

INVESTOR AND MARKET PROTECTION IN THE CROWDFUNDING ERA: DISCLOSING TO AND FOR THE “CROWD”

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INTRODUCTION

Policymakers use mandatory disclosure as a means of achieving important regulatory objectives. Disclosure informs its audience. The audience can then use the disclosed information to make decisions. If disclosure requirements are standardized across the audience’s decision-making options, then the calculus of decision makers can include comparative elements.

Disclosure can be a means of protecting a desired audience from what it does not know; especially where part of that desired audience has unequal access to the desired information because of, for example, a lack of access to information sources or a lack of resources necessary to access adequate information. In this way, disclosure enables better decision making because it cures or limits informational asymmetries. Whether better decisions actually are made depends on a number of factors, including the objectives of the decision makers and their respective abilities to comprehend and process the meaning of the disclosed information in the context of those objectives.

Information asymmetries among market participants can have negative effects on the markets in which information is used. Disclosure requirements that respond to information asymmetries may mitigate those market effects. For example, disclosure can correct information asymmetries and give market participants confidence that the playing field in the market is even, or at least fair.

And where disclosure is required to serve these purposes, regulators may initiate an enforcement action for a failure to meet disclosure obligations. For disclosure requirements to be meaningful, those who fail to disclose required information must be identified and penalized. Claims

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relating to disclosure lapses in securities markets, for example, may sound in securities fraud, and that fraud may be based on misstatements of important information or omissions to state important information that make extant disclosed information misleading. However, a misstatement of required information that does not constitute securities fraud also may occur, and this type of misstatement also may be actionable. Liability for fraud based on misstatements of, or omissions to state, important information and non-fraud liability for misstatements of important information support and encourage accurate and complete required and desired disclosures of important information.

Consistent with these general observations about disclosure policy, mandatory disclosure has been and continues to be a key regulatory tool in U.S. securities regulation.¹ Along with the prevention of fraud and other misleading conduct and the substantive regulation of market participants, disclosure mandates under securities laws and rules—including those in and under the Securities Act of 1933, as amended (1933 Act), and the Securities Exchange Act of 1934, as amended (1934 Act)—serve to protect investors, maintain the integrity of securities markets, and encourage capital formation.² These are the core policy objectives of securities regulation.

Well-known economic theory explains the utility of mandatory disclosure as an important instrument in achieving these policy goals. In particular, the efficient capital markets hypothesis (ECMH) describes a connection between information and market pricing.³ Under the semi-strong version of the ECMH, we assume that the trading price of securities reflects all publicly available information.⁴

1. See Stephen M. Bainbridge, *Mandatory Disclosure: A Behavioral Analysis*, 68 U. CIN. L. REV. 1023, 1023 (2000) (“Mandatory disclosure is a—if not *the*—defining characteristic of U.S. securities regulation.” (emphasis in original) (citing *Europe & Overseas Commodity Traders, S.A. v. Banque Paribas London*, 147 F.3d 118, 126 (2d Cir. 1998))).

2. See, e.g., Tamar Frankel, *The Internet, Securities Regulation, and Theory of Law*, 73 CHI.-KENT L. REV. 1319, 1325 n.17 (1998) (“The prohibitions on fraud, as many other securities acts’ regulations, are based on two policies: protecting investors, to maintain their confidence in the markets’ integrity, and the encouragement of capital formation.”); Roberta S. Karmel, *Reconciling Federal and State Interests in Securities Regulation in the United States and Europe*, 28 BROOK. J. INT’L L. 495, 545 (2003) (“Although the primary goal of securities regulation is frequently articulated as investor protection, this understanding is too simplistic. Capital formation is at the heart of the capitalist system.”).

3. See Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383, 413–16 (1970) (reviewing foundational works on efficient capital markets).

4. See *id.* at 404, 415 (defining and briefly describing this form of the ECMH).

The touchstone of disclosure policy in securities regulation is the “reasonable investor.”⁵ It is this investor that securities disclosure regulation strives to protect through materiality qualifiers used in the mandatory disclosure provisions in U.S. federal securities laws and rules. Although the attributes of the reasonable investor are far from clear, securities law generally assumes that the reasonable investor is informed and acts rationally to maximize economic value, both when engaging in securities trading transactions and when exercising voting rights associated with securities ownership.⁶

This Article focuses on disclosure regulation in a specific context: securities crowdfunding (also known as crowdfund investing or investment crowdfunding). The intended primary audience for disclosures made in the crowdfund investing setting is the “crowd,” an ill-defined group of potential and actual investors in securities offered and sold through crowdfunding. Securities crowdfunding, for purposes of this Article, refers to an offering of securities made over the Internet to a broad-based, unstructured group of investors who are not qualified by geography, financial wherewithal, access to information, investment experience or acumen, or any other criterion.⁷ Individual members of the crowd may or may not have the attributes of the reasonable investor—the type of investor protected by U.S. federal securities laws and rules. The nature of the crowd itself, however, may play a role in the need for disclosure to protect investors, maintain market integrity, and encourage capital formation.

It is this aspect of disclosure regulation—disclosure over the Internet to a general, amorphous crowd—on which this Article focuses attention. Scholarly literature outlines two principal ways in which the behavioral

5. See, e.g., Stefan J. Padfield, *Is Puffery Material to Investors? Maybe We Should Ask Them*, 10 U. PA. J. BUS. & EMP. L. 339, 343–49 (2008) (describing the concept and role of the reasonable investor in Securities fraud actions under Section 10(b) of and Rule 10b-5 under the 1934 Act).

6. See generally Joan MacLeod Heminway, *Female Investors and Securities Fraud: Is the Reasonable Investor A Woman?*, 15 WM. & MARY J. WOMEN & L. 291, 296–309 (2009) (discussing legal conceptions of the reasonable investor).

7. This description of securities crowdfunding represents my definition of that concept for purposes of this Article and is one among many. See, e.g., Edan Burkett, *A Crowdfunding Exemption? Online Investment Crowdfunding and U.S. Securities Regulation*, 13 TRANSACTIONS: TENN. J. BUS. L. 63, 74–78 (2011) (describing patronage-plus and pure investment crowdfunding, two asserted variants of securities crowdfunding); see also Andrew A. Schwartz, *Crowdfunding Securities*, 88 NOTRE DAME L. REV. 1457, 1459–60 (2013) (describing crowdfunding and differentiating securities crowdfunding). Internet-based private placement transactions using Rule 506(c) of Regulation D under the 1933 Act, 17 C.F.R. §§ 230.506(c) (2013), and public offerings conducted in compliance with Regulation A under the 1933 Act, 17 C.F.R. §§ 230.251–263, or state-based exemptions complying with Rule 147 under the 1933 Act, *id.* § 230.147, for example, are not included in this definition. Having said that, disclosure to these more limited “crowds” may involve some of the same considerations involved in disclosure to a more dispersed, disaggregated, unbounded crowd.

psychology of crowds interacts with securities markets. Crowds can be “mad”—irrational, foolish, and even stupid.⁸ On the other hand, crowds can be “wise”—rational, sensible, and intelligent.⁹ These observations have resulted in theoretical analyses of the operation of each type of crowd, mad and wise. This Article preliminarily addresses two important matters emanating from this literature: (1) the version of the crowd that is likely to operate in the securities-crowdfunding context; and (2) the impact of that likelihood on the way we look at disclosure regulation in the crowdfunding context. At the time this Article went to press, the U.S. Securities and Exchange Commission (SEC) was seeking comments on proposed rules—including mandatory disclosure rules—as required by Congress under the Capital Raising Online While Deterring Fraud and Unethical Non-Disclosure Act (CROWDFUND Act), signed into law in April 2012 as Title III of the Jumpstart Our Business Startups Act (JOBS Act).¹⁰ Accordingly, it is important (albeit perhaps a bit late), on the eve of the adoption and implementation of mandatory disclosure rules under the CROWDFUND Act, to question the nature of the crowdfunding crowd and assess the type of mandatory disclosure that may best address its needs (as well as the more general regulatory objectives of investor protection, market integrity maintenance, and capital formation encouragement) in the context of federal securities regulation.

To be sure, an understanding of the nature of the crowd is significant, if not foundational, in an assessment of the potential efficacy of the SEC’s proposed disclosure rules. The overall inquiry into the audience for disclosure is, and is likely to remain, significant in regulatory regimes like securities regulation that depend on mandatory disclosure to do heavy lifting. Yet the precise nature of investor crowds—supported by empirical research—is not often expressly considered in engaging mandatory disclosure as a regulatory tool or modifying it over time as investor profiles change. In some cases (and crowdfunding represents one of these cases), investment markets are relatively untested, making a meaningful empirical assessment of the investor crowd impossible. As a result, theory must guide the relevant analysis of the investor crowd at the present time.

8. *See generally* CHARLES MACKAY, EXTRAORDINARY POPULAR DELUSIONS AND THE MADNESS OF CROWDS (Three Rivers Press 1980) (1841) (collecting and summarizing historical examples of crowd madness).

9. *See, e.g.*, JAMES SUROWIECKI, THE WISDOM OF CROWDS, at xiv (2005) (explaining that individual human beings are not perfectly designed decision makers, but when imperfect judgments are aggregated in the right way, collective intelligence is often excellent).

10. Jumpstart Our Business Startups Act, Pub. L. No. 112-106, 126 Stat. 306, 315–23 (2012).

To assess disclosure to and for the crowd, this Article proceeds in three principal Parts before concluding. First, the Article briefly describes securities crowdfunding and the related disclosure and regulatory environments. Next, the Article outlines basic principles from the two principal branches of scholarly literature on the nature of investment crowds. Finally, the Article assesses the possible implications of that body of literature for the regulation of disclosure in the securities-crowdfunding setting.

I. THE “CROWD” IN SECURITIES CROWDFUNDING

Crowdfunded securities offerings are a relatively recent, high-growth phenomenon borne, at least in part, from frustration with traditional capital-raising methods and processes. In less than ten years, the concept of crowdfunding was essentially born (or at least labeled) and extended from financial support offered principally as gifts or product or service pre-payments to investments made with an expectation of profits.¹¹ The advent and growth of crowdfunding and securities crowdfunding was natural and unplanned.¹² It represents a logical (even if not, in some cases, initially legal) combination of existing and evolving social media memes with traditional elements of corporate finance. The democratization of capital—opening securities offerings to investors traditionally shut out of the private investment market—was a strong motivation for proponents of securities crowdfunding.¹³ As one pair of observers noted, “our current ills in capital formation come from that fact that we traditionally don’t access capital from an open marketplace.”¹⁴

To that point, the overall “crowd” in securities crowdfunding is, from all appearances, likely to be heterogeneous.¹⁵ Although securities

11. See Burkett, *supra* note 7, at 71 (“There are now many crowdfunding websites in existence, most of which follow the patronage model. However, some investment crowdfunding sites are coming into the market.” (footnote omitted)).

12. See KEVIN LAWTON & DAN MAROM, *THE CROWDFUNDING REVOLUTION: HOW TO RAISE VENTURE CAPITAL USING SOCIAL MEDIA* 47–53 (2013) (describing the rise and continued growth of crowdfunding and securities crowdfunding).

13. This is an objective of the CROWDFUND Act. See Andrew A. Schwartz, *Keep It Light, Chairman White: SEC Rulemaking Under the CROWDFUND Act*, 66 VAND. L. REV. EN BANC 43, 44–45 (2013) (noting that the CROWDFUND Act “aims to democratize the market for speculative business investments by allowing investors of modest means to make investments that had previously been offered solely to wealthy, so-called ‘accredited’ investors.”).

14. LAWTON & MAROM, *supra* note 12, at 70; see also SHERWOOD NEISS ET AL., *CROWDFUND INVESTING FOR DUMMIES* 30–40 (2013) (describing circumstances that led to the enactment of the CROWDFUND Act).

15. See LAWTON & MAROM, *supra* note 12, at 181 (“Crowdfunding . . . draws its maximum power when the collective diversity is the greatest.”).

crowdfunding has not yet lawfully occurred in the United States outside the public offering market (making an empirical study in the United States premature), a number of preliminary observations can be made about the group of funders in crowdfunded offerings to date. Securities-crowdfunding's crowd has no single investment objective or group of investment objectives.¹⁶ It has the potential to be geographically dispersed, even if that potential is not fully realized in certain offerings.¹⁷ It also has the potential to correct historical gender inequities in business finance.¹⁸ It is likely to include representatives of various social groups and economic classes.¹⁹ Its members are in all likelihood politically diverse.²⁰ As a result, the potential and actual audience is not easily classified from many commonly studied demographic perspectives.

Moreover, the securities-crowdfunding "crowd" is an Internet-based phenomenon.²¹ Members of this crowd are connected and communicate through the Internet—forming new relationships and sustaining and terminating existing ones. The collective nature of this group of potential and actual investors—its very identity as a group—is defined by the Internet connection of the group members to an issuer of securities and, in

16. See Ethan Mollick, *The Dynamics of Crowdfunding: An Exploratory Study*, 29 J. BUS. VENTURING 1, 3 (2014), available at <http://ssrn.com/abstract=2088298> ("[T]he actual goals of funders are extremely heterogeneous. Individuals may invest in a . . . project in order to support a cause that is viewed as important, to personally support the project founders, as a political statement, as a joke, or for any one of a number of other reasons." (footnotes omitted)).

17. See *id.* at 14 ("[C]rowdfunding potentially changes the nature of geography and association in new ventures. At least in part, crowdfunding reduces the importance of traditional geographic constraints, even as it potentially imposes new ones."); see also *id.* at 9–11 (describing geographic findings and offering observations on geography based on other scholars' work.); Ajay Agrawal et al., *The Geography of Crowdfunding* 17 (NET Institute, Working Paper No. 10-08, 2011), available at <http://ssrn.com/abstract=1692661>.

[O]ur result suggests that online mechanisms can reduce economic frictions associated with investing in early-stage projects over long distances. Only the spatial correlation of pre-existing social networks is not resolved, and the online mechanisms do not yet eliminate frictions related to information that is easily conveyed through a social network.

Id.

18. See LAWTON & MAROM, *supra* note 12, at 65–66.

19. See NEISS ET AL., *supra* note 14, at 39 (noting that, as a result of the CROWDFUND Act, "companies that use crowdfund investing to raise capital are legally able to solicit people of all net worths and incomes levels to purchase their shares.").

20. See LAWTON & MAROM, *supra* note 12, at 181 ("Crowdfunding is the one mechanism for which people of all political parties seem to come together on Crowdfunding is without a political party.").

21. See *id.* at 3–10 (describing the rise of the crowdfunding crowd as an Internet-driven and supported process); see also Margot E. Kaminski, *Incitement to Riot in the Age of Flash Mobs*, 81 U. CIN. L. REV. 1, 5 (2012) ("The internet is a strikingly useful tool for organizing or creating crowds.").

some cases, to each other. “Social technologies” integrate the individuals into a coherent, identifiable group.²²

Members of this Internet-based crowd may have had no physical contact with the issuer or each other apart from Internet solicitations and communications. But crowd members *are* connected. One commentator described the overall nature of crowdfunding’s Internet crowd (by reference to its relationship to the principals of the business or project seeking funding) as:

[P]eople who are part of your extended network, acquaintances, those connected to your acquaintances by multiple degrees of separation. They’re strangers who may already be fans either of your work or of the genre you’re working in. They’re people who share your passion whom you’ve never met before, but you’re able to pull them in by making connections as well as by getting mentioned in the media outlets they pay attention to.²³

Indeed, online social networks can be modeled and evidence patterns of communication in affinity groups that reflect these connections.²⁴

An affinity group “can be loosely defined as a group of people with similar interests or motivations.”²⁵ As part of the larger crowd, an affinity group ensures that the wider crowd receives and uses important information.²⁶ In other words, among other things, the affinity group sifts through and sorts available information, and selectively passes it on to members of the wider crowd.²⁷

Affinity groups can be thought of as amplifiers, so tomorrow’s crowdsourcing mechanisms can help amplify accuracy and truth by offering mechanisms to assess credibility, timeliness, and possession of what’s called *local information* (information that is held by only a few), and they can facilitate these assessments in

22. See LAWTON & MAROM, *supra* note 12, at 9 (defining “social technologies” and differentiating them from “physical technologies”).

23. DON STEINBERG, *THE KICKSTARTER HANDBOOK: REAL-LIFE CROWDFUNDING SUCCESS STORIES* 74 (2012); see also LAWTON & MAROM, *supra* note 12, at 55 (offering data on the development of crowdfunding contributions from circles of friends). This description invokes the “small-world phenomenon” and, more broadly, scholarship involving the structure of human networks and the behavior of people in them. See, e.g., DUNCAN J. WATTS, *SMALL WORLDS: THE DYNAMICS OF NETWORKS BETWEEN ORDER AND RANDOMNESS* (1998).

24. LAWTON & MAROM, *supra* note 12, at 10–14.

25. *Id.* at 12.

26. *Id.*

27. *Id.*

near or actual real time across an arbitrary set of participants for a given event or outcome.²⁸

This coordinating function makes affinity groups an important part of the power of the crowd.

As this description of the affinity groups embedded in crowds indicates, the securities-crowdfunding “crowd” is not likely to be a single, cohesive investor group. Neither individual crowdfunded offerings of securities nor crowdfunded securities offerings taken as a whole will necessarily (or even likely) attract a singular affinity group. Rather, if it tracks participation in the crowdfunding audience generally, membership in the securities-crowdfunding audience is likely to ebb and flow depending on the timing and nature of the offering, the nature of the issuer, and other factors.²⁹ For instance, data show that most funding for Kickstarter projects—89% in one documented case—comes from backers who are driven to an offering from outside the Kickstarter site, a sign that backers in the Kickstarter crowd are not always repeat players.³⁰

Although membership in crowdfunding’s “crowd” may be multifaceted and dynamic, a crowd network is cognizable as an identifiable decision-making group. One commentator broadly described the development of a crowd as “[t]he disappearance of conscious personality and the turning of feelings and thoughts in a definite direction.”³¹ The formation of a crowd requires neither a large number of participants nor specific intent.

Thousands of isolated individuals may acquire at certain moments, and under the influence of certain violent emotions—such, for example, as a great national event—the characteristics of a psychological crowd. It will be sufficient in that case that a mere chance should bring them together for their acts to at once assume the characteristics peculiar to the acts of a crowd. At certain moments half a dozen men might constitute a psychological crowd, which may not happen in the case of hundreds of men gathered together by accident. On the other hand, an entire nation, though there may be no visible

28. *Id.* at 13–14 (emphasis in original).

29. See LAWTON & MAROM, *supra* note 12, at 10–11 (characterizing a networked crowd as having a dynamic structure); cf. SUROWIECKI, *supra* note 9, at xvii (noting that crowds, “like the stock market, exist mainly as an ever-changing collection of numbers and dollars”).

30. See STEINBERG, *supra* note 23, at 76.

31. GUSTAVE LE BON, *THE CROWD: A STUDY OF THE POPULAR MIND* 13 (Batoche Books 2001) (1896).

agglomeration, may become a crowd under the action of certain influences.³²

Others similarly define the concept of a crowd broadly.³³ Crowds share “the ability to act collectively to make decisions and solve problems—even if the people in the groups aren’t always aware that’s what they’re doing.”³⁴

The law regulates securities offerings made to the crowd in a manner different from that used to regulate crowdfunding generally. For example, in the United States, offers and sales of securities must be registered unless an exemption from registration is applicable.³⁵ Registration is a relatively lengthy, costly process focusing on detail-oriented mandatory disclosure rules.³⁶ From a regulatory perspective, while securities crowdfunding can be accomplished in a traditional offering registered under the 1933 Act,³⁷ the securities-crowdfunding movement was built on the premise that the offerings should be exempt from the 1933 Act’s registration requirements.³⁸ Yet, prior to the adoption of the JOBS Act in the spring of 2012, the most promising registration exemptions, those in Regulation D under the 1933 Act, prohibited general solicitation and advertising, making them unavailable for open Internet securities offerings.³⁹ A number of early and

32. *Id.* at 13–14.

33. See SUROWIECKI, *supra* note 9, at xvi–xvii (broadly crowds to include those with no formal organization).

34. *Id.* at xvii.

35. 15 U.S.C. § 77e (2012).

36. See Joan MacLeod Heminway & Shelden Ryan Hoffman, *Proceed at Your Peril: Crowdfunding and the Securities Act of 1933*, 78 TENN. L. REV. 879, 908–10 (2011) (summarizing the costs of registration under the 1933 Act and citing to relevant authority).

37. Several crowdfunded offerings have pursued registration under the 1933 Act. See, e.g., Fantex, Inc., Amendment No. 1 to Form S-1 Registration Statement (Form S-1/A) (Dec. 27, 2013), available at <http://www.sec.gov/Archives/edgar/data/1573683/000104746913011415/a2217824zs-1a.htm> (Series Vernon Davis); Fantex, Inc., Amendment No. 1 to Form S-1 Registration Statement (Form S-1/A) (Oct. 31, 2013), available at <http://www.sec.gov/Archives/edgar/data/1573683/000104746913010117/a2217205zs-1a.htm>; Audience Prod., Inc., Amendment No. 7 to Form S-1 Registration Statement (Form S-1/A) (Apr. 21, 2010), available at <http://www.sec.gov/Archives/edgar/data/1474227/000147422710000015/ds1a.htm>. The Audience Productions offering was, in the end, unsuccessful. See Audience Prod., Inc., Post-Effective Amendment No. 6 to Form S-1 Registration Statement (Form S-1/A) (Aug. 8, 2011), available at <http://www.sec.gov/Archives/edgar/data/1474227/000147422711000018/dposam.htm>.

38. See C. Steven Bradford, *Crowdfunding and the Federal Securities Laws*, 2012 COLUM. BUS. L. REV. 1, 81 (2012); Thomas Lee Hazen, *Crowdfunding or Fraudfunding? Social Networks and the Securities Laws—Why the Specially Tailored Exemption Must Be Conditioned on Meaningful Disclosure*, 90 N.C. L. REV. 1735, 1739 (2012); see also Letter from Jenny Kassan, Co-Director, Sustainable Econs. Law Ctr., to Elizabeth M. Murphy, Sec’y, Sec. Exch. Comm’n (July 1, 2010), available at <https://www.sec.gov/rules/petitions/2010/petn4-605.pdf>.

39. Even after full implementation of the JOBS Act, Regulation D does not exempt securities crowdfunding from 1933 Act registration. Because the securities offered in transactions exempt from

ongoing crowd-funded offerings of investment interests are, or appear to be, unregistered offerings conducted in violation of the registration requirements of the 1933 Act (or similar state registration requirements).⁴⁰

Securities-crowdfunding regulation also includes and must contemplate the regulation of primary and secondary trading markets, matters governed in and under the 1934 Act. For example, the websites through which securities are crowd-funded serve in a role that makes them transactional intermediaries in the manner of securities brokers or even securities exchanges, both of which are regulated under the 1934 Act.⁴¹ Under the CROWDFUND Act, these websites—which are mandatory components of the federal registration exemption—must be registered brokers or registered funding portals, a new type of securities trading intermediary created in the CROWDFUND Act.⁴² In addition, the possibility that crowd-funded securities will be resold raises questions not only about the regulation of market intermediaries involved in those resale transactions, but also about the public availability of the facts necessary to informed market participation. If made in connection with the purchase or sale of a security, misstatements of material fact or omissions to state material fact that make statements made, in light of the circumstances under which they were made, misleading may be actionable as securities fraud under Rule 10b-5, a rule adopted by the SEC under Section 10(b) of the 1934 Act.⁴³

II. BEHAVIORAL PSYCHOLOGY AND THE CROWD

Two distinct observations from behavioral psychology literature offer two radically different touchstones for assessing the need for, and efficacy of, disclosure to and for crowdfunding investors. Each narrative about crowd behavior is compellingly descriptive. Each has insights relevant to securities crowdfunding.

registration under Rule 506 of Regulation D that take advantage of the new open solicitation aspects of that rule mandated in the JOBS Act may only be sold to a limited “crowd” (specifically, accredited investors), I do not consider Rule 506 offerings conducted over the Internet to be crowdfunding.

40. *See, e.g.*, Prosper Marketplace, Inc., Exchange Act Release No. 8984, 94 SEC Docket 1913 (Nov. 24, 2008), available at <http://www.sec.gov/litigation/admin/2008/33-8984.pdf> (holding that an online lending platform violated the Securities Act); *see also* *Hellum v. Breyer*, 123 Cal. Rptr. 3d 803, 806, 815–16 (2011) (describing related proceeding based on a California securities law violation).

41. 15 U.S.C. §§ 78f, 78k, 78o, 78s (2012) (providing for the registration of brokers and national securities exchanges).

42. 15 U.S.C. § 77d-1(a)(1) (codifying the CROWDFUND Act requirement that a registered broker or funding portal be involved in securities crowdfunding in order for the registration exemption to apply). Funding portals are defined in section 3(a)(80) of the 1934 Act. 15 U.S.C. § 78c(a)(80).

43. 15 U.S.C. § 78j(b); 17 C.F.R. § 240.10b.5 (2014).

One thread in this literature looks at the phenomenon of crowds in economic bubbles (e.g., tulipmania, a/k/a tulipomania).⁴⁴ These works focus principally on crowds that encourage concerted irrational (or at least suboptimal) economic behavior—lemming-like, blind, single-minded adherence to a course of action that individual rational actors in the crowd would not likely pursue if they engaged in their own, independent cost-benefit analysis.⁴⁵ This branch of scholarly writings, believed by some to overstate factual reality, exemplifies the madness of the crowd.

The other strain in the literature offers insights on crowds as a source of collective intelligence. In this scholarship, the crowd is essentially seen as a whole that is greater than the sum of its parts. In effect, this branch of behavioral scholarship documents and explains why two (or more) heads are better than one—the wisdom of the crowd.

These two descriptive accounts of crowds have the potential to offer insights important to the regulation of crowdfunding. To that end, this Part explains both theoretical positions in greater detail and offers, in each case, information that is relevant to the application of the theories from these two branches of scholarly literature to crowdfunding. While incomplete, the account offered in this Part is intended to provide a foundation for a preliminary assessment and further analysis and research.

A. The Madness of the Crowd

Charles Mackay is generally acknowledged to be the first to document the madness of crowds.⁴⁶ Through various historical illustrations, Mackay asserts that groups of people can be collectively “mad”—jointly misguided, even illogical.

44. See generally MIKE DASH, *TULIPOMANIA: THE STORY OF THE WORLD’S MOST COVETED FLOWER & THE EXTRAORDINARY PASSIONS IT AROUSED* (1999) (recounting the history of the “tulip bubble” during which time tulips were selling for extraordinary sums of money).

45. See, e.g., ROBERT J. SHILLER, *IRRATIONAL EXUBERANCE 2* (2d ed. 2005) (differentiating irrational exuberance from “the kind of investor euphoria or madness described by some storytellers”); Erik F. Gerding, *The Next Epidemic: Bubbles and the Growth and Decay of Securities Regulation*, 38 CONN. L. REV. 393, 398 (2006) (discussing behavioral biases that cause “herding” and irrational investment strategies).

46. See generally TIM PHILLIPS, *CHARLES MACKAY’S EXTRAORDINARY POPULAR DELUSIONS AND THE MADNESS OF CROWDS* (2009) (“Mackay’s catalogue of our own craziness, spanning about a millennium, was the first book to demonstrate what scientists now know: when we act in groups we’re often not very smart.”); NOURIEL ROUBINI & STEPHEN MIHM, *CRISIS ECONOMICS: A CRASH COURSE IN THE FUTURE OF FINANCE*, at 60 (2010) (“Mackay’s book may have been the first attempt to draw lessons from the history of economic crises.”).

In reading the history of nations, we find that, like individuals, they have their whims and their peculiarities; their seasons of excitement and recklessness, when they care not what they do. We find that whole communities suddenly fix their minds upon one object, and go mad in its pursuit; that millions of people become simultaneously impressed with one delusion, and run after it, till their attention is caught by some new folly more captivating than the first.⁴⁷

Mackay is widely cited for these assertions,⁴⁸ but he is not alone in this view of the crowd. Scholars and other commentators regularly note consistent contributions from the work of Gustave Le Bon,⁴⁹ as well as quotes from a host of others, to knowledge and narratives about crowd madness.

Among the historical events that Mackay uses to demonstrate these principles are the Mississippi Scheme, the South-Sea Bubble, and Tulipomania⁵⁰—all now well-known examples of what economists refer to as herding behaviors (including those founded in information cascades or direct-benefit effects).⁵¹ Herding behaviors may result from information cascades—sequential decision making in which later decision makers make choices based on inferences made from the choices of earlier decision makers.⁵² Herding also may reflect direct-benefit effects (also known as network effects): explicit benefits gained when a decision maker aligns his or her actions with those of others.⁵³

47. MACKAY, *supra* note 8, at xvii.

48. In his popular book on investing, Burton Malkiel references Mackay's work and entitles the chapter of the book in which he makes that reference "The Madness of Crowds." See BURTON G. MALKIEL, *A RANDOM WALK DOWN WALL STREET: THE TIME-TESTED STRATEGY FOR SUCCESSFUL INVESTING* 35–36 (9th ed. 2007) (summarizing "tulip-bulb craze" in Holland).

49. See LE BON, *supra* note 31 (describing characteristics of crowds).

50. MACKAY, *supra* note 8, at 1–101.

51. See DAVID EASLEY & JON KLEINBERG, *NETWORKS, CROWDS, AND MARKETS: REASONING ABOUT A HIGHLY CONNECTED WORLD* 485 (2010) (outlining and differentiating between information cascades and direct-benefit effects in group decision making); PETER M. GARBER, *FAMOUS FIRST BUBBLES: THE FUNDAMENTALS OF EARLY MANIAS* 5–6 (2000) (describing herding); SHILLER, *IRRATIONAL EXUBERANCE*, *supra* note 45, at 157–60 (describing herding behaviors and information cascades); SUROWIECKI, *supra* note 9, at 49–58 (describing and providing examples of herding and information cascades). Mackay himself noted herding tendencies and labeled them as such. MACKAY, *supra* note 8, at xviii ("Men, it has been well said, think in herds; it will be seen that they go mad in herds, while they only recover their senses slowly, and one by one.").

52. See EASLEY & KLEINBERG, *supra* note 51, at 483–84 (describing and illustrating information cascades); SHILLER, *IRRATIONAL EXUBERANCE*, *supra* note 45, at 159–60 (describing information cascades and relating them to stock market bubbles).

53. See EASLEY & KLEINBERG, *supra* note 51, at 485, 509 (describing direct-benefit effects).

Mackay's work focuses most closely on herding effects caused by information cascades. Although herding of this kind may not be irrational behavior in the eyes of economists (because the actions of an individual in following the crowd may represent a logical choice),⁵⁴ Mackay's portrayal of group behavior in these instances contests the notion that crowd decisions are rational and the belief that markets are rational institutions.⁵⁵ Accordingly, it can be seen as an early work in—or at least foundational to—behavioral economics.

Although Mackay's work has been criticized in various circles,⁵⁶ his basic observations about group psychology and behavior have been tested and, in general, validated by others.⁵⁷ For example, widely cited research indicates that the crowd may act in accordance with the behavior or judgments of a group or an authority figure, rather than based on a detailed cost–benefit analysis, oftentimes fueling overconfidence.⁵⁸ “People fall in line because they believe they’re learning something important from the example of others.”⁵⁹

In fact, when people act in accordance with information cascades, they believe that they are taking the overall optimal course of action, based on their individualized assessment of the likely risks and rewards.

[P]eople are rationally choosing not to, as they see it, waste their time and effort in exercising their judgment about the market, and thus choosing not to exert any independent impact on the market. Ultimately, all such information cascade theories are

54. See, e.g., GARBER, *supra* note 51, at 5 (“[H]erding is not an irrational act.”); SHILLER, *IRRATIONAL EXUBERANCE*, *supra* note 45, at 159 (“Even completely rational people can participate in herd behavior when they take into account the judgments of others, and even if they know that everyone else is behaving in a herdlike manner.”).

55. See GARBER, *supra* note 51, at 127 (noting that Mackay, among others, portrays the tulip speculation of the 17th century as “a mania, selecting and organizing the evidence to emphasize the irrationality of the market outcome”).

56. See, e.g., ROUBINI & MIHM, *supra* note 46, at 60 (describing Mackay as an “[a]mateur[]” and his book as “chock-full of inaccuracies”).

57. Numerous subsequent works in a variety of disciplines cite to Mackay's historical accounts and observations. See, e.g., GARBER, *supra* note 51, at 127–29; MALKIEL, *supra* note 48, at 35–36; Robert J. Shiller, *From Efficient Markets Theory to Behavioral Finance*, 17 J. ECON. PERSPS. 83, 91–92 (2003). A current work in process cites to Mackay's work in the context of crowdfunding. David Groshoff, *Kickstarter My Heart: Extraordinary Popular Delusions and the Madness of Crowdfunding Constraints and Bitcoin Bubbles* 3–4 (Aug. 20, 2013) (unpublished manuscript) (on file with the Social Science Research Network), available at <http://ssrn.com/abstract=2313396>.

58. See SHILLER, *IRRATIONAL EXUBERANCE*, *supra* note 45, at 158–59 (describing experiments that show effect of an authority figure on group decision making).

59. SUROWIECKI, *supra* note 9, at 54.

theories of *the failure of information about true fundamental value to be disseminated and evaluated*.⁶⁰

Thus, information cascades illustrate the potential for market valuations of securities that may not reflect all publicly available information—a negation of the ECMH. “[O]nce each individual stops relying on his own knowledge, the cascade stops becoming informative.”⁶¹

Crowd behaviors also may be evidence of a phenomenon labeled “price-to-price feedback.”⁶² This phenomenon results from people buying securities in response to increases in stock prices and selling securities in response to decreases in stock prices.⁶³ This investor behavior “has the potential to feed back into more price changes in the same direction,” constituting “price-to-price feedback.”⁶⁴ Like information cascades, price-to-price feedback may contribute to herding behaviors and market bubbles.⁶⁵ The ECMH does not explain or predict price-to-price feedback.

B. *The Wisdom of the Crowd*

James Surowiecki tells a different story of the crowd than that told by Mackay. Using illustrations from general life experiences (in much the same way that Mackay uses market bubbles and other events), Surowiecki builds the case for the intelligence of groups—collective intelligence superior to that of any individual in the group. He does not ignore Mackay’s work in the process of formulating his theory of crowd behavior. Rather, he explains it in the overall context of his alternative theory of crowds and decision making.⁶⁶

60. SHILLER, *IRRATIONAL EXUBERANCE*, *supra* note 45, at 160 (emphasis in original); *see also* SUROWIECKI, *supra* note 9, at 54 (“The fundamental problem with an information cascade is that after a certain point it becomes rational for people to stop paying attention to their own knowledge—their private information—and to start looking instead at the actions of others and imitate them.”).

61. SUROWIECKI, *supra* note 9, at 54.

62. GEORGE A. AKERLOF & ROBERT J. SHILLER, *ANIMAL SPIRITS: HOW HUMAN PSYCHOLOGY DRIVES THE ECONOMY, AND WHY IT MATTERS FOR GLOBAL CAPITALISM*, at 134 (2009).

63. *Id.*

64. *Id.*

65. Shiller, *From Efficient Markets Theory*, *supra* note 57, at 91–96.

66. *See* SUROWIECKI, *supra* note 9, at xix. Specifically, in his introduction, Surowiecki offers:

Mackay was right about the extremes of collective behavior: there are times . . . when aggregating individual decisions produces a collective decision that is utterly irrational. The stories of these kinds of mistakes are negative proofs of this book’s argument, underscoring the importance to good decision making of diversity and independence by demonstrating what happens when they’re missing.

Surowiecki identifies three attributes of crowds that give them the ability to be wise. These three characteristics are diversity, independence, and decentralization.⁶⁷ Each attribute requires individual explication, but the three do overlap and interrelate.

1. Diversity

When Surowiecki avers that diverse crowds have the capacity to be wise, he is talking about what he refers to as “conceptual and cognitive” diversity.⁶⁸ He describes this form of diversity as a difference among those who are generating ideas, “so you end up with meaningful differences among those ideas rather than minor variations on the same concept.”⁶⁹ He asserts that this type of diversity is important for both identifying possible alternatives and deciding among them.⁷⁰ According to Surowiecki, “The positive case for diversity . . . is that it expands a group’s set of possible solutions and allows the group to conceptualize problems in novel ways.”⁷¹

Surowiecki also notes that a heterogeneous group makes it less likely that groupthink (a cognitive phenomenon identified and labeled in an influential work by social psychologist Irving Janis)⁷² will be operative. Groupthink is characterized by “extreme consensus-seeking.”⁷³ Group diversity both enriches the number of perspectives brought to the decision-making process and makes it easier for group members to dissent and otherwise express their views in that process.⁷⁴ As a result, diversity may prevent or counteract the development of the consensus-seeking behavior that characterizes groupthink.

Id.

67. *Id.* at xviii, 23–83.

68. *Id.* at 28.

69. *Id.*

70. *Id.* at 29–31.

71. *Id.* at 36.

72. See IRVING L. JANIS, VICTIMS OF GROUPTHINK: A PSYCHOLOGICAL STUDY OF FOREIGN-POLICY DECISIONS AND FIASCOES, at 9 (1972) (coining “term ‘groupthink’ as a quick and easy way to refer to a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members’ strivings for unanimity override their motivation to realistically appraise alternative courses of action”); see also, e.g., Marlene E. Turner & Anthony R. Pratkanis, *Twenty-Five Years of Groupthink Theory and Research: Lessons from the Evaluation of a Theory*, 73 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 105, 105–07 (1998) (summarizing development of groupthink theory).

73. Turner & Pratkanis, *supra* note 72, at 106.

74. SUROWIECKI, *supra* note 9, at 36–39.

2. Independence

Surowiecki next discusses independence as a prerequisite to crowd intelligence. In this context, independence connotes “relative freedom from the influence of others.”⁷⁵ In particular, it is important that members of the group not influence each other’s autonomous idea generation and decision making. “[T]he more influence a group’s members exert on each other, and the more personal contact they have with each other, the less likely it is that the group’s decisions will be wise ones.”⁷⁶ This type of independence stands in contrast to the operation of, for example, the information cascades that characterize the madness of crowds. Accordingly, “[o]ne key to successful group decisions is getting people to pay much less attention to what everyone else is saying.”⁷⁷

Independence serves two important functions in supporting intelligent group decision making: (1) it avoids correlated judgment errors; and (2) it better ensures that novel information is available to the group, supplying a connection with diversity.⁷⁸ Surowiecki observes that “[o]ne of the quickest ways to make people’s judgments systematically biased is to make them dependent on each other for information.”⁷⁹ He further notes that “[t]he smartest groups . . . are made up of people with diverse perspectives who are able to stay independent of each other.”⁸⁰ Individual autonomy within the crowd therefore helps prevent bias and the errors attendant to biased decisions and facilitates the flow of new information into the crowd’s decision making.

3. Decentralization

Decentralization is the third (and perhaps the most tenuous) attribute that affords crowds the ability to be wise. Surowiecki defines a decentralized organization as a system in which “power does not fully reside in one central location, and many of the important decisions are made by individuals based on their own local and specific knowledge rather than by an omniscient or farseeing planner.”⁸¹ He further notes that decentralization “fosters, and in turn is fed by, specialization” and is central to “tacit knowledge”—“knowledge that can’t be easily summarized or

75. *Id.* at 41.

76. *Id.* at 42.

77. *Id.* at 65.

78. *Id.* at 41.

79. *Id.*

80. *Id.*

81. *Id.* at 70–71.

conveyed to others, because it is specific to a particular place or job or experience, but it is nonetheless tremendously valuable.”⁸² This definition is a broad one that is difficult to grasp and may be challenging to apply in context.

Decentralization for these purposes is connected to diversity and independence. Surowiecki uses the crowdsourcing of Linux as an example of a system in which decentralization encourages diversity.⁸³ Decentralization effectively enables independence while still allowing for coordinated deliberation and decision making.⁸⁴

The idea of the wisdom of crowds . . . takes decentralization as a given and a good, since it implies that if you set a crowd of self-interested, independent people to work in a decentralized way on the same problem, instead of trying to direct their efforts from the top down, their collective solution is likely to be better than any other solution you could come up with.⁸⁵

Because it may enable or foster both diversity and independence, decentralization serves an important supportive role in crowd wisdom.

Decentralization also has weaknesses. Valuable information may have difficulty reaching all of those who need it.⁸⁶ Decentralization can easily dissolve into disorganization without some way of aggregating the disparate information and decisions of the group members.⁸⁷ The trick in making decentralization effectual for crowd intelligence is balancing its strengths and weaknesses.⁸⁸ Yet, creating this optimal level of aggregation in a decentralized crowd may be easier said than done.⁸⁹

III. REGULATION DISCLOSURE IN THE CROWDFUNDING CONTEXT

In a different context (that of flash mobs and First Amendment jurisprudence on incitement), one commentator observed that

82. *Id.* at 71.

83. *Id.* at 73.

84. *Id.* at 71.

85. *Id.* at 70.

86. *Id.* at 71.

87. *Id.* at 76.

88. *See, e.g., id.* at 72 (“[A]ny ‘crowd’—whether it be a market, a corporation, or an intelligence agency—needs to find the right balance between . . . two imperatives: making individual knowledge globally and collectively useful . . . , while still allowing it to remain resolutely specific and local.”).

89. *See id.* at 76 (“It’s hard to make real decentralization work, and hard to keep it going . . .”).

“[g]overnment regulation of crowds stems from fundamental understandings—and misunderstandings—of the nature of crowd activity. Regulation reveals a tension between conflicting understandings of the nature of crowds.”⁹⁰ This insight also seems applicable to disclosure regulation in the securities-crowdfunding context. Congress and the SEC each have proposed mandatory disclosure to the crowd that will participate in securities crowdfunding under the exemption provided in the CROWDFUND Act.⁹¹ Yet, the SEC’s knowledge or intuition about this crowd remains unclear.

Does this securities-crowdfunding crowd have the attributes of a wise crowd, or will it have a tendency to madness? If the crowd has the capacity to be wise, then an issuer’s disclosure to the crowd of information important to decision making may be efficacious. The nature and extent of any wisdom requires further explication in a later work and would benefit from empirical study. If market decision making relies on information cascades, direct-benefit effects, or price-to-price feedback, however, then much of any mandated disclosure would have no impact on the decisions of securities-crowdfunding investors. Each of these behavioral phenomena is founded in the selective use of information to the exclusion of more all-encompassing information-driven decision making. Mandatory disclosures that do not contribute to the investors’ decision-making rubric will be ignored. Providing these additional disclosures therefore would be inefficient, absent a change in investor behavior.

Crowdfunding proponents believe in the wisdom of the crowdfunding crowd but acknowledge that observers fear the madness of the crowd.⁹² A set of securities-crowdfunding advocates expressly (albeit simplistically) advise tapping the crowd’s wisdom by engaging in independent decision making and information sharing.

[B]ecoming part of an investment crowd doesn’t mean following the actions of the crowd. Successful investing of any kind requires that you make your own decisions. The wisdom of the crowd can emerge only if each investor uses his or her best judgment to decide whether an investment opportunity is a good one. Sharing these thoughts in an open dialogue guides the crowd

90. Kaminski, *supra* note 21, at 4.

91. See 15 U.S.C. §§ 77d-1(a)(3), 77d-1(b)(1) (2012) (requiring certain disclosures); Crowdfunding, 78 Fed. Reg. 66,428 (proposed Nov. 5, 2013) (to be codified at 17 C.F.R. pts. 200, 227, 232, 239, 240, & 249) (summarizing the proposed rules on crowdfunding).

92. See, e.g., LAWTON & MAROM, *supra* note 12, at 60–63 (discussing information cascades, groupthink, herding, and Surowiecki’s work in relation to crowdfunding).

toward reasonable decisions. Pooling these thoughts together is what creates crowd wisdom.⁹³

Along similar lines, two crowdfunding proponents specifically note, consistent with Surowiecki's work (and at least in part in reliance on it), that decision-making rules and structures can help avoid the crowd's potential for madness.⁹⁴ They list four "mitigating recommendations" from Surowiecki's work (diversity of opinion, independence, decentralization, and aggregation) and add a fifth (affinity groups).⁹⁵

Significant empirical research is needed to substantiate the nature of the securities-crowdfunding crowd in the United States. However, the description of that crowd in Part I, when mapped to the behavioral literature in Part II, preliminarily indicates that the crowd of crowdfund investors has the potential for wisdom. Its members, based on the anecdotal and sparse empirical information available to date, are diverse and independent, and their decision making is decentralized.

The members of the securities-crowdfunding crowd are likely to be heterogeneous. Although conceptual and cognitive diversity are difficult to assess, these crowd members should have the capacity to bring distinct, new ideas and perspectives to the securities-crowdfunding decision-making process. Assuming that diversity can be maintained over time from offering to offering, groupthink should be avoidable. The existence of multiple affinity groups within the securities-crowdfunding investor base is not necessarily inconsistent with diversity.

Members of securities-crowdfunding's crowd also appear to be independent. In individual offerings or within specific affinity groups, hierarchical relationships among the crowd members or sequential decision making may occur that could impair independent judgment or action. However, in broad-based securities offerings conducted over the Internet, it is unlikely that these relationships would exist or, if they did, that they would result in a lack of independent behavior. Although the existence of affinity groups in the securities-crowdfunding crowd may at first appear to limit behavioral independence, in an effective decentralized structural environment for decision making, "[t]hey are in part responsible for various pieces of information getting traction by and exposure to the larger crowd

93. NEISS ET AL., *supra* note 14, at 67.

94. *See, e.g.*, LAWTON & MAROM, *supra* note 12, at 62–63 (discussing Surowiecki's assertion that decision makers lose benefits of collective wisdom when proper decision-making environments are absent).

95. *Id.*

and also for maintaining the higher collective intelligence of the crowd (as opposed to central command structures that tend to dumb people down).”⁹⁶

To that point, the decision making of the securities-crowdfunding crowd is likely to operate in a decentralized manner. As a general matter, commentators have described crowdfunding’s overall crowd as “decentralized, self-determined community clusters woven into the tapestry of the greater whole.”⁹⁷ This crowd makes its decisions based on the aggregation of the specialized knowledge of the participants. The securities-crowdfunding crowd may, in fact, include aggregators—in the form of the legally mandated broker or funding portal or in the form of affinity groups—that can ensure important information is effectively disseminated across the crowd’s membership. These aggregators are not experts that others in the crowd follow, but rather nodes in the crowd’s information distribution network. Studies of the investor networks involved in securities crowdfunding can be modeled on studies of networks relating to decision making or prediction markets in other contexts.⁹⁸

If the securities-crowdfunding crowd does have the potential to be wise and disclosure may therefore be effectual, then a number of questions naturally follow. For example, what disclosures will enable intelligent decision making? Do existing disclosure paradigms adequately serve this crowd? Are the members of the securities-crowdfunding crowd “reasonable investors” such that current disclosure regulation (and federal securities regulation more generally) protects members of the crowd well? The answers to these questions remain to be seen. Additional demographics, some of which are emergent, should give us better information on the nature of crowdfunding investors that will enable more targeted mandatory disclosures.

In general, however, if we assume (as extant crowdfunding literature would suggest) that individual investors in crowdfunded securities offerings bring diverse and independent judgment to their decision making, it would seem that the required disclosures for any crowdfunding offering should address only the core issues necessary to an understanding of the business or project, the terms of the outstanding, available, and offered investment interests in the business or project, and the plan of distribution of the securities in the offering. The members of the crowd will then add to the information mix (by, for instance, asking questions to illicit additional

96. *Id.* at 12.

97. *Id.* at 5.

98. *See, e.g.,* WATTS, *supra* note 23, at 7–8 (suggesting broad-based applications of small-world research that could include crowd behavior in the securities-crowdfunding context); *see also* LAWTON & MAROM, *supra* note 12, at 149–53 (discussing prediction and decision markets generally).

information or expressing their opinions on the business, project, investment interest, or offering). A possible result is a richer, but more dynamic, disclosure environment in which investors, as well as issuers and intermediaries, contribute more actively and systematically to the total mix of available information.⁹⁹ The key for regulators will be to balance the potential chaos of this dynamism against the structure provided by mandatory disclosure regulation.¹⁰⁰

CONCLUSION

Congress included mandatory disclosure as a component of the CROWDFUND Act's securities-crowdfunding registration exemption under the 1933 Act.¹⁰¹ The decision to include mandatory disclosure in the CROWDFUND Act's provisions appears to be an astute one. The crowd of securities-crowdfunding investors likely has the capacity to use disclosed information in its investment deliberations because its members are, by all appearances, diverse and independent, and the crowd-based structure of their decision making is decentralized. Theory predicts that these conditions enable efficacious information transfers and the wisdom of the crowd.

As the SEC contemplates the adoption of its final rules to effectuate Congress's desired mandatory disclosure regime under the CROWDFUND Act, however, it should be (and is) concerned that a large piece of the securities-crowdfunding puzzle is missing. The exact nature of the primary disclosure audience—the crowd that will engage in investing through securities crowdfunding—may play a role in the need for certain types of disclosures to adequately protect investors, maintain market integrity, and encourage capital formation. Because the legalized market for unregistered-crowdfunded securities offerings will only come into being after the adoption of the related SEC rules, adjustments to the disclosure regime reactive to the nature of the securities-crowdfunding crowd will have to be introduced at a later date. The best the SEC can do is to speculate on the nature of the securities-crowdfunding crowd based on available information from general crowdfunding studies and relevant foreign studies of securities crowdfunding.

Although this Article focuses on mandatory disclosure regulation in securities crowdfunding, the capacity of the securities-crowdfunding crowd

99. This may include, for example, price discovery as an alternative to more traditional valuations of start-ups and small businesses. See LAWTON & MAROM, *supra* note 12, at 63–64.

100. See *id.* at 53–54 (describing crowdfunding's place at “the edge of chaos”—“a region near the threshold between order and chaos”).

101. 15 U.S.C. §§ 77d-1(a)(3), 77d-1(b)(1) (2012).

for madness and wisdom also provides guidance in other, related areas relevant to the policies underlying securities regulation in the United States. In its rulemaking, the SEC also must consider and address, for example, investor education in the crowdfunding context. This aspect of the CROWDFUND Act offers the SEC the opportunity to reinforce the attributes of the crowdfunding crowd that foster crowd intelligence—diversity, independence, and decentralization. Having said that, the cost-benefit analysis for investor education efforts is far from clear.¹⁰²

At this juncture, the disclosure puzzle relating to securities crowdfunding remains unsolved. However, there is a way forward. Scholarly work in behavioral science recognizes that crowds of decision makers can behave in ways that are beneficial or damaging.

Groups enthrall us with their ability to amplify the range of individual achievements. On the one hand, groups provide us with the opportunity to reach heights far greater than any individual might accomplish. Yet, groups also entail considerable risk for they also have the potential to produce unimaginable destruction. Explaining why these outcomes occur has been a daunting task for social and organizational researchers.¹⁰³

No doubt, continued work must be done to unearth more information about why crowds act wisely or madly; this Article opens but a small window on the existing literature that addresses crowd wisdom and madness.

Nevertheless, it seems clear that, when considering and designing disclosure to and for the securities-crowdfunding crowd, the existing behavioral literature should be taken into account. Once securities crowdfunding under the CROWDFUND Act commences, researchers will be able to study the actual securities-crowdfunding crowd in operation. These studies should enable and may dictate, among other things, a more refined calibration of mandatory disclosure rules targeted to the securities-crowdfunding context.

102. See generally Lauren E. Willis, *Against Financial Literacy Education*, 94 IOWA L. REV. 197 (2008) (assessing and challenging the efficacy of financial-literacy education).

103. Turner & Pratkanis, *supra* note 72, at 105.