher-Regulation	Lower-Regulation
Authority	2.05 n = 22	2.21 n = 42
Participation	1.74 n = 23	1.70 n = 46
Review	3.91 n = 16	2.47 n = 32
Objectives	2.35 n = 17	2.39 n = 33

Table 11
Average Episodic-disclosure Characteristics, Characteristics by Regulatory Intensity

Characteristic	Episodic Disclosures	
	Higher-Regulation	Lower-Regulation
Authority	2 n = 20	1.90 n = 41
Participation	1.95 n = 22	1.96 n = 46
Review	1.50 n = 16	1.18 n = 32
Objectives	1.53 n = 17	1.64 n = 33

Table 12
Average Governance-disclosure Characteristics, Characteristics by Regulatory Intensity

Characteristic	Governance Disclosures	
	Higher-Regulation	Lower-Regulation
Authority	2.24 n = 21	2.51 n = 43
Participation	1.78 n = 23	1.87 n = 46
Review	2.97 n = 16	2.18 n = 32
Objectives	2.18 n = 17	2.12 n = 33

IV. THE PROMISE OF META-DISCLOSURE

Part I of this Article reasoned that deeper study of disclosure procedure would allow for identifying higher-quality procedures, which firms would be wise to adopt given anticipated risk reductions. Part II outlined disclosure procedure's taxonomy. Part III demonstrated how it can be quantified and identified areas of convergence and divergence that raise additional research questions. But this call for more study raises an obvious question: Where will the data come from? Firms possess the information needed to compare their procedures to those of others. Of course, they might not have it at hand, with so much internal information being widely dispersed among disclosure participants.[226] Should firms incur the expense of aggregating this dispersed knowledge so as to produce information about disclosure procedure itself? That is, should they produce *meta-disclosure*? If so, what effects would meta-disclosure have and what form should it take?

A. Should Firms Produce Meta-Disclosure?

Meta-disclosure's promise is in producing knowledge about the relationship between disclosure procedure and disclosure quality.[227] This knowledge could in turn inform securities pricing, procedural choice, and management decision-making, in turn lowering risks around investor losses, securities litigation, and government enforcement.

On securities pricing, if investors can observe firms' procedures via meta-disclosures, and if they know how procedural quality affects substantive quality, then they can better assess error risk associated with a firm's disclosures. They would be expected to demand higher returns to compensate for higher risk.[228] Price penalties for lower-quality procedures would provide feedback to managers.[229] Those managers would be expected

226. *See supra* notes 172–174 and accompanying text (discussing the disaggregation of corporate knowledge).

227. Investors themselves might not care about or even look at meta-disclosure. But they might care a great deal about what securities analysts think of it. Analysts' research can be improved through meta-disclosure. Mark T. Bradshaw, Yonca Ertimur & Patricia C. O'Brien, *Financial Analysts and Their Contribution to Well-Functioning Capital Markets*, 11 FOUNDS. & TRENDS IN ACCT. 119 (2017).

228. Meta-disclosure would likely be especially valuable in competitive industries because investors could compare disclosure qualities across similar firms. *See* Alex Edmans, Sudarshan Jayaraman & Jan Schneemeier, *The Source of Information in Prices and Investment-Price Sensitivity*, 126 J. FIN. ECON. 74, 75 (2017). But for companies with higher levels of analyst coverage, meta-disclosure would be less valuable because those analysts would be expected to develop private information about the firm. That private information could correct misstatements or omissions, or it could render them immaterial.

229. *See* Nemit Shroff, *Corporate Investment and Changes in GAAP*, 22 REV. ACCT. STUD. 1, 50 (2017) (suggesting that "accounting changes alter managers' information sets"); McNichols &

to respond by choosing higher-quality procedures (risk adjusted to firm contexts). In this environment, the very act of producing meta-disclosure would tend to elevate the importance of disclosure procedure as something a company measures and against which it will be measured.[230] As a result, managers would make decisions designed to shore up their procedures, such as allocating more time and financial resources to disclosure production, imposing new disclosure authorities, or adopting new disclosure technologies.

This predicted research-pricing-feedback reaction suggests a virtuous cycle. Meta-disclosure would lead to better understanding of the disclosure procedure/substance relationship, leading to more accurate securities pricing, leading to adoption of higher-quality procedures, leading to higher-quality disclosures, and so on. Risk reductions should follow. First, markets would avoid mispricing securities of firms with suspect disclosure quality, suggesting that there would be dampened corrections when firms do announce errors in prior disclosures. This first stage points to securities litigation becoming less expensive for firms or their directors-and-officers insurers because overall losses would be less frequent or at least lower.[231] Second, managerial learning from this first stage would cause adoption of higher-quality procedures that yield higher-quality disclosures, resulting in fewer misleading disclosures and thus fewer corrections. More confident that disclosures are high quality, investors would not need to price for disclosure-related risk. This second stage points to, all equal, less securities litigation and its associated costs. At both stages, it would become less likely that the SEC, DOJ, or state securities regulators would open investigations. If they did, due to the incremental improvement in disclosure quality, their inquiries would likely end in comparatively smaller settlements or in declinations.

Those are meta-disclosure's potential benefits. It is possible, though, that its costs could overwhelm its benefits. There is the direct cost of compiling information needed to produce meta-disclosure.[232] But, more

Stubben, *supra* note 202, at 1600 (supporting that earnings manipulation affects internal investment decisions by managers); *see also* Yen-Cheng Chang, Alexander Ljungqvist & Kevin Tseng, *Do Corporate Disclosures Constrain Strategic Analyst Behavior?* 1 (Swedish House of Fin., Research Paper No. 10-12, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3579466.

230. *Cf.* Paul D. Witman, *"What Gets Measured, Gets Managed": The Wells Fargo Account Opening Scandal*, 29 J. INFO. SYS. EDUC. 131, 133 (2018) (offering a case study on the role of Wells Fargo's focus on sales metrics in causing its accounts-opening scandal).

231. Marcel Kahan, *Securities Laws and the Social Costs of "Inaccurate" Stock Prices*, 41 DUKE L.J. 977, 1000 (1992) ("The costs to society from sizeable deviations between price and value tend to be larger than the costs from negligible ones.").

232. Producing disclosure is costly in general. For example, one survey found that 96.5% of respondent firms spend at least 100 personnel-hours on producing proxy statements. Broc Romanek, *Survey Results: Proxy Drafting Responsibilities & Time Consumed*, CORP. COUNS. (Mar. 4, 2010),

importantly, it is possible that meta-disclosure *increases* litigation risk.[233] Following well-documented procedures could reduce investigative costs[234] and would be helpful evidence, say, to rebut scienter.[235] But deviations from disclosed procedures, even good-faith ones, could have the opposite effect. They might support an inference of intentional or reckless misstatements.[236] Aware of this risk, participants would tend to adhere to disclosed procedures, even if a given scenario renders them suboptimal.[237] Firms would also resist making needed changes because disclosing procedural amendments might be interpreted by investors, rightly or wrongly, as a signal that something is wrong. Both these effects could lead to ossification that over time degrades disclosure quality and staunches the virtuous cycle described above.[238]

All in, however, I answer the question "should firms produce meta-disclosure" with a conditional "yes." The promise of meta-disclosure is fairly substantial in terms of reducing pricing and litigation risk. Its potential costs can likely be avoided or mitigated through thoughtful design. To get there, the next two Sections investigate what foundation for meta-disclosure already exists and what approaches can harness its promise while managing its downsides.

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https://www.thecorporatecounsel.net/blog/2010/03/understanding-investor-perception-studies.html. A quarter spend at least 300. *Id.*; *cf.* FORM 10-K, *supra* note 1, at 1 (estimating that completion takes 2,326.62 hours).

233. The SEC recognizes that one potential tradeoff of increased ESG reporting is increased compliance costs and litigation risk. *See* Business and Financial Disclosure Required by Regulation S-K, 81 Fed. Reg. 23,916, 23,919 (Apr. 22, 2016) (codified at 17 C.F.R. pts. 210, 229, 230, 232, 239, 240, 249).

234. For example, if a procedure were well-documented, it would be easier to satisfy a regulator's questions about a given production without undertaking costly internal document review and interviews to piece together what happened.

235. To prevail on a Rule 10b-5 claim, a plaintiff must show that the defendant(s) made a misstatement or omission either intentionally or recklessly. *See* SEC v. Steadman, 967 F.2d 636, 641 (D.C. Cir. 1992). Documented good-faith reliance on those procedures to produce accurate and complete disclosures would serve to rebut that showing. *Cf. In re* Fannie Mae Sec. Litig., 892 F. Supp. 2d 59, 73, 76 (D.D.C. 2012) (granting summary judgment to a CEO who certified disclosures in good-faith reliance on internal disclosure procedures).

236. *See* Virginia Harper Ho, *Non-Financial Reporting & Corporate Governance: Explaining American Divergence & Its Implications for Disclosure Reform*, 10 ACCT., ECON. & L. 1, 14 (2020) ("An initial reason why the SEC has been hesitant to introduce non-financial reporting reforms is that companies are exposed under the federal securities laws to private enforcement through shareholder litigation, as well as agency enforcement, for allegedly fraudulent or misleading statements or material omissions.").

237. *Cf.* Telephone Interview with Interviewee #24 (notes on file with author) (noting that although the firm does have documented procedures and policies, "they're broad" in order to "avoid being too prescriptive").

238. *See supra* notes 230–231 and accompanying text.

B. What Meta-Disclosure Do Firms Already Produce?

Firms must already include limited meta-disclosure in their annual and quarterly reports. These meta-disclosures follow from mandates to maintain DCPs "designed to ensure that information required to be disclosed . . . in the reports [filed or submitted] under the [Exchange Act] is recorded, processed, summarized and reported, within the time periods specified in the [SEC's] rules and forms."[239] CEOs and CFOs must evaluate the effectiveness of their DCPs,[240] with their conclusions disclosed in Forms 10-K and 10-Q (Item 307 disclosures).[241] The disclosure of this evaluation, although binary between "effective" and "not effective," gives investors *some* indication of procedure-related risk.[242] After all, a firm with effective DCP would be likelier to achieve high disclosure quality than one without it.

But this limited meta-disclosure masks a broad range of disclosure procedures. For example, I reviewed Item 307 disclosures of the constituents of the S&P 500 index for fiscal year 2019.[243] Most were boilerplate recitations, with "effective/not effective" conclusions being their only variations. Comcast's Item 307 is a good example. Its sixty-seven words contain only one with any significance: "effective."

> Our principal executive and principal financial officers, after evaluating the effectiveness of Comcast's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this report, have concluded that, based on the evaluation of these controls and procedures required by paragraph (b) of Exchange Act Rules 13a-15 or 15d-15, Comcast's disclosure controls and procedures were effective.[244]

There was *some* variation in this one-year sample. Eight firms (1.6%)[245] disclosed that they had ineffective DCP, in each case due to a material

239. 17 C.F.R. § 240.13a-15(e) (2023) (citation omitted) (citing 15 U.S.C. § 78a et seq.); *see also id.* § 240.15d-15(a), (e).

240. *Id.* § 240.13a-15(b) (2021); *id.* § 240.15d-15(b) (2021).

241. Regulation S-K, 17 C.F.R. §§ 229.307, 229.601(a), (b)(31) (2023).

242. Parveen P. Gupta & Nandkumar Nayar, *Information Content of Control Deficiency Disclosures Under the Sarbanes-Oxley Act: An Empirical Investigation*, 4 INT'L J. DISCLOSURE & GOVERNANCE 3, 15 (2007) (treating the effective/not effective conclusion as a binary indicator and explaining that "[i]f the market gives any credence to management's opinion of the effectiveness of their system of internal control over financial reporting, this should be reflected in the stock price reaction to the internal control weakness disclosure").

243. This hand analysis was of Item 9A on the Forms 10-K for S&P 500 components as of December 19, 2020 (notes of analysis on file with author).

244. Comcast Corp., Annual Report (Form 10-K) 108 (Jan. 30, 2020).

245. Hanesbrands Inc., The Kraft Heinz Company, Marriott International, Inc., CBRE Group, Inc., Newell Brands Inc., Baxter International Inc., DXC Technology Company, and FirstEnergy Corp. *See supra* note 243.

weakness in ICFR.[246] This is an important admission because it signals lower financial-reporting quality.[247] Beyond those eight firms, a small number offered additional information. Ten (2.0%) mentioned that they have a disclosure committee.[248] The CBRE Group even listed who serves on its committee.[249] Sixty-five firms (13.0%) included cautions about the limits of DCP in ensuring accurate and timely SEC-mandated reporting.[250] These limits included the potential for human error, fraud and collusion, improper management overrides, and the necessity of benefit-cost decisions around levels of DCP.[251] But by and large, firms in the sample ventured no more about their disclosure procedures than required. That is not unreasonable. Saying more creates more risk. And a firm that starts saying more might actually worry investors that something is wrong.[252] Indeed, some of the clearest statements I identified in public records about firms' disclosure procedures appear in litigation settlements whose terms include disclosure-procedure reforms.[253]

As this sample shows, firms already produce modest levels of meta-disclosure. What is striking, though, is that all those in the sample reporting ineffective DCP did so due to ICFR issues, whereas none reached that conclusion based on non-financial concerns.[254] That comes with an easy explanation: Securities law imposes mandates that force disclosure of ICFR

246. A material weakness is "a deficiency, or a combination of deficiencies, in internal control over financial reporting . . . such that there is a reasonable possibility that a material misstatement of the registrant's annual or interim financial statements will not be prevented or detected on a timely basis." Regulation S-X, 17 C.F.R. § 210.1-02(a)(4) (2023).

247. *See* Ashbaugh-Skaife et al., *supra* note 87.

248. *See supra* note 243.

249. CBRE Group, Inc., Annual Report (Form 10-K) 120 (Mar. 2, 2020) (listing the general counsel; chief accounting, digital, technology, and communication officers; global controller and vice president of global SOX assurance; and "[leaders of] significant business lines and other select employees" as committee members).

250. *See supra* note 243.

251. *See, e.g.*, The Williams Company, Inc., Annual Report (Form 10-K) 148 (Feb. 24, 2020) (discussing these potential failures).

252. *See* John Armour, Jeffrey Gordon & Geeyoung Min, *Taking Compliance Seriously*, 37 YALE J. ON REGUL. 1, 5 (2020) (theorizing that managers prefer not to make compliance-related disclosures because high levels of compliance investments could be interpreted as indicating high risk for misconduct).

253. *See, e.g.*, Eagle Bancorp, Inc., Current Report, Exhibit 99.1: Stipulation of Settlement (Form 8-K) 3–4 (Feb. 20, 2021) (requiring increases in internal-controls spending and changes to disclosure committee); Marrone Bio Innovations, Inc., Current Report, Exhibit 99.1: Stipulation of Settlement, Exhibit A (Form 8-K) 3–4, 6–8 (Jan. 11, 2017) (requiring audit-committee, code-of-ethics, internal-audit, and disclosure-committee reforms); Affymax, Inc., Current Report, Exhibit 99.2: Stipulation of Settlement, Exhibit A (Form 8-K) 27–28 (July 11, 2014) (requiring audit-committee and internal-audit reforms); Trident Microsystems, Inc., Current Report, Exhibit 99.1: Stipulation of Settlement (Form 8-K) 15 (Feb. 10, 2011) (requiring accounting-oversight, quarterly financial-review, and internal-audit reforms).

254. *See supra* notes 243–249 and accompanying text.

deficiencies.[255] Although management must evaluate both DCP and ICFR, only the latter is subject to external audit, and the external auditor must render an opinion about ICFR effectiveness.[256] The same is not true for non-financial aspects of DCP. A firm must also adopt a recognized control framework on which to evaluate ICFR.[257] My S&P 500 sample and these regulatory distinctions between ICFR and non-financial DCPs together suggest that if a firm or its auditor identifies an ICFR material weakness, it will reach a "not effective" conclusion. Otherwise, it reaches an "effective" conclusion.[258]

Although it should almost always follow that DCP is ineffective if there is an ICFR material weakness, the reverse is not necessarily true.[259] Issues unrelated to financial reporting, like cybersecurity or process failures, can render DCP ineffective even absent financial-reporting issues.[260] It thus appears that some firms might conflate ICFR and DCP, or fail to identify or disclose non-financial DCP deficiencies. A broader analysis was consistent with the S&P 500 sample I discuss. For the broader analysis, I used Audit Analytics[261] to identify 42,772 annual and quarterly reports filed between December 25, 2010, and December 31, 2020, that disclosed ineffective DCP.[262] Of those, using Audit Analytics' proprietary system for classifying the reasons for DCP ineffectiveness, I found that, at most, 129 (0.3%) reached an "ineffective" DCP conclusion based solely on non-financial deficiencies. During a ten-year period, 239,999 reports disclosed effective DCP, 42,643 disclosed ineffective DCP due to ICFR issues, and at most 129 disclosed ineffective DCP for solely non-financial reasons.[263] In addition, as many as 42,623 "ineffective" conclusions reported both financial and non-financial issues.[264] Given the proprietary classifications used by Audit Analytics, the precise numbers are open to interpretation, but the magnitude suggests that

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255. *See supra* notes 239–241 and accompanying text.

256. 17 C.F.R. § 210.2-02(f) (2023) (requiring that the auditor's attestation report on ICFR be included in a firm's Form 10-K); *see also* PUB. CO. ACCT. OVERSIGHT BD., AUDITING STANDARD NO. 5: AN AUDIT OF INTERNAL CONTROL OVER FINANCIAL REPORTING THAT IS INTEGRATED WITH AN AUDIT OF FINANCIAL STATEMENTS (2007).

257. 17 C.F.R. § 240.13a-15(c) (2023). In practice, the COSO Framework has been universally adopted for this purpose. *See supra* note 55.

258. *Cf.* Robert B. Thompson & Hillary A. Sale, *Securities Fraud as Corporate Governance: Reflections upon Federalism*, 56 VAND. L. REV. 859, 872–74 (2003) (describing the information-forcing function of mandatory disclosure and its tendency to drive management decisions).

259. *See supra* note 43 and accompanying text.

260. *See, e.g.*, *supra* note 10 (bringing an action over cybersecurity-related DCP failures).

261. Audit Analytics is a database of auditing-relevant information extracted from public SEC filings, with data further categorized by the database provider's staff to enable searching, sorting, coding, and comparison by accounting, finance, legal, and academic users. *See Our Company*, AUDIT ANALYTICS, https://www.auditanalytics.com/company (last visited Mar. 28, 2023).

262. In comparison, there were 239,999 "effective" assessments during that period.

263. *See Our Company*, *supra* note 261.

264. *Id.*

firms are able to spot both kinds of deficiency. However, these results are consistent with standalone non-financial deficiencies not being identified or disclosed. If so, there is no telling how widespread that problem might be.

The meta-disclosure that securities laws already mandate provides relevant information to investors about financial-reporting quality, but there is reason to doubt that investors are getting a full picture about disclosure quality.[265] In addition to the gaps just described, existing requirements only cover disclosures that must be submitted to the SEC, not necessarily those made through other channels.[266] Thus, there is a foundation in place for meta-disclosure, but its scope is too limited. For meta-disclosure's promise to be realized, more is needed.

C. What Should Meta-Disclosure Look Like?

I opened this Article by noting that, although there is an extensive accounting literature on ICFR, almost nothing has been written on disclosure procedure more broadly.[267] This discrepancy occurs despite the latter largely encompassing the former. By now the reasons for that divide should be clear: The existing literature is made possible by multiple requirements in the securities laws that force firms to publicly produce standardized ICFR-focused meta-disclosure.[268] Researchers need to know more about disclosure procedure, especially its non-financial aspects. This section considers what a broader meta-disclosure should look like. I do not propose that Congress or the SEC adopt similar information-forcing rules as they have for ICFR, at least not now. Instead, perhaps as an initial step, I call for voluntary, streamlined meta-disclosures aggregated through information intermediaries.

Together, the prior Sections support that meta-disclosure should satisfy four conditions. First, it should be *standardized* so as to make meta-disclosure comparable across firms. Second, it should be *public*. Third, it should limit *disclosure costs*. And fourth, it should avoid causing new *litigation risks* or *ossification*. I take these conditions one-by-one and consider how they can be satisfied.

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265. *See* Telephone Interview with Interviewee #16, *supra* note 134 ("Disclosure policies and procedures are not widely available. They're highly tailored to each company. As [an] outside counsel, when we tried to benchmark [the client's] disclosure policies, some [other companies] do make them public[ly] available, but most don't.").

266. *See supra* notes 239–241. *But see* 17 C.F.R. § 229.406(b)(2) (2023) (requiring firms to disclose whether they have adopted codes of conduct for senior officers that, among other things, "promote . . . [f]ull, fair, accurate, timely, and understandable disclosure in reports and documents that [they] file[] with, or submit[] to, the [SEC] and in *other public communications*" (emphasis added)). Many "other public communications," however, must eventually be submitted to the SEC (e.g., as attachments to a Form 8-K), which would bring them within the DCP ambit.

267. *See supra* note 14 and accompanying text.

268. *See supra* notes 239–241 and accompanying text.

First, meta-disclosure should be standardized from the outset. Its promise is in comparability.[269] Although firms' procedures are idiosyncratic, they are sufficiently converged to enable comparison; this convergence also means that their idiosyncrasies can be exploited in research. The rise of ESG disclosures offers a cautionary example. In that case, shareholders drove firms to voluntarily produce disclosures related to environmental, social, or (to the extent not already required), governance concerns.[270] Without standards about what should be disclosed or how, firms went their own ways, with third parties like the Sustainability Accounting Standards Board, Global Reporting Initiative, and credit-ratings agencies limited in their ability to effect comparability.[271] European regulators have already stepped in to impose standardization,[272] and the SEC has begun the process of doing the same.[273] Regulation can achieve standardization, but it also has downsides, like ossification.[274] A middle way would be early coalescing around no more than a few standard meta-disclosure approaches.

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269. Sarah C. Haan, *Shareholder Proposal Settlements and the Private Ordering of Public Elections*, 126 YALE L.J. 262, 341 (2016) ("Firm-by-firm private ordering is not an efficient way to establish disclosure policies at hundreds of public companies—particularly because disclosure policies are most beneficial, even for investors, when they are consistent and widely adopted.").

270. Virginia Harper Ho, *Modernizing ESG Disclosure*, 2022 U. ILL. L. REV. 277, 288–89 (noting that although voluntary ESG disclosures are less common at smaller public companies, 90% of larger firms produce ESG reports, "which must often be accessed from individual corporate websites"); *see also* Hwang & Nili, *supra* note 78.

271. *See* Harper Ho, *supra* note 270, at 290–91 & nn. 68–71 (discussing the consensus around lack of comparability being a problem for ESG reporting); Dane M. Christensen, George Serafeim & Anywhere Sikochi, *Why is Corporate Virtue in the Eye of the Beholder? The Case of ESG Ratings*, 97 ACCT. REV. 147, 169 (2022) (finding that "greater [non-standardized] ESG disclosure leads to greater ESG disagreement across ESG rating agencies"); *see also* Paul Brest & Colleen Honigsberg, *Measuring Corporate Virtue and Vice: Making ESG Metrics Trustworthy*, *in* FRONTIERS IN SOCIAL INNOVATION: THE ESSENTIAL HANDBOOK FOR CREATING, DEPLOYING, AND SUSTAINING CREATIVE SOLUTIONS TO SYSTEMIC PROBLEMS 79, 82 (Neil Malhortra ed., 2022) (describing ESG disclosure as being at a "primitive stage, akin to financial reporting in the early twentieth century").

272. *See* Regulation 2019/2088, of the European Parliament and of the Council of 27 November 2019 on Sustainability-Related Disclosures in the Financial Services Sector, 2019 O.J. (L 317) 2 (EU) (requiring certain financial firms to disclose how they identify and account for "sustainability risks"); *see also supra* note 159 (noting SEC moves toward regulating ESG disclosures).

273. *See* The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 Fed. Reg. 21,334 (proposed Apr. 11, 2022) (to be codified at 17 C.F.R. pts. 210, 229, 232, 239, 249).

274. Principles-based regulation can diminish, rather than promote, comparability. The SEC's 2020 mandate that firms produce new human-capital-management ("HCM") disclosure is one such example. *See* Modernization of Regulation S-K Items 101, 103, and 105, 85 Fed. Reg. 63,726, 63,728, 63,737 (Oct. 8, 2020) (to be codified at 17 C.F.R. pts. 229, 239, 240) (requiring HCM disclosure, including "any human capital measures or objectives that management focuses on in managing the business, to the extent such disclosures would be material to an understanding of the registrant's business taken as a whole"). *See generally* AMIT BATISH ET AL., HUMAN CAPITAL DISCLOSURE: WHAT DO COMPANIES SAY ABOUT THEIR "MOST IMPORTANT ASSET"? (May 5,

Second, meta-disclosure should be public so that research into the procedure/substance relationship is broadly open to researchers and industry stakeholders.[275] Firms would be naturally reluctant to offer detailed disclosures due to the liability and ossification concerns I discuss above. And detailed meta-disclosure might not even be necessary for useful analysis. After all, the ICFR literature has made productive use of essentially binary meta-disclosure (i.e., effective/not effective).[276] At the same time, meta-disclosure needs enough informational content for investors to make comparisons between firms and for researchers to identify superior approaches. I anticipate that basic, aggregate scoring would satisfy this condition.

Third, meta-disclosure should not be terribly costly to produce, especially if it is hoped that firms will provide it without regulatory mandates. Standardization and cost avoidance go hand-in-hand because standardization gives firms a clear direction for what information to collect. Standardized questionnaires could be one such approach. My surveys, for example, took almost all respondent firms under an hour to complete, a small cost.

And fourth, meta-disclosure should not create new litigation/enforcement risk or cause disclosure procedures to ossify. This condition is wound up with standardization and cost considerations. For example, interview or survey-based methods like those used in this Article would avoid firms saying so much publicly that they must worry about deviating from or changing what they previously stated. This condition could be achieved through intermediaries who confidentially collect detailed information about disclosure procedures and publicly release high-level abstracts and scores.

Weighing all these conditions and considering the overall state of securities regulation and the corporate-governance community,[277] I recommend that the most workable approach to stepped-up meta-disclosure would be credit-ratings agencies developing scoring methods and

2021), https://www.gsb.stanford.edu/sites/default/files/publication/pdfs/cgri-closer-look-90-human-capital-disclosure.pdf (discussing comparability and HCM disclosures); Statement, Gibson, Dunn & Crutcher LLP, Discussing Human Capital: A Survey of the S&P 500's Compliance with the New SEC Disclosure Requirement One Year After Adoption 1 (2021), https://www.gibsondunn.com/wp-content/uploads/2021/11/discussing-human-capital-survey-of-sp-500-compliance-with-new-sec-disclosure-requirement-one-year-after-adoption.pdf (surveying the human-capital disclosures of 451 companies in the S&P 500 and finding that "[a]s is to be expected from principles-based rules," firms in the sample "provided a wide variety of human capital disclosures, with no uniformity in their depth or breadth" (footnote omitted)).

275. In truth, it *must* be public. *See* 17 C.F.R. § 243.100 (2023) (prohibiting selective disclosure of material nonpublic information under Regulation FD).

276. *See supra* Section I.B (citing ICFR-related accounting literature).

277. Dorothy S. Lund & Elizabeth Pollman, *The Corporate Governance Machine*, 121 COLUM. L. REV. 2563, 2588–2602 (2021) (mapping corporate-governance actors and intermediaries).

confidentially obtaining information from firms. This approach might encompass a new product for the agencies, in addition to their ratings, analytics, indices, and other lines.[278]

Credit raters are uniquely positioned for this work. They have established relationships with issuers.[279] Those relationships could be used to overcome coordination problems among firms by facilitating rapid, standardized meta-disclosure production.[280] They also have existing relationships with investors, which would help disseminate the information.[281] And they have the human capital and analytical infrastructure in place for this work. Much of what I say about credit-ratings agencies could also be said of proxy advisors. The key distinction, though, is that the former tends to have warmer relationships with management, which would be helpful for obtaining new, voluntary disclosure.[282] Finally, an obvious approach is that the SEC could expand its existing meta-disclosure requirements to include the kind of two-dimensional information presented in Part III. There might be wisdom in such an approach, eventually. But SEC mandates impose incremental compliance costs and litigation risks[283] and could set information production at inefficient levels. If the uncoordinated experience of ESG reporting can be avoided, then intermediate private-ordering production of meta-disclosure could avoid those costs and risks while informing any future SEC rulemaking.[284]

CONCLUSION

The relationship between financial-reporting quality and the pricing of public-company securities has been heavily scrutinized in the accounting

278. *See* Moody's Corp., Annual Report (Form 10-K) 10 (Feb. 21, 2021) (disclosing two business segments, Moody's Investors Service and Moody's Analytics); S&P Global Inc., Annual Report (Form 10-K) 6 (Feb. 9, 2021) (disclosing S&P Global Ratings, S&P Global Market Intelligence, S&P Global Platts, and S&P Dow Jones Indices business segments).

279. *See* COFFEE, *supra* note 124, at 286–88 (examining the close relationship between ratings agencies and issuers, including the potential conflicts of interest that those relationships may promote).

280. For instance, firms that are confident about the quality of their disclosure procedures might be eager to participate because doing so in concert would signal confidence. A single firm would not want to start producing meta-disclosure, however, because of the *negative* signal it could send. *See* Armour et al., *supra* note 252; *supra* note 252 and accompanying text.

281. *See* COFFEE, *supra* note 124, at 288 (noting that ratings agencies serve as information intermediaries).

282. For an examination of the contentious relationship between proxy advisors and issuers, see generally Michael Cappucci, *The Proxy War Against Proxy Advisors*, 16 N.Y.U. J.L. & BUS. 579 (2020).

283. *See supra* note 233.

284. *But see* Harper Ho, *supra* note 270, at 290–91 (identifying deficiencies in privately ordered disclosure).

literature.[285] But the related relationship between procedural quality and disclosure quality, and its impact on risk, has yet to be considered. There is much work to do. This Article begins that project and provides a theoretical and empirical start. As researchers better understand how disclosure procedure affects disclosure quality, firms will adopt higher-quality disclosure procedures that serve to reduce disclosure-related risks, including investor losses, securities litigation, and government enforcement.

285. *See supra* Section I.B.

APPENDIX

Appendix A – Respondent-Firm Characteristics

Table 1
Time Since Initial Public Offering

Less than three years ago	Three to ten years ago	More than ten years ago
3.9% (4.3%/3.9%/3.3%)	11.8% (8.7%/11.5%/16.7%)	84.3% (87.0%/84.6%/80%)

n = 102 (S&P 500 = 46; S&P 400 = 26; S&P 600 = 30)

Table 2
Disclosure-related Litigation or Investigation in Last Five Years

Neither	Private Litigation	Government Investigation	Both
68.6% (60.9%/61.5%/86.7%)	18.6% (17.4%/27.0%/13.3%)	4.9% (8.7%/3.8%/0%)	7.8% (13.0%/7.7%/0%)

n = 102 (S&P 500 = 46; S&P 400 = 26; S&P 600 = 30)

Table 3
Respondents by Higher-/Lower-regulation Industries

Higher-Regulation Industries S&P 500 = 20 S&P 400 = 11 S&P 600 = 6	Lower-Regulation Industries S&P 500 = 26 S&P 400 = 15 S&P 600 = 24
Aerospace and defense	Engineering and construction
Asset management/investment management	Entertainment and media
Automotive	Forest, paper, and packaging
Banking and capital markets	Hospitality and leisure
Consumer finance	Industrial products, chemicals, and manufacturing
Healthcare	Metals
Insurance	Real estate
Mining	Retail and consumer
Oil and gas	Software
Pharmaceutical and life sciences	Technology (other than software)
Power and utilities	Transportation and logistics
Telecommunications	

Appendix B – Disclosure Controls

Table 1
Presence of Disclosure Committee

Does the company have a disclosure committee?	
Yes	**91.6%** (94.1%/88.5%/90.0%)
No	**8.4%** (5.9%/11.5%/10.0%)

n = 107 (S&P 500 = 51; S&P 400 = 26; S&P 600 = 30)

Table 2
Disclosure Committee Charter[286]

Does the disclosure committee have a written charter?	
Yes, approved by board or board committee	**20.3%** (16.7%/6.7%/33.3%)
Yes, approved by senior management	**37.7%** (53.3%/33.3%/20.8%)
Yes, but not approved by board, board committee, or management	**5.8%** (10%/6.7%/0%)
No	**36.2%** (20%/53.3%/45.8%)

n = 69 (S&P 500 = 30; S&P 400 = 15; S&P 600 = 24)

286. This Table applies only to respondents that have disclosure committees.

Table 3
Disclosure Committee Review, by Procedure[287]

	Yes	Sometimes	No
Periodic	**97.1%** (96.7%/93.3%/ 100%)	**0%**	**2.9%** (3.3%/6.7%/0%)
Earnings	**73.9%** (80%/86.7%/ 58.3%)	**4.3%** (3.3%/0%/ 8.3%)	**21.7%** (16.7%/13.3%/ 33.3%)
Episodic	**24.6%** (23.3%/20%/ 29.2%)	**34.8%** (46.7%/46.7%/ 12.5%)	**40.6%** (30%/33.3%/ 58.3%)
Governance	**39.1%** (46.7%/46.7%/ 25.0%)	**8.7%** (6.7%/6.7%/ 12.5%)	**52.2%** (46.7%/46.7%/ 62.5%)

n = 69 (S&P 500 = 30; S&P 400 = 15; S&P 600 = 24)

287. This Table applies only to respondents that have disclosure committees.

Table 4
Other Control Practices by Procedure[288]

	Periodic	Earnings	Episodic	Governance
Sub-certifications required	**92.8%** 100% 92.9% 84.6%	**39.1%** 37.9% 57.1% 30.8%	**10.1%** 6.9% 7.1% 15.4%	**33.3%** 34.5% 35.7% 30.8%
Backup documentation centrally retained	**100%** 100% 100% 100%	**87.0%** 86.2% 71.4% 96.2%	**60.9%** 51.7% 71.4% 65.4%	**89.9%** 86.2% 92.9% 92.3%
Disclosure-collaboration software used	**78.3%** 89.7% 64.2% 73.1%	**65.2%** 69.0% 50% 69.2%	**46.4%** 51.7% 35.7% 46.2%	**53.6%** 51.7% 57.1% 53.8%
Manual revisions given	**66.7%** 75.9% 64.3% 57.7%	**68.1%** 75.9% 42.9% 46.2%	**55.1%** 62.1% 50% 50%	**63.8%** 72.4% 57.1% 57.7%
Oral revisions given	**65.2%** 75.9% 71.4% 50%	**69.6%** 82.8% 37.9% 50%	**58.0%** 72.4% 64.3% 38.5%	**59.4%** 75.9% 71.4% 34.6%

n = 69 (S&P 500 = 29; S&P 400 = 14; S&P 600 = 26)

288. Multiple choices could be selected; sums may exceed 100%.

Appendix C – Procedural Authority

Table 1
Disclosure Authorities Used by Procedure[289]

	Periodic	Earnings	Episodic	Governance
Written policy/ procedures	**81.1%** 93.5% 64.7% 76.9%	**67.6%** 80.6% 52.9% 61.5%	**41.9%** 54.8% 29.4% 34.6%	**54.1%** 74.2% 41.2% 38.5%
Checklists	**95.9%** 93.5% 94.2% 100%	**67.6%** 77.4% 70.6% 46.2%	**32.4%** 38.7% 23.5% 30.8%	**78.4%** 80.6% 64.7% 84.6%
Calendars	**87.8%** 87.1% 82.4% 92.3%	**75.7%** 80.6% 58.8% 80.6%	**24.3%** 35.5% 5.9% 23.1%	**79.7%** 83.9% 44% 84.6%
Forms/ precedent disclosures	**93.2%** 93.5% 82.4% 100%	**86.5%** 90.3% 82.4% 84.6%	**78.4%** 77.4% 76.5% 80.8%	**87.8%** 90.3% 70.6% 96.2%

289. Multiple choices could be selected; percentages may sum to more than 100%.

<table>
<tr><td>Internal know-how/ institutional memory</td><td>95.9%
100%
88.2%
92.3%</td><td>94.6%
100%
82.4%
92.4%</td><td>90.5%
93.5%
82.4%
92.4%</td><td>94.6%
100%
88.2%
924%</td></tr>
<tr><td>External professional advice</td><td>93.2%
100%
82.4%
92.3%</td><td>78.4%
77.4%
70.6%
84.6%</td><td>83.8%
90.3%
76.5%
80.8%</td><td>91.9%
93.5%
76.5%
100%</td></tr>
<tr><td>Externally prepared guides/ materials</td><td>73.0%
80.6%
82.4%
61.5%</td><td>43.2%
45.2%
52.9%
34.5%</td><td>43.2%
51.6%
41.2%
42.3%</td><td>67.6%
74.2%
70.6%
57.7%</td></tr>
</table>

n = 74 (S&P 500 = 31; S&P 400 = 17; S&P 600 = 26)

Table 2
Who Must Approve Changes in Disclosure Authorities?[290]

	Periodic	Earnings	Episodic	Governance
Board/Board Committee	**29.4%** 20% 46.0% 28%	**19.1%** 6.7% 38.5% 24%	**11.8%** 3.3% 7.7% 12%	**50%** 43.3% 46.2 % 60%
CEO and/or CFO	**63.2%** 66.7% 77.0% 52%	**66.2%** 66.7% 61.5% 68%	**45.6%** 46.7% 61.5% 36%	**51.5%** 43.3% 69.2% 52%
Other Senior Management	**55.9%** 63.3% 61.5% 44%	**58.8%** 73.3% 53.8% 48%	**58.8%** 73.3% 46.2% 48%	**48.5%** 66.7% 46.2% 28%
Procedure Owners	**69.1%** 73.3% 61.5% 68%	**76.5%** 93.3% 61.5% 64%	**79.4%** 90% 76.9% 68%	**70.6%** 83.3% 61.5% 60%
Other Procedure Participants	**30.9%** 26.7% 61.5% 20%	**23.5%** 26.7% 38.5% 12%	**23.5%** 33.3% 38.5% 4%	**17.6%** 23.3% 38.5.0% 0%

290. Multiple choices could be selected; percentages may sum to more than 100%.

Other	**7.4%** 13.3% 7.7% 0%	**5.9%** 13.3% 0% 8%	**5.9%** 16.7% 0% 8%	**6.9%** 20% 0% 0%

n = 68 (S&P 500 = 30; S&P 400 = 13; S&P 600 = 25)

Appendix D – Procedural Participation

Table 1
Which of the Following Statements Best Describes the Group in Your Company That is Involved in the Disclosure Process?

	Periodic	Earnings	Episodic	Governance
Broad All persons with relevant knowledge are involved in this disclosure process, even if they are not essential for preparing or authorizing the disclosures	**51.1%** 61.3% 57.1% 38.5%	**33.8%** 35.5% 35.7% 30.5%	**23.9%** 19.4% 21.4% 30.8%	**29.6%** 32.3% 42.9% 19.2%
Semi-broad Key stakeholders and senior leaders are involved in this disclosure process, even if they are not essential for creating or authorizing the disclosures	**42.3%** 35.5% 35.7% 53.8%	**63.8%** 61.3% 64.3% 65.4%	**57.7%** 58.1% 50% 53.8%	**56.3%** 54.8% 42.9% 65.4%

Narrow Only those with direct responsibility for preparing or authorizing disclosures are active in this disclosure process	**5.6%** 3.2% 7.1% 7.7%	**2.8%** 3.2% 0% 3.8%	**19.7%** 19.4% 28.6% 15.4%	14.1% 12.9% 14.3% 15.4%

n = 71 (S&P 500 = 31; S&P 400 = 14; S&P 600 = 26)

Appendix E – Disclosure Participants/Procedural Iterativeness[291]

Table 1
For a Given Type of Disclosure, How Many Times Would Individuals in the Following Roles Typically Review the Disclosure Before it is Finalized?

	Periodic	Earnings	Episodic	Governance
Chief accounting officer/ controller	**7.5** 6.4/14.5/ 4.4	**4.7** 4.8/7.4/3	**2** 1.9/3.2/1.3	**3.0** 1.9/7.7/1.4
Head of financial reporting	**8.4** 7.9/13.1/ 5.7	**5.0** 5.4/6.8/3.2	**2.5** 3.1/2.6/1.8	**2.9** 2.5/5.4/1.8
Other accounting staff	**15.0** 20.9/15.9/ 6.4	**10.6** 17.4/8.8/ 2.6	**2.1** 2.3/3.5/0.8	**4.1** 3.1/8.3/2.6
General counsel	**3.0** 2.1/5.1/2.6	**3.2** 2.6/4.9/2.6	**2.1** 1.7/3.4/1.9	**5.2** 3.1/9.9/4.8
Head of securities (legal staff)	**4.9** 5.2/7.5/2.8	**3.9** 4.9/5.4/1.4	**3.2** 3.8/4.5/1.4	**7.7** 7.1/13.5/4.3

291. The data in this Appendix are average responses to the following question: "For a given type of disclosure, how many times would individuals in the following roles typically review the disclosure before it is finalized?" For each procedure, I highlight the role that involves the most review as a proxy for who the principals are. This highlighting illustrates principal participation of accounting staff in financial disclosures (i.e., Forms 10-K and 10-Q and earnings releases) and of legal staff in non-financial disclosures (e.g., press releases, Form 8-Ks, and proxy statements).

Other legal staff	**3.8** 7.0/1.7/0.6	**3.5** 6.9/1.2/0.3	**1.5** 2.8/1.1/0.2	**4.7** 9.0/1.5/0.9
Chief executive officer	**1.8** 1.6/2.5/1.6	**2.8** 2.8/3.5/2.4	**1.3** 1.1/1.7/1.2	**1.6** 1.4/2.5/1.1
Chief financial officer	**3.5** 3.4/5/2.8	**4.4** 4.3/5.9/3.2	**1.7** 1.4/2.6/1.4	**1.8** 1.4/3.5/1.2
Head of human resources	**0.7** 0.7/0.9/0.6	**0.4** 0.5/0.5/0.2	**0.4** 0.5/0.5/0.1	**2.3** 2.5/1.8/2.3
Head of investor relations	**2.6** 3.0/3.4/1.4	**5.6** 7.3/5.5/3.5	**2.0** 2.1/3/0.9	**1.7** 1.5/2.9/1
Head of IT	**0.7** 0.7/0.9/0.4	**0.3** 0.4/0.4/0.1	**0.2** 0.1/0.5/0	**0.1** 0.2/0.3/0
Heads of operating units	**1.0** 1.0/1.7/0.4	**1.0** 1.0/1.5/0.5	**0.4** 0.3/0.8/0.1	**0.6** 0.5/1.6/0.1
Other business leaders	**0.6** 0.6/1/0.3	**0.5** 0.6/0.8/0.3	**0.2** 0.2/0.4/0.1	**0.5** 0.7/0.7/0.1

Audit committee members	**1.4** 1.0/1.6/1.3	**1.1** 1.0/1.5/1	**0.5** 0.5/0.7/0.5	**1.0** 1.2/1.2/0.7
Board members	**0.9** 1.0/1.1/0.8	**0.6** 0.5/1/0.5	**0.4** 0.2/0.6/0.3	**1.2** 1.2/1.6/0.9
External legal counsel	**1.5** 1.1/1.8/1.7	**1.1** 0.8/1.5/1.2	**1.0** 0.8/1.5/1.1	**1.9** 1.9/2/1.8
Other external professionals	**1.4** 1.5/1.9/1	**1.2** 1.5/1.5/0.6	**0.4** 0.4/0.5/0.4	**1.4** 1.8/2/0.4

n = 49 (S&P 500 = 22; S&P 400 = 11; S&P 600 = 16)

Appendix F – Procedural Objectivity[292]

Table 1
Which of the Following Statements, if Any, Describe Your Company's Objectives for Given Types of Disclosure?

	Periodic	**Earnings**	**Episodic**	**Governance**
Compliance To produce mandatory information as required by SEC regulations or other disclosure requirements	**96.2%** 100% 91.0% 93.8%	**75.0%** 84.0% 54.5% 75%	**94.2%** 100% 72.2% 100%	**94.2%** 96.0% 81.8% 100%
Communication To communicate non-mandatory information to investors, employees, customers, or the public	**65.4%** 83.3% 27.3% 62.5%	**88.4%** 92.0% 72.7% 93.8%	**48.1%** 48.0% 63.6% 37.5%	**75.0%** 96.0% 63.6% 50%

292. Multiple choices could be selected; sums may exceed 100%.

Marketing To communicate non-mandatory information that explains why others should do business with the company (e.g., by buying shares, applying for jobs, or becoming customers)	**25.0%** 28.6% 9.1% 31.3%	**48.1%** 48.0% 36.4% 56.3%	**13.4%** 16.0% 18.2% 6.3%	**37.0%** 52.0% 18.2% 25%

n = 52 (S&P 500 = 25; S&P 400 = 11; S&P 600 = 16)