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Female Investors and Securities Fraud: Is the Reasonable Investor a Woman?

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FEMALE INVESTORS AND SECURITIES FRAUD: IS THE REASONABLE INVESTOR A WOMAN?

JOAN MACLEOD HEMINWAY*

ABSTRACT

Let's face it. Women and men are different in more than just the biological sense. These differences play themselves out in a variety of contexts. Some of them are meaningful in theory or in reality; others are not.

Given an increase in women's involvement in business and finance, it is unsurprising that a multidisciplinary literature is emerging at the intersection of sex or gender differences and corporate governance. Much of the work in this area has centered on women and boards of directors and women in the executive ranks. However, it is important to focus on women not only as corporate directors and officers, but also as investors in firms. Among other things, the identification and analysis of sex-based or gender-related differences in investment behavior may help explain or predict market phenomena and may illuminate defects or gaps in regulatory frameworks or provisions. For example, the investment attributes of female investors may indicate that women are better or less well protected from changes in firms, laws, or the market than their male investor counterparts. Research along these lines is especially relevant at present in light of ongoing allegations of securities fraud and significant volatility in securities markets.

With all of this in mind, this article extends scholarship that questions the existing materiality standard used under Rule 10b-5 (and elsewhere in U.S. securities regulation) and its touchstone notion of the reasonable investor. Specifically, the article asks and answers a seemingly straightforward, yet provocative, question: Is the reasonable investor a woman? The article then explores the potential

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significance of its key findings — women and men exhibit different investment behaviors and achieve different investment outcomes, and the resulting female investor profile is closer to existing conceptions of the reasonable investor than the resulting male investor profile.

As women become bigger players in the securities markets, it may be comforting to know that they are relatively well protected by existing conceptions of the reasonable investor. The knowledge that women are not completely protected by these existing conceptions and that men are less well protected than women under the current reasonable investor paradigm, however, gives us pause and forces us to reconsider inaction. To that end, this article continues an ongoing academic and practical conversation about when changes in investor protection should be undertaken and how those changes are best made if they are to be undertaken — not just for the benefit of women or men, but for the benefit of all underprotected investors.

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INTRODUCTION

In securities fraud litigation based on misstatements or omissions of fact, materiality often is a critical element.¹ Assuming the existence of a duty to disclose, only misstatements of *material* fact and omissions to state *material* fact are potentially actionable under Rule 10b-5,² the widely applicable, broadly construed antifraud rule adopted by the Securities and Exchange Commission (“SEC”) under section 10(b) of the Securities Exchange Act of 1934, as amended (“1934 Act”).³ Decisional law defines materiality in the context of Rule 10b-5 (and other antifraud rules) through an objective standard that, as alternatively stated, focuses on the importance or contextual significance of the misstated or omitted fact to the “reasonable investor.”⁴

This focus underscores the fact that the reasonable investor is the type of investor that Rule 10b-5 and other antifraud rules aim to protect.⁵ The conception of the reasonable investor, however, is at best fluid and at worst ill-defined. The descriptive and normative attributes of the reasonable investor are critically important to the development of securities fraud law and regulation,⁶ yet they are underanalyzed. Recently, a few scholars have undertaken analyses in this area that begin to conceptualize or theorize the reasonable

1. See Margaret V. Sachs, *Materiality and Social Change: The Case for Replacing “the Reasonable Investor” with “the Least Sophisticated Investor” in Inefficient Markets*, 81 TUL. L. REV. 473, 475 (2006) (noting that the lack of a “statutory standard of materiality” leaves courts “to fill the void”).

2. 17 C.F.R. § 240.10b-5 (2008).

3. 15 U.S.C. § 78j(b) (2006).

4. See *Basic Inc. v. Levinson*, 485 U.S. 224, 231-32 (1988) (adopting for use under Rule 10b-5 two alternative formulations of a materiality standard first adopted by the Court in *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438 (1976)). Under *Basic*, a fact is material under Rule 10b-5 “if there is a substantial likelihood that a reasonable shareholder would consider it important” in making an investment decision or if “a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.” *Id.* (quoting *TSC*, 426 U.S. at 449).

5. Cf. Sachs, *supra* note 1, at 475-77 (discussing the materiality standard’s failure to protect unsophisticated investors).

6. See Erik F. Gerding, *The Next Epidemic: Bubbles and the Growth and Decay of Securities Regulation*, 38 CONN. L. REV. 393, 438-40 (2006) (identifying and discussing the relationship among behavioral biases, materiality, and the reasonable investor under securities regulation); Larry E. Ribstein, *Fraud on a Noisy Market*, 10 LEWIS & CLARK L. REV. 137, 158-59 (2006) (describing and analyzing the relationship among fraud-on-the-market theory, materiality, and the reasonable investor); see generally David A. Hoffman, *The “Duty” To Be a Rational Shareholder*, 90 MINN. L. REV. 537, 537-42 (2006) (outlining the critical importance of the concept of the reasonable investor to recoveries by plaintiff shareholders under federal securities laws).

investor.⁷ This article extends that work by inquiring into certain descriptive and normative characteristics of the reasonable investor associated with the sex⁸ of that investor. This inquiry aims to answer a simple question: Is the reasonable investor a woman?

This question may seem like an odd one to ask (and the explorations in this article are certainly only a small piece of an overall puzzle that I intend to explore in future works), but it arises out of important empirical studies of investment behavior based on sex. Specifically, there is emerging evidence that women may behave and fare differently from men when they engage in securities trading transactions.⁹ These differences in behavior and outcome are

7. See, e.g., Hoffman, *supra* note 6; Peter H. Huang, *Moody Investing and the Supreme Court: Rethinking the Materiality of Information and the Reasonableness of Investors*, 13 SUP. CT. ECON. REV. 99 (2005); Sachs, *supra* note 1.

8. This article looks at empirical evidence sorted by sex, which in the process may be interpreted as a commentary on gendered characteristics of investors. Moreover, the differences identified in this article may be biologically determined or socially constructed. Accordingly, the words "sex" and "gender" (and derivatives of those words) are used interchangeably.

9. See, e.g., THOMAS J. STANLEY, *MILLIONAIRE WOMEN NEXT DOOR: THE MANY JOURNEYS OF SUCCESSFUL AMERICAN BUSINESSWOMEN* 49-52 (2004); Stanley M. Atkinson et al., *Do Female Mutual Fund Managers Manage Differently?*, 26 J. FIN. RES. 1 (2003); Vickie L. Bajtelsmit & Alexandra Bernasek, *Why Do Women Invest Differently than Men?*, 7 FIN. COUNSELING & PLAN. 1 (1996); Brad M. Barber & Terrance Odean, *Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment*, 116 Q.J. ECON. 261 (2001); Rob Bauer et al., *Option Trading and Individual Investor Performance*, J. BANKING & FIN. (forthcoming May 2009) (Dutch study); J. M. Coates & J. Herbert, *Endogenous Steroids and Financial Risk Taking on a London Trading Floor*, 105 PROC. NAT'L ACAD. SCI. U.S. 6167, 6167 (2008) (British study); James Felton et al., *Preference for Risk in Investing as a Function of Trait Optimism and Gender*, 4 J. BEHAV. FIN. 33 (2003); Robert A. Olsen & Constance M. Cox, *The Influence of Gender on the Perception and Response to Investment Risk: The Case of Professional Investors*, 2 J. PSYCHOL. & FIN. MARKETS 29 (2001); Melanie Powell & David Ansic, *Gender Differences in Risk Behaviour in Financial Decision-Making: An Experimental Analysis*, 18 J. ECON. PSYCHOL. 605 (1997) (English study); Renate Schubert et al., *Financial Decision-Making: Are Women Really More Risk-Averse?*, 89 AM. ECON. REV. 381 (1999); Jayne Elizabeth Zanglein, *Investment Without Education: The Disparate Impact on Women and Minorities in Self-Directed Defined Contribution Plans*, 5 EMP. RTS. & EMP. POL'Y J. 223 (2001); Ralph Bluethgen et al., *Financial Advice and Individual Investors' Portfolios* 13 (Mar. 2008) (unpublished working paper), available at <http://ssrn.com/abstract=968197> (German study); Gary Charness & Uri Gneezy, *Strong Evidence for Gender Differences in Investment* (Sept. 18, 2007) (unpublished working paper), available at <http://ssrn.com/abstract=648735>; Charlotte Christiansen et al., *Gender, Marriage, and the Decision to Invest in Stocks and Bonds: Do Single Women Invest More in Less Risky Assets?* (Nov. 29, 2006) (unpublished working paper), available at <http://ssrn.com/abstract=948164> (Danish study); John R. Graham et al., *Investor Competence, Trading Frequency, and Home Bias* 2, 11-12, 15-16, 22 (May 29, 2006) (unpublished working paper), available at <http://ssrn.com/abstract=620801>; Anders Karlsson & Lars Nordén, *Benefits of Contribution: Individual Asset Allocation, Diversification and Welfare in a Defined Contribution Pension System* 14-16, 18, 21 (Nov. 11, 2006) (unpublished working paper), available at <http://ssrn.com/abstract=891164> [hereinafter Karlsson & Nordén, *Benefits of Contribution*]; Anders Karlsson & Lars Nordén, *Investor Competence, Information and Investment Activity*

increasingly important; around the world,¹⁰ growing numbers of women are investing in publicly traded securities¹¹ and, as the publication of numerous female-targeted popular press books demonstrates, being encouraged to invest in the securities markets (and elsewhere) in greater amounts and with greater frequency.¹² The increased participation of women in the securities markets may be or become market significant or legally significant. Accordingly, it is relevant to ask whether these female investors, with their different investment behaviors and outcomes, reflect existing conceptions of the reasonable investor or suggest the need for a change in current conceptions of the reasonable investor. This article is designed to address those questions and to raise related issues involving the need for legal change.

In furtherance of these objectives, the analysis in this article proceeds in four parts. In Part I, the article briefly summarizes existing legal conceptions of the reasonable investor in legislative history, decisional law, and descriptive analysis and highlights related legal scholarship. Part II describes recent empirical work (principally from finance and behavioral psychology) on sex-based investment behaviors and outcomes, focusing on both individual female investors and (to a lesser extent) female investment professionals. Part III compares and contrasts the information about actual investment behaviors and outcomes of female investors set forth in Part II with the conceptions

(Feb. 28, 2008) (unpublished working paper), available at <http://ssrn.com/abstract=1007193> [hereinafter Karlsson & Nordén, *Investor Competence*]; Alexandra Niessen & Stefan Ruenzi, *Sex Matters: Gender Differences in a Professional Setting* (Ctr. for Fin. Research, Working Paper No. 06-01, 2007); Stacie Garvert, *Performance of Female Hedge Fund Managers* (2008) (unpublished M.A.B. thesis, Kansas State University), available at <http://hdl.handle.net/2097/548>.

10. Although this article focuses on female investors and law in the United States, women also are becoming bigger players in the capital markets of other developed and developing nations. See, e.g., *Focus: Indian Housewives Active in Booming Stock Markets*, JAPAN WKLY. MONITOR, Oct. 13, 2007, available at 2007 WLNR 24108688.

11. See Janet Bennett, *Many Happy Returns: Women's Investment Groups Have Become a Growth Market*, WASH. POST, Feb. 18, 1997, at D5; Janet Bodnar, *It Takes Two to Invest Well*, KIPLINGER'S PERS. FIN., Apr. 2007, at 88; Robert Luke, *Women Gain Prominence as Investors*, CHI. TRIB., May 26, 1999, *Woman News* (Lake Edition), at 8; Steven Miyao, *Funds, Advisers Would Be Wise to Prepare for Women's Increasing Financial Power*, MONEY MGMT. EXECUTIVE, Mar. 13, 2006, at 6; Liza Mundy, *Women & Investing: Taking Stock; Who, These Days, Is Not Getting into the Market?*, WASH. POST, Sept. 10, 2000, *Magazine*, at W15; Kathy Wang, *Investors Becoming Younger and Female*, STANDARD (Hong Kong), Oct. 26, 2007, available at 2007 WLNR 23824226. In the United States, women have comprised a significant percentage of individual equity investors for at least twenty-five years. See Rebecca S. Rudnick, *Who Should Pay the Corporate Tax in a Flat Tax World?*, 39 CASE W. RES. L. REV. 965, 1209 n.877 (1989) (citing a New York Stock Exchange survey that found "[t]here were 25,000 more women than men owning stock in 1985, while in 1983, there were 1,159,000 more women than men in the stock market").

12. See, e.g., DAVID BACH, *SMART WOMEN FINISH RICH* (2d ed. 2002); KIM KIYOSAKI, *RICH WOMAN* (2006); SUZE ORMAN, *WOMEN & MONEY* (2007).

of the reasonable investor described in Part I, noting that women's investment behavior conforms better than men's investment behavior to existing reasonable investor models. Then, Part IV assesses the value of the findings set out in Part III to — and the potential impact of these findings on — the legal conception of the reasonable investor. These assessments relate to the protection of female investors, the overall nature and function of the materiality element in securities fraud actions under Rule 10b-5 (and, potentially, other antifraud laws and rules that use the materiality standard), and the efficacy of disclosure regulation as the primary means of effectuating national securities policy.

I. CURRENT LEGAL CONCEPTIONS OF THE REASONABLE INVESTOR

Although there is no litmus test for identifying the reasonable investor,¹³ it is possible to identify certain characteristics that are associated with the reasonable investor. These existing conceptions of the reasonable investor can be gleaned from Congress, the SEC, the courts, and commentators (including scholars and practitioners). Both the nature and source of conceptions of the reasonable investor raise a number of important unanswered questions. These questions include whether the notion of the reasonable investor is intended to be idealized and fixed in time (or whether it may change with changes in the market), and whether — and if so how — decisional law context (including the interaction of materiality and other elements of a fraud claim, e.g., scienter or reliance) affects our view of the reasonable investor.¹⁴

A. *The Rational Investor as Reasonable Investor*

For many, the starting point in thinking about the reasonable investor is considering whether the reasonable investor must be a

13. Professor David A. Hoffman notes that “[b]oth ‘reasonable’ and ‘investor’ have multiple variants: rational, prudent, informed, lay, and typical; shareholder, stockholder, businessman, man, and person.” Hoffman, *supra* note 6, at 540 n.12; *see also* Stefan J. Padfield, *Is Puffery Material to Investors? Maybe We Should Ask Them*, 10 U. PA. J. BUS. & EMP. L. 339, 344-45 (2008) (“[C]ourts have not spoken in one voice on this point, and other commentators argue that the ‘better reasoned authorities have concluded that 10b-5 applies to all investors, whether or not sophisticated.’”); *id.* at 365 (“[T]he definition of ‘reasonable investor’ for purposes of securities regulation is far from settled — stretching from ‘sophisticated’ to ‘average’ to ‘naïve’ . . .”).

14. In these regards, Professor Peter H. Huang asserts that the number and types of securities fraud claims “do and should” vary with actual market activity. Huang, *supra* note 7, at 100. Similarly, Professor Margaret V. Sachs asserts that “[t]he current materiality standard for federal securities fraud is a mid-twentieth-century construct that fails to accommodate certain twenty-first century realities.” Sachs, *supra* note 1, at 473. The discussion in Part IV takes up these unanswered questions to some extent.

rational investor. More specifically, many may question whether the reasonable investor must be a rational *economic* actor — *homo economicus* — with wealth maximization as the key attribute.¹⁵ No doubt, there are advantages to defining reasonableness as rationality in the context of securities regulation. In this regard, Professor Don Langevoort notes that

[l]ike classical economics, both the common law and securities regulation have long worked largely from the simplifying assumption of the rational actor. Whether or not the assumption is reasonably accurate, it has the virtue of myth: it gives order to the otherwise chaotic, offering a comforting confidence that behavior is controllable through simple interventions like disclosure and contract enforcement. In other words, law has the appearance of greater power and efficacy if we assume a rational world. Few doubt that rationality plays a substantial role in ordering the securities markets. Thus, it should not be surprising that most doctrinal structures invoke the assumption of dominating rationality. The emphasis in securities law is on making accurate information available; the investor is presumed to be willing and able to use it wisely.¹⁶

Decisional law and the related literature support the view that the reasonable investor is a rational investor (although judicial decisions are careful not to make this linkage explicit).¹⁷ In fact, one legal

15. See Sachs, *supra* note 1, at 490 (“Protecting individual investors is largely unnecessary since the ‘homo economicus’ is well-informed or at least knowledgeable enough to know when he needs an adviser.”); Ronald J. Colombo, *Exposing the Myth of Homo Economicus 2-6* (Hofstra Univ. Sch. of Law Legal Studies Research Paper Series, Research Paper No. 08-05, 2008), available at <http://ssrn.com/abstract=1189499> (reviewing MORAL MARKETS (Paul J. Zak ed., 2008)).

16. Donald C. Langevoort, *Selling Hope, Selling Risk: Some Lessons for Law from Behavioral Economics About Stockbrokers and Sophisticated Customers*, 84 CAL. L. REV. 627, 699 (1996) (footnotes omitted).

17. See *infra* notes 18-21 and accompanying text; cf. *Betz v. Trainer Wortham & Co.*, 519 F.3d 863, 878 (9th Cir. 2008) (seemingly using the word “rational” as the equivalent of “reasonable” in describing and evaluating investor behavior); *Gebhardt v. ConAgra Foods, Inc.*, 335 F.3d 824, 830 (8th Cir. 2003) (same). Some courts assume that reasonable investors engage in cost-benefit analyses or weigh certain factors against others. See, e.g., *DeBenedictis v. Merrill Lynch & Co.*, 492 F.3d 209, 218 (3d Cir. 2007) (“In light of the other news articles and the concerns expressed in *The Wall Street Journal* article, *The Wall Street Journal*’s reference to Merrill’s suitability training was not enough to dissipate a reasonable investor’s concerns about the fees and costs associated with Class B shares.”); *CFTC v. White Pine Trust Corp.*, No. 04cv2093-J-NLS, 2007 U.S. Dist. LEXIS 27218, at *30 (S.D. Cal. Apr. 11, 2007) (“Misrepresentations as to the earning record and history of WPT, the education of WPT employees, Defendant’s own employment history, WPT’s commission structure, and a fictitious positive reference would weigh heavily on a reasonable investor in deciding whether to invest and, in particular, whether to make an investment in a potentially high risk market.”); *Colo. Springs Prod. Credit*

scholar concludes, after analyzing applicable decisional law, that the reasonable investor, as interpreted in the context of materiality, is “a proxy for economic rationality”¹⁸ and that “[r]easonable investors are platonic models, immune to those behavioral biases and heuristics which distort the decision making of actual market participants.”¹⁹ Another scholar, while raising concerns about the incorporation of behavioral biases and heuristics into the conceptualization of the reasonable investor, acknowledges that it may be practically impossible to ignore all elements of irrational behavior.²⁰ Yet others argue for, assume, or support a conceptualization of the reasonable investor that includes, but may not be limited to, characteristics commonly associated with the rational investor.²¹

B. The Speculator, the Chartist, and the Fundamental Analyst as Reasonable Investor

There is evidence from congressional testimony, for example, that the concept of the reasonable investor may be broad enough to include speculators²² — even though the literature contrasts speculators with investors.²³ This may be because “[c]onventional economic theory . . . generally views speculation as an efficient form of trading that shifts risk to those who can bear it most easily and improves the accuracy of market prices.”²⁴ Speculators are high-risk, high-reward market participants,²⁵ although they typically are well informed about

Ass'n v. Farm Credit Admin., 695 F. Supp. 15, 21 (D.D.C. 1988) (“A reasonable investor’s expectation in purchasing stock is that some return or benefit will be received in return.”); Fradkin v. Ernst, 571 F. Supp. 829, 848 (N.D. Ohio 1983) (“A reasonable investor could not calculate the actual figures payable from the information disclosed.”).

18. Hoffman, *supra* note 6, at 604.

19. *Id.* at 594.

20. See Ribstein, *supra* note 6, at 158-59.

21. See, e.g., Caroline Bradley, *Information Society Challenges to Financial Regulation*, 37 U. TOL. L. REV. 307, 314 (2006) (referencing “securities law’s model of a rational, reasonable investor who invests based on relevant factual information”).

22. H. R. REP. NO. 73-1383, pt. II, at 11 (1934) (“No investor, no speculator, can safely buy and sell securities upon the exchanges without having an intelligent basis for forming his judgment as to the value of the securities he buys or sells.”). Interestingly, however, the 1934 Act can be seen as legislation intended to curb speculation. See Lynn A. Stout, *Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives*, 48 DUKE L.J. 701, 728-33 (1999) (providing a useful history of the relationship between speculation and the enactment of the 1934 Act). No doubt, some of the confusion in this area has to do with differences among speculators in motivation, approach, and other attributes.

23. BENJAMIN GRAHAM & DAVID L. DODD, *SECURITY ANALYSIS* 33-37 (3d ed. 1951); see also William W. Bratton, *Shareholder Value and Auditor Independence*, 53 DUKE L.J. 439, 455 (2003) (contrasting speculation and investment).

24. Stout, *supra* note 22, at 701.

25. See *id.* at 736.

the market,²⁶ the sectors, and the corporations in which they invest,²⁷ speculators may sometimes take irrational risks in the nature of gambling.²⁸ Unsurprisingly, given this definition, they are known to trade in derivative securities.²⁹ Moreover, contemporary descriptions of “noise traders” arguably put them in the camp of speculators.³⁰

In addition to speculators, chartists may be reasonable investors. In a seminal case, the U.S. Court of Appeals for the Second Circuit expressly states that “[t]he speculators and chartists of Wall and Bay Streets are . . . ‘reasonable’ investors entitled to the same legal protection afforded conservative traders.”³¹ Chartists are investors that plot historical stock prices and trading volumes and use those charts to inform their trading decisions.³² Chartism, sometimes referred to

26. See *id.* at 737.

27. There are many different kinds of speculators. For example, a speculator who trades with knowledge of the fundamental value of the securities in which he invests has been termed a “smart money” speculator. Merritt B. Fox et al., *Law, Share Price Accuracy, and Economic Performance: The New Evidence*, 102 MICH. L. REV. 331, 348-49 (2003). Smart money speculators may be contrasted with “naïve” speculators, whose trading is activated by fads, fashions, or irrational psychological predispositions toward behaviors such as chasing trends.” *Id.* Smart money speculators may also be seen as a type of “intelligent speculator” — an informed risk-taker. SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 849 n.10 (2d Cir. 1968); see also Huang, *supra* note 7, at 111 (“[The] description of how an intelligent speculator behaves remains that of a person who cognitively evaluates and calculates securities risks . . .”). Intelligent speculators can, in turn, be equated or analogized to sophisticated investors. See *infra* notes 40-43 and accompanying text.

28. A speculator is “[a] knowledgeable, aggressive investor who trades securities to profit from fluctuating market prices.” A HANDBOOK OF BUSINESS LAW TERMS 558 (Bryan A. Garner ed., 1999); see also Merritt B. Fox, *Securities Disclosure in a Globalizing Market: Who Should Regulate Whom*, 95 MICH. L. REV. 2498, 2534 n.72 (1997) (“[A] speculator is . . . any investor who chooses her portfolio on the basis of her beliefs concerning the future returns of available securities rather than randomly or on the basis of the security’s historical Beta. These beliefs are based on the information possessed by the investor.”); Theresa A. Gabaldon, *The Disclosure of Preliminary Merger Negotiations as an Imperfect Paradigm of Rule 10b-5 Analysis*, 62 N.Y.U. L. REV. 1218, 1235-36 (1987) (“[S]peculation is defined as the making of investments with the expectation that prospective market value will vary from current market value over the short term. The basis for this expectation is the belief that the investor has special access to, and has acquired, information that is not generally available to the market and that has predictive value; or that the investor has special ability to evaluate, and has evaluated, the probability or magnitude of an event predicted by generally available information more accurately than has the market as a whole.”); Thomas Lee Hazen, *Rational Investments, Speculation, or Gambling? — Derivative Securities and Financial Futures and Their Effect on the Underlying Capital Markets*, 86 NW. U. L. REV. 987, 1002 (1992) (“Speculative investment strategies do not represent rational behavior. Speculative investing has long been viewed as tantamount to gambling.”).

29. See Robert J. Aalberts & Percy S. Poon, *Derivatives and the Modern Prudent Investor Rule: Too Risky or Too Necessary?*, 67 OHIO ST. L.J. 525, 552-53 (2006); Frank Partnoy, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. CORP. L. 211, 224-26 (1997).

30. See Bratton, *supra* note 23, at 455-57.

31. SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 849 (2d Cir. 1968).

32. See, e.g., Flamm v. Eberstadt, 814 F.2d 1169, 1182 (7th Cir. 1987) (Cudahy, J., concurring) (“[C]hartists and tape-readers find all they need to know about securities in

as technical analysis,³³ continues to exist in investing and investment advising even though economic theory, specifically, the weak version of the efficient capital market hypothesis ("ECMH"), indicates that chartism should not result in an investment advantage.³⁴

Reasonable investors also include those who engage in fundamental analysis, incorporating all publicly available information in investment decision making.³⁵ "Fundamental analysis (as compared to technical analysis) focuses on the intrinsic value of stocks. Intrinsic value is 'the value which is justified by assets, earnings, dividends, definite prospects, and the factor of management.'"³⁶ The utility of fundamental investment analysis is refuted by the semi-strong version of the ECMH,³⁷ which holds that mere knowledge of publicly

their price (and sometimes in their volume of trading)."); *United States v. Gilbert*, 1981 Fed. Sec. L. Rep. (CCH) ¶ 98,244, at 91,610 (S.D.N.Y. July 23, 1981) ("[A] 'chartist' is an investor who makes investment decisions on the basis of the movement of a stock's volume and price charts, data kept current by the tickertape."); *Van Alen v. Dominick & Dominick, Inc.*, 441 F. Supp. 389, 392-93 (S.D.N.Y. 1976) (describing the methods of two chartists); *Galfand v. Chestnutt*, 402 F. Supp. 1318, 1323-24 (S.D.N.Y. 1975) (describing the methods of a leading chartist); Thomas Lee Hazen, *The Short-Term/Long-Term Dichotomy and Investment Theory: Implications for Securities Market Regulation and for Corporate Law*, 70 N.C. L. REV. 137, 150 (1991) ("The chartist makes and interprets stock charts of past movements of common stock prices and trading volume for clues to future price movement.").

33. Barbara Ann Banoff, *Regulatory Subsidies, Efficient Markets, and Shelf Registration: An Analysis of Rule 415*, 70 VA. L. REV. 135, 178 n.205 (1984); Roger J. Dennis, *Materiality and the Efficient Capital Market Model: A Recipe for the Total Mix*, 25 WM. & MARY L. REV. 373, 375 n.5 (1984); Hazen, *supra* note 32, at 150-53; Henry T. C. Hu, *Faith and Magic: Investor Beliefs and Government Neutrality*, 78 TEX. L. REV. 777, 838 (2000); Andrew R. Simmonds et al., *Dealing with Anomalies, Confusion and Contradiction in Fraud on the Market Securities Class Actions*, 81 KY. L.J. 123, 139 (1992); Keith Adam Simon, *The Misappropriation Theory: A Valid Application of § 10(b) to Protect Property Rights in Information*, 88 J. CRIM. L. & CRIMINOLOGY 1049, 1079 (1998).

34. Barbara Black, *Fraud on the Market: A Criticism of Dispensing with Reliance Requirements in Certain Open Market Transactions*, 62 N.C. L. REV. 435, 438 n.8 (1984); Lawrence A. Cunningham, *From Random Walks to Chaotic Crashes: The Linear Genealogy of the Efficient Capital Market Hypothesis*, 62 GEO. WASH. L. REV. 546, 558, 560-61 (1994); Ronald J. Gilson & Reinier Kraakman, *The Mechanisms of Market Efficiency Twenty Years Later: The Hindsight Bias*, 28 J. CORP. L. 715, 719 (2003); Robert W. Hamilton & Larry E. Ribstein, *Limited Liability and the Real World*, 54 WASH. & LEE L. REV. 687, 695 (1997).

35. See Hazen, *supra* note 32, at 147-50 (describing and commenting on traditional fundamental analysis).

36. Lewis D. Solomon & Howard B. Dicker, *The Crash of 1987: A Legal and Public Policy Analysis*, 57 FORDHAM L. REV. 191, 245 n.415 (1988); see also Dennis, *supra* note 33, at 377-78 (noting the emphasis of fundamental analysis on using "publicly available information . . . such as industry prospects, expected product developments, and management ability" in evaluating companies); Hazen, *supra* note 32, at 144 ("Fundamental analysis involves following the performance of particular companies and attempting to identify securities whose prices do not fairly reflect the analyst's evaluation of the company's financial condition.").

37. See Dennis, *supra* note 33, at 377.

available information offers investors no advantage because all publicly available information is embedded in market prices.³⁸

C. *The Sophisticated Investor as Reasonable Investor*

For better or for worse, the foregoing conceptions of the reasonable investor indicate expressly or impliedly that the reasonable investor is a sophisticated trader, an experienced participant in securities markets who researches investment prospects and has the ability to understand what the research reveals.³⁹ Sophisticated investors do not merely receive investment information; they also process it, using (an assumed level of) knowledge and experience.⁴⁰ “[T]oday’s ‘reasonable investors’ are expected to possess a certain level of understanding and sophistication According to the courts, reasonable investors should understand, for example, the time-value of money, diversification and risk, and the securities industry’s compensation structure.”⁴¹ Although sophistication is not always associated

38. See, for example, Christopher Gulinello, *The Mandatory Disclosure of State Corporate Law*, 86 NEB. L. REV. 795, 817-18 (2008); Christine Hurt, *Moral Hazard and the Initial Public Offering*, 26 CARDOZO L. REV. 711, 759 (2005); Jonathan Klick & Robert H. Sitkoff, *Agency Costs, Charitable Trusts, and Corporate Control: Evidence From Hershey’s Kiss-Off*, 108 COLUM. L. REV. 749, 797 (2008), for descriptions of the semi-strong form of the ECMH.

39. Stefan J. Padfield, *Who Should Do the Math? Materiality Issues in Disclosures that Require Investors to Calculate the Bottom Line*, 34 PEPP. L. REV. 927, 939-40 (2007).

40. See, e.g., *Gillam v. PG&E Corp.*, 71 Fed. App’x 711, 712 (9th Cir. 2003) (mem.) (“It was common knowledge that wholesale electricity costs spiked in 2000, and that the Utility was not recovering those costs through its retail rates. No reasonable investor would have ignored the disclosures explaining how the company was treating the resulting undercollections on its financial statements.”); *No. 84 Employer-Teamster Joint Council Pension Trust Fund v. Am. W. Holding Corp.*, 320 F.3d 920, 935 (9th Cir. 2003) (“A reasonable investor would find significant the information regarding a company’s deferred maintenance costs, unsafe maintenance practices, and possible sanction. In addition, a reasonable investor would consider the potential effects of each of these facts on the overall economic health of the company as ‘significantly alter[ing] the “total mix” of information made available.’” (alteration in original)); *Wallace v. Sys. & Computer Tech. Corp.*, 1997 Fed. Sec. L. Rep. (CCH) ¶ 99,578, at 97,878-79 (E.D. Pa. Sept. 22, 1997) (“SCT also disclosed that the Adage acquisition was the first step in entering a new market and that there would be costs associated with launching this new area of business. A reasonable investor understands, without being told explicitly, that there are costs and risks involved in attempting to enter and to compete in a new market with new products.”).

41. Barbara Black & Jill I. Gross, *Making It Up as They Go Along: The Role of Law in Securities Arbitration*, 23 CARDOZO L. REV. 991, 1037 (2002) (footnotes omitted); see also Sachs, *supra* note 1, at 485 (“[T]he reasonable investor, ‘unlike the mere ‘reasonable person,’ is someone who grasps market fundamentals.”). Professor David Hoffman offers that

[c]ourts presume that reasonable investors possess certain basic knowledge and skills. These include understanding: basic ideas about taxation of different investments, that shares may be valued using different methodologies

with rationality, one legal scholar speculates that a conceptualization of the reasonable investor as a sophisticated market player may be a backdoor way of limiting the reasonable investor notion to rational investors.⁴²

Both decisional law and statutory law strongly suggest that the reasonable investor is sophisticated. In a leading and colorful case in this area, the Seventh Circuit posits that reasonable investors are not: “nitwits;” investors having “a child-like simplicity, an inability to grasp the probabilistic significance of negotiations;” “unsophisticated investors;” “babes in the woods;” or “rubes.”⁴³ Rather, reasonable (sophisticated) investors are able to appreciate that mergers and other planned corporate ventures are not certain until they have been closed, that the importance of a planned corporate venture must be balanced against the probability that it will be undertaken, and that investment involves risk.⁴⁴ A conception of the reasonable investor as sophisticated is the root of several key common law defenses to claims of materiality (“mere puffery,” “truth-on-the-market,” and “bespeaks caution”), as well as a statutory defense (a safe harbor adopted under the Private Securities Litigation Reform Act of 1995 (“PSLRA”).⁴⁵ These defenses all assume “that the usual ‘sophisticated’ investor is — and should be — wary and vigilant in sales interactions.”⁴⁶

Under the “mere puffery” defense, a person against whom a securities fraud action has been brought argues that alleged misrepresented facts are not materially inaccurate or incomplete because those alleged facts constitute nothing more than nonspecific, positive representations.⁴⁷ “Statements which are ‘mere puffery’ are ‘vague

and appreciating the differences based on relevant underlying facts, that corporate managers are self-interested and wish to retain control, and basic accounting treatment.

Hoffman, *supra* note 6, at 582 (footnotes omitted). Some commentators even assert that reasonable investors are, or should be seen as, professional investors in today’s markets, at least in fraud-on-the-market cases. See John M. Newman, Jr. et al., *Basic Truths: The Implications of the Fraud-on-the-Market Theory for Evaluating the “Misleading” and “Materiality” Elements of Securities Fraud Claims*, 20 J. CORP. L. 571, 572 (1995).

42. Padfield, *supra* note 13, at 345 (“[C]onceptualizing the reasonable investor as sophisticated for materiality purposes may impose a duty upon shareholders to be rational . . .”).

43. *Flamm v. Eberstadt*, 814 F.2d 1169, 1175 (7th Cir. 1987).

44. *Id.*

45. 15 U.S.C. §§ 77z-2(c), 78u-5(c) (2006).

46. *Langevoort*, *supra* note 16, at 671.

47. See generally David A. Hoffman, *The Best Puffery Article Ever*, 91 IOWA L. REV. 1395, 1405-11 (2006) (describing and illustrating the operation of the mere puffery defense in the context of securities fraud litigation); Jennifer O’Hare, *The Resurrection of the Dodo: The Unfortunate Re-emergence of the Puffery Defense in Private Securities Fraud*

and optimistic' containing 'no concrete factual or material misrepresentation.'" ⁴⁸ "Mere sales puffery is not actionable under Rule 10b-5" ⁴⁹ because it is deemed immaterial as a matter of law. ⁵⁰ "[A]ny reasonable investor knows to be somewhat wary of a selling agent's oral representations and to check them against the written materials. Indeed, such statements are well recognized as merely nonactionable 'puffing' on the part of salesmen." ⁵¹ In other words, reasonable (sophisticated) investors would not consider this type of statement important or a significant alteration to the total mix of available information. ⁵²

Actions, 59 OHIO ST. L.J. 1697, 1697-1700, 1706-15 (1998) (same); Padfield, *supra* note 13, at 342-43, 350-61 (same).

48. Brody v. Zix Corp., No. 3:04-CV-1931-K, 2006 U.S. Dist. LEXIS 69302, at *10 (N.D. Tex. Sept. 26, 2006); *see also* Galati v. Commerce Bancorp, Inc., 220 F. App'x 97, 102 (3d Cir. 2007) ("[S]tatements concerning the Company's 'dramatic deposit growth,' 'strong performance,' and 'unique business model,' constitute nothing more than mere 'puffery,' insufficient to sustain a Rule 10b-5 claim."); Pub. Sch. Teachers' Pension & Ret. Fund v. Ford Motor Co. (*In re* Ford Motor Co. Sec. Litig.), 381 F.3d 563, 570 (6th Cir. 2004) ("Statements that are 'mere puffing' or 'corporate optimism' may be forward-looking or 'generalized statements of optimism that are not capable of objective verification.'"); *In re* Vicuron Pharms., Inc. Sec. Litig., No. 04-2627, 2005 U.S. Dist. LEXIS 15613, at *13 (E.D. Pa. July 1, 2005) ("It is well established that 'vague and general statements of optimism "constitute no more than puffery and are understood by reasonable investors as such."").

49. Eisenstadt v. Centel Corp., 113 F.3d 738, 746 (7th Cir. 1997).

50. Hall v. Children's Place Retail Stores, Inc., No. 07 Civ. 8252(SAS), 2008 U.S. Dist. LEXIS 54790, at *20 (S.D.N.Y. July 18, 2008); Congregation of Ezra Sholom v. Blockbuster, Inc., 504 F. Supp. 2d 151, 161 (N.D. Tex. 2007); Lewis v. Straka, No. 05-C-1008, 2006 U.S. Dist. LEXIS 76716, at *10 (E.D. Wis. Oct. 12, 2006); *see also In re Ford Motor*, 381 F.3d at 570 ("Immaterial statements include vague, soft, puffing statements or obvious hyperbole' upon which a reasonable investor would not rely.").

51. Brown v. E.F. Hutton Group, 735 F. Supp. 1196, 1202 (S.D.N.Y. 1990), *superseded on other grounds by statute*, Private Securities Litigation Reform Act of 1995, Pub. L. No. 104-67, 109 Stat. 737, *as recognized in* Louros v. Kreicas, F. Supp. 2d 572, 592 n.145 (S.D.N.Y. 2005).

52. The judiciary actively connects the puffery defense to at least one of the alternative standards of materiality under the Securities Act of 1933 and the 1934 Act. For example, one court alludes to the "importance" test of materiality when it notes that "statements of sales puffery do not support a Rule 10b-5 claim because of their inability to influence reasonable investors not because of their inherent optimistic nature." *In re Sprint Corp. Sec. Litig.*, 232 F. Supp. 2d 1193, 1216 (D. Kan. 2002). Another court references the "total mix" test for materiality when it concludes, as to specified vague, optimistic (or at least comforting) statements before it for review, that the

statements are either mere corporate puffery or hyperbole that a reasonable investor would not view as significantly changing the general gist of available information, and thus, are not material, even if they were misleading. All public companies praise their products and their objectives. Courts everywhere "have demonstrated a willingness to find immaterial as a matter of law a certain kind of rosy affirmation commonly heard from corporate managers and numbingly familiar to the marketplace — loosely optimistic statements that are so vague, so lacking in specificity, or so clearly constituting the opinions of the speaker, that no reasonable investor could find them important to the total mix of information available."

The “truth-on-the-market” defense also relies on some level of investor sophistication; “[u]nder the ‘truth-on-the-market’ doctrine, information already known on the market is also immaterial.”⁵³ “In order to avoid Rule 10b-5 liability, any material information which insiders fail to disclose must be transmitted to the public with a degree of intensity and credibility sufficient to effectively counter-balance any misleading impression created by the insiders’ one-sided representations.”⁵⁴ The defense assumes the reasonable investor is informed and understands the information imparted.⁵⁵

For similar reasons, a statement “that ‘bespeaks caution’ will not support an allegation of misrepresentation under Section 10(b).”⁵⁶ A defendant in a securities fraud action who asserts the “bespeaks caution” defense argues that a particular misrepresented or omitted forward-looking statement of fact is immaterial as a matter of law because tailored cautionary statements have adequately qualified it.⁵⁷

In re Ford Motor, 381 F.3d at 570-71; *see also In re Advanta Corp. Sec. Litig.*, 180 F.3d 525, 538 (3d Cir. 1999) (“[T]here is no ‘substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.’”). Yet, a criticism leveled at the mere puffery defense is that it fails to conform to aspects of materiality jurisprudence. *See Padfield*, *supra* note 13, at 353-55.

53. *Hall*, 2008 U.S. Dist. LEXIS 54790, at *20; *see also Ganino v. Citizens Utils. Co.*, 228 F.3d 154, 167 (2d Cir. 2000) (“[A] misrepresentation is immaterial if the information is already known to the market because the misrepresentation cannot then defraud the market. . . . A defendant may rebut the presumption that its misrepresentations have affected the market price of its stock by showing that the truth of the matter was already known.”); *In re Intelligroup Sec. Litig.*, 527 F. Supp. 2d 262, 293 n.13 (D.N.J. 2007) (“[T]he ‘truth-on-the-market’ theory . . . dissolves plaintiff’s claim by showing that corrective information was ‘transmitted to the public’ and ‘counter-balanced’ the allegedly misleading information by the time the plaintiff executed the challenged transaction.” (citation omitted)); *In re Seagate Tech. II Sec. Litig.*, 802 F. Supp. 271, 275 (N.D. Cal. 1992) (“It is . . . a defense to a lawsuit premised on the fraud on the market theory involving a material omission that the market has become aware of the allegedly concealed information.”).

54. *Schneider v. Vennard (In re Apple Computer Sec. Litig.)*, 886 F.2d 1109, 1116 (9th Cir. 1989); *see also In re Seagate Tech. II*, 802 F. Supp. at 275 (“Scrutiny by the press or by analysts will not ordinarily excuse misleading statements or omissions, and corporations are not relieved of their duty to disclose material information where that information has received inadequate exposure from third party sources.”).

55. *Cf. In re Discovery Labs. Sec. Litig.*, No. 06-1820, 2006 U.S. Dist. LEXIS 79823, at *35 (E.D. Pa. Nov. 1, 2006) (“The so-called ‘truth on the market’ defense does not require that any investor should be capable of finding the information and understanding its significance based on a single click for a simple Web search. We deal here with reasonable investors, those who we can assume exercise due investment diligence.”).

56. *Porter v. Shearson Lehman Bros., Inc.*, 802 F. Supp. 41, 57 (S.D. Tex. 1992).

57. *See SEC v. Merch. Capital, LLC*, 483 F.3d 747, 767 (11th Cir. 2007); *P. Stolz Family P’ship L.P. v. Daum*, 355 F.3d 92, 96-97 (2d Cir. 2004); *Kaufman v. Trump’s Castle Funding (In re Donald J. Trump Casino Sec. Litig.)*, 7 F.3d 357, 372 (3d Cir. 1993); *Hall*, 2008 U.S. Dist. LEXIS 54790 at *20; *Marrari v. Med. Staffing Network Holdings, Inc.*, 395 F. Supp. 2d 1169, 1178 (S.D. Fla. 2005).

The “bespeaks caution” rule is an application of the common-sense principle that the more a speaker qualifies a statement, the less people will be misled if the statement turns out to be false. Or as we put it in *Grossman*, “[a]t bottom, the ‘bespeaks caution’ doctrine stands for the ‘unremarkable proposition that statements must be analyzed in context’ when determining whether or not they are materially misleading.”⁵⁸

Like the mere puffery defense, the bespeaks caution defense exists because a reasonable (sophisticated) investor would not find forward-looking statements accompanied by meaningful cautionary language (1) important to her investment decision making⁵⁹ or (2) significant to the total mix of available information.⁶⁰

Deriving from the bespeaks caution defense is a similar statutory defense enacted in the PSLRA:⁶¹ “Under the PSLRA’s safe harbor provision, forward-looking statements are deemed immaterial and non-actionable when they are accompanied by ‘meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements.’”⁶² Although the PSLRA safe harbor provision

58. *United States v. Nacchio*, 519 F.3d 1140, 1161 (10th Cir. 2008) (quoting *Grossman v. Novell, Inc.*, 120 F.3d 1112, 1120 (10th Cir. 1997)).

59. *E.g.*, *Halperin v. eBanker USA.COM, Inc.*, 295 F.3d 352, 357 (2d Cir. 2002) (“Certain alleged misrepresentations . . . are immaterial as a matter of law because it cannot be said that any reasonable investor could consider them important in light of adequate cautionary language set out in the same offering.”); *see also Rombach v. Chang*, 355 F.3d 164, 173 (2d Cir. 2004) (citing *Halperin*, 295 F.3d at 357); *Treeline Inv. Partners, LP v. Koren*, No. 07 Civ. 1964 (DLC), 2007 U.S. Dist. LEXIS 47748, at *21-22 (S.D.N.Y. July 3, 2007) (citing *Rombach*, 355 F.3d at 173).

60. *E.g.*, *Halperin*, 295 F.3d at 357 (“The touchstone of the inquiry is not whether isolated statements within a document were true, but whether defendants’ representations or omissions, considered together and in context, would affect the total mix of information and thereby mislead a reasonable investor regarding the nature of the securities offered.”); *see also Rombach*, 355 F.3d at 173 (citing *Halperin*, 295 F.3d at 357); *In re Donald J. Trump Casino*, 7 F.3d at 371 (“[W]hen an offering document’s forecasts, opinions or projections are accompanied by meaningful cautionary statements, the forward-looking statements will not form the basis for a securities fraud claim if those statements did not affect the ‘total mix’ of information the document provided investors.”); *Treeline Inv. Partners*, 2007 U.S. Dist. LEXIS 47748, at *21-22 (citing *Rombach*, 355 F.3d at 173).

61. 15 U.S.C. §§ 77z-2(c)(1)(A), 78u-5(c)(1) (2006); *In re Blockbuster Inc. Sec. Litig.*, No. 3:03-CV-0398-M (LEAD), 2004 U.S. Dist. LEXIS 7173, at *12-13 (N.D. Tex. Apr. 26, 2004) (“The PSLRA safe harbor is ‘based on aspects of . . . the judicial[ly] created ‘bespeaks caution’ doctrine.” (alteration in original)); *In re Unicapital Corp. Sec. Litig.*, 149 F. Supp. 2d 1353, 1373 (S.D. Fla. 2001) (“[T]he PSLRA codified a version of the bespeaks caution doctrine in what is referred to as the safe-harbor provision.”); *Credit Suisse First Boston Corp. v. ARM Fin. Group, Inc.*, No. 99 Civ. 12046 (WHP), 2001 U.S. Dist. LEXIS 3332, at *14 (S.D.N.Y. Mar. 27, 2001) (“The Reform Act’s safe harbor was modeled in part after, but not meant to displace, the judicial bespeaks caution doctrine.”).

62. *Hall*, 2008 U.S. Dist. LEXIS 54790, at *20; *accord Congregation of Ezra Sholom v. Blockbuster, Inc.*, 504 F. Supp. 2d 151, 162 (N.D. Tex. 2007); *In re Michaels Stores*,

and the bespeaks caution doctrine may not always be jointly applicable (given differences in the circumstances each defense covers), the seeming foundational importance of sophistication to the PSLRA statutory defense is identical to that of the bespeaks caution defense; the safe harbor assumes that the reasonable investor is informed and able to balance forward-looking representations with cautionary information.

Even if not sophisticated, a reasonable investor certainly is informed. In fact, the Securities Act of 1933, as amended ("1933 Act"), and the 1934 Act, by using disclosure as a vehicle for effectuating the promotion of investor protection and market integrity, effectively ordain that the reasonable investor must be informed. Accordingly, an informed investor incorporates all publicly available information into her decision making. Decisional law and academic literature, in fact, assume an informed investor.⁶³ The importance of information to the reasonable investor and the reasonable investor's view on the significance of information to the total mix of available information are only relevant when assessed in relation to an informed investor.

D. Theoretical Models of the Reasonable Investor

Finally, before identifying and assessing the attributes of female investors in the context of these existing characterizations of the reasonable investor, it is important to touch on a few recent theoretical conceptions of the reasonable investor in the context of securities fraud scholarship. These theoretical constructs reflect and comment

Inc. Sec. Litig., No. 3:03-CV-0246-M (Lead), 2004 U.S. Dist. LEXIS 24919, at *18-19 (N.D. Tex. Dec. 10, 2004); *In re QLT Inc. Sec. Litig.*, 312 F. Supp. 2d 526, 532 (S.D.N.Y. 2004); *Friedman v. Rayovac Corp.*, 295 F. Supp. 2d 957, 988-89 (W.D. Wis. 2003); *In re S1 Corp. Sec. Litig.*, 173 F. Supp. 2d 1334, 1352 (N.D. Ga. 2001); *In re Unicapital*, 149 F. Supp. 2d at 1373; *In re ValuJet, Inc., Sec. Litig.*, 984 F. Supp. 1472, 1479 (N.D. Ga. 1997).

63. See, e.g., *Baron v. Smith*, 380 F.3d 49, 55 (1st Cir. 2004) (finding that plaintiffs' claim failed because of disclosure of "the material facts that would lead a reasonable investor to make an informed decision"); *In re Intelligroup Sec. Litig.*, 527 F. Supp. 2d 262, 291 (D.N.J. 2007) ("The test of materiality depends not upon the literal truth of statements but upon the ability of reasonable investors to become accurately informed."); *In re PDI Sec. Litig.*, No. 02-211 (GEB), 2006 U.S. Dist. LEXIS 80142, at *27 (D.N.J. Nov. 2, 2006) (same); Edmund W. Kitch, *The Theory and Practice of Securities Disclosure*, 61 BROOK. L. REV. 763, 818 (1995) ("The 'reasonable investor,' having been informed that Basic knew of no corporate development that would result in the high trading activity, would, without doubt, have thought that disclosure of the fact that acquisition was being discussed 'significantly altered the "total mix" of information made available.'" (quoting *Basic v. Levinson*, 786 F.2d 741, 748 (6th Cir. 1986))); Cheryl Nichols, *H.R. 2179, the Securities Fraud Deterrence and Investor Restitution Act of 2004: A Testament to Selective Federal Preemption*, 31 SUFFOLK TRANSNAT'L L. REV. 533, 544 (2008) ("The federal securities laws are based on the principle of disclosure of all material information required by a reasonable investor to make an informed investment decision.").

on relevant market and situational contexts, as well as policy considerations and doctrine.

1. *The Least Sophisticated Investor*

In a recent article focusing on the notion of materiality in inefficient markets, Professor Margaret Sachs argues for a contextual construct of “the least sophisticated investor,” rather than the reasonable investor.⁶⁴ The least sophisticated investor is a person of “below average . . . intelligence” who lacks the sophistication commonly associated with reasonable investors.⁶⁵ Professor Sachs is specifically concerned with the impact of the materiality standard in securities fraud litigation on what she terms “underclass investors,” such as the elderly, immigrants, and others with limited financial literacy.⁶⁶ She asserts that these market participants deserve protection when they invest in inefficient markets and that the reasonable investor standard will not afford them that protection.⁶⁷ Furthermore, she notes that some courts are addressing this issue in piecemeal ways that threaten the stability of existing conceptions of the reasonable investor.⁶⁸ Accordingly, she proposes a more intellectually honest approach in which the nature of the protected class of investors is different for transactions consummated in inefficient markets.⁶⁹ It is important to note that Professor Sachs balances her proposed lower threshold for materiality, in reference to the least sophisticated investor, with a companion change in existing doctrine: the adoption of a heightened level of scienter.⁷⁰ The suggested doctrinal changes are strongly linked to the promotion of investor protection and market integrity.⁷¹

2. *The Moody Investor*

Professor Peter Huang proposes taking into account the “moody investor” and making related changes to existing law; he focuses particularly on making changes to the “mere puffery” and “bespeaks caution” defenses.⁷² Moody investing occurs outside the realm of rational economic decision making and “refers to investing that is (at

64. Sachs, *supra* note 1, at 473.

65. *Id.* at 504 (alteration in original).

66. *Id.* at 476-77, 494-95.

67. *Id.* at 476-77.

68. *Id.* at 479.

69. *Id.* at 502.

70. *Id.* at 502-07.

71. *See id.* at 501-08.

72. Huang, *supra* note 7, at 127-29.

least, partially) non-cognitive.”⁷³ Moody investing, arising out of myriad environmental stimuli, affects market participants and markets.⁷⁴ As Professor Huang explains,

there is empirical data that moody investing not only occurs, but also affects securities prices and market performance. Experimental research finds that individuals evaluate stocks not in terms of the relationships between risk and return, but instead based upon their global attitudes towards those stocks. Experimental research indicates that “factors other than technical fundamentals are often used by market participants to gauge the value of securities. This phenomenon may be quite prevalent in markets for IPOs, where securities lack a financial history. The imagery and affect associated with securities can be a powerful basis upon which to judge their worth.” Affect and images crucially shape people’s attitudes towards securities and their judgments concerning securities. On the positive affect side, in 2000 and 2001, a \$3 million advertising campaign in European and Asian magazines and newspapers introduced a series of global mutual funds alongside fashion supermodels and contained the affective tagline: “the most beautiful investments in the world.” On the negative affect side, perceived dangers of genetically manipulated organisms can stigmatize biotechnological stocks. Long-term financial images tend to be more positive than short-term financial images. Finally, a recent event study documented that positive abnormal returns and increased trading volume followed a company’s Super Bowl television commercials.⁷⁵

According to Professor Huang, even mandatory disclosure documents have the capacity to influence moods.⁷⁶ Ultimately, he effectively argues that the presence of moody investing in the market should change our conception of the reasonable investor and, therefore, the nature of certain defenses in securities fraud actions.⁷⁷ His rationale is that absent a change, some investors remain vulnerable, and the integrity of the securities markets is not adequately protected under existing conceptions. In this way, Professor Huang directly links his argument to both policy and doctrine.⁷⁸

3. The Moral Investor

Finally, a recently released book review suggests the need for us to consider the relevance of the “moral investor” to securities

73. *Id.* at 102-03.

74. *Id.* at 102-05, 120.

75. *Id.* at 103-04 (footnotes omitted).

76. *Id.* at 105.

77. *Id.* at 128.

78. *Id.*

regulation.⁷⁹ Although the review directly addresses the moral man as wrongdoer (rather than as an investor, a market participant who may require protection), its broader message clearly encompasses the active presence, recognition, and reinforcement of morality (in addition to law, economics, and behavioral science) in markets.⁸⁰ Although existing legal doctrine does not directly support recognition and protection of the moral investor,⁸¹ legal respect for the moral investor in the securities fraud context is likely to promote market integrity if, as the review suggests, the securities markets are moral.

II. ATTRIBUTES OF FEMALE INVESTORS

The prevailing actual and theoretical conceptions of the reasonable investor described in Part I offer descriptive and normative guidance on the class of persons the 1933 Act and the 1934 Act intend to protect through the judicially created materiality standard. This part provides information on the behavior and outcomes of actual participants in the market, specifically, female investors. By understanding the conceptions of the reasonable investor in Part I and the attributes of female securities traders identified in this part, we can assess in Part III whether women are well protected in securities fraud litigation by the existing materiality standard and whether existing conceptions of the standard continue to be appropriate or desirable given current market characteristics.

Until the last part of the twentieth century, women were not notable participants in the U.S. capital markets.⁸² Early noteworthy female investors were not mainstream actors or advisors;⁸³ in some cases, they were distinguishable from their male-majority peers on more bases than their sex. For example, in the late nineteenth century, Evangeline Adams used fortune telling to predict market movements.⁸⁴ Although “[s]he was an obvious quack with no real investment knowledge,”⁸⁵ famous investors and other wealthy people, including J.P. Morgan and Charles Schwab, actively sought her advice.⁸⁶ Hetty

79. Colombo, *supra* note 15, at 27 (“[I]n confronting misconduct in the marketplace . . . policymakers can take into account both the moral promise, and the moral shortcomings, of modern men and women, affording access to important supplementary solutions to the problems affecting contemporary capitalism and society.”).

80. *Id.* at 3-6.

81. *Id.* at 22-27.

82. See, e.g., KENNETH L. FISHER, 100 MINDS THAT MADE THE MARKET 190-91, 263-65, 371-74 (2007) (including only three women among his profiles of 100 notable historic leaders in securities trading markets).

83. See *id.* (describing the three women’s backgrounds as socialite, fortune teller, and heiress).

84. *Id.* at 264.

85. *Id.* at 265.

86. *Id.* at 264.

Green, a late nineteenth-century female investor, had a more traditional investment approach; she was a ruthless, miserly woman who relied on some contrarian investments, ostensible tips, and compound interest principles to yield her desired six percent return.⁸⁷ Later, in the early twentieth century, Natalie Schenk Laimbeer became the first woman to hold an executive title (albeit for a short time) on Wall Street.⁸⁸

Even though women are commonplace in the markets today, they are not the stereotypical, prototypical, or mainstream model of an investor or investment professional.⁸⁹ Among other things, female investors (including investment professionals) face certain distinct disadvantages as new, limited participants in the securities markets — disadvantages intertwined with the nature and extent of their participation in the labor force, wage differentials, disproportionate responsibility for child and elder care, and other gender-dependent or sex-based differences.⁹⁰ The increased participation of women in U.S. securities trading markets, however, enables us to identify attributes of female investors, as both individuals and market professionals, that may characterize their participation in those markets or distinguish them from male investors.

A. Women as Individual Investors

Individual female investors exhibit trading behaviors different from those of male investors, whether investing directly in market-traded securities or allocating funds in self-directed retirement

87. *Id.* at 371-74.

88. *Id.* at 190-91. For health reasons, her tenure as a market professional was quite short. *Id.* at 191.

89. *E.g.*, Barber & Odean, *supra* note 9, at 265 (“[C]asual observation reveals that men are disproportionately represented in the financial industry.”); *id.* at 267 (noting that female investors comprised only twenty-one percent of the investors represented in the study); Sam Barrett, *Male v Female Investment Styles*, MONEYWISE, Apr. 17, 2007, http://www.iii.co.uk/articles/articledisplay.jsp?section=Planning&article_id=6339415 (“From the trading floor to the upper echelons of fund management companies, men dominate the investment arena.”) (English publication); Bethany McLean, *Where the Girls Aren't*, FORTUNE, Nov. 14, 2005, at 139, 139 available at http://money.cnn.com/magazines/fortune/fortune_archive/2005/11/14/8360699/index.htm (“The financial services industry isn't known for being particularly female-friendly; not many women are mutual fund managers either.”); Mundy, *supra* note 11, at W15 (“If investors, increasingly, are female, it's still true that most brokers and investment advisers are male.”).

90. See Bajtelsmit & Bernasek, *supra* note 9, at 7; Janis Sarra, *The Gender Implications of Corporate Governance Change*, 1 SEATTLE J. FOR SOC. JUST. 457, 462, 464-68 (2002); *What Every Boomer Woman Needs to Know About Planning for Retirement*, WOMEN & INVESTING (Oppenheimer Funds, Inc., New York, N.Y.), Aug. 21, 2008, at 1-2, available at https://www.oppenheimerfunds.com/digitalAssets/afc9c2f9f898d010VgnVCM10000e82311ac____-0.pdf.

vehicles. These behaviors have been observed, analyzed, and documented in a growing body of finance literature and media coverage.

1. Amount of Investment Advice/Information

Although men generally spend more resources, time, and money on acquiring investment information,⁹¹ women are more likely to seek investment advice than men.⁹² This behavior may result from women's relative lack of investment confidence and their self-perceived incompetence.⁹³

Behavioral finance suggests that young and male investors seek relatively less advice since they are more likely to be subject to overconfidence bias. They may consider themselves particularly astute in financial matters. Moreover, they may be more likely to have easy access to low-cost information providers such as the internet. Both effects will reduce the perceived marginal benefits from advice.⁹⁴

Some assert that women not only seek more investment advice than men, but also research and understand their investments more than men — although empirical support for that assertion is elusive.⁹⁵

91. See Barber & Odean, *supra* note 9, at 265; Wilbur G. Lewellen et al., *Patterns of Investment Strategy and Behavior Among Individual Investors*, 50 J. BUS. 296, 311-12 (1977).

92. Lewellen et al., *supra* note 91, at 311 ("In general, male investors claim to do considerably more of their own security analysis and allege spending more time and money on that activity than do women. The latter tend to rely heavily on their broker's (account executive's) advice for portfolio decisions."); Zanglein, *supra* note 9, at 241-42 (indicating that sixty-two percent of women and forty-nine percent of men seek investment advice from a financial professional); Bluethgen et al., *supra* note 9, at 13, 14, 22; Press Release, Merrill Lynch Inv. Managers, Merrill Lynch Investment Managers (MLIM) Survey Finds: When it Comes to Investing, Gender a Strong Influence on Behavior (Apr. 18, 2005), <http://www.ml.com/media/47547.pdf>; *Why Do Mutual Fund Investors Use Professional Financial Advisers?*, 16 RES. FUNDAMENTALS (Inv. Co. Inst., Washington, D.C.), Apr. 2007, at 1, 7, available at <http://www.ici.org/pdf/fm-v16n1.pdf> (noting that women financial decision makers, among other groups, are more likely to seek ongoing financial advice).

93. Press Release, Merrill Lynch Inv. Managers, *supra* note 92; see *infra* notes 113-20 and accompanying text.

94. Bluethgen et al., *supra* note 9, at 12 (citation omitted). Interestingly, men may receive different investment advice than women. See Bajtelsmit & Bernasek, *supra* note 9, at 6-7 (describing gender-based investment information disparities).

95. See, e.g., Press Release, Merrill Lynch Inv. Managers, *supra* note 92 ("Men are . . . more likely than women to . . . buy a hot investment without doing any research . . . Of men who reported buying a stock without doing any research, 63% said they did it again, whereas only 47% of women repeated the mistake."); Barrett, *supra* note 89 (noting that women research and understand "what they invest in more than their male counterparts [and] also appear to dedicate more time to learning about investing in general"); *Investment*

Another hypothesis is that men may process investment information differently than women do,⁹⁶ and there is evidence of this in the literature.⁹⁷

2. Risk Aversion

Women generally are more risk averse in their investment behavior than men.⁹⁸ Interestingly, this behavior is exhibited cross-culturally.⁹⁹ For example, a Danish study finds that “single women

Habits of Men vs. Women, MONEY MGMT. NEWSLETTER (Fiscal Agents, Oakville, Ont.), Sept. 2003, <http://www.fiscalagents.com/newsletter/4habits.shtml> (“Research has shown that men tend not to want too much detail while women want more information. Women tend to really want to understand what’s being suggested, and why. A poll conducted in the U.S. in the late 1990s found that women spend 40% more time researching a mutual fund before they invest.”).

96. See, e.g., *infra* notes 107-08 and accompanying text.

97. See generally Powell & Ansic, *supra* note 9, at 606-10, 623-24 (describing relevant literature and finding differences in female and male investment decision making that are not explained by other factors).

98. See Bajtelsmit & Bernasek, *supra* note 9, at 1 (“An increasing number of financial studies conclude that women invest their asset portfolios more conservatively than their male counterparts”); *id.* at 2 (“When asked to choose between four statements regarding their risk-return tradeoff, 63% of the single women and 57% of the married women report that they are not willing to accept any financial risk at all (compared to 43% of single men and 41% of married men in the sample.”); *id.* at 5 (“[W]omen, on average, will hold a smaller *dollar value* of risky assets in their investment portfolios than men. . . . [W]omen are *relatively* more risk averse than men i.e. they will hold a smaller *proportion* of their portfolio in risky assets.”); Barber & Odean, *supra* note 9, at 285-86 (surveying study results to this effect); Bauer et al., *supra* note 9 (manuscript at 15) (“[T]he portfolios held by women have significantly lower risk exposures than do those held by men.”); Felton et al., *supra* note 9, at 33 (“[N]on-professional women investors have been found to allocate less of their portfolios to volatile assets”); Hoffman, *supra* note 6, at 600 (“One basic and well-established conclusion is that men and women perceive risk differently. Many studies have found that on average, men are more comfortable with higher levels of risk, particularly environmental risks than women. Women thus exhibit higher rates of loss-aversion than men in evaluating financial investments.” (footnotes omitted)); Powell & Ansic, *supra* note 9, at 607 (“[T]he one gender difference which is persistently found in both the general and business specific literature is a lower preference for risk amongst females.”); Zanglein, *supra* note 9, at 239-41 (detailing elements of women’s risk aversion in making investment decisions); Charness & Gneezy, *supra* note 9, at 13 (“Women make smaller investments than do men, and so appear to be financially more risk averse.”); Christiansen et al., *supra* note 9, at 1 (“The general finding in the literature is that women choose less risky portfolios than men which suggests that women have a stronger aversion against taking on financial risk”). *But see* Schubert et al., *supra* note 9, at 384-85 (finding, in a Swiss study, that female risk aversion in financial decision making is neither consistent nor pervasive).

99. Powell & Ansic, *supra* note 9, at 623 (“The evidence supports the view that gender differences in financial risk preference exist in management populations and are not explained by the context instance of familiarity, ambiguity or gains and loss framing.”); Charness & Gneezy, *supra* note 9, at 2 (noting that the subjects represented in their data set varied by country, among other things); Christiansen et al., *supra* note 9, at 3 (“[T]he finding that women make less risky investment decisions than men also holds in a large

have a lower propensity to invest in stocks and a higher propensity to invest in bonds, than . . . married women and men (married and single)."¹⁰⁰ Risk aversion may manifest itself in a number of ways, including through portfolio asset allocation (e.g., favoring bonds over equities or investing no or less money capital in initial public offerings and derivative securities) and loss-aversion behaviors.¹⁰¹ Risk averse, conservative investment behavior typically is associated with lower returns.¹⁰²

3. Optimism, Overconfidence, and Perceived Competence

Female investors may be less optimistic and less overconfident than their male counterparts. In addition, female investors typically perceive themselves as lacking in investment competence more than male investors.¹⁰³ These three traits may be interrelated and also inversely correlated with portfolio risk.¹⁰⁴

"In general, optimists are more likely to engage in active coping in an attempt to overcome negative life events, while pessimists are more likely to withdraw and disengage."¹⁰⁵ When optimists cope, they seek out information;¹⁰⁶ when they process the information they obtain, optimists may irrationally favor positive information.¹⁰⁷ This combination of traits may have negative ramifications for the optimist investor.

[W]hen faced with a downturn in market performance, optimists' tendency to engage in active forms of coping may lead to a greater

data set that is not influenced by self-selection issues and that takes into account that a large fraction of the population does not invest in financial assets.").

100. Christiansen et al., *supra* note 9, at 13. Moreover, as a further indication of risk aversion, "single women tend to hold a smaller ratio of stocks and a larger ratio of bonds in their asset portfolio." *Id.*

101. *See supra* note 98.

102. *E.g.*, Bajtelsmit & Bernasek, *supra* note 9, at 1 ("All other things equal, a conservative investment strategy results in less retirement income on average than a more aggressive strategy.").

103. Barber & Odean, *supra* note 9, at 264-65; Graham et al., *supra* note 9, at 2, 12.

104. Barber & Odean, *supra* note 9, at 263-64 (noting that overconfident investors "hold unrealistic beliefs about how high their returns will be and how precisely these can be estimated" and "hold riskier portfolios than do rational investors with the same degree of risk aversion"); *id.* at 265 (describing research that links investor overconfidence to "self-serving attribution bias," overattribution of investment success to one's own investment ability); Felton et al., *supra* note 9, at 37 ("[M]en took on significantly greater risk in the form of futures and options contracts than did women, and this difference was driven primarily by optimistic men.").

105. Felton et al., *supra* note 9, at 34.

106. *See id.*

107. *See id.* ("Recent research suggests that optimists have an unconscious attentional bias for positive information . . .").

propensity to sell holdings that have recently performed poorly and shift money into more risky investments in an attempt to regain losses. Pessimists, in contrast, tend to withdraw when faced with negative information. In this case, that may mean holding assets and riding out the market downturn, which in the long run may be a more optimal strategy.¹⁰⁸

Optimism has been associated with risk taking, including in the area of investment decision making;¹⁰⁹ “there is reason to believe that the same coping strategies and cognitive tendencies that prove beneficial in health domains may lead to more risky choices in investment domains.”¹¹⁰ A recent study found that male optimism is related to investment risk taking.¹¹¹ But the relationship is complex and has not yet been fully investigated.¹¹²

In matters of finance and other decision making deemed to be a “masculine task,” men typically exhibit overconfidence more often than women.¹¹³ “[O]verconfident investors . . . believe that the precision of their knowledge about the value of a security is greater than it actually is . . .”¹¹⁴ Evidence of men’s overconfidence is both empirical and anecdotal.¹¹⁵

Alexander Elder, who specialises in the psychology of trading, says women are more realistic and less ego-driven. “They are not afraid to ask difficult questions and they have less tolerance for pain. Men like to prove that they can handle the pain, and that’s what gets them into trouble.”¹¹⁶

Relative levels of investment confidence may be interrelated with perceptions of investment competence.¹¹⁷ In general, female investors

108. *Id.* at 34-35.

109. *See id.* at 34 (“Some have suggested that a potential drawback to optimism may be a greater tendency to choose risky options. The reasoning is that if one has positive expectancies about the future, then there is little need to worry about the potentially negative consequences of a risky decision.” (citations omitted)).

110. *Id.* at 35.

111. *Id.* at 38 (“Optimistic men were active in the futures and options market, while pessimistic men were more active in the more conservative New York Stock Exchange.”).

112. *See id.* (speculating about unknown aspects of the relationships among gender, optimism, and risk-taking behavior).

113. Barber & Odean, *supra* note 9, at 264-65.

114. *Id.* at 261-62.

115. *Id.* at 275; see Saskia Scholtes, *Wall Street’s Gender Agenda*, FIN. TIMES (London), Feb. 28, 2007, available at <http://www.ft.com/cms/s/0/30714818-c6d2-11db-8f4f-000b5df10621.html> (discussing reasons for and consequences of men’s overconfidence on the trading floor).

116. Scholtes, *supra* note 115.

117. *See* Barber & Odean, *supra* note 9, at 265 (describing sex-based relationships between ability assessments and overconfidence); Graham et al., *supra* note 9, at 15-18

rate their investment competence lower than male investors;¹¹⁸ male investors believe they are more competent than female investors.¹¹⁹ Certain kinds of men may be more likely to exhibit evidence of competence than others.¹²⁰

4. Trading Frequency

Overconfidence (and perceived competence) in investment decision making may be related to another trait shared by male investors: overconfident investors may trade more frequently than other investors.¹²¹ Consistent with this observation, researchers and other commentators observe that women trade less frequently than men.¹²² Women who rely on investment advice to manage their portfolios, however, typically trade more frequently than they otherwise would (and incur related costs) as a result of that advice.¹²³

5. Performance

Research also provides some evidence that investments made by women for their own account perform better, more consistently, or persistently stronger than those made by men for their own

(noting that overconfidence and perceived investor competence are correlated and offer alternative explanations for portfolio turnover); see also Press Release, Merrill Lynch Inv. Managers, *supra* note 92 (noting survey findings that “[a] significantly greater percentage of women (47%) than men (30%) report *not* being knowledgeable about investing”).

118. Graham et al., *supra* note 9, at 12.

119. *Id.* at 2 (“[M]ale investors, and investors with larger portfolios and more education, are more likely to believe they are competent than are female investors, and those with smaller portfolios and less education.”).

120. See Karlsson & Nordén, *Investor Competence*, *supra* note 9, at 6 (“[W]e . . . find that highly educated men, in the highest income brackets, are more likely to believe they are competent than women with less education and lower income.”).

121. Barber & Odean, *supra* note 9, at 263 (“Overconfident investors . . . lower their expected utility by trading too much . . .”); Graham et al., *supra* note 9, at 23 (“[I]nvestors who feel more competent tend to trade more frequently than investors who feel less competent.”).

122. Barber & Odean, *supra* note 9, at 262 (“[T]he average turnover rate of common stocks for men is nearly one and a half times that for women.”); Felton et al., *supra* note 9, at 37 (“Males made significantly more transactions . . . than females . . .”); Lewellen et al., *supra* note 91, at 312 (“[T]rades appear to occur more often, and they clearly are in larger denominations among higher-income — particularly male — investors.”); Susan J. Stabile, *Enron, Global Crossing, and Beyond: Implications for Workers*, 76 ST. JOHN’S L. REV. 815, 828 (2002) (“[W]omen generally trade securities less frequently than men, favoring a more long-term or relational approach to investment.”).

123. See Bluethgen et al., *supra* note 9, at 22 (“[F]inancial advice enhances (international) portfolio diversification and adds discipline to the asset allocation decision by using model portfolios. Nevertheless, advice comes at a cost in the form of increased portfolio turnover accompanied by relatively higher transaction fees.”).

account.¹²⁴ Evidence of women's better, more consistent, and more persistent investment performance is not universal;¹²⁵ but to the extent that these performance attributes exist, women's different investment results may be connected to the decreased frequency with which women trade.¹²⁶ In fact, women's investments may perform less well than those of some men and more well than those of other men to the extent that men's portfolios tend to have greater variability than women's portfolios.¹²⁷ Women's achievement of better investment performance may indicate that the risk aversion exhibited by women in investment contexts (which tends to lead to lower returns)¹²⁸ may not be as strong a predictor of performance as other factors, including overconfidence.¹²⁹ In fact, in a recent survey, more men than women reported that overconfidence played a role in investment mistakes they made.¹³⁰

Finally, it is important to note that biological differences and changes also may impact securities trading performance, according to a recently released study.¹³¹ Specifically, researchers found morning testosterone levels to be predictors of a day's trading profitability, and cortisol levels correlated with variance in trading results and market volatility.¹³² The authors note that their study was of relatively short duration (involving sampling over an eight-day period) and that sustained hormonal effects may have more significant

124. See Luke, *supra* note 11 (noting that women-only investor clubs outperform men-only and mixed-gender investment clubs); Scholtes, *supra* note 115 (noting study results indicating that women's investments perform better than men's); Bauer et al., *supra* note 9 (manuscript at 12) ("[P]ortfolios held by women outperform those of men . . .").

125. See, e.g., Felton et al., *supra* note 9, at 37 (noting that although men may be more likely to take risks, the overall performance of portfolios in the study did not differ significantly by gender and men often performed at the highest levels).

126. See Barber & Odean, *supra* note 9, at 262, 275-77 ("While both men and women reduce their net returns through trading, men do so by 0.94 percentage points more a year than do women."); *id.* at 289 ("Men trade more than women and thereby reduce their returns more so than do women."); Felton et al., *supra* note 9, at 37 ("As expected given males' greater propensity for risk, their performance varied to a significantly greater degree . . . than females' performance did . . ."). But see Karlsson & Nordén, Benefits of Contribution, *supra* note 9, at 1, 21 (discussing the finding, in a Swedish pension fund study, that men outperform women). Women's less active trading patterns are not always beneficial, in particular when trading is essential to ensure greater returns. See Stabile, *supra* note 122, at 828 ("[Less frequent trading] is an investment trait that generally works to women's benefit. In the case of employer securities, however, it may lead them to stay with their employer investments longer than is wise." (footnote omitted)).

127. See Felton et al., *supra* note 9, at 37.

128. See *supra* note 102 and accompanying text.

129. See Barber & Odean, *supra* note 9, at 286.

130. Press Release, Merrill Lynch Inv. Managers, *supra* note 92.

131. Coates & Herbert, *supra* note 9, at 6167-71.

132. *Id.* at 6168-69.

influence on trading behaviors.¹³³ They also apply their results to recognized market phenomena and conclude that

[c]ortisol is likely . . . to rise in a market crash and, by increasing risk aversion, to exaggerate the market's downward movement. Testosterone, on the other hand, is likely to rise in a bubble and, by increasing risk taking, to exaggerate the market's upward movement. These steroid feedback loops may help explain why people caught up in bubbles and crashes often find it difficult to make rational choices.¹³⁴

One of the study authors notes that women have one-tenth of the testosterone that men have and that women likely produce less cortisol than men. Accordingly, these results indicate that differences in trading outcomes between women and men are potentially sex based. Biology-oriented research of this kind may help reveal the bases for observed differences in investment behavior and performance between women and men.

B. Women as Investment Professionals

Evidence is mixed as to whether, and if so, in what ways, women behave differently when making investment decisions on behalf of other investors and institutions than they do when making investments for their own account. Women have been significant players in managing other people's investments for a number of years.¹³⁵ Their participation in the professional investment community has been steadily increasing, including in the hedge fund arena.¹³⁶ Still, women are a significant minority in the investment management and advisory community.¹³⁷ Studies in this area are few, and the results are inconclusive.

1. Behavior

Some studies indicate that "[p]rofessional female and male fund managers appear to exhibit similar investment behavior."¹³⁸ Others

133. *Id.* at 6170 ("[I]f acutely raised steroids were to persist for several weeks or even increase as volatility rises, they might have cognitive and behavioral consequences, specifically by shifting risk preferences or disturbing the neural basis for rational choice.").

134. *Id.* at 6170-71.

135. See Judith G. Greenberg, *Insider Trading and Family Values*, 4 WM. & MARY J. WOMEN & L. 303, 322 n.89 (1998).

136. See Garvert, *supra* note 9, at 4.

137. See *supra* note 89 and accompanying text.

138. Atkinson et al., *supra* note 9, at 2.

suggest that mutual fund managers, in the aggregate, may exhibit the same gender-based behaviors described *supra* in Part II.A — with women investing more conservatively, less optimistically, less overconfidently, with less perceived competence, and less frequently than men (and with better cost-adjusted returns).¹³⁹ Still other studies yield more anomalous, mixed, or ambiguous results.¹⁴⁰

In a study of taxable fixed-income funds, researchers (Atkinson et al.) specifically found no overall difference in the risk profile of portfolios managed by women and men.¹⁴¹ The same study also showed less of a difference in turnover ratios between female and male investment managers than prior research had shown, although the study did find that funds managed by women exhibit less turnover in nearly half of fund categories.¹⁴² The authors attribute the difference between their results and those reported in other studies of female investors (in which more significant gender difference was found) to the fact that their study controlled for “investment expertise.”¹⁴³

In contrast, Niessen and Ruenzi, in a study of female-managed and male-managed U.S. mutual funds, find differences in the risk aversion of female and male mutual fund managers.¹⁴⁴ The variation is attributable in part to sex-based differences in unsystematic risk,¹⁴⁵ perhaps due to the fact that “[f]emale fund managers follow less extreme investment styles than male fund managers.”¹⁴⁶ Niessen and Ruenzi, like Atkinson and his colleagues, find “that female [mutual]

139. See Barber & Odean, *supra* note 9, at 288; Felton et al., *supra* note 9, at 33 (“[R]isk aversion on the part of women has also been demonstrated in professional financial analysts.”); Garvert, *supra* note 9, at 32 (“Women tend to take less risk and their overall return risk did differ compared to the 14 male managed funds.”). In most cases, however, the observed differences between men and women in studies of investment professionals are less pronounced than those in studies of individual investors. See *infra* notes 138 & 145 and accompanying text.

140. Olsen & Cox, *supra* note 9, at 34 (“[W]omen financial professionals place greater weight on downside or loss potential than men in an investment setting.”); Niessen & Ruenzi, *supra* note 9, at 2, 29 (summarizing study findings that (1) female mutual fund managers are more risk averse and trade less than male investment managers, (2) there is no significant difference in the performance of female-managed and male-managed mutual funds, and (3) female-managed mutual funds perform more persistently than male-managed funds); Garvert, *supra* note 9, at 28 (noting, based on the analysis of a small sample set, that male-managed hedge funds exhibit higher risk and higher performance than female-managed hedge funds).

141. Atkinson et al., *supra* note 9, at 10, 13.

142. *Id.* at 10.

143. *Id.*; see also *id.* at 17 (attributing results indicating more significant gender-based differences in earlier studies “to differences in expertise in financial decision making or wealth constraints”).

144. Niessen & Ruenzi, *supra* note 9, at 14 (“[F]emale fund managers are moderately more risk averse than male fund managers.”).

145. *Id.* at 15.

146. *Id.*

fund managers trade less than male fund managers.”¹⁴⁷ Moreover, they find significant behavioral differences in mutual fund managers based on their sex;¹⁴⁸ however, “[o]verall, where directly comparable, the differences . . . are less pronounced than those reported in studies investigating gender differences within the general population.”¹⁴⁹

2. Performance

Studies of the relative performance of portfolios managed by female and male investment professionals are also inconclusive. Both Atkinson et al. and Niessen and Ruenzi found that performance results of funds managed by women and men are similar.¹⁵⁰ Garvert, however, in a small sample masters thesis, found that male-managed hedge funds outperform female-managed hedge funds.¹⁵¹ Garvert also noted that the performance of female-managed funds is less variable,¹⁵² a finding that Niessen and Ruenzi corroborate.¹⁵³ Niessen and Ruenzi also found that the performance of female fund manager portfolios is persistent over time.¹⁵⁴

III. SEX AND THE REASONABLE INVESTOR

A comparison of the existing conceptions of the reasonable investor with the attributes of actual female investors in the market indicates that the reasonable investor *is* a woman — or, more accurately, the reasonable investor, as currently conceived, is more like a woman than a man. This is especially true for individual female investors. The exact attributes of professional female investors (other than, perhaps, that they trade less frequently than male investment professionals) are hard to pin down; the outcomes of the limited number of studies governing female investment advisors and managers are mixed and, to the extent they are consistent with each other, the observed effects are less significant than they are for individual female investors.

Because individual female investors (and to a lesser extent, perhaps, female investment professionals) (1) seek more investment advice than male investors, (2) are less optimistic and less overconfident

147. *Id.* at 17.

148. *Id.*

149. *Id.* at 3; *see also id.* at 17-18.

150. Atkinson et al., *supra* note 9, at 10-12; Niessen & Ruenzi, *supra* note 9, at 20.

151. Garvert, *supra* note 9, at 28-29.

152. *Id.* at 29.

153. Niessen & Ruenzi, *supra* note 9, at 21-23, 30.

154. *Id.* at 22-23, 30.

than male investors, and (3) trade less frequently than male investors, they are closer than male investors to the rational, chartist/fundamentalist, sophisticated (or at least informed) conceptualizations of the reasonable investor.

The notion of the reasonable investor — and the role of disclosure in implementing the investor protection and market integrity policy underpinnings of federal securities laws — is dependent upon investors informing themselves,¹⁵⁵ including (as women disproportionately do) through the use of investment advisory services. Informed investors of a certain level of sophistication (which women using financial advisors are likely to have) are more likely to be able to judge the actual importance of market information and accurately gauge the total mix of available information. This means that they are less likely to trade on the basis of mere puffery, ignore information comprising the “truth-on-the-market,” and fail to take into account meaningful, tailored cautionary language in market disclosures. These informed female investors also are unlikely to need the protections of the “least sophisticated investor” formulation proposed by Professor Sachs.¹⁵⁶ They can fend for themselves, either alone or with the assistance of their investment advisors, under the current reasonable investor standard.

Women’s lack of optimism in investing is more rational and more aligned with the existing legal conception of the reasonable investor than men’s investment optimism. Because optimists may behave irrationally by placing too much weight on positive information in their investment decision making, they may be more vulnerable to mere puffery, for example. Optimist investors may also inappropriately discount the significance of elements of the total mix of market information or meaningful cautionary statements. The level of risk that the optimist may then assume in his investment decision making is different from that of a speculator and is not necessarily associated with the reasonable investor under current law and lore. In fact, the optimist investor looks more like Professor Huang’s “moody investor”¹⁵⁷ than materiality’s reasonable investor.

The fact that female investors exhibit less overconfidence in their individual investment decision making also brings them closer to the reasonable investor ideal than individual male investors (who exhibit greater overconfidence in their investment decision making).

155. See, e.g., *Whirlpool Fin. Corp. v. GN Holdings, Inc.*, 67 F.3d 605, 610 (7th Cir. 1995) (“A reasonable investor is presumed to have information available in the public domain . . .”).

156. See *supra* notes 64-71 and accompanying text.

157. See *supra* notes 72-78 and accompanying text.

Overconfident investors rely too heavily on their own perceived investment acumen in valuing securities and in making related trading decisions; they are more likely to ignore the valuations and advice of others.¹⁵⁸ Overconfident investors have been expressly contrasted with rational investors,¹⁵⁹ and rational investors have been likened to the reasonable investor. Accordingly, overconfident investors are less likely to be deemed reasonable investors and, because male investors typically are more overconfident than their female counterparts, the behavior of female investors is more likely than that of male investors to conform to the existing reasonable investor model.

Overconfident investors trade more than others, which may be irrational to the extent that excessive trading results in abnormally low cost-adjusted returns.¹⁶⁰ Female investors (who are less overconfident than male investors) trade less frequently and with more consistent, persistent — and in some cases better — cost-adjusted returns. Women's overall behavior in this regard appears to be more rational than men's and, therefore, more consistent with existing conceptions of the reasonable investor as a rational investor (unless, of course, the lack of trading by women is attributable to other factors: an irrational avoidance of risk, irrational pessimism or underconfidence, or an irrationally low self-assessment of investment competence).¹⁶¹

The investment behavior of women, however, is not plainly consistent with the speculator model of the reasonable investor. Women avoid risk in investment decision making more often than men.¹⁶² This may make female investors less able than male investors to fit into the conceptualization of the reasonable investor as a speculator — at least to the extent that women's risk avoidance is inconsistent with being a “smart money” or “intelligent” speculator.¹⁶³ In particular, women choose less risky portfolios than men when trading in equity securities.¹⁶⁴ This behavior, when linked to the more consistent and

158. Barber & Odean, *supra* note 9, at 263 (“[Overconfident investors] overestimate the probability that their personal assessments of the security's value are more accurate than the assessments of others. Thus, overconfident investors believe more strongly in their own valuations, and concern themselves less about the beliefs of others.”).

159. *Id.* (“Rational investors only trade and only purchase information when doing so increases their expected utility. Overconfident investors, on the other hand, lower their expected utility by trading too much” (citation omitted)); *id.* at 264 (“[I]nvestors trade too much and to their detriment. The findings are inconsistent with rationality and not easily explained in the absence of overconfidence.”).

160. *Id.* at 264.

161. Interestingly, in this regard, one study found that “females are not willing to make risky investments even when downside risk is artificially limited.” Felton et al., *supra* note 9, at 39.

162. *Id.* at 33.

163. *See supra* note 27.

164. Barber & Odean, *supra* note 9, at 263-64 (“Overconfident investors also hold riskier portfolios than do rational investors with the same degree of risk aversion.”).

persistent (but not always better) results associated with women's investment portfolios, seems inconsistent with the high-risk, high-reward nature of speculation. Portfolios managed by men (bigger risk-takers) may do better or worse than those managed by women; their investment performance is significantly more varied¹⁶⁵ and more consistent with the speculator conception of the reasonable investor.

IV. RECONCEPTUALIZING THE REASONABLE INVESTOR?

The analysis in Part III shows that, based on existing research, the investment behavior of women conforms more closely to existing conceptions of the reasonable investor than the investment behavior of men. Especially when viewed in the context of the consistent, persistent, and (sometimes) better investment results achieved by female investors, this finding may indicate that little or no alteration of the reasonable investor conception is required in order to protect female investors in the public securities markets.

Female investors, however, do not conform perfectly to existing conceptions of the reasonable investor. To the extent that female investors are not idealized embodiments of the reasonable investor (because, for example, they may not conform well to the speculator model), their interests may not be adequately protected. Although unlikely, a prototypical female investor might find certain misstated or omitted information important or significant to the total mix of available information, while the speculator would not, leaving the prototypical female investor without a cause of action for securities fraud. Under these circumstances the existing conception of the reasonable investor would not serve women effectively, and those who want to afford more comprehensive protection to women would need to seek an adjustment to that conception.

The conclusion that legal change is necessary to better protect women (or, for that matter, men), however, relies on certain important assumptions. Principal among them are assumptions that (1) market behaviors should impact the nature of the reasonable investor (or any alternative conception), as defined and used under Rule 10b-5 (and potentially elsewhere in the federal securities laws), and (2) we intend and desire to protect with Rule 10b-5 (and other antifraud provisions) an investor who behaves like the prototypical female (or

165. See Felton et al., *supra* note 9, at 38-39 ("Risky investments sometimes pay off. This was demonstrated in the greater variability in portfolio value for men than women. Although optimism was not significantly related to portfolio variability in the current research, the volatile nature of riskier investments would likely lead optimistic men to experience greater fluctuations in their portfolio value over the long run.").

male) investor described in Part II. The remainder of this part examines these assumptions in greater detail.

A. *Market Behavior and the Reasonable Investor*

“[I]t has been argued that where a security is traded in an efficient market, the market itself should serve as the reasonable investor.”¹⁶⁶ But nowhere does it expressly state that the reasonable investor is intended to serve as a proxy for the average (or any other) actual investor. In fact, there is an argument, and some sentiment, for keeping the objective notion of the reasonable investor an idealized, normative standard (as it arguably is now).¹⁶⁷ Among other things, an idealized, normative standard may be used to help channel investor behavior toward that norm.¹⁶⁸ “Here, we run into the ever-troublesome distinction between the normative and the descriptive.”¹⁶⁹

Scholars often theorize as if the market were an incubator or proving ground for accepted and acceptable conceptions of the reasonable investor. These scholars focus on the descriptive, but frequently not to the complete exclusion of the normative.¹⁷⁰ Their suggestions for modification of the reasonable investor notion emanate from compelling market realities.

For example, Professor Sachs observes that “[s]ocial change has long driven change in securities law.”¹⁷¹ Consistent with this observation, and “due to the pervasiveness of Internet fraud, telemarketing fraud, and the ready availability of ‘mooch lists’ of the unsophisticated, elderly, or otherwise vulnerable,”¹⁷² she suggests a need to protect “unsophisticated investors trading in inefficient markets” with her “least sophisticated investor” standard.¹⁷³ Interestingly, Professor Sachs notes that some courts have already reacted to protect these

166. Padfield, *supra* note 13, at 346.

167. See Hoffman, *supra* note 6, at 542 & n.24 (citing Huang, *supra* note 7, at 111 (indicating many courts’ view of the reasonable investor as “idealized,” rather than “a descriptive realistic depiction of actual behavior”)); Padfield, *supra* note 13, at 347-48 (same).

168. See Hoffman, *supra* note 6, at 594 (“The shift in the rationale for findings of presumed immateriality over time from standards to bright-line rules suggests that materiality is evolving toward a formal choice: investors must behave in a certain way or suffer the consequences.”). *But see* Huang, *supra* note 7, at 111 (“Courts have not eliminated and will not even necessarily reduce moody investing simply by holding that moody investing behavior is not reasonable, especially if moody investing is prevalent and unconscious.”).

169. Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135, 184 (2002).

170. See, e.g., Huang, *supra* note 7, at 111.

171. Sachs, *supra* note 1, at 474.

172. *Id.* at 476-77 (footnotes omitted).

173. *Id.* at 476, 481.

“underclass investors” by stretching the existing conception of the reasonable investor to fit the facts of emergent cases and achieve the desired results, posing danger to the existing reasonable investor standard.¹⁷⁴

Similarly, Professor Huang offers that “[t]he level and nature of securities litigation and enforcement do and should depend on the level and nature of securities investing.”¹⁷⁵ He argues that affect, as well as cognition, is (or should be deemed) reasonable in investment decision making and that the applicable legal conception of the reasonable investor ought to reflect that market reality.¹⁷⁶

Moody investing suggests a new definition for the reasonableness of investors which does not privilege cognition over affect, but instead acknowledges the reasonableness of some moods in certain situations. Such a reformulation of reasonableness implies that drawing a hard and fast line between cognition and emotion is artificial, if not impossible. In other words, determinations of reasonableness would and should depend not just on the cognitive nature and quality of information processing, but also upon the affective nature and quality of information processing.¹⁷⁷

Both of these scholars identify market activity that is outside the scope of the current reasonable investor paradigm and suggest ways of altering the reasonable investor conception (and, in essence, materiality) to fill the perceived gap. Although one might (and should) question the need to react to market forces with legal change,¹⁷⁸ there are at least two good reasons why the notion of the reasonable investor should be expressly responsive to selected market changes. First, if the reasonable investor standard does not explicitly react to market change, courts that want to provide protection to certain plaintiffs may informally stretch the bounds of the existing standard beyond recognition, creating legal uncertainty.¹⁷⁹ Professor Sachs

174. *Id.* at 479-80.

175. Huang, *supra* note 7, at 100.

176. *Id.* at 112.

177. *Id.*

178. See Stephen J. Choi & A.C. Pritchard, *Behavioral Economics and the SEC*, 56 STAN. L. REV. 1, 56 (2003) (contending “that regulators seeking to supplant the market in order to correct behavioral biases should bear the burden of overcoming a strong presumption against regulation”); see also Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 693-95 (1984) (arguing that securities regulation should not particularly protect unsophisticated or uninformed investors).

179. See Sachs, *supra* note 1, at 479. The competence of courts to engage in this kind of norm setting is questionable. See Padfield, *supra* note 13, at 348 (“[I]t is highly questionable whether courts should be the ones deciding upon the norms — particularly without any express acknowledgement thereof.”).

critiques the phenomenon by reference to courts' materiality assessments under the current standard, which she refers to as "*Northway/Basic*."¹⁸⁰ Reported securities fraud decisions in cases brought by the SEC and the Department of Justice on behalf of "underclass investors" ("unsophisticated investors trading in inefficient markets without an adviser"), which she terms "underclass decisions,"¹⁸¹

deal a body blow to materiality as it is currently understood. While characterizing the fraud as "fantastic," "clearly . . . not true," "patently impossible," "phantasmagorical," "inconceivable on its face," "beyond belief," or "incredible," these decisions nevertheless hold that the fraud satisfies *Northway/Basic*. In the process, they undermine the notion of "the reasonable investor" and thereby jeopardize *Northway/Basic*'s stability and its important contributions to federal securities fraud enforcement in other contexts.¹⁸²

Second, an inflexible standard — one that is not reactive to market changes — affords those intent on perpetrating fraud with a clear path to do wrong without fear of retribution.¹⁸³ Of course, another cause of action may be available to punish the purposeful wrongdoer in the absence of a viable Rule 10b-5 (or other securities fraud) claim. But the variety of securities fraud actions (public and private), the stigma associated with a potential securities fraud conviction or liability, and the varied, stringent remedies available to securities fraud plaintiffs (among other substantive and procedural advantages applicable in individual cases) may make securities fraud (and especially Rule 10b-5) actions desirable avenues of relief.¹⁸⁴

180. Sachs, *supra* note 1, at 476.

181. *Id.* at 476, 478.

182. *Id.* at 479 (alteration in original) (footnotes omitted).

183. See Langevoort, *supra* note 169, at 185 (noting, with respect to potential expansions of the reasonable investor concept, that "a hands-off legal approach would only invite a high incidence of exploitation").

184. See, e.g., James D. Gordon III, *Acorns and Oaks: Implied Rights of Action Under the Securities Acts*, 10 STAN. J.L. BUS. & FIN. 62, 85 (2004) ("Because Rule 10b-5 actions are so much more attractive, they overshadow the express private remedy in section 18 [of the 1934 Act]."); Robert A. Prentice & Mark E. Roszkowski, *The Sale of Business Doctrine: New Relief from Securities Regulation or a New Haven for Welshers?*, 44 OHIO ST. L.J. 473, 511 n.250 (1983) (setting forth various substantive and procedural advantages of Rule 10b-5 claims over state law fraud claims); Brendan J. McCarthy, Note, *"In Connection With": The Need for Limitation to SEC Rule 10b-5 in Dissemination of Misleading Information Cases*, 54 CASE W. RES. L. REV. 1347, 1347 (2004) (discussing the impact on corporate performance from the stigma of securities fraud allegations); Daniela Nanau, Note, *Analyzing Post-Market Boom Jurisprudence in the Second and Ninth Circuits: Has the Pendulum Really Swung Too Far in Favor of Plaintiffs?*, 3 CARDOZO PUB. L. POL'Y & ETHICS J. 943, 951 (2006) ("The implied right of action pursuant to § 10(b)

It would be improvident for the law to react to every observed market anomaly not included in the existing conceptions of the reasonable investor. Accordingly, if the law is to incorporate market-reactive conceptions of the reasonable investor, it will be important to determine how to choose the market variances that should be incorporated into the reasonable investor standard. For example, if the market behaviors of underclass investors, moody investors, moral investors, female investors, or any other subset of the investor population are considered reasonable investor behaviors (or if the reasonable investor notion is recast for use in a specific context, as Professor Sachs suggests), then a policy-oriented and doctrinal justification must be given for each.

Several scholars have suggested, expressly or impliedly, that the reasonable investor and materiality as a whole should reflect "common" market behaviors.¹⁸⁵ There is some attraction to this suggestion, in that the notion of the reasonable investor would reflect the perspective of the general, ordinary, run-of-the-mill investor. But why, based on policy and doctrine, should commonality be the test, and how do we define commonality? Professor Donald Langevoort suggests "keep[ing] the definition materially tied to what is commonplace or normal, whether we admire the behavior or not."¹⁸⁶ He makes a persuasive case by anchoring his proposal to the maintenance of market integrity, stating that this expanded, flexible materiality standard is necessary for achievement of "some semblance of market price integrity (i.e., unmanipulated markets)."¹⁸⁷

Assuming we can identify, at any given time, what is "commonplace" or "normal" in investing, is the common investor always the type of investor we should protect through the reasonable investor concept and the materiality standard? Assuming their behaviors are commonplace or normal, do we want to protect (and thereby encourage) behaviors exhibited by underclass investors, moody investors, moral investors, or female investors by terming their behaviors "reasonable" or by otherwise altering the materiality standard to reflect their behaviors? How do we decide who to protect?

and Rule 10b-5 . . . continues to be a favored claim, because it can be applied to a wide variety of factual contexts. Federal courts have recognized a range of claims filed pursuant to the implied right of action, from problems regarding corporate misstatements or non-disclosures, to malfeasance that arises in the context of transactions in shares and other securities." (footnotes omitted)).

185. See Huang, *supra* note 7, at 112; Langevoort, *supra* note 169, at 186; Padfield, *supra* note 13, at 348.

186. Langevoort, *supra* note 169, at 186.

187. *Id.*

B. Investor Protection and the Reasonable Investor

Not every investor is protected under the federal securities laws. As one court notes, “[t]he market has risks; the securities laws do not serve as investment insurance. Every prediction of success that fails to materialize cannot create on that account an action for securities fraud.”¹⁸⁸ The question of who should be protected by the reasonable investor standard can best be answered by reference to both the policies underlying the federal securities laws and the doctrine used to effectuate those policies.

Federal securities regulation — including Rule 10b-5 as adopted by the SEC under section 10(b) of the 1934 Act — aims to protect investors and maintain the integrity of the securities markets.¹⁸⁹ Mandatory disclosure and fraud protection (including under Rule 10b-5) effectuate these objectives.¹⁹⁰ Overall, disclosure is the key implementation vehicle.¹⁹¹

Conceptions of the reasonable investor and of materiality are rooted in disclosure. As noted earlier, assuming the existence of a duty to disclose, materiality sorts out that which must be disclosed from that which need not be disclosed; the sorting mechanism relies on a determination of the importance of the relevant facts to the reasonable investor or the reasonable investor’s view on the significance of the relevant facts to the total mix of available information.¹⁹²

188. *Raab v. Gen. Physics Corp.*, 4 F.3d 286, 291 (4th Cir. 1993); *see also* *DiLeo v. Ernst & Young*, 901 F.2d 624, 627 (7th Cir. 1990) (“Securities laws do not guarantee sound business practices and do not protect investors against reverses.”).

189. Tamar Frankel, *The Internet, Securities Regulation, and Theory of Law*, 73 CHI.-KENT L. REV. 1319, 1325 n.17, 1334, 1341 (1998); *see also* Hazen, *supra* note 28, at 1037 (concluding that, in securities regulation, “good regulatory policy should balance the goal of market efficiency against the goals of market integrity and investor protection”); Donna M. Nagy, *Reframing the Misappropriation Theory of Insider Trading Liability: A Post-O’Hagan Suggestion*, 59 OHIO ST. L.J. 1223, 1228 (1998) (noting “the investor protection and market integrity policy objectives underlying the federal securities laws”); Jennifer O’Hare, *Preemption Under the Securities Litigation Uniform Standards Act: If It Looks Like a Securities Fraud Claim and Acts Like a Securities Fraud Claim, Is It a Securities Fraud Claim?*, 56 ALA. L. REV. 325, 376 (2004) (stating that “investor protection and market integrity” are the policies underlying Rule 10b-5).

190. *See* Robert A. Prentice, *The Inevitability of a Strong SEC*, 91 CORNELL L. REV. 775, 803 (2006) (“After the Great Crash of 1929, Congress attempted to restore investor confidence in the nation’s markets. Its two primary tools, embodied in the Securities Act of 1933 and the Securities Exchange Act of 1934, were mandatory disclosure and punishment for fraudulent disclosures. Thus, two very simple heuristics emerged: Disclosure is good and fraud is bad.” (footnotes omitted)).

191. *See* How the SEC Protects Investors, Maintains Market Integrity, <http://www.sec.gov/about/laws.shtml> (last visited Jan. 11, 2009).

192. *See* Joan MacLeod Heminway, *Materiality Guidance in the Context of Insider Trading: A Call for Action*, 52 AM. U. L. REV. 1131, 1148-50 (2003); *supra* note 4 and accompanying text.

When we note commonplace or normal market behaviors that are not incorporated into existing conceptions of the reasonable investor, we may be observing a number of different things in relation to policy and doctrine. One possibility is that existing doctrine is entirely appropriate as is: that we intend to exclude these behaviors, and therefore causes of action brought by or on behalf of investors exhibiting them, from coverage under Rule 10b-5. In this case, we are making a decision that the investor protection and market integrity maintenance policies underlying Rule 10b-5 are not served by protecting investors who exhibit these behaviors. This decision may be based on an assessment that protecting these investors would require unacceptable reductions in the protections afforded to other investors or have negative effects on market integrity.

Another possibility is that the current reasonable investor concept is underinclusive in certain key respects, as posited by Professors Huang, Langevoort, Sachs, and others with respect to particular market behaviors. In other words, it is possible that the notion of the reasonable investor in materiality doctrine would better promote investor protection and market integrity maintenance if it were expanded or altered for use in specific situations to incorporate certain additional market behaviors.¹⁹³ Protection of the class of investors exhibiting these behaviors may not negatively impact existing investor protections and may enhance the integrity of the market. Under this scenario, where a change in doctrine clearly serves applicable policy, absent significant offsetting costs requiring a compromise in the promotion of policy objectives (e.g., excessive litigation or promotion of undesirable investor or market behaviors), an expansion or alteration of the reasonable investor concept should be undertaken.¹⁹⁴

It is also possible, however, that the absence of certain enhanced conceptions of the reasonable investor in current doctrine signals a more fundamental failure that requires a different kind of action. For example, it is possible that we are observing the failure or inadequacy of disclosure as an implementation vehicle for the

193. See Huang, *supra* note 7, at 111-12; Langevoort, *supra* note 169, at 185-86; Sachs, *supra* note 1, at 481.

194. Scholars suggesting this approach either assume or call into question the historical role of courts in defining materiality and reasonable investor status. See Huang, *supra* note 7, at 111 (questioning court implementation); Langevoort, *supra* note 169, at 186 (assuming court implementation); Padfield, *supra* note 13, at 348 (questioning court implementation); Sachs, *supra* note 1, at 481, 502 (assuming court implementation). Optimally, a comparative institutional analysis should be done to select the most effective body to implement any formal rule proposal. See Joan MacLeod Heminway, *Rock, Paper, Scissors: Choosing the Right Vehicle for Federal Corporate Governance Initiatives*, 10 FORDHAM J. CORP. & FIN. L. 225, 228 (2005) (suggesting a framework for comparative institutional analysis for the implementation of federal corporate governance initiatives).

investor protection and market integrity maintenance policies underlying Rule 10b-5 and U.S. securities regulation as a whole. According to Professor Sachs, underclass investors lack the knowledge and sophistication (or advice as a substitute) sufficient to enable them to properly use disclosures in a way that guides their investments.¹⁹⁵ Professor Huang asserts that moody investors interpret disclosure signals differently than others.¹⁹⁶ Professor Langevoort asserts, in discussing investor interpretations and use of disclosure commonly identified as mere puffery,¹⁹⁷ that behavioral analysis has identified certain heuristics routinely used by investors that cause them to trade in a manner that deviates from the expected sophisticated investor model.¹⁹⁸

According to the research presented in Part II, women and men respond differently to the same disclosures. In each case, assuming compliance with applicable mandatory disclosure rules and market disclosures consistent with normative notions of fraud protection, disclosure is not influencing the actions of significant numbers of real investors in the marketplace in the same way. It is possible that we need something more than disclosure to effectuate the policies underlying Rule 10b-5 and the federal securities laws. Among other things, we may need or want to change investor behavior (rather than, or in addition to, changing the behavior of the issuer or other disclosing person or entity).

Disclosure may not be the only appropriate vehicle to encourage investor behavior.¹⁹⁹ If investors behave differently when afforded

195. See Sachs, *supra* note 1, at 503-04 (describing the least sophisticated investor).

196. See, e.g., Huang, *supra* note 7, at 118 ("So-called mere puffery may nonetheless be material because of the positive, strong moods that it evokes. Forward-looking statements that do not rise to the level of a virtual guarantee may nonetheless instill and infuse their listeners with euphoric moods that are not sensitive to probability variations.").

197. See *supra* notes 48-52 and accompanying text.

198. See Langevoort, *supra* note 169, at 185 ("If managerial hype succeeds in gaining media attention, it will draw a higher level of investor attention to the company and its past success, prompting the kinds of heuristic reasoning that causes investors to buy the company stock.").

199. Professor Susanna Kim Ripken raises this concern directly in a recent law review article.

In light of the recent corporate scandals and the enactment of the Sarbanes-Oxley Act, it is important to ask whether our time-honored belief in the power of disclosure is really merited. Our system of disclosure has serious weaknesses that cannot be ignored. In order for a disclosure system to be effective, not only must the information that is supplied be disclosed completely, clearly, and accurately, but it must also be read and comprehended by the consumer. Here is where disclosure today fails in its purpose. The emphasis in securities law on providing information to the public is premised on the belief that individuals are rational, self-governing actors who are willing and able to process the information wisely. If we assume that

access to the same disclosure, and the law would protect one investor more than the other, but (as a policy matter) we do not want to protect one more than the other, then we may need to introduce other elements into law or regulation or encourage extralegal means of better matching investor behavior to the legally protected class of reasonable investors. Depending on the reason for disclosure's failure or inadequacy in a particular circumstance, there may be different enhancements that could work. For example, barriers to knowledge and understanding (even barriers created by cognitive biases) may be overcome with targeted investor education.²⁰⁰

investors are rational risk calculators who are consistently capable of weighing the costs and benefits of risky alternatives and selecting the best option, then a system of disclosure makes good sense. However, substantial evidence indicates that such assumptions of rationality and efficiency in information processing are faulty. Cognitive biases and decision-making constraints cause individuals to depart systematically from rational choice models of decision-making. Moreover, disclosure that is too long or complex to be comprehensible to the average person floods the individual with too much non-essential data and overloads the person with information that inhibits optimal decision-making. Securities regulation is motivated by the assumption that more information is better than less, but evidence shows that too much disclosure can ultimately be counterproductive to the decision-making processes of the individual investor.

Susanna Kim Ripken, *The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation*, 58 BAYLOR L. REV. 139, 146-47 (2006) (footnotes omitted); see also Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1, 36 ("The complexity of structured transactions undermines the long-held disclosure paradigm . . .").

200. See generally Stephen Choi, *Regulating Investors Not Issuers: A Market-Based Proposal*, 88 CAL. L. REV. 279, 311 (2000) (suggesting that "[r]egulators and private parties could also use [an investor] licensing process to educate investors"); Choi & Pritchard, *supra* note 178, at 66 ("Education can also influence investors' decisions."); Lawrence A. Cunningham, *Behavioral Finance and Investor Governance*, 59 WASH. & LEE L. REV. 767, 788-96 (2002) (suggesting ways that investor education might address behavioral biases); James A. Fanto, *We're All Capitalists Now: The Importance, Nature, Provision and Regulation of Investor Education*, 49 CASE W. RES. L. REV. 105, 126-55 (1998) (advocating a multilayered approach to investor education in three key areas: saving, investing, and financial fraud); E. Richie Reyes, Current Public Law and Policy Issues, *Can America Escape the Cloud of Corporate Corruption With the Sarbanes-Oxley Act of 2002? A Proposal to Restore Efficiency and Integrity into the Capital Markets by Mandating Corporate Disclosures of Real-Time Information and Encouraging Investor Education*, 24 HAMLIN J. PUB. L. & POL'Y 147, 176-83 (2002) (promoting a new public policy emphasizing investor education so that investors will be able to make effective use of the "real-time information" disclosures mandated by the Sarbanes-Oxley Act of 2002). Professor Janis Sarra notes that

[i]nvestor education . . . can enhance investor knowledge and provide skills to assess disclosures. While education does not remedy an individual's capacity to digest and apply information, it can serve to reduce disparities in processing information and reduce the incidence of completely uninformed decision making. Education can provide investors with a greater appreciation of their own limits (time, resources and information) with respect to investment decisions without the assistance of knowledgeable advisors.

However, efforts at investor education also are subject to criticism. In particular, some commentators claim that these efforts are ineffectual.²⁰¹ The possession of information by an investor does not imply its use in investment decision making. Certainly, investor education alone is not likely to provide the desired level of protection for every investment context in which protection is desired.²⁰² Moreover, investor education adds cost to the regulatory framework that should be assessed in relation to its perceived benefits and other possible responses.

Other alternatives or supplements to disclosure regulation involve the substantive regulation of issuers or investors and enhancements in fraud protection, protection against deception and manipulation that does not rely solely on the accurate and complete public disclosure of available material information. A number of proposals have been forwarded along these lines. The principal regulatory suggestions are categorized and described in the next few paragraphs.

Professor Susanna Kim Ripken (among others) suggests greater substantive regulation of corporate (including director and executive) behavior as a supplement to disclosure regulation.²⁰³ The possibilities for substantive regulation to prevent fraud are seemingly endless. The Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley") takes a step in that direction in its prohibition on corporate loans to directors and executives.²⁰⁴

Professor Stephen Choi, on the other hand, suggests that we regulate investors by licensing them to make certain types of investments based on their knowledge of "the range of market participants, the possible risks they pose to investors, and available investor protection devices."²⁰⁵ Aden R. Pavkov echoes Professor Choi's proposal when he suggests that "regulation could be directed towards the investors, classifying them into baskets of investing sophistication (as

Janis Sarra, *Disclosure as a Public Policy Instrument in Global Capital Markets*, 42 TEX. INT'L L.J. 875, 883 (2007).

201. Choi & Pritchard, *supra* note 178, at 66-68 (setting forth this and other drawbacks of investor education as a solution to the inadequacies of disclosure regulation); Henry T. C. Hu, *Illiteracy and Intervention: Wholesale Derivatives, Retail Mutual Funds, and the Matter of Asset Class*, 84 GEO. L.J. 2319, 2372 (1996) (noting that "there are limits to the efficacy of education" in the investment context and that "initial efforts at this kind of public education have been quite disappointing").

202. See Fanto, *supra* note 200, at 135 n.108.

203. Ripken, *supra* note 199, at 190-95; see also Aden R. Pavkov, *Ghouls and Godsenders? A Critique of "Reverse Merger" Policy*, 3 BERKELEY BUS. L.J. 475, 490-91 (2006); Schwarcz, *supra* note 199, at 29-36.

204. 15 U.S.C. § 78m(k) (2006) (codifying section 402 of Sarbanes-Oxley).

205. Choi, *supra* note 200, at 333-34.

determined by knowledge, wealth, or experience) and then permitting investments only in securities of appropriate complexity and risk.”²⁰⁶ A companion idea would be to have investors act through sophisticated market agents.²⁰⁷ SEC rules regulating private placement transactions under Regulation D²⁰⁸ work off these premises.²⁰⁹

It also is possible for the U.S. government to engage in more aggressive regulation of the behaviors and practices of other market participants (including securities analysts, brokers, and rating agencies) and corporate advisors and agents (lawyers, investment banks, and accountants).²¹⁰ Recent initiatives, including Sarbanes-Oxley’s increased regulation of accountants and lawyers, exemplify this type of directive.²¹¹ Gatekeeper regulation is an expanding part of securities regulation.

In addition, as a supplement to disclosure regulation, the SEC could increase its efforts to monitor mandatory and voluntary disclosures or its related enforcement activities (i.e., the government could throw human capital and other resources at the perceived problem).²¹² Sarbanes-Oxley increased the SEC’s disclosure oversight function,²¹³ and the SEC has pursued more enforcement actions in

206. Pavkov, *supra* note 203, at 491.

207. See Choi & Pritchard, *supra* note 178, at 57.

208. 17 C.F.R. §§ 230.501-508 (2008) (noting especially sections 230.501(a), 230.501(e) and 230.506(b)(2) regarding the treatment of accredited and sophisticated investors).

209. See Choi & Pritchard, *supra* note 178, at 57; Erik F. Gerding, *Laws Against Bubbles: An Experimental-Asset-Market Approach to Analyzing Financial Regulation*, 2007 WIS. L. REV. 977, 1009; Pavkov, *supra* note 203, at 491.

210. See Prentice, *supra* note 190, at 785-97.

211. See, e.g., Lucian A. Bebchuk & Assaf Hamdani, *Federal Corporate Law: Lessons from History*, 106 COLUM. L. REV. 1793, 1819-21 (2006) (describing ways in which federal law regulates corporate advisors and other gatekeepers); Christine Hurt, *Moral Hazard and the Initial Public Offering*, 26 CARDOZO L. REV. 711, 779-82 (2005) (describing recent regulation of investment analysts and investment banks); Arthur R. Pinto, *Control and Responsibility of Credit Rating Agencies in the United States*, 54 AM. J. COMP. L. (SUPPLEMENT) 341, 348-51 (2006) (describing Sarbanes-Oxley’s connection with recent proposed and actual rating agency regulation); Mark J. Roe, *Delaware’s Competition*, 117 HARV. L. REV. 588, 623 (2003) (noting and briefly describing Sarbanes-Oxley’s regulation of lawyers and accountants); William H. Volz & Vahe Tazian, *The Role of Attorneys Under Sarbanes-Oxley: The Qualified Legal Compliance Committee as Facilitator of Corporate Integrity*, 43 AM. BUS. L.J. 439, 439 (2006) (“With the adoption of Sarbanes-Oxley, Congress and the SEC . . . expand accountability of corporate gatekeepers, such as accountants, attorneys, and financial analysts.”).

212. See, e.g., Pavkov, *supra* note 203, at 495.

213. See 15 U.S.C. § 7266 (2006) (codifying section 104(b)(1)(B) of Sarbanes-Oxley); Lawrence A. Cunningham, *The Sarbanes-Oxley Yawn: Heavy Rhetoric, Light Reform (And It Just Might Work)*, 35 CONN. L. REV. 915, 968 (2003) (“Putting more pressure on the watchdog function of the SEC, the Sarbanes-Oxley Act requires the SEC to review disclosures, including financial statements, regularly and systematically, giving every company a once-over triennially.”).

recent years.²¹⁴ In short, the SEC already appears to be active in pursuing these alternatives.

Finally, the U.S. government also could guarantee or certify the quality of investments as a companion to disclosure and other securities regulation or designate or permit a third party to do so in a regulated environment.²¹⁵ Although this approach has apparent advantages, it also has significant drawbacks. For one thing, the expertise of the government in quality certification is questionable at best.²¹⁶ Moreover, merit regulation of securities markets is widely disfavored as ineffectual or inefficient.²¹⁷

Of course, proposals of the kinds described above (as alternatives or supplements to disclosure regulation) have the capacity to be significantly more paternalistic than disclosure regulation, and their implementation would take us further away from a privately ordered, free-market system of securities trading. In addition, as most observers readily point out, a comprehensive cost-benefit analysis may reveal that none of these nondisclosure regulatory proposals is more effective or efficient than maintaining the *status quo* or engaging in further disclosure regulation. And (finally) some of the suggested substantive regulatory initiatives may not be practical or politically feasible.²¹⁸

Yet, each and all of these (and other) alternatives to further disclosure regulation should be considered as a response to regulatory failures. Any attempt to change investor behavior in response to disclosure, however, should be designed to address the underlying reason why the behavior fails to conform to expected, normative behavior — our market measure.²¹⁹ Accordingly, if we want women to take more calculated investment risks, then we need to know more about what

214. See Elizabeth Chamblee Burch, *Reassessing Damages in Securities Fraud Class Actions*, 66 MD. L. REV. 348, 395 (2007) (“[A]s compared with the average from 2000 to 2002, the 2005 statistics indicate that SEC enforcement actions increased . . .”); Thomas C. Pearson & Gideon Mark, *Investigations, Inspections, and Audits in the Post-SOX Environment*, 86 NEB. L. REV. 43, 78 (2007) (“SEC enforcement actions increased after SOX, partly because SEC funding increased in the aftermath of the legislation.” (footnote omitted)); Hillary A. Sale, *Banks: The Forgotten(?) Partners in Fraud*, 73 U. CIN. L. REV. 139, 176 (2004) (“[B]oth the number of SEC enforcement actions and the size of its settlements are increasing.”).

215. See Schwarcz, *supra* note 199, at 26-29.

216. *Id.* at 27.

217. See, e.g., Choi & Pritchard, *supra* note 178, at 56-57.

218. See Langevoort, *supra* note 169, at 173 n.161 (making a comment in this regard with respect to Professor Choi’s proposal, discussed *supra* note 201 and accompanying text).

219. Accord Choi & Pritchard, *supra* note 178, at 59 (“Absent the ability to distinguish among investors, crafting regulatory responses to behavioral biases becomes a guessing game.”).

causes women to refrain from risky investment decisions. Or, if we want men to be less overconfident in their investment behavior, then we need to determine what makes men overconfident in that environment. Changes to the reasonable investor paradigm and disclosure regulation more generally are only one way to approach the issue of investor protection.

This brings us back to the observed differences between female and male investors. Does the law mean to protect women and men differently, and is a woman more like the type of investor that the law intends to protect? Although economic theory may indicate that the more informed, rational behavior of women (leaving aside their risk-aversion and loss-avoidance attributes) is more worthy of protection (at least in a market ruled by the ECMH), there is no apparent policy-based reason why securities fraud doctrine should better protect women than men, or men than women. Neither investor protection nor market integrity maintenance demand that female and male investors receive different treatment in the event of alleged or actual absent or faulty disclosure.

In fact, both policy objectives may be harmed by a reasonable investor construct that protects women and men differently. Certainly, both women and men are commonplace or normal investors in the current market, as are the behavioral attributes that distinguish them as investors: engagement with investment advice, risk tolerance, optimism, overconfidence, and frequency of trading. Differential treatment may leave female or male investors without a remedy in circumstances where a disclosing person or entity intends to deceive and takes advantage of a particular known investor attribute. At some level, market awareness of disparate treatment will create disruptions that may threaten market integrity. As yet, there is no apparent cause for alarm in this regard. Although women may be better protected than men under current conceptions of the reasonable investor standard, neither women nor men are asserting that current securities fraud prohibitions actually fail to protect them adequately because of attributes related to their sex or gender. In fact, wider dissemination of the investor attributes described in Part II of this article, as well as the analysis of these attributes under important and relevant legal and regulatory rules (in this article and elsewhere), may be enough to alert investors to their relative strengths and weaknesses and help mitigate any significant, actual disparities in investor protection based on sex or gender. To the extent that policy determines the need to better protect female, male, or any other segregable subgroup of investors, however, significant research should be done to identify the root causes of the relevant

investor behaviors. In addition, consideration should be given to both (1) expanding materiality through a reconceptualization of the reasonable investor paradigm (and, potentially, reformulating the related scienter or reliance elements of a Rule 10b-5 claim) and (2) revising laws, regulations, or related practices as a means of changing investor behavior.

CONCLUSION

This article extends scholarship that questions the existing materiality standard used under Rule 10b-5 (and elsewhere in U.S. securities regulation) and its touchstone notion of the reasonable investor. Specifically, the article asks and answers a seemingly straightforward, yet provocative, question: Is the reasonable investor a woman? The article then preliminarily explores the potential significance of its key findings: women and men exhibit different investment behaviors and achieve different investment outcomes; and the resulting female investor profile is closer to existing conceptions of the reasonable investor than the resulting male investor profile.

In the process, this article contributes to extant literature on the reasonable investor in a number of ways.

- It collects and describes existing actual and theoretical conceptions of the reasonable investor.
- It uses empirical studies from the social sciences to identify attributes of real investors in the market.
- It assesses the attributes of real investors in terms of prevailing reasonable investor conceptions.
- It proposes a means for identifying those investors who need the protection of Rule 10b-5 and the federal securities laws by reference to applicable policy and doctrine.

As a further contribution, the article suggests that market-responsive adjustments to the reasonable investor standard may not be the only way to affect change that serves to better protect investors and assure the continued integrity of the securities markets, particularly where disclosure regulation provides inadequate protection (because disclosures are misunderstood, misinterpreted, or disregarded).

As women become bigger players in the securities markets, it may be comforting to know that they are relatively well protected by existing conceptions of the reasonable investor. The knowledge that women are not completely protected by these existing conceptions

and that men are less well protected than women under the current reasonable investor paradigm, however, gives us pause and forces us to reconsider inaction. To that end, this article continues an ongoing academic and practical conversation about when changes in investor protection should be undertaken and how changes in investor protection are best made — not just for the benefit of women or men, but for the benefit of all underprotected investors.