Toward More Effective Risk Disclosure for Technology-Enhanced Investing

Donald C. Langevoort
Georgetown University Law Center
TOWARD MORE EFFECTIVE RISK DISCLOSURE FOR TECHNOLOGY-ENHANCED INVESTING

DONALD C. LANGEVOORT

By all accounts, computer technology is dramatically changing the institutional structures that support the purchase and sale of securities. But technological change is nothing new in the world of finance. For all its contemporary salience, computers are just the latest in a series of innovations—the telegraph and telephone being two earlier ones with extraordinary impact—that have radically transformed the investment environment from time-to-time. Throughout this evolution, the major problem that securities regulation has always sought to address, the insufficient-informed investment decision that leads a buyer to pay too much for a security or a seller to receive too little, has changed very little. Disclosure regulation needs to adjust to a cyberspace environment, but not reorient unless it was misguided all along.1

For this reason, I should concede at the outset that the main issue I want to explore—the adequacy of risk disclosure requirements under federal securities regulation—does not necessarily depend on any deep insight into technological evolution. This subject could be discussed without mentioning computerization even once. But the excitement about investment technology provides at least a convenient opportunity to revisit some basic questions about the optimality of disclosure regulation, and new electronic media (particularly the EDGAR system) offer vehicles through which systematic improvement of securities regulation can efficiently be pursued. For this reason, I will turn first to consider the promise of technology-enhanced investing and the concerns that might heighten. Then, I propose a significant

---

modification of the mandatory disclosure obligation as it relates to investment risk.

I. THE IMPACT OF TECHNOLOGY ON INVESTMENT DECISIONMAKING: A CONCEPTUAL FRAMEWORK

The impact of information technology on "best execution" on the now inter-linked exchanges and over-the-counter markets is palpable. Technology has changed, and will continue to change, the institutional ecology of the capital marketplace. It also alters the economics of the production and exploitation of securities-related information. My concern in this Article, however, is not with these changes; instead, it is with the investor decisionmaking that precedes an order to buy or sell. Here, we can identify four principal enhancements offered by computer-based systems that have the potential to affect decisions about what investments to make.

First, technology permits those who want to influence investment decisions to produce and disseminate information quickly and at increasingly lower costs. Prior to computerization, the marketing of investments was primarily through face-to-face contacts, telephone solicitations, and mailings. Each of these is relatively cumbersome and expensive in terms of large-scale solicitations, and typically involves some sort of time delay in the dissemination of materials. In contrast, electronic dissemination makes information accessible to potential investors almost instantly, and can be done at comparatively low cost. Among other things, this efficiency can encourage the provision of greater amounts of information, formatted in a way—with video, sound, and graphics—that may be more effective than current media in capturing the attention of an investor in a noisy informational environment. Hypertext allows the data to be organized in a nonlinear fashion, inviting varying reading or "browsing" strategies. The speed of transmission of information creates the opportunity for very small amounts of time between information availability and the execution of the purchase or sale transaction. Marketors are not the only ones likely to take advantage of these mechanisms, of course—though they have the greatest economic interest. Both private


3. Issuers of securities are increasingly using web sites as investor relations mechanisms, designed to promote the attractiveness of the issuer as an investment opportunity. A publication that
information vendors and the SEC (i.e., through EDGAR access via the Internet) will make increasing amounts of data available.

Second, Transmissions can be customized for individuals or groups of investors. When cost-justified, providers of information to prospective investors can customize their presentations, utilizing marketing data to orient the information to predictable needs and interests. This, of course, is already done in conventional communications, but will be less costly in electronic communication, permitting greater utilization of these customizing techniques.

Third, these kinds of communications permit interaction between vendor and investor. With e-mail, investors can send queries and expressions of interest to information sources, and receive quick responses, thereby further customizing the interaction.

Fourth, technology aids the task of evaluating and comparing investment opportunities. If desired, providers of information can disseminate it in such a way that permits easy comparison among investment opportunities. In any event, software will be available to investors that will facilitate the process of evaluating and comparing information from various sources.

What does all this mean for investment decisions? Perhaps the best way to consider this question is to divide the discussion into the effects with respect to primary capital raising activity and purchases and sales in the secondary markets. To be sure, we may not yet be at a point where a large enough segment of the investor community routinely uses computer technology. I assume, however, that this is the direction in which we are quickly moving.

A. Primary Market Transactions

Obviously, today’s technology makes the direct marketing of investments via electronic transmission feasible. To the extent that regulation permits it,
issuers, underwriters and dealers could construct and send an attention-
grabbing electronic selling document, perhaps customized for individual
recipients, respond immediately to queries, and quickly take orders or
expressions of interest. "Testing the waters" becomes much simpler and
more effective. If so inclined, investors would be able to search various public
and proprietary data sources for additional information or advice relating to
the proposed investment opportunity. Within this framework, the procedures
for a securities distribution could also change. In addition to the standard
fixed price offering, it would become far more feasible from an economic
standpoint to have auctions (conventional or dutch-type) for securities, which
could well lead to greater pricing accuracy.8

In theory, at least, this process could also lead to significant
disintermediation. An issuer could use internal personnel to construct a web
site to attract investor interest or purchase e-mail lists, by-passing the usual—
and costly—underwriter/dealer system for identifying and contacting
potential investors. But we should be cautious before assuming too much
along these lines. There is a conventional saying that securities are sold, not
bought. With so many investment options available, it often takes a savvy
salesperson, able to exert some subtle (or not so subtle) form of interpersonal
pressure, to get an investor to commit funds to a particular purchase,
especially a risky one.9 Reputation—whether apparent or real—must often be
drawn upon. Thus, it is likely that electronic dissemination of unfamiliar

LEXIS, News Library, Nyt file. Problems notwithstanding, the Commission has amended its rules to
facilitate electronic distributions. See Use of Electronic Media for Delivery Purposes, Sec. Act Release
7. Testing the waters is a concept the SEC is experimenting with—beginning under its Reg. A
small offering process—by which issuers are free to make preliminary contacts with investors before
committing to an offering without running afoul of section 5 of the Securities Act of 1933, which
prohibits "offers" in advance of registration. On the possibility for expansion, see Solicitations of
Sec. L. Rep. (CCH) ¶ 85,639 (June 27, 1995); Effects of 1933 Act Concepts on Capital Formation,
Investors could be given a fixed period of time to bid on a security—a better market test than the
current fixed price offering, which tends toward short-term underpricing. See Larry D. Soderquist &
Jonathan A. Shayne, Inefficiency in the Market for Initial Public Offerings, 48 VAND. L. REV. 965
9. I explore the sales process in Donald C. Langevoort, Selling Hope, Selling Risk: Some
Lessons for Law from Behavioral Economics About Stockbrokers and Sophisticated Customers, 84
CAL. L. REV. 627 (1996). For a similar view of the role of marketing in the securities markets, see
Lynn A. Stout, Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities
investment opportunities in the primary capital raising process will remain an adjunct to professional marketing activity that includes a substantial "personal contact" component. Securities firms will continue to have a comparative advantage in marketing expertise and apparent credibility with respect to large-scale distributions of securities.

B. Secondary Markets

In assessing the wide array of investment opportunities in the secondary markets, investors will have access to an extraordinarily rich body of information and advice. The Internet-based EDGAR system is just one resource; vendors, brokers and issuers will happily offer many other data sources and trading recommendations. "Chat rooms" will allow for widespread dissemination of informal communications among investors—informal communications that historically have largely been confined to the localized social structures for the transmission of rumors. Once again, it will be possible for investors to respond quickly to information and advice in the execution of trades.

The obvious consequence of this technological evolution is an explosion in the quantity of available information and investment opportunities and a shift in the ability to exploit legitimate informational advantages. Precisely how our society (or the marketplace) will deal with the problem of managing and prioritizing extraordinarily large amounts of available data is hard to predict, and will doubtless have a significant "path dependent" character. Typical investors lack the time, interest or expertise to review the data systematically. "Expert" software utilizing artificial intelligence may be of some aid, but the more likely response to the information overload produced by technological innovation is increased reliance on third-party analysis and advice. With the proliferation of investment data, in other words, we should expect the business of brokers, investment advisers and mutual funds to increase, not decrease—unless, in a rare triumph of experience over hope, average investors finally learn that the likelihood of profiting significantly and consistently from such advice rarely justifies its often excessive cost.

And, of course, the informational efficiency of the securities markets should expand. As more information and analysis is feasible about a wider range of companies, the consensus effect should take hold for more small capitalization issuers.\textsuperscript{12} Whether the same will be said for fundamental efficiency is open to question, but that is beyond our concern here. To be sure, greater access to information (including technologically disseminated rumors) among inexpert investors and "rapid response" trading could readily increase the noise trader component of stock market pricing.\textsuperscript{13}

II. THE PRIMACY OF RISK DISCLOSURE

There is a natural temptation to predict that in the richer and readily accessible informational environment offered by technologically enhanced investing, mandatory disclosure requirements directed at specific investors will be less important as a protective device. Information will be made available and formatted in useful fashion by a variety of persons with an economic incentive to do so, and software and advisory systems will help manage data in customized fashion that is not otherwise presented clearly. As just noted, market efficiency will be enhanced in many respects, arguably making disclosure to the average investor unimportant when there are organized trading markets that meet some threshold of efficiency.\textsuperscript{14}

Without doubting this as a general matter,\textsuperscript{15} we should not be overly

\textsuperscript{12} See Ronald J. Gilson & Reinier H. Kraakman, The Mechanisms of Market Efficiency, 70 VA. L. REV. 549 (1984). This follows from the fact that in an electronic environment, more informed investors can act with respect to a greater range of stocks.

\textsuperscript{13} Some recent work in finance suggests that fundamental efficiency is compromised by uninformed investor trading (which may reflect systematic biases) in a way that "smart money" will not or cannot immediately counter through arbitrage. See generally Donald C. Langevoort, Theories, Assumptions and Securities Regulation: Market Efficiency Revisited, 140 U. PA. L. REV. 851, 866-72 (1992); Baruch Lev & Meirng de Villiers, Stock Price Crashes and 10b-5 Damages: A Legal, Economic and Policy Analysis, 47 STAN. L. REV. 7, 13-16 (1994). It is quite possible that the electronic dissemination of rumors and the ease of trading may increase the number of noise traders acting at any given time.

\textsuperscript{14} Even if we assume the validity of the challenges to the efficient market hypothesis, it does not necessarily follow that otherwise uninformed individual investors will actually put disclosure to use in a manner that improves on the prevailing pricing. See Langevoort, supra note 13, at 880-81.

\textsuperscript{15} Nor do I want to revisit the issue of whether mandatory disclosure requirements make sense as a means of avoiding duplication of effort and free riding among investors and analysts. See generally John C. Coffee, Jr., Market Failure and the Economic Case for a Mandatory Disclosure System, 70 VA. L. REV. 717 (1984). My interest is simply in whether mandatory disclosure to particular investors is important as a means of promoting better investment decisionmaking, which may lead, in turn, to other societal benefits. See generally Marcel Kahan, Securities Laws and the Social Costs of "Inaccurate" Stock Prices, 41 DUKE L.J. 977 (1991).
enthusiastic about the protective qualities of technology. Indeed, increases in
the amount of available information and number of options have interesting
consequences for human behavior. With finite time and mental capacity,
people tend to adopt simplifying heuristics in response to information
overload, often reducing the number of factors considered or simply seeking
some minimal threshold of satisfaction with a choice, foregoing any more
careful consideration of it or other possibilities. In addition, the more
information there is the more each bit of it is diluted. The immediate and
salient crowds out the less attention-grabbing.

But will not risk-related information be of primary interest to investors,
who might be presumed to be risk-averse, thus achieving the necessary
salience? In some cases yes, but by no means necessarily. One reason relates
to marketing. On average, the securities industry has a strong “buy side” bias.
As Professor Lynn Stout and others have emphasized, the self-interest of
issuers, brokers, dealers, investment advisers and the financial press is all in
the direction of sustained investor demand for securities, which depends on a
large set of willing buyers. We can expect that this self-interest will result in
communications carefully crafted and formatted to highlight opportunity,
rather than risk. There will be an asymmetry in the emphasis and availability
of information that these groups provide, giving greater weight to good news
than bad.

Motivational forces may further reduce attention to risk. Much investment
related marketing is designed to put investors in a “loss frame”—a
perspective that places investment opportunities in terms of loss of current
wealth or status if they are foregone. People who sense the possibility of loss
increase their tolerance for risk, and may begin to rationalize the aggressive
pursuit of gains. Deflection of risk-positive information results. Moreover, the
combination of marketing and information overload itself can result in stress
and fear of regret that results in greater willingness to rely on others, giving
less attention than they should to the risks associated with reliance on those
with a buy-side self interest. One can add to this the sense that optimism is
something of a hard-wired characteristic of human nature, a perpetual fuel
(albeit one that burns in varying intensity at given times under given

16. See, e.g., Wesley A. Magat & W. Kip Viscusi, Informational Approaches to
17. See, e.g., Philip E. Tetlock & Richard Boettger, Accountability: A Social Magnifier of the
18. See supra note 9.
circumstances) for investment risk-taking.19

Mirroring this asymmetry in information availability and investor interest is a similar imbalance in the incentive of managers to disclose negative or secret business information. Managers normally are quite willing to disclose positive developments: they usually have beneficial reputational and pecuniary effects. Indeed, there are only three sound reasons to avoid the disclosure of good news: the preservation of business secrets,20 fear of liability for not disclosing the good news accurately, or a desire to delay disclosure to facilitate insider trading.21 Each of these is either legitimate (i.e., preserving secrets) or separately remediable.22 In contrast, managers have a far more pervasive interest in concealing bad news. It avoids or delays both personal embarrassment (with some risk of being terminated as a result) and the unpleasant and wealth-reducing likelihood of a stock price drop. While the need to establish and nurture an on-going corporate reputation for credibility to facilitate future capital-raising may create some counterbalancing incentive, this is likely to be incomplete even under standard economic analysis in light of the familiar “last period” problem.23 Human nature—often in the form of self-deception—provides all the more reason to believe that managers will often try to sweep the bad news under the rug, or give it an unrealistically positive spin.24

19. There is a good dose of this in some recent work in evolutionary psychology and sociobiology, which sees optimism as a crucial trait that promotes survival on average, even if it also guarantees loss in a predictable number of instances. LIONEL TIGER, OPTIMISM: THE BIOLOGY OF HOPE 203-05 (1979).
20. The conventional example here is the concealment of merger negotiations. See, e.g., Basic Inc. v. Levinson, 485 U.S. 224 (1988).
21. The well-known case of SEC v. Texas Gulf Sulphur Co., 401 F.2d 833 (2d Cir. 1968), is an example of the inadequate disclosure of good news resulting in liability, which gives some reason to fear comparable liability in other cases. Precisely which of the listed concerns caused the misrepresentation in Texas Gulf is impossible to tell: all three are possible. Concern over liability for forward-looking information readily falls into this category as well. See, e.g., Ron Kasznick & Baruch Lev, To Warn or Not to Warn: Management Disclosures in the Face of an Earnings Surprise, 70 ACCT. REV. 113 (1995); see also Paul G. Mahoney, Precaution Costs and the Law of Fraud in Impersonal Markets, 78 VA. L. REV. 623, 651-55 (1992).
22. Insider trading regulation has become more sophisticated in spotting abuses, making that a realistic mechanism for attacking the delayed disclosure concern. Forward-looking disclosures can (and have been) encouraged through rulemaking and legislative reform. See infra text accompanying notes 65-69.
23. See Jennifer H. Arlen & William J. Carney, Vicarious Liability for Fraud on Securities Markets: Theories and Evidence, 1992 U. Ill. L. REV. 691. In addition, there is legitimate reason to suspect that secondary market fraud may sometimes be in the corporate interest to the extent that it bolsters the support of important stakeholders like employees, suppliers and customers.
24. I explore this organizational self-deception and psychological resistance in Donald C.
In sum, a technology-enhanced investment environment does not necessarily mean that negative or risk-related information will rise to the top amidst all the clutter. The contrary—a dilution effect, especially in the face of increasingly sophisticated marketing or corporate publicity—is a legitimate fear. And that gives us a convenient opportunity to ask one of the most fundamental questions in contemporary securities disclosure policy: does the structure of securities regulation do a good job of causing effective risk disclosure? If not, how could it be done better, especially when electronic media are used by investors?

III. ELECTRONIC RISK DISCLOSURE IN PRIMARY CAPITAL RAISING

In public offerings registered under the Securities Act, a company must deliver a prospectus containing a broad range of information to investors to help them make their investment decisions; the prospectus is designed to contain a good bit of risk-related information. Clearly, comparable disclosure requirements will carry over in any electronic-based securities distribution.25 The important questions, then, are whether disclosure in such an environment will be sufficiently (a) timely, (b) complete, and (c) effective.

The first question is interesting, but too far outside the scope of my main interest to warrant extended discussion. As the SEC’s recent Advisory Committee Report on the Capital Formation and Regulatory Processes notes (and as had been well recognized for some time), the specific preliminary and final prospectus delivery requirements do a fairly sorry job of putting the required information in an investor’s hands at the time that the investment decision is made, much less when the investment is being considered.26 Even apart from the emerging inclination to allow issuers and underwriters to “test the waters”—which inevitably is a pre-selling job wherein motivation to buy can be instilled even in advance of the filing of the registration statement—the permissibility of oral selling efforts during the waiting period27 invites

25. Indeed, the SEC’s rules and interpretations regarding electronic delivery, supra note 6, take pains to emphasize that electronic delivery cannot be allowed to obscure any of the benefits that accompany physical delivery.
27. The waiting period is the time between the filing of the registration statement and its effective
promoters to persuade buyers of the virtue of the investment before there is much of an opportunity for review of the required disclosures.\textsuperscript{28} Under such circumstances, salesmanship can readily trump the late-arriving prospectus (if the investor ever had any inclination to read it at all). This is particularly unfortunate given the tendency of courts today to immunize oral broker fraud if an investor was given a writing that somewhere contains the truth.\textsuperscript{29}

For electronic distributions, contacts via computer that contain sales related information will readily fall within the definition of prospectus. Clearly, some such contacts should be allowed, at least during the waiting period. They are efficient mechanisms for testing interest in the security, and certainly less problematic than oral solicitations because of the record they can generate. The easy mechanism for doing this is through Rule 134(d)’s “expression of interest” approach.\textsuperscript{30} This result can be coupled with required attachment of the preliminary prospectus. There is still no guarantee that the investor will read the disclosures, but at least they would be readily available.

The second question is whether the risk disclosure is complete, something that has nothing to do with electronic distributions vis-a-vis more conventional ones. This is an issue that we shall explore more fully in the next section in terms of disclosure policy generally. But in public offerings, there seems little doubt that the aggregate of disclosure rules seek to cause companies to divulge all information relating to the company’s future prospects that a reasonable investor might consider significant. To be sure, there is no such blanket rule. However, the requirement that detailed information relating to the issuer’s products, markets and financial condition be disclosed plus any additional material information necessary to make these

\textsuperscript{28} There is, of course, the preliminary prospectus, which must be circulated to investors in some cases (see Rule 15c2-8, 17 C.F.R. \textsection 240.15c2-8 (1996)) and whose circulation is relevant to the SEC’s decision to accelerate the effective date of the registration statement. Even this, however, can come after the buyer’s interest has been piqued and an emotional commitment, if not a legal one, to the purchase has been made.

\textsuperscript{29} See, e.g., Brown v. E.F. Hutton Group, Inc., 991 F.2d 1020 (2d Cir. 1993) (defendants granted summary judgment in a suit brought by 400 investors who suffered a total investment loss in a limited partnership sold by the defendants).

\textsuperscript{30} Under Rule 134(d) as it currently exists, investors can be invited to indicate an expression of interest in response to a permissible (albeit limited) written solicitation that is accompanied or preceded by a preliminary prospectus and return it to the seller. 17 C.F.R.\textsection 230.134(d) (1996). For a no-action letter allowing electronic use of this provision, see IPONET, SEC No-Action Letter [1996 Transfer Binder] Fed. Sec. L. Rep. (CCH) \textsection 77,252 (July 26, 1996).
statements not misleading forces disclosure of nearly anything of interest. This half-truth rule is sufficiently open-ended that concealment of any confidential information is risky. More specifically, Item 503(c) of Regulation S-K forces disclosure of risk factors that would make the investment speculative or one of high risk, and the Management Discussion and Analysis ("MD&A") requirement of Item 303 forces disclosure of known trends and uncertainties that could affect various financial measures of corporate performance. The MD&A requirement—though explicitly not a generic disclosure duty for all material forward-looking information—is also horribly indeterminate. Given the strict liability consequences of nondisclosure, there is extraordinary ex ante risk to any concealment.

Should we conclude, then, that a satisfactory risk disclosure obligation exists for purposes of securities marketing, electronic or otherwise? Given the broad scope of the obligation, my one recommendation here, other than a general plea for clarification, has to do with the communicative quality of the risk disclosure that occurs—a concern that is echoed in the debates over the "bespeaks caution" doctrine and its incorporation as a safe harbor for forward looking information in the Private Securities Litigation Reform Act. Merely asking for identification of known risks invites disclosure that, if not pure boilerplate, often conveys little more than the potential for their occurrence. But the informational asymmetry problem that is at the heart of the investor's dilemma suggests that what is needed is not simply an identification of risk but issuer-specific evaluation of it: a discussion and analysis of business and


32. See infra Part IV.A. Numerous commentators have noted the tension between a duty to disclose known trends and uncertainties and the absence of a duty to disclose all material information. After all, information is material to the extent that it helps an investor predict the company's future earnings, adjusted for risk and discounted to present value. In some sense, all forward-looking information is in the form of a trend or uncertainty, putting great stress on the word "known." For commentary, see Edmund W. Kitch, The Theory and Practice of Securities Disclosure, 61 BROOK L. REV. 763, 799-816 (1995); Alan K. Austin, Risk Factor Disclosure, in SECURITIES FILINGS 577 (Practicing Law Institute 1995); and Thomas Gilroy & Mary Elizabeth Pratt, Preparing the Management's Discussion and Analysis, in 1 PREPARATION OF ANNUAL DISCLOSURE DOCUMENTS 199, 242-52 (Practicing Law Institute 1995).

33. Pub. L. No. 104-67, 109 Stat. 737 (codified in scattered sections of 15 U.S.C.). In general, the bespeaks caution doctrine limits fraud liability for the disclosure of forward looking information if sufficient warnings about future risks and uncertainties accompany it. It has the effect of immunizing such disclosure from liability even if the disclosure is intentionally false and misleading. The recent PSLRA codifies this with respect to certain types of public offerings under the Securities Act. See generally Carl W. Schneider & Jay A. Dubow, Forward-Looking Information—Navigating the Safe Harbor, 51 BUS. LAW. 1071 (1996).
financial risks known to the company that permits the investor, through insiders’ eyes, to assess not only the presence of risk but also its probability and magnitude. I will call this a “Risk Disclosure and Analysis” (“RD&A”).

There is already something of a de facto requirement in this direction to the extent that the risk is a known trend or uncertainty under the MD&A requirement. Indeed, what I am trying to do here is extend the MD&A requirement in a way that merges it with the Item 503(c) risk disclosure, but breaks the restraint associated with that latter Item’s focus on “high risk” and “speculative” investment character.

What compelling reasons might there be to avoid a substantively demanding risk disclosure standard in the form of an RD&A? In the next section we will consider the relationship between such a disclosure rule and the protection of legitimately confidential information. Suffice it to say here that issuer control over the timing of a public offering makes this question less than a pressing one. As to fear of excessive liability in class-action litigation, the new safe harbor would presumably protect such disclosure made outside the initial public offering context. Those disclosures would thus have quite a bit of protection (perhaps too much) in terms of private litigation exposure. In an initial public offering, the safe harbor would not be available, but one has to wonder whether such a substantive requirement would really add much to the liability exposure already there, especially given the uncertainty associated with the scope of the MD&A.

Besides offering investors the benefit of analysis and context, moving to such a requirement would have a number of indirect salutary effects. The SEC would have to articulate far better than it has under the MD&A requirements what the line is between known and speculative uncertainties and risks. The current test—which asks whether or not a risk is “likely” to occur—is confusing at best. The Commission could also provide guidance on “business-justified” concealment, a subject I will treat in some depth in the next section.

34. See infra text accompanying notes 74-77.
35. This standard was articulated in Management’s Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosure, Sec. Act Release No. 36, 7 Fed. Sec. L. Rep. (CCH) ¶ 72,436 (May 24, 1989). As many commentators have noted, it is not clear whether “likely” means greater than 50% probability of occurrence, or if not, how much less is enough. See supra note 32. In a speech that is often cited, former Commissioner Fleischman suggested that the proper standard is 40%. Fleischman Addresses MD&A Issues Before Southern Securities Institute, SEC Today, Mar. 15, 1991, at 51.
The primary virtue of such a requirement, however, is that it can become the centerpiece for disclosure in primary offerings via electronic or conventional media. That brings us to the third issue noted above, the effectiveness of disclosure. Given the potential for information overload, risk disclosure needs primacy. In electronic formatting, it would be unwise to allow for hypertext indexing that simply permits the investor the option of accessing the risk disclosure portion of the electronic prospectus. To the extent that the investor has already been motivated by sales pressure or some form of hype-like publicity to buy, there should be more forceful disclosure intervention to encourage deliberation.\textsuperscript{36} Consistent with the Item 503(c) "headline" treatment of risk disclosure, electronic prospectuses should be formatted to make the enhanced risk disclosure as prominent and conspicuous as possible before scanning options are presented.

This discussion of primary capital raising assumes that the distribution was a public one. If not, then after the Supreme Court's \textit{Gustafson} decision\textsuperscript{37} the liability exposure drops considerably, at least at the federal level, and with it some of the liability-based disincentive to conceal risks. My sense is that a substantive RD&A would be a very useful form of required disclosure in exempt private offerings, and I would thus recommend that the SEC use its exemptive authority and safe-harbor rules to force delivery of some form of risk analysis profile to all investors. This should include accredited investors, although such a step would concededly require a significant reorientation of Regulation D's prevailing philosophy.\textsuperscript{38}

\textsuperscript{36} See \textit{Langevoort, supra} note 9, at 692-95.

\textsuperscript{37} \textit{Gustafson v. Alloyd Corp.}, 513 U.S. 561 (1995). The Court held holding that the general negligence-based antifraud private right of action under the Securities Act applies only to selling documents and oral communications that are part of public offerings. The Court made clear that, absent express indication by Congress otherwise, it preferred scienter-based liability under Rule 10b-5 as the appropriate strategy for private offerings.

\textsuperscript{38} The SEC's philosophy under Regulation D is that accredited investors can fairly much fend for themselves, yet the definition of accredited investor is written in such a way that sufficient wealth or income operates as a proxy for sophistication. Rules 501-508, 17 C.F.R. §§ 230.501-508 (1996); see Howard M. Friedman, \textit{On Being Rich, Accredited and Undiversified: The Lacunae in Contemporary Securities Regulation}, 47 Okla. L. Rev. 291 (1994). I am even skeptical of claims that fairly sophisticated investors do not need effective risk disclosure, at least in the face of stockbroker sales pressure within a "trust"-based relationship.
IV. ELECTRONIC RISK DISCLOSURE IN THE SECONDARY MARKETS

A. The Ambiguity in Current Policy

When we turn to the secondary markets, we see something of an anachronism. Following largely on the structure Congress contemplated in 1934, the SEC's disclosure policy for promoting an informed capital marketplace is dominated by the duty to file 10-K's and 10-Q's, which effectively limits its timeliness to once every 90 days. There is no explicit duty to update these disclosures except for the rare circumstances triggering the 8-K filing obligation, or unless the issuer engages in some activity of transaction that causes some separate filing obligation to come into effect. "Real-time" corporate disclosure—which must satisfy an immense hunger for timely information—thus occurs in a world removed from these filings, so that the periodic filings take on secondary importance to press releases, interviews and analyst contacts. Mandated disclosures often contain little new information of any special significance.

Perhaps one could have understood this periodicity in a paper-based environment when formal documents took a long while to prepare and transport to Washington, and where they then sat in a file cabinet available to, but infrequently accessed by, most investors. But today we have electronic filing and dissemination through EDGAR. Issuers can instantaneously transmit data to the Commission, and the public portions of the filings quickly become available to both professional analysts and the computer-literate public. This technological evolution means that Commission filings can be a practical disclosure device, and so raises the obvious question of why we should not insist that the issuer's electronic file be relatively accurate and up-to-date on a real-time basis.

To pose the question this way brings us to an embarrassing and fascinating fact, long known to everyone familiar with the field of securities regulation. In its sixty-some odd years of disclosure regulation, the SEC has never directly sought to address with clarity the most fundamental disclosure policy question of all: when does an issuer have an obligation to disclose adverse material information that comes into its possession, assuming (as is often the case) that it has some reason to conceal it?39

Even Regulation S-K is murky on this question for purposes of 10-K and 10-Q disclosures. As we have seen, the issuer must respond completely to those line-item matters, and volunteer any additional information to make the responses not misleading. That necessarily limits the disclosure obligation to those matters that receive specific attention in Regulation S-K, which is heavy in emphasis on some things (e.g., financial statements, management compensation and conflicts, pending litigation), lighter on others (e.g., new product development). As we have seen, the MD&A comes close on this point, though the relationship between it and an affirmative duty to disclose material information still puzzles most practitioners. It is limited to certain types of trends relating to the financial disclosure of the issuer, and only when they are "likely" to occur. To confuse the issue further, the SEC's most forthcoming interpretive release on the requirement expressly privileges the nondisclosure of events like merger negotiations on grounds of a need for confidentiality—a concept, though perfectly sensible, that is strikingly at odds with the Commission's public disclosure philosophy generally.\(^{40}\) The SEC's periodic disclosure requirements do not have any risk disclosure obligation comparable to Item 503(c); that is limited to public offerings.

Once we move beyond mandatory filings, the Commission has been all the more obtuse. Without any explicit requirement, SEC policy has effectively been limited to case-by-case interpretations of its open-ended antifraud provisions, particularly Rule 10b-5. It has often hinted broadly at a 10b-5 duty, whether because of the nature of the information\(^ {41}\) or because of some question about the issuer's handling of it (e.g., that its insiders have begun to trade on it).\(^ {42}\) Mostly, however, the question of the affirmative duty to disclose material risks has been left largely to the courts. There is no coherence here either. All contemporary courts seem to agree that there is no duty to disclose per se\(^ {43}\) unless the issuer is itself buying or selling stock. But the half-truth doctrine does apply if the company chooses to speak, and the courts have done a poor job of articulating the extent to which commenting

\(^{40}\) Sec. Act Release No. 36, supra note 35.


\(^{43}\) See, e.g., Backman v. Polaroid Corp., 910 F.2d 10 (1st Cir. 1990) (en banc); State Teachers Retirement Bd. v. Fluor Corp., 654 F.2d 843, 850-51 (2d Cir. 1981).
on some matter, voluntarily or in an SEC filing, gives rise to a duty to speak about some separate but related matter. Given how frequently companies do engage in publicity, this question poses a commonplace dilemma. The trend in the law here is a conservative one, but the standard remains very blurry.

There is also the “duty to update.” Some (but not all) circuits accept the idea that speaking accurately triggers a subsequent duty to disclose events that call into question the continuing accuracy of the earlier disclosure, so long as that earlier statement remains “alive” in the marketplace. Putting aside the obvious policy question of whether such a duty is good policy, or will simply lead issuers to avoid making voluntary disclosures in the first place, there is immense indeterminacy here as well. When are prior disclosures still alive? The fuzziness here is well illustrated by the Second Circuit’s Time Warner decision, dealing with the duty to update prior statements that announced the company’s plans to seek world-wide strategic alliances as the means for both delivering value to shareholders and solving the company’s large debt problem. The court said that there was no duty to announce subsequent problems with those negotiations because the earlier statements were not specific and forward-looking enough. On the other hand, Time Warner might have violated Rule 10b-5 by not disclosing its plans to pursue an alternative financing plan that would be unpalatable to its shareholders. Although there is an intuitive appeal to the distinction, articulating the difference with precision and rigor for purposes of advising a client on some novel situation is quite a challenge.

Outside of these inchoate obligations, there are only the disclosure rules of

44. See, e.g., Shaw v. Digital Equip. Co., 82 F.3d 1194 (1st Cir. 1996).
46. Compare In re Time Warner Sec. Litig., 9 F.3d 259 (2d Cir. 1993) (accepting the duty to update), and Greenfield v. Heublein, Inc., 742 F.2d 751 (3d Cir. 1984) (same), with Stransky v. Cummins Engine Co., 51 F.3d 1329 (7th Cir. 1995) (no duty), and Polaroid, 910 F.2d 10 (taking no position but raising concerns about duty to update).
47. Time Warner, 9 F.3d 259.
48. Id. at 267-68.
49. Id. at 267.
50. To add to the confusion, a subsequent Second Circuit decision suggests that Time Warner “went nearly to the outer limit of the line” between what must be disclosed and what can be concealed. See San Leandro Emerg. Med. Plan v. Philip Morris Cos., Inc., 75 F.3d 801, 810 (2d Cir. 1996). In addition, there is the duty to correct statements made in good faith by the issuer or by third parties with whom the issuer is sufficiently “entangled.” See Elkind v. Liggett & Myers, Inc., 635 F.2d 156 (2d Cir. 1980). This, too, has generated a good deal of litigation and confusion.
the stock exchanges and NASDAQ, which are at least a conscious effort to address the affirmative publicity duty as something other than an exceptional obligation. They are fairly open ended, tending to privilege nondisclosure when there is some business justification. For example, both the American Stock Exchange ("Amex") and NASDAQ permit nondisclosure when immediate disclosure would prejudice the ability of the company to pursue its "corporate objectives," and the New York Stock Exchange ("NYSE") permits delayed disclosure in light of a balancing between present and future shareholder interests. They are also fairly impotent in terms of the likelihood of enforcement. With the exchanges and NASDAQ so aggressively competing for bona fide issuers, the likelihood of delisting or any other significant penalty for a violation of the disclosure rules is minimal. Nor have the courts shown any willingness to allow for third-party enforcement of these rules.

So, there really has been no serious or effective regulatory attempt to answer the affirmative duty question, leaving a gap in disclosure policy that is increasingly noticeable in an EDGAR-based environment. With the proposed shift to a company registration model for public offerings by seasoned issuers, the SEC seems to have come to a more candid acknowledgment of this deficiency, asking for comment on whether 10-K's and 10-Q's should have more explicit risk disclosure comparable to Item 503(c) and whether there should be some continuous disclosure obligation along the lines of the exchange listing requirements.

Given the promise of both company registration and disclosure technology, there needs to be a clearer SEC policy on the duty to update. The obvious question, however, is why the Commission never articulated one before (at least in terms of a duty to update the mandatory filings). The likely answer is two-fold. One element is probably political: that the most organized interest group that favors disclosure generally, the professional investor and


52. Courts have not been willing to allow investors to invoke violations of the listing standards as a basis for a private right of action. See, e.g., State Teachers Retirement Bd. v. Fluor Corp., 654 F.2d 843, 851-53 (2d Cir. 1981).

analyst community, is ambivalent at best to an approach that might insist on public disclosure of the most sensitive forward-looking information, to which they currently have selective and preferential (albeit incomplete) access through private contacts with issuer management.54

The other one is more substantive. As Ed Kitch has recently emphasized55 and many securities lawyers have long sensed, what is missing from current disclosure philosophy is any explicit or coherent mechanism for balancing the investor-borne costs associated with disclosure with its more apparent benefits. To be sure, the Commission has from time to time, especially in recent years, been publicly sensitive to the regulatory burdens of its specific rule changes, both in terms of the costs of disclosure preparation and occasional infringement on confidentiality. However, to articulate an affirmative disclosure policy would require the Commission to acknowledge and deal with the full range of such costs as it answers the fundamental question of when it is in the best interests of investors for companies to conceal the truth. Are there ever good business reasons that should privilege concealment in a 10-K, even if it may be deceptive?56 Publicly committed by history and tradition to a “truth-telling” philosophy, the Commission has plainly been reluctant to concede in a rule that truth-telling may not necessarily be the highest good of disclosure regulation, even though that seems implicit in many of its ad hoc conclusions. Hopefully, however, there are too many pressures for that muteness to persist.

B. Designing a Continuous Risk Disclosure Obligation

Let me frame the issue starkly by offering a proposal. In an electronic disclosure environment, the concept of the 10-K and 10-Q should be


55. See Kitch, supra note 32; see also Paul G. Mahoney, Mandatory Disclosure as a Solution to Agency Problems, 62 U. CHI. L. REV. 1047, 1102-03 (1995).

abolished in favor of a unitary company registration “file.” This file should contain all the material currently required under Reg. S-K, plus—for the reasons articulated earlier—management’s risk discussion and analysis. The SEC would then adopt updating rules. Some information would have to be updated annually, some quarterly, and some continuously. Without wanting to specify comprehensively which line-items would fall into which of these three categories, at least the RD&A would be subject to a continuous updating requirement.57

What is objectionable about such a proposal, and how might it then have to be refined for it to be an optimal disclosure policy? The benefits seems clear if our earlier discussion of the asymmetry of risk-related information is persuasive. Of course, I do not want to overclaim here. There are many kinds of risks that management will not see clearly,58 and (in efficient markets, at least) alternative sources of analysis that might actually be more objective than management in assessing risk probabilities and magnitudes. An RD&A is not a magic looking glass. But given management’s conceded superior access to proprietary information, investors would surely gain some appreciable benefit in terms of the availability of new information from such a requirement.

The question, then, is more one of cost-justification, and here we turn to the two different kinds of burdens that are associated with mandatory disclosure. One is the cost associated with disclosure preparation—in terms of management effort and distraction as well as associated legal expenses—which could grow if companies must continuously update portions of their files. A number of academics, most recently Professor Paul Mahoney,59 contend that this cost is significant because the SEC systematically tends to overcompel disclosure: that is, insist on information that the market does not really consider material (or worth the cost of production).

This is a good reason to be relatively conservative in the duty to update much of what goes into the company file. Some of the data is costly to gather and format, and should be required only periodically. But that is of far less significance in the area of RD&A disclosure. Those risks are already (or

57. Obviously, the SEC would have to define the time period for prompt disclosure, since evolving disclosure is often hard to draft with care; some preparation period is necessary and appropriate. In many contexts (e.g., amendments under section 13(d), codified at 15 U.S.C. § 78m(d) (1994) the duty is simply described in terms of an obligation to disclose promptly.
58. See supra note 24.
59. See Mahoney, supra note 55.
should be) known to management; management’s primary job is to respond strategically to them. Nor are the legal expenses associated with formulating the response to such a continuous updating obligation likely to be much greater than at present, given the current grossly indeterminate state of the law. We would probably reduce uncertainty costs and the amount of litigation that follows by articulating a coherent and sensible updating policy.60

1. The Problem of Confidentiality

The more potent objection to a continuous disclosure obligation is that such an obligation can too easily comprise legitimate corporate confidentiality interests: in other words, that investors will in the aggregate be hurt rather than helped by the truth-telling in too many instances. This is an issue that has come to fascinate academics recently (who have also raised the natural question of whether if concealment is good policy, permitting lies might not be also61). The most obvious example is the merger negotiation, where we might reasonably assume that publicity can jeopardize the success of the deal and thus reduce total shareholder wealth. Even that is protected from MD&A disclosure, as we saw above.62 Just as obvious is the need to privilege the nondisclosure of secret research and development activity designed to gain a competitive marketplace advantage.

Limiting the duty to update to risk-related information—i.e., bad news—ameliornates this problem considerably. Most of the imaginable examples where rational investors would readily agree that disclosure should not be required fall into a single category: those situations in which the company has embarked upon some strategic course of action that would be expected to enhance the value of the company, but premature disclosure would likely

60. There is virtually no situation of concealed information that cannot be attacked on some plausible theory under current law, and in the current environment business justification is no defense once a duty-to-disclose is found. See, e.g., Basic, 485 U.S. 224 at n.17 (1988); Beckman v. Polaroid Corp., 910 F.2d 10 (1st Cir. 1990) (en banc). Of course, either alleging or proving scienter may be difficult, but this would not change significantly were an explicit requirement imposed: in any scienter analysis, courts look at awareness of the facts, not of the law.

61. See supra note 56.

erode that value by signaling the company’s intentions to marketplace competitors. Giving an appropriately broad definition to competitors, this category captures both the merger negotiation and product development instances described above. Almost by definition, these are good news cases, not bad news ones.

This is not to say that managers will not often sense a business justification for concealing bad news from investors, especially when the news is of the speculative kind. To be sure, disclosure of risks and other adverse information can be embarrassing to executives, leading to some drop in managerial morale. And bad news can also affect other constituencies—employees, suppliers, customers, etc.—leading to the possible erosion of internal corporate optimism and a threat to continued external support and resources. While these threats may be real, securities regulation has opted to subordinate subjective, reputational interests to the promotion of stock price accuracy. Mere unpleasantness should not be enough to justify the concealment of bad news, even if bad news disclosure can sometimes be something of a self-fulfilling prophecy through its spillover effects. Moreover, allowing this kind of subjective justification for nondisclosure too easily becomes a mask for self-serving inference. As Arlen and Carney have shown, managers’ fear of losing their jobs as a result of adverse developments gives them ample reason to conceal those developments in the hope of some turnabout in fortune or just to hold on to their salary and perquisites a bit longer. This self-interest can readily become the basis for imagining a greater threat to morale and external resources than really exists. A business justification defense that is too open-ended invites nondisclosure born of self-deception.

While the category is no doubt a smaller one, there surely are some cases where business necessity could justify the concealment of bad news in way that rational investors would consider persuasive ex ante. In those instances,

64. Something of the same issue has arisen in assessing special litigation committee dismissal of shareholder derivative suits. For a case rejecting the general relevance of such factors, see Joy v. North, 692 F.2d 880 (2d Cir. 1982).
65. Arlen & Carney, supra note 23.
66. This is one of the central themes of Langevoort, Organized Illusions, supra note 24. For a thorough account of biased decisionmaking in another setting (dismissal of derivative suits) that forces corporate managers to determine the best interests of the corporation, see James D. Cox & Harry L. Munsinger, Bias in the Boardroom: Psychological Foundations and Legal Implications of Corporate Cohesion, LAW & CONTEMP. PROBS., Summer 1985, at 83.
and the dynamic RD&A should probably create a limited and carefully
tailed disclosure exception for situations where the issuer is not buying or
selling securities. One such example would be the discovery by the company
of a basis that a competitor could use to challenge a valuable patent or
copyright. If it is extremely unlikely that the competitor would ever discover
the information absent disclosure, then surely we would not want to compel
it—here, the disclosure actually creates the competitive harm. But that
problem could be avoided even without resort to a business justification
defense simply by setting the disclosure threshold high enough in terms
probability that the risk will come to pass (a topic discussed below). But what
if there is a significant risk that the adverse information would be discovered
independently by the competitor? To privilege nondisclosure, of course,
means that some investors will buy stock unaware of the weak patent or
copyright, and discover to their dismay that their investment is less valuable if
and when the competitor happens to discover the basis for challenge on its
own. That, however, is no different from the situation of sellers who later
learn of fruitful merger negotiations that were concealed at the time of their
sale. The risk that some kinds of information will properly not be disclosed is
one that the market can incorporate into prevailing prices.

For this reason, I would have as a justification for nondisclosure the
following exception: a company need not disclose a risk or other adverse
information if the disclosure of such information would be likely to cause
significant competitive injury through the exposure of a business strategy,
plan or secret. This is broad enough to cover the example given above, as
well as a situation where the company simultaneously discovered a business
risk and developed a strategic response that depends on secrecy, where
disclosing the risk would inevitably compromise that response. But it would
not permit the overbroad reputational or morale excuses in the way a generic
“business judgment” defense would.

2. The Threshold for Risk Disclosure

What is the proper threshold for compelling disclosure of business risks?
Securities regulation normally invokes the concept of materiality here, which
for speculative information requires application of the probability-magnitude

---

67. In our casebook on securities regulation, J. COX ET AL., SECURITIES REGULATION: CASES
AND MATERIALS 70 (2d ed. 1997), my co-authors and I pose such a problem to students as part of the
study of materiality, usually provoking a heated and useful classroom discussion.
test established in the *Texas Gulf Sulphur* case\textsuperscript{68} and later endorsed by the Supreme Court in *Basic.*\textsuperscript{69} Under this test, one determines whether a predictive fact is material by balancing the probability of the event occurring against the magnitude of its impact on the company if it does occur (which presumably means multiplying the probability times the magnitude, and then deciding if the product would be material). For obvious reasons, this is a difficult test to apply. Determining a discrete probability of some unique kind of business event occurring is an intellectual challenge that few humans are likely to confront consistently or coherently, and it must be done in the shadow of hindsight application by some future judge or jury.\textsuperscript{70} This biases the probability-magnitude test toward cautious application, meaning that materiality will have a very broad scope under it.

As a result, using it in an affirmative disclosure setting creates the risk of overdisclosure, diluting the effectiveness of the more important. Perhaps sensing this (and the difficulty of applying the test), the Commission’s MD&A requirement expressly rejects materiality as the threshold for disclosure of known trends or uncertainties.\textsuperscript{71} What comes in its place is a higher standard, though not much more determinate: disclosure is required only of trends and uncertainties that are “reasonably likely to occur” if the event would be material if they did occur. Practitioners disagree about the meaning of “reasonably likely.”\textsuperscript{72} Does it mean more probable than not? The word “reasonably” suggest otherwise. But how much less than 50-50? And if one goes much below 50-50, why shouldn’t magnitude come into play?

My inclination here is to retain the probability-magnitude test but state that disclosure is not required for “remote” risks. In so doing, it should be made clear that the probability analysis assumes the state of the world absent disclosure: that is, one need not disclose a risk, even of high magnitude, where absent disclosure the risk would be highly unlikely to justify anyone’s attention.

\textsuperscript{68} SEC v. Texas Gulf Sulphur Co., 401 F.2d 833 (2d Cir. 1968).
\textsuperscript{69} Basic Inc. v. Levinson, 485 U.S. 224 (1988); see supra note 20.
\textsuperscript{70} See Kim A. Kamin & Jeffrey J. Rachlinski, *Ex Post ≠ Ex Ante: Determining Liability in Hindsight,* 19 L. & Hum. Beh. 89 (1995) (bringing into play the well-known psychological tendency for people to overestimate the foreseeability of an event once they have been informed that it occurred).
\textsuperscript{71} Sec. Act Release No. 36, supra note 35.
\textsuperscript{72} See supra note 35.
3. Liability Consequences

As noted earlier, a primary objection to any expanded disclosure obligation under the federal securities laws is the risk of unfair or inappropriate civil liability. By and large, this means liability in private rights of action, where under the fraud-on-the-market theory, issuers and their associates can face massive damage exposure even for relatively innocent misrepresentations or omissions. In recent years, much concern has been expressed about the possibility that expansive disclosure rules can too easily provoke speculative litigation, brought largely for its settlement value.73

A dynamic RD&A requirement could raise the potential for more litigation, though I suspect that this concern can easily be overstated.74 As we saw above, the open-ended quality of the current law on the duty to disclose amply invites litigation in almost any setting that smacks of concealment. The affirmative disclosure duty would actually make the law less subject to dispute, and the introduction of a sensible business judgment defense would be more protective than existing law. In any event, the PSLRA would have special relevance to the kinds of litigation issues most likely to arise under the RD&A. To the extent that disclosure of risks was forward-looking, the safe-harbor defenses of meaningful cautionary language and lack of actual knowledge would apply powerfully to protect against claims of inaccuracy.75 And the heightened pleading standards would make it more difficult to bring private actions in close cases involving the nondisclosure of risks, since these are least likely to give rise to a strong inference of fraudulent intent in terms either of circumstantial evidence or motive.76 If anything, there might well be

73. For one of many recent summaries of this debate, see John C. Coffee, Jr., The Future of the Private Securities Litigation Reform Act: Or, Why the Fat Lady Has Not Yet Sung, 51 BUS. LAW. 975 (1996).

74. The current MD&A requirement has not been used by the courts as a basis for private liability per se under Rule 10b-5; in assessing whether disclosures in the MD&A are false or misleading, they have employed standard fraud principles, and have generally not held favorably to plaintiffs. E.g., In re Convergent Tech. Sec. Litig., 948 F.2d 507 (9th Cir. 1991).


underenforcement of any RD&A obligation in private settings, rather than excess.\textsuperscript{77}

VI. CONCLUSION

This discussion of an optimal, continuous disclosure obligation has seemingly drifted far from technology as a discrete regulatory concern. But not all that far. Apart from its efficiency promoting properties in the hands of informed traders, the main promise of information technology from the standpoint of informed investment decisionmaking is that it makes possible a useful antidote—an easily accessible, user-friendly electronic file describing the financial prospects and risks associated with a particular registrant—to investment decisions that too often are driven by salesmanship, impulse, and rumors. Creating a mechanism whereby all electronic prospectuses and investment sales literature have a conspicuous hypertext link to this file makes a great deal of sense. Human nature being what it is, many investors still will not take those risks into account, but presumably some will, and that is the best securities regulation can do.

To the extent that such electronic files gain substantial usage in investment decisionmaking, their further virtue is in ease of updating. If investors indeed access these files regularly, they deserve as much currency as is reasonably practicable. Carefully crafting a duty to update key risk-related information in this file, then, can be a cost-justified step in the creation of a sound disclosure policy under the federal securities laws in an increasingly complex capital marketplace.

\textsuperscript{77} One further recommendation, far from the central issue of this Article, is that the SEC or Congress limit damages in fraud-on-the-market cases to a "deterrence" measure, taking into account the difficulties in deterring self-serving managerial fraud via imposing liability on innocent shareholders. See Langevoort, \textit{Capping Damages}, supra note 24.