NOTES

Weakness in Numbers: The Risks Investors' Bounded Rationality and Cognitive Biases Pose to the U.S. Securities Crowdfunding Market

TESSA BELL*

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^{*} Georgetown University Law Center, J.D. 2019; Georgetown University, B.S.B.A. 2016. $\@$ 2019, Tessa Bell.

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Introduction

Increased communication facilitated by the rise of the Internet has developed the necessary infrastructure to gather a virtual "crowd." This has permitted crowdfunding, which was previously a method of offering credit to low-income families, to thrive and adapt to new uses. Rewards-based crowdfunding has developed as a method for entrepreneurs to gauge the viability of proposed businesses prior to launching a venture. Under this crowdfunding model, the crowd contributed money to entrepreneurs in return for a "non-monetary reward." However, when some crowdfunded ventures reaped immense returns through acquisitions by established companies, the crowd was dismayed to be excluded from these rewards. This helped spur a shift in securities law. Although historically only wealthy or experienced "accredited investors" could participate in funding start-up businesses in return for equity, the passage of the Jumpstart Our Business Startups (JOBS) Act in 2012 authorized retail securities crowdfunding and granted "ordinary Americans" the ability to "invest in entrepreneurs they

^{1.} See Jay H. Ganatra, Note, When a Kickstarter Stops: Exploring Failures and Regulatory Frameworks for the Rewards-Based Crowdfunding Industry, 68 RUTGERS L. REV. 1425, 1426–27 (2016).

^{2.} Id. at 1426, 1432.

^{3.} David Groshoff et al., Crowdfunding 6.0: Does the SEC's FinTech Law Failure Reveal the Agency's True Mission to Protect—Solely Accredited—Investors?, 9 OHIO ST. ENTREPRENEURIAL BUS. L.J. 277, 282 (2015). Donation-based crowdfunding has also evolved, allowing individuals or non-profits to raise charitable contributions from the crowd. *Id.*

^{4.} *Id.* at 292–97 (discussing Oculus Rift's Kickstarter campaign that was followed, a year and a half later, by a two-billion-dollar acquisition by Facebook that left the original unaccredited crowdfunders with a less valuable "reward" despite the substantial increase in the company's valuation). Rewards-based crowdfunding excluded the crowd from market returns, raising socioeconomic questions regarding why the general public was prohibited from participating in the market while wealthy "accredited" investors accumulated more wealth. *Cf. Id.* at 296–97 (comparing non-accredited investors' access to crowdfunding ventures to that of wealthy and accredited investors).

^{5. &}quot;Accredited investors" include, but are not limited to, large financial institutions, directors and officers of the issuer, and individuals with a net worth over \$1 million or an income over \$200,000. 17 C.F.R. § 230.501(a) (2016).

believe in"6 and to finally reap monetary rewards in return for their support.

Title III of the JOBS Act creates a new exemption from ordinary securities registration requirements for crowdfunding security offerings and allows large numbers of small, unaccredited investors (the "crowd") to purchase securities in startup companies over the Internet.⁷ At its inception, the intent of this new exemption was to spur entrepreneurship by supporting startup businesses, to "democratize" the identification of promising new companies, and to grant the general public access to the potentially ample economic returns that entrepreneurs generate.8 Although the exemption increases entrepreneurs' access to capital and creates an opportunity for individuals to share in new ventures' success, these investments are risky and difficult to evaluate. To account for the substantial risks in this market, the U.S. Securities and Exchange Commission (SEC) imposed the following constraints on crowdfunding securities offerings: (1) issuers can raise no more than \$1.07 million in any twelve-month period from an unlimited number of investors; (2) issuers must provide certain disclosures, the extensiveness of which depends on the size of the offering; 10 (3) investors' ability to invest is limited in any twelve-month period by investor income or net worth; 11 and (4) investments must be facilitated by a registered and regulated online intermediary, which can be a broker-dealer or a registered "funding portal." ¹²

In developing this exemption, some worried that "the 'wisdom of the crowd' [would] not result in investors pooling information so as to lead to better informed investment decisions." This fear justified imposing investment limits on crowdfunders, preventing debilitating losses in a boom-or-bust market characterized by high illiquidity and few opportunities for market correction. It also supported using online intermediaries to facilitate information pooling.¹⁴

^{6.} Jean Eaglesham, Crowdfunding Efforts Draw Suspicion, WALL St. J. (Jan. 17, 2013, 6:51 PM), https://www.wsj.com/articles/SB10001424127887323783704578247380848394600 (quoting President Obama)

^{7.} See Jumpstart Our Business Startups Act, Pub. L. No. 112-106, § 302, 126 Stat. 306, 315 (2012) (codified at 17 C.F.R. § 227.100 (2017)); Press Release, SEC, SEC Adopts Rules to Permit Crowdfunding (Oct. 30, 2015), https://www.sec.gov/news/pressrelease/2015-249.html [https://perma.cc/2592-ZVLM].

^{8.} See Michael Blanding, The Problems and Promises of Crowdfunding, FORBES (Jul. 1, 2013, 9:44 PM), https://www.forbes.com/sites/hbsworkingknowledge/2013/07/01/the-problems-and-promises-of-crowdfunding/#5027ee464f1a.

^{9. 17} C.F.R. § 227.100(a)(1) (2017).

^{10. 17} C.F.R. § 227.201 (2017).

^{11.} See infra notes 27–31 and accompanying text.

^{12. 15} U.S.C. § 77d-1(a)(1) (2012); 17 C.F.R. § 227.100(a)(3). "Funding portals" act as intermediaries for security sales but cannot make investment recommendations, solicit transactions outside its website, pay employees based on sales, or engage in other restricted activities. 15 U.S.C. § 78c(a)(80) (2012). Broker–dealers also facilitate security sales, but are subject to fewer restrictions. *See* 15 U.S.C. § 78c(a)(4), (5) (2012).

^{13.} Crowdfunding, 80 Fed. Reg. 71,388, 71,494–95 (Nov. 16, 2015) (to be codified at 17 C.F.R. pts. 200, 227, 232, 239–40, 249, 269, 274).

^{14.} See Id. at 71,395 ("In order for a crowd to effectively share information, we believe it would be most beneficial to have one meeting place for the crowd to obtain and share information....").

However, the existing regulatory framework fails to adequately protect investors and enables uninformed herding. First, investment limits exacerbate collective action problems by reducing incentives for crowdfunders to conduct thorough research. Investment limits also make investments by "larger, more sophisticated or well-funded investors . . . less likely," effectively confining the crowd to "individual retail investors" by removing the experts. Second, although the use of online intermediaries creates an avenue for communication and information pooling, in practice, investors lack an incentive to reliably pool information and may be more likely to use funding portals to free ride than to collaborate. Thus, an insufficient number of crowd members may conduct and share the appropriate level of research necessary to facilitate crowd wisdom.

The goal of this Note is to identify how the SEC's restrictions on securities crowdfunding fail to address, and potentially hinder, the formation of a wise crowd. Although the SEC's restrictions are reasonable given the investment risks involved, in practice, they do not adequately account for investors' bounded rationality and cognitive biases. This Note concludes that further regulatory intervention is necessary to guide the crowd because interested parties in the market are unlikely to invest in correction absent regulatory mandates. Online intermediaries lack sufficient financial and reputational incentives to incur the costs of improving the crowd's wisdom.¹⁷ Therefore, this Note will address potential regulatory intervention to facilitate formation of a wise crowd. Solutions should target increasing the number of investors conducting research or reducing the interdependence of investor decisionmaking. However, regulators should also consider whether securities crowdfunding is defensible given the inherent obstacles to fostering crowd wisdom, or whether the exemption should be discontinued.

Part I will discuss the SEC's regulatory framework, focusing on the restrictions imposed on issuers, investors, and intermediaries. Part II will consider the bounds of crowd rationality and the relevance of individual investor biases, ultimately assessing how these characteristics are influenced by the SEC's imposed investment limits and involvement of online intermediaries. Part III will analyze whether funding portals have the capability and the incentives to facilitate crowd wisdom without regulatory intervention. Finally, Part IV will consider potential regulatory solutions.

I. THE SEC'S RESTRICTIONS ON SECURITIES CROWDFUNDING

In most situations, companies selling securities in the United States public market must file a registration statement with the SEC¹⁸ disclosing information having a "material effect upon historical earnings" or having a potential to impact

^{15.} Id. at 71,491.

^{16.} See infra Part II.

^{17.} See infra Part III.

^{18.} See 15 U.S.C. § 77e (2012).

future earnings.¹⁹ This requirement is intended to reduce information asymmetry and to allow everyday investors to "protect themselves" and evaluate investments without overly invasive government intervention.²⁰ However, registration is costly and may be prohibitive for small businesses.²¹ Accordingly, some exemptions to the registration requirement exist, primarily for "intrastate offerings" and "transactions not involving a public offering."²²

Title III of the JOBS Act authorized a new exemption from registration, allowing entrepreneurs to raise capital through the issuance of securities to all investors, unaccredited and accredited alike, over the Internet.²³ The exemption was intended to decrease entrepreneurs' costs of raising capital, increasing access to capital and opening the crowdfunding market to the general public.²⁴ This was accomplished by "weaken[ing] the disclosure required in sales to unaccredited investors" to reduce the costs of sales.²⁵ In 2015, the SEC defined the contours of Title III's crowdfunding provisions by adopting Regulation Crowdfunding.²⁶

In permitting this exemption, the SEC imposed limitations on issuers, investors, and intermediaries. First, issuers may raise a limited amount of capital and are subject to abbreviated disclosure requirements. Eligible issuers²⁷ can only raise a maximum aggregate of \$1,070,000 over twelve months through Regulation Crowdfunding offerings.²⁸ Issuers set a "target amount," which they must meet to

^{19.} William W. Barker, SEC Registration of Public Offerings Under the Securities Act of 1933, 52 Bus. L. 65, 82 (1996).

^{20.} Troy A. Paredes, Blinded by the Light: Information Overload and Its Consequences for Securities Regulation, 81 WASH. U. L.Q. 417, 418 (2003).

^{21.} See Tom A. Alberg & Martin E. Lybecker, New SEC Rules 146 and 147: The Nonpublic and Intrastate Offering Exemptions From Registration for the Sale of Securities, 74 COLUM. L. REV. 622, 622 (1974).

^{22.} Harold S. Bloomenthal, SEC Exemptions from Registration—A New Look, 45 U. CIN. L. REV. 367, 371 (1976).

^{23. 17} C.F.R. § 227.100 (2017); *see also* Crowdfunding, 80 Fed. Reg. 71,388, 71,494–95 (Nov. 16, 2015) (discussing potential market participants who will be affected by the new rule).

^{24.} In practice, entrepreneurs also use equity crowdfunding to market their new ventures. *See* Paul Belleflamme et al., *The Economics of Crowdfunding Platforms*, 33 INFO. ECON. & POL'Y 11, 25 (2015) (discussing use of online crowdfunding platforms as a means to promote ventures' reputations).

^{25.} Darian M. Ibrahim, Equity Crowdfunding: A Market for Lemons?, 100 MINN. L. REV. 561, 593 (2015).

^{26.} See Press Release, SEC, supra note 7. It is important to note that, given the relatively recent enactment of the crowdfunding exemption, little empirical data exists regarding investors' returns from crowdfunding investments. Accordingly, this Note relies on behavioral analysis to predict the success of the crowdfunding exemption as a method for raising capital and for reaping economic returns. This behavioral analysis will be useful in anticipating potential shortcomings of the new exemption.

^{27.} Not all companies are eligible for the Regulation Crowdfunding exemption. Crowdfunding, 80 Fed. Reg. at 71,496–97 (identifying ineligible companies, which include foreign companies, companies that are not compliant with annual reporting requirements, and companies without a specific business plan).

^{28.} See 17 C.F.R. § 227.100(a)(1) (2017). Crowdfunding offerings are not integrated with an issuer's other valid exempt offerings. Crowdfunding, 80 Fed. Reg. at 71,494.

obtain funding.²⁹ Issuers must also submit disclosures on Form C before, during, and at the end of the offering, as well as annually after the offering.³⁰ Offerings over \$107,000 require review by an independent accountant, and offerings over \$535,000 require an audit.³¹ These disclosure requirements are less extensive than disclosures required under the ordinary registration process, providing less information to investors but saving issuers money.

Second, investors cannot resell crowdfunding securities for one year after purchase³² and are subject to a limit on the amount they can invest in crowdfunding securities in any twelve-month period.³³ The investment limit is determined based on the lesser of each investor's annual income or net worth (hereinafter referred to as "assets"). The minimum investment limit is \$2,200.³⁴ For those with assets below \$107,000, the limit rises to five percent of the investor's assets.³⁵ For those with assets above \$107,000, the limit rises to ten percent of the investor's assets, subject to an ultimate cap on investments of \$107,000.³⁶ The investment cap serves to constrain harm to investors caused by fraud³⁷ and irrational investor decisionmaking³⁸ by ensuring that no loss is "financially crippling" for the investor.³⁹

Third, all Regulation Crowdfunding offerings must be conducted online through an intermediary that is either (1) a broker–dealer or (2) a funding portal registered with the SEC and the Financial Industry Regulatory Authority. ⁴⁰ The SEC's creation of, and allowance for, "funding portals" reflects an understanding that entities operating a "[w]eb site only for the purchase of securities of startups and small businesses . . . may find it impractical in view of the limited nature of

^{29.} VLADIMIR IVANOV & ANZHELA KNYAZEVA, U.S. SECURITIES-BASED CROWDFUNDING UNDER TITLE III OF THE JOBS ACT 3 (2017), https://www.sec.gov/files/2017-03/RegCF_WhitePaper.pdf [https://perma.cc/H3WR-AHUF].

^{30.} Regulation Crowdfunding: A Small Entity Compliance Guide for Issuers, SEC (Apr. 5, 2017) [hereinafter Regulation Crowdfunding for Issuers], https://www.sec.gov/info/smallbus/secg/rccompliance guide-051316.htm [https://perma.cc/2592-ZVLM]. Disclosures must include, among other things, (1) a description of the business and use of proceeds, (2) information about officers, directors, and owners of over 20% of the issuer's equity, (3) the price, target offering amount, and offering period, (4) "[a] discussion of the issuer's financial condition," and (5) financial statements "reviewed by an independent public accountant" or "audited by an independent auditor." Crowdfunding, 80 Fed. Reg. at 71,390. Disclosures must be updated to account for material changes and to communicate "progress toward reaching the target offering amount." Id.

^{31.} See 17 C.F.R. §§ 227.201(t)(2), (3) (2017).

^{32.} See 17 C.F.R. § 227.501(a) (2017).

^{33.} See 17 C.F.R. §227.100(a)(2) (2017).

^{34.} See Id.

^{35.} See Id.

^{36.} See Id.

^{37.} See Edan Burkett, A Crowdfunding Exemption? Online Investment Crowdfunding and U.S. Securities Regulation, 13 TENN. J. Bus. L. 63, 94–95 (2011) (explaining that those opposed to extending anti-fraud provisions to Regulation Crowdfunding believed that the investment cap was sufficient protection alone).

^{38.} See Crowdfunding, 80 Fed. Reg. 71,388, 71,494–95 (Nov. 16, 2015).

^{39.} Burkett, *supra* note 37, at 98 (discussing Jenny Kassan's initial petition for a crowdfunding exception).

^{40. 17} C.F.R. § 227.100(a)(3) (2017); Regulation Crowdfunding for Issuers, supra note 30.

that [entity's] activities and business to register as a broker–dealer and operate under the full set of regulatory obligations that apply to broker–dealers." Intermediaries are responsible for educating investors, screening for fraud, disseminating information about issuers and offerings, and creating "communication channels" to facilitate discussion among the crowd. Intermediaries must have a "reasonable basis for believing" that issuers are complying with Regulation Crowdfunding and that investors are complying with investment limitations. Intermediaries must also disclose the method by which they are compensated. Funding portals are more constrained than broker–dealers and cannot give investment advice or recommendations to investors. However, funding portals can "highlight particular issuers or offerings . . . based on objective criteria," including "number or amount of investment commitments made" and progress toward reaching the target or maximum offering amount.

These regulations attempt to balance issuers' need for a low-cost method of raising funds with investors' need for information and protection from loss and fraud. Although these restrictions appropriately encourage crowd formation and safeguard against debilitating losses, as will be discussed in the next Part, the regulatory framework may intensify free riding and herding within the crowd.

II. THE CHARACTERISTICS OF THE CROWD: COGNITIVE BIASES AND BOUNDED RATIONALITY

The formation of a crowd to evaluate ventures is appealing because it has the potential to improve investor decisionmaking by expanding the bounds of investor rationality and minimizing the impact of individual biases. However, investment limits imposed on crowd members disincentivize individual research, preventing the expansion of the crowd's rational bounds. Further, although funding portals allow for information pooling, ⁴⁷ they fail to incentivize reliable collaboration and facilitate herding, ultimately creating a risk that some individuals' biases will influence the whole crowd.

A. BETTER TOGETHER: HOW THE CROWD MAY OUTPERFORM THE INDIVIDUAL

Group decisions typically outperform individual decisions.⁴⁸ All crowdfunding investments are group decisions because the offering fails unless the requisite

^{41.} Crowdfunding, 80 Fed. Reg. at 71,389.

^{42.} Id. at 71,390; 17 C.F.R. § 227.302 (2017).

^{43.} Press Release, SEC, supra note 7.

^{44.} Id.

^{45.} See 17 C.F.R. § 227.300(c)(2) (2017).

^{46.} Regulation Crowdfunding: A Small Entity Compliance Guide for Crowdfunding Intermediaries, SEC (May 13, 2016), https://www.sec.gov/divisions/marketreg/tmcompliance/cfintermediaryguide.htm [https://perma.cc/TUS3-7MPV].

^{47.} Funding portals are authorized to "[p]rovide communication channels by which investors can communicate with one another and with representatives of the issuer. . . ." 17 C.F.R. § 227.402(b)(4) (2017).

^{48.} See Mark Seidenfeld, Cognitive Loafing, Social Conformity, and Judicial Review of Agency Rulemaking, 87 CORNELL L. REV. 486, 530 (2002).

number of crowd members invest to meet the issuer's target. As a group, the crowd may pool resources to reduce bounded rationality and may counteract individual cognitive biases. However, the crowd may fail to realize its potential to minimize the impact of individual biases if crowd members are homogenous and if decisions are interdependent. In practice, behavioral analyses indicate that the crowd is biased toward ignoring the same information and over-relying on other investors' decisions.⁴⁹ Thus, despite the potential benefits of group decisionmaking, crowdfunding is likely a setting in which there is weakness, rather than strength, in numbers.

1. Potential Benefits of Group Decisionmaking

First, the crowd may be less constrained in its ability to analyze investments, expanding the bounds of its rationality. Using a crowd to evaluate investments allows more individuals to review a venture "than in traditional settings, such that a greater number of individuals and variety of perspectives are available to notice something amiss."50 Therefore, a greater amount of aggregate resources may be expended to analyze crowdfunding investments. To the extent that crowdfunders' investment decisions are independent of each other, on average, the crowd should "decrease inaccuracies that result from individual members' being unaware of or ignoring relevant information" because different crowd members may ignore different information.⁵¹ The online nature of crowdfunding removes geographic barriers, creating the potential for a "heterogeneous" crowd to emerge that includes diverse members representative of different economic and social backgrounds.⁵² This may increase the chances of crowd members focusing on different aspects of the venture. With more people analyzing each investment and with individuals using varying methods to conduct their analyses, the crowd's rationality may be less bounded than that of an individual.

Second, the crowd may minimize the impact of individual investors' cognitive biases. Individuals often struggle to sufficiently account for differences between themselves and the average person.⁵³ This fosters egocentrism bias—the tendency to "impute" one's own opinions and tastes "to everyone else."⁵⁴ In evaluating an investment, this may lead an investor to under- or over-estimate the

^{49.} See infra Section II.A.2.

^{50.} Ajay Agrawal et al., *Some Simple Economics of Crowdfunding*, 14 INNOVATION POL'Y & ECON. 63, 84 (2014).

^{51.} See Seidenfeld, supra note 48, at 531 ("As long as each group member ignores different information, group members' individual choices will likely fall on different sides of the correct outcome and therefore the group decisionmaking process will tend to average out errors....").

^{52.} Joan MacLeod Heminway, *Investor and Market Protection in the Crowdfunding Era: Disclosing to and for the "Crowd,"* 38 Vt. L. Rev. 827, 832, 845 (2014) (arguing that the crowdfunding crowd has "the potential for wisdom" rather than madness in part due to the diversity of the crowd).

^{53.} See, e.g., Seidenfeld, supra note 48, at 496 (discussing egocentrism bias generally); Marie Helweg-Larsen & James A. Shepperd, Do Moderators of the Optimistic Bias Affect Personal or Target Risk Estimates? A Review of the Literature, 5 Personality & Soc. Psychol. Rev. 74, 74 (2001) (discussing optimistic bias).

^{54.} William N. Eskreidge, Jr. & John Ferejohn, *Structuring Lawmaking to Reduce Cognitive Bias: A Critical View*, 87 CORNELL L. REV. 616, 622 (2002).

venture's viability. For example, if crowdfunders consider their own demand for a product when deciding to invest, an individual experiencing egocentrism bias may assume that a product for which they have a need will generate sufficient demand to succeed while a product for which they do not have a need will not. When the individual's preferences do not represent the average preferences in the market, this assessment may be wrong. However, when the crowd members are representative of the greater market, the crowd may more accurately assess venture viability despite individual biases because the crowd will more accurately represent the market's overall demand. Thus, one investor's individual biases may be overshadowed as the crowd averages toward a less biased decision.

On paper, the formation of the crowd has the potential to result in better returns for investors and more efficient delegation of capital to startups due to the increased capacity for rational analysis and the protections against biased decisionmaking.

2. The Crowd's Observed Failure to Realize Its Potential

Unfortunately, it is unlikely that the anticipated benefits from group decision-making will come to fruition in the crowdfunding market. For the crowd to meaningfully counteract bounded rationality and cognitive biases, the crowd must be heterogeneous, such that not all members ignore the same information and suffer from the same biases,⁵⁶ and decisions must be independent, such that one crowdfunder's decision does not bias the next crowdfunder's decision.⁵⁷ No comprehensive analysis of the demographics of equity crowdfunders in the United States currently exists from which to determine the heterogeneity of the crowd.⁵⁸

Although this data indicates that the crowd is in fact a crowd, rather than a gathering of experts, one might still be skeptical of the crowd's diversity. Only 33% of United States households owned taxable investment accounts in 2012. Gary Mattola, *A Snapshot of Investor Households in America*, FINRA INV. EDUC. FOUND., Sept. 2015, at 1, https://www.finrafoundation.org/sites/finrafoundation/files/A-Snapshot-of-Investor-Households-in-America_0_0_0.pdf [https://perma.cc/MP8Z-NM8Y]. Black and Hispanic households were underrepresented, with mostly "affluent" households participating in investments. *Id.* at 9. Given this low investment participation of many economic and social groups in the United States, the crowd may be more homogenous than one may hope. Still, "informational diversity," or differences in education and experience, may be

 $^{55.\} Cf.$ Paul Belleflamme et al., supra note 24, at 25 (discussing the use of reward-based crowdfunding as a method for "market testing").

^{56.} Cf. Seidenfeld, supra note 48, at 545 (discussing how homogeneity impacts group knowledge base and information sharing, and how homogeneity increases the chance of a group experiencing "groupthink").

^{57.} See Donald C. Langevoort, Theories, Assumptions, and Securities Regulation: Market Efficiency Revisited, 140 U. PA. L. REV. 851, 862 (1992).

^{58.} Republic, a funding portal, attracts a diverse crowd from across the United States, with investors predominantly ages "35 to 50." Jesse Schwartz, *Equity Crowdfunding Platform Boosts Diversity in Innovation Ecosystem*, TECH TRANSFER CENT. (Oct. 25, 2018), https://techtransfercentral.com/2018/10/25/equity-crowdfunding-platform-boosts-diversity-in-innovation-ecosystem/ [https://perma.cc/A7JF-EUVE]. Women compose 30% of Republic's crowd of investors. REPUBLIC, REPUBLIC REPORT: THE BUSINESS OF DIVERSITY (2018), https://republic.co/blog/the-business-of-diversity [https://perma.cc/3743-X22X]. As of the writing of this Note, the median income of investors on Wefunder Portal LLC, the market leader, was \$90,000, with 31% of investments equal to \$100 and 76% of investments under \$500. *The Current Status of Regulation Crowdfunding*, Wefunder (Apr. 17, 2019), https://wefunder.wefunder.com/stats [https://perma.cc/ZBB5-D9H6].

However, as discussed below, observed common decisionmaking processes among crowdfunders suggest the crowd lacks diversity of thought and tends to ignore the same information. Further, crowdfunding decisions are not independent because individuals may over-rely on other investors' decisions.⁵⁹ Even though these prevalent decisionmaking processes may be rational given the crowdfunding market's characteristics, they create vulnerability within the crowd and may indicate that the crowd's investment decisions will underperform individual investment decisions.

Unaccredited crowdfunder decisionmaking processes substantially diverge from traditional expert investor⁶⁰ processes and demonstrate a shared tendency among unaccredited crowdfunders to ignore traditional indicators of venture viability. 61 Expert startup investors often analyze the management team, product, market, business plan, "market growth potential, valuation, and planned exit path" when considering an investment. 62 Although this traditional criteria remains relevant on securities crowdfunding platforms targeting accredited investors, initial research of unaccredited crowdfunders indicates that they focus on "easily observable features of crowdfunding campaigns, network utilization, and understandability of the target's products" instead of financials, management, "markets, . . . scalability, . . . and deal terms." ⁶³ Additionally, planned opportunities for exit and timeline to exit may not influence unaccredited investor behavior.⁶⁴ Though it is possible that unaccredited investors focus less on future returns because they make the investment seeking intangible benefits from being part of the community or contributing to the success of upcoming ventures, research indicates that financial motives, such as return on investment or receiving a product, are investors' main

Diversity and Group Performance: An Integrative Model and Research Agenda, 89 J. APPLIED PSYCHOL. 1008, 1009 (2004). Accordingly, the crowd may be sufficiently diverse, even if it lacks social and ethnic diversity, if it consists of individuals with different perspectives, educations, and experiences.

^{59.} See Anna Lukkarinen et al., Success Drivers of Online Equity Crowdfunding Campaigns, 87 DECISION SUPPORT SYS. 26, 29 (2016) ("[L]ess experienced investors are strongly influenced by the investment decisions of experts.").

^{60. &}quot;Expert" is used to refer to investors with substantial expertise in start-up investing, such as venture capital investors and angel investors.

^{61.} See generally Lukkarinen et al., supra note 59 (discussing how decisions are made in equity crowdfunding campaigns in Northern Europe).

^{62.} Id. at 30 (discussing the investment methods of venture capitalists and angel investors).

^{63.} Id. at 35–36 (summarizing results from analysis of investor behavior on Invesdor, a Nordic equity crowdfunding platform used by the "crowd" rather than by experienced investors that uses an "all-ornothing" model and does an initial hidden campaign to experienced investors and a subsequent public campaign). But see Gerrit K.C. Ahlers et al., Signaling in Equity Crowdfunding, 39 Entrepreneurship THEORY & PRAC. 955, 972-74 (2015) (finding that having a board and founders with MBA degrees and having more board members correlates to an increased number of investors on an Australian equity crowdfunding platform used by both sophisticated and small investors).

^{64.} Cf. Ahlers et al., supra note 63, at 970–71 (discussing behavior of those who invest in "smaller projects" on the Australian Small Scale Offerings Board equity crowdfunding platform from 2006 until 2011).

sufficient to generate benefits from group decisionmaking. See Daan van Knippenberg et al., Work Group

motivations. 65 Yet, crowdfunders consistently ignore technical and qualitative indicators of future returns when making investment decisions. 66

By relying on "signals" of quality rather than actual substantive quality, crowdf-unders over-rely on other investors' decisions and campaign structure. Signals of quality include level of funds raised,⁶⁷ number of investors,⁶⁸ existence—but not attractiveness—of financial forecasts,⁶⁹ retention of equity by entrepreneurs,⁷⁰ and detailed risk disclosures.⁷¹ Investors' comfort relying on signals may be partially founded in their understanding that no money will leave their bank accounts unless a sufficient number of crowd members decide that the venture is likely to succeed.⁷² Other relevant structural characteristics of offerings include campaign duration, which corresponds to more investors,⁷³ and bundling investments with rewards, which may influence the decision to invest or amount invested.⁷⁴

Overall, these shared decisionmaking processes indicate that issuers' "preselected campaign characteristics" influence investor choices. The crowdfunder's decision to rely on emotion and campaign features, rather than to expend resources to evaluate substantive disclosures, may be perfectly rational because it is a low-cost method of making decisions where access to information is limited. Even so, investor biases may allow issuers and intermediaries to intrude on the crowd's decisionmaking process by exploiting the factors that bias the crowd's choices. Unfortunately, as this Note argues in the next section, the SEC's regulatory framework exacerbates the crowd's failure to realize its potential wisdom by imposing investment limits and by requiring transactions to occur on online intermediaries. The consequences of this framework may make investors more vulnerable to suboptimal decisionmaking and more susceptible to outside influences.

^{65.} See Magdalena Cholakova & Bart Clarysse, Does the Possibility to Make Equity Investments in Crowdfunding Projects Crowd Out Reward-Based Investments?, 39 Entrepreneurship Theory & Prac. 145, 147, 159 (2015) (finding that crowdfunders were motivated by receiving rewards rather than by helping people, supporting ideas, or community engagement).

^{66.} See Lukkarinen et al., supra note 59, at 35–36.

^{67.} See Garry A. Gabison, The Incentive Problems with the All-or-Nothing Crowdfunding Model, 12 HASTINGS BUS. L.J. 489, 497 (2016) ("[I]nvesting seems to be the clearest endorsement message.").

^{68.} See Id.

^{69.} Investors are less likely to fund an offering without "financial forecasts"; however, the attractiveness of financials "may not be as relevant in attracting investors." Lukkarinen et al., *supra* note 59, at 29, 35.

^{70.} See Ahlers et al., supra note 63, at 976 (discussing how venture quality and level of uncertainty influence crowdfunding decisions). However, this study is based on a crowdfunding platform outside the United States regulatory climate, which is friendly to both sophisticated investors and small retail investors. *Id.* at 956.

^{71.} See Id. at 976 (discussing how venture quality and level of uncertainty influence crowdfunding decisions).

^{72.} Lukkarinen et al., supra note 59, at 28–29, 35.

^{73.} *Id.* at 35 (finding that shorter campaign durations correspond to more investors, but not increased amount raised, potentially because a shorter duration prevents "postpone[d] decision-making").

^{74.} *Cf.* Cholakova & Clarysse, *supra* note 65, at 159 (finding that equity crowdfunding does not "crowd out" reward-based crowdfunding and that equity investors are more likely to contribute money to receive a reward).

^{75.} Lukkarinen et al., supra note 59, at 30, 35.

B. RATIONAL GUESSES: HOW INVESTMENT LIMITS INCENTIVIZE GUESSING

Although investment limits prevent investors from over-investing in highly risky and illiquid securities, they also reduce the incentive for individuals to research and remove the "experts" from the crowd.

Investment caps may inadvertently stymic research. Because individuals have limited resources, there is a tradeoff between "effort devoted to deliberation and effort devoted to other activities." Although the provision of less comprehensive disclosures could actually make it easier for investors to analyze the information provided by reducing information overload, potentially making researching a crowdfunding investment less costly than researching a traditional investment, research still draws on investors' resources. Limiting the amount an investor can invest in crowdfunding securities caps the potential benefits of researching the investment. When the investment level is low, an individual may judge that conducting research costs more than the potential return if the investment is successful. Consequently, a rational investor may devote less time to research and analysis, instead relying on diversification and investing minimum amounts in a variety of securities.

Additionally, investment limits disincentivize participation by expert investors that specialize in start-ups. Expert investors have the ability to identify salient information with less effort and have the resources necessary to conduct research. However, the low investment cap may make participation in securities crowdfunding undesirable to experts. Like individual investors, expert investors derive limited potential benefits from these investments that may not outweigh the costs of researching them. Instead, experts are likely to focus on offerings conducted under other registration exemptions that permit larger investments and provide higher potential returns. Relationships and provide higher potential returns.

C. STAGNANT POOLS: HOW ONLINE INTERMEDIARIES TOLERATE FREE RIDING

Inefficient pooling and potentially misleading signals on online intermediary platforms further aggravate the lack of incentive for crowdfunders to research.

^{76.} John Conlisk, Why Bounded Rationality?, 34 J. ECON. LITERATURE 669, 682 (1996).

^{77.} See Paredes, supra note 20, at 419 (discussing studies suggesting individuals "overloaded with information... make worse decisions than if less information were made available to them" and arguing that over-disclosure can be "blinding").

^{78.} See Ahlers et al., supra note 63, at 976; Gabison, supra note 67, at 497. Similarly, the use of an "all-or-nothing" system may encourage freeriding by investors that rely on the need for "critical mass" for funding to occur. *Id.* at 499–500.

^{79.} Interestingly, because the investment limits are tied to investor net worth and annual income, wealthier investors may have a greater incentive to research (but will also be better able to diversify).

^{80.} See Paredes, supra note 20, at 453–54 ("To be sure, studies show that those with experience and expertise are able to search and evaluate information more effectively than non-experts. This is in part because experts, when faced with lots of information, are better at determining what to ignore and what to focus on ").

^{81.} Crowdfunding, 80 Fed. Reg. 71,388, 71,491 (Nov. 16, 2015).

^{82.} *Id.* ("[I]t is possible that professional investors will prefer, instead, to invest in offerings in reliance on Rule 506, which are not subject to the investment limitations applicable to offerings made in reliance on Section 4(a)(6).").

Online intermediaries provide the accessibility necessary for the crowd to form, facilitating inclusion of investors from diverse geographies and backgrounds. Online intermediaries also increase comparability of offerings by standardizing disclosure format⁸³ and investment contract terms.⁸⁴ Intermediaries facilitate public communication regarding offerings, both between issuers and investors and among investors themselves.⁸⁵ Although easy access to information, communications, and other investors' decisions creates the potential for collaboration, this also makes free riding easier than it would be in another market. The temptation to rely on the investment decisions of others prevents individuals from effectively contributing to crowd wisdom.⁸⁶ This problem is exacerbated by online intermediaries' failure to incentivize reliable pooling of information, which actually increases the cost of conducting research or participating in crowd collaboration.

Investors are unlikely to effectively pool information because they lack the incentives to do so. The crowd is composed of three types of investors: those that (1) conduct their own research, (2) invest without researching, and (3) rely on the research of others. ⁸⁷ Each of these types of investors contributes different biases to the crowd's pool of information.

First, investors conducting their own research will fail to supply a sufficient foundation to cultivate crowd wisdom. These investors will be hindered by information availability, due to the limited disclosures required, ⁸⁸ and may underinvest in research because of the investment limits. ⁸⁹ They may also undervalue the importance of the management team, potential exit avenues, product viability, and financials. ⁹⁰ These investors have an incentive to share information about campaigns in which they choose to invest to increase the chances of the campaign being successful, especially when the target funding level has not been reached. ⁹¹ It is important to note, however, that these investors may also have an incentive

^{83.} Cf. Brigitte C. Madrian, Applying Insights from Behavioral Economics to Policy Design, 6 ANN. REV. ECON. 663, 673 (2014) (discussing how unstandardized information increases the chances of making a mistake when making choices); Paredes, supra note 20, at 448–49 (claiming that standardized financial statements enable inter-company comparisons). However, lack of standardization in the types of securities offered—which is not restricted by SEC regulation—may decrease the ability of investors unfamiliar with nontraditional securities to compare offerings. For an argument that investors should be protected from inappropriate uses of or terms in certain securities, such as "SAFEs" and other types of investment contracts, see generally Joseph M. Green & John F. Coyle, Crowdfunding and the Not-So-Safe Safe, 102 VA. L. REV. ONLINE 168 (2016).

^{84.} Ahlers et al., supra note 63, at 957.

^{85.} See Crowdfunding, 80 Fed. Reg. at 71,390.

^{86.} In fact, online intermediaries tend to display offerings based on level of funding raised or number of investors, effectively prioritizing other investors' decisions in framing the researching process. *See infra* Part III.

^{87.} Gabison, *supra* note 67, at 496–97 (discussing the three types of investors that compose the crowd).

^{88.} See Ajay Agrawal et al., supra note 50, at 78.

^{89.} See supra Section II.B.

^{90.} See supra Section II.A.2.

^{91.} See Belleflamme et al., supra note 24, at 22.

to "misrepresent risk" to induce others to invest in the campaign. ⁹² This reduces the reliability of the positive information they supply to the crowd.

Unreliable information may turn the crowdfunding market into a "market for lemons" in which misrepresentation "drive[s] honest dealings out of the market." Rational investors would respond to the market's lack of credibility by leaving the market. However, less-experienced investors may not recognize that the pooled information is not credible, making the prevailing market consist only of "low-quality startups and foolish investors." Thus, unreliable positive information will disproportionately harm less-experienced investors. Unfortunately, investors also lack an incentive to share information when they decide not to invest, which will reduce the amount of negative information available to those that rely on the research of others. This indicates that any pooling that does occur may be positively biased and demonstrates that investors will struggle to evaluate what pooled information is reliable, increasing the cost of drawing on the "wisdom of the crowd."

Second, investors that invest without researching will further cloud the pool of available information. These investors rely on "'hunches' and the information provided . . . by the campaign creator or platform" instead of expending resources to analyze information. ⁹⁶ This group of crowd members also encompasses interested parties, such as friends or family of the entrepreneur seeking funding, who may support a venture for reasons other than venture viability and potential economic return. ⁹⁷ Additionally, these investors may rely on the target funding level for protection, investing early but assuming the investors that follow them will conduct the necessary research. ⁹⁸ Although these investors may not generate substantive information, they still disseminate information on which investors relying on others' research may depend by contributing to objective factors like the amount of funds raised or number of investors.

Third, investors relying on the information of others are at risk of being misled. These investors hypothetically could make informed investment decisions at a low cost by drawing on the wisdom of the crowd. However, they are likely to herd around the decisions of other investors in the crowd and are therefore vulnerable to misinformation. Because the "marginal benefit of consuming additional information decreases[,] . . . consumers may focus on the most obvious information

^{92.} See Id. at 23.

^{93.} George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 495 (1970).

^{94.} *Cf.* Ibrahim, *supra* note 25, at 564, 566 (arguing that the "wisdom of crowds and strong intermediation" will prevent high-quality startups from leaving the market and prevent securities crowdfunding from becoming a market only for "lemons").

^{95.} See Gabison, supra note 67, at 497 (suggesting that this problem could be remedied by enhancing investors' ability to form a reputation on funding portals).

^{96.} Id. at 498.

^{97.} Id.

^{98.} Id. at 499-500.

without digging deep."⁹⁹ This decision is further justified by the unreliability of information provided by those doing research. Accordingly, these investors are likely to rely on the number of investors and level of investment as endorsements instead of conducting abridged research with more substantive pooled information (for example, public conversations among investors and issuers). Reliance on these easily observable factors may lead these investors to follow the wrong crowd members. Although inexperienced investors can usually distinguish "differences in the underlying expertise" of early investors to determine signal reliability, ¹⁰⁰ if investors cannot identify which investments are made by investors that have conducted research and which are made by investors that have not, herding may reinforce biases of early investors and magnify bounded rationality, reducing overall investment quality.

III. WILL ONLINE INTERMEDIARIES PAVE THE WAY WITHOUT REGULATORY INTERVENTION?

Online intermediaries define the confines within which investors make their decisions. However, intermediaries have two masters: issuers and investors. Intermediaries have to entice issuing companies to use their platform over their competitors'. At the same time, intermediaries must also attract investors. This raises the question of which master—issuers or investors—intermediaries will prioritize when issuers' and investors' interests diverge.

There are two types of intermediaries: (1) funding portals and (2) broker–dealers. ¹⁰¹ Funding portals, as opposed to broker–dealers, host most U.S. offerings. ¹⁰² Funding portals are brokers that do not offer investment recommendations. ¹⁰³ That said, funding portals have the discretion to format their platforms and display offerings based on objective criteria, such as level of funding, number of investors, and geography. ¹⁰⁴ Currently, intermediaries guide investors to "campaigns that are close to the threshold to become a success." ¹⁰⁵ This supports intermediaries' financial interests, but may harm investors to the extent that it facilitates herding spurred by decisions of poorly informed, personally interested, or extraordinarily risk-seeking early investors. ¹⁰⁶

Funding portals can nudge the crowd toward more informed decisionmaking within the existing regulatory framework through framing information and incentivizing pooling. However, one must carefully consider whether the incentives of

^{99.} *Id.* at 497–98 (noting that early investors are often geographically close to the entrepreneur and may include family and friends supporting the venture for "reasons other than their own benefits").

^{100.} Keongtae Kim & Siva Viswanathan, *The "Experts" in the Crowd: The Role of Experienced Investors in a Crowdfunding Market*, 43 MGMT. INFO. SYS. Q. 347, 347 (2019).

^{101. 17} C.F.R. § 227.300(a)(1) (2017).

^{102.} IVANOV & KNYAZEVA, supra note 29, at 21 ("88% of all offerings involved funding portals").

^{103. 17} C.F.R. § 227.300(c)(2) (2017).

^{104.} Peter Thomson, *Regulation Crowdfunding Rules*, SEEDINVEST (Sept. 21, 2016), https://www.seedinvest.com/blog/crowdfunding/regulation-crowdfunding-rules [https://perma.cc/PBS3-GT7P].

^{105.} Belleflamme et al., supra note 24, at 16.

^{106.} See supra Section II.C.

funding portals align with those of investors or whether funding portals may be tempted to exploit investors' tendency to free ride to investors' detriment. In considering a funding portal's (1) ability to modify crowd behavior and (2) incentives, this Part demonstrates that funding portals are unlikely to help the crowd without regulatory intervention.

A. OPPORTUNITIES TO IMPROVE CROWD BEHAVIOR

Funding portals can guide the crowd by changing the crowdfunding process within the contours of existing regulation by (1) incentivizing expert participation, (2) instituting an investor reputational system, or (3) hiding funding level until a threshold level of funds have been contributed to an offering. However, these correctional measures are either inadequate to fully remedy the crowd's suboptimal decisionmaking or are prohibitively costly to issuers.

1. Incentivizing Expert Participation

Funding portals could leverage their relationships with sophisticated and accredited investors to incentivize participation by expert investors. Many funding portals conduct exempt offerings other than Regulation Crowdfunding offerings. ¹⁰⁷ This indicates that funding portals have relationships with sophisticated and accredited investors. Thus, funding portals could encourage experienced investors to participate by tying participation in Regulation Crowdfunding offerings to early access to follow-on offerings under other exemptions.

Incentivizing expert participation would increase the number of crowd members conducting research, increasing the bounds of the crowd's rationality. Although experts are more likely to be impacted by egocentrism bias 109 and overconfidence, 110 they are still better able to identify relevant information and have access to superior resources. 111 Therefore, they can research investments at a lower cost than retail investors. Further, many inexperienced investors are able to effectively "identify and exploit nuanced differences in the underlying expertise of the early investors" to assess if early investment is a reliable informational signal. 112 Thus, investors relying on others' research would be less prone to misinformation in a market where experts contribute to the information pool.

^{107.} Wefunder conducts "Regulation A+, Regulation D 506(b) and 506(c), and Regulation Crowdfunding" offerings. *Why Wefunder?*, WEFUNDER, https://help.wefunder.com/#/why-wefunder/303774-what-fundraising-exemptions-do-you-support [https://perma.cc/P93N-A48B] (last visited July 30, 2019). SeedInvest also conducts Regulation A+ and Regulation Crowdfunding offerings. *About Us*, SEEDINVEST, https://www.seedinvest.com/about [https://perma.cc/2VV6-QMMS] (last visited July 30, 2019)

^{108.} See supra Section II.A.

^{109.} See Seidenfeld, supra note 48, at 496–97.

^{110.} See Gabison, supra note 67, at 501.

^{111.} Belleflamme et al., *supra* note 24, at 19; *see also* Paredes, *supra* note 20, at 453–54 ("[S]tudies show that those with experience and expertise are able to search and evaluate information more effectively than non-experts. This is in part because experts, when faced with lots of information, are better at determining what to ignore and what to focus on.").

^{112.} Kim & Viswanathan, supra note 100, at 347.

Moreover, experts would be unlikely to crowd out retail investors, because experts would remain subject to low investment limits.

However, expert participation may be ineffective given the differences between expert's and retail investors' goals and given the practical difficulties in incentivizing participation. Expert participation would increase the incentive for retail investors to free ride. However, free riding may become more dangerous if expert investors "take more risk than they would otherwise because of the small relative amount invested and their capacity to diversify." This increased danger to retail investors would arise if retail investors unknowingly assume increased risk without implementing corresponding diversification. Additionally, experts would retain an incentive to misrepresent risk to induce increased investment. Further, expert investors may rely on the crowd to indicate new product viability rather than acting as early investors. Finally, experts may not be interested in encouraging funding through the Regulation Crowdfunding market, to the extent that issuing securities to a diffuse set of shareholders reduces their ability to influence management and to direct the company. In the product of the company.

2. Instituting Investor Reputation Systems

Funding portals could help investors identify reliable information by implementing a reputational system for investors on the platform. This would be beneficial to funding portals because reputational systems can generate "lock-in" and help funding portals retain investors in a competitive market. However, a system like Yelp's rate-the-rater structure is unlikely to combat intentional misinformation because "such mechanisms break down in the presence of collusion." Collusion is a real danger on crowdfunding platforms, where issuers may attempt to bolster their campaigns with conspiring investors. Unlike Yelp, where "reviews are subjective," information shared for securities crowdfunding may have some objectively determinable quality depending on the level of research conducted and level of financial expertise. Additionally, as investors rely on information such as aggregate investment level or total number of investors, the

^{113.} Gabison, *supra* note 67, at 500 (discussing Italy's requirement that five percent of crowdfunding be from sophisticated investors and the flaws in using this to screen for fraud in an all-or-nothing system); *see also* Belleflamme et al., *supra* note 24, at 19 (discussing online intermediaries' strategy of using "sophisticated investors" to help inform crowdfunders).

^{114.} See supra Section II.C.

^{115.} Belleflamme et al., *supra* note 24, at 19.

^{116.} See Ibrahim, supra note 25, at 589 ("Receiving small sums from a multitude of investors complicates a young startup's capital structure, which can . . . scare away follow-on financing from angels and VCs.").

^{117.} Chrysanthos Dellarocas, *Designing Reputation Systems for the Social Web* 4 (Bos. Univ. Sch. Mgmt., Research Paper No. 2010-18, 2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1624697 [https://perma.cc/A9KF-QYYX].

^{118.} Yelp, a website used to review restaurants and entertainment, uses a "rate-the-rater" structure that provides users with information about how useful other users have found each rater's prior contributions to the site. *Id.* at 9–10.

^{119.} Id. at 6.

^{120.} Id. at 5.

unique content of information shared may be less relevant than the identity of the investor generating information. Accordingly, any reputation system should focus less on investors' "personal assessment of . . . credibility" and more on the objective expertise of the investor. ¹²¹ Consequently, a funding portal reputation system should track indicators of quality such as success and number of past investments. ¹²² This would also account for how new an investor is to the intermediary, which may be an indicator of whether the party has conflicting interests, such as a friend or family member investing for the first time for the sole purpose of helping the issuer generate traction on the intermediary.

Although a reputational system would increase the amount and reliability of pooled information, it may not effectively impact investor behavior. Some investors may ignore such information when drawing on the wisdom of the crowd. This is especially true of investors who are unaware that pooled information is not always reliable. Accordingly, this remedy may fail to protect the crowd's most vulnerable investors. Furthermore, it may be difficult to develop objective indicators of investor quality. Investors that rely on diversification rather than informed investments could still have high-quality, objective reputational indicators, but they may not be appropriate to follow for a particular individual investment. Additionally, it would be difficult to account for risk tolerance using objective indicators, which may lead some individuals to suboptimal investment decisions.

3. Hiding Funding Level

Funding portals could hide certain objective criteria to discourage reliance on these criteria, reducing interdependent decisionmaking. Funding portals could increase the cost of relying on aggregate investment level or number of investors as a signal of quality by hiding this information until a certain threshold of funds is raised. This would reduce early investors' ability to free ride, encouraging independent decisionmaking of early investors and potentially averaging out biases—if early investors have different biases—before herding begins. This would also create an incentive for early investors to share information in hopes of an investment reaching the threshold necessary to reveal the funding level to free riding investors in the market.

Unfortunately, this measure may not fully address the risks of misinformation. Early investors may still have an increased incentive to misrepresent risk to induce others to invest.¹²⁴ The measure may also encourage collusion among early investors and issuers, whereby some investors contribute capital in order to

^{121.} Id.

^{122.} Unlike with Yelp, where encouraging more contributions may decrease the quality of contributions, *see id.* at 6, this would require an actual investment to generate information, likely deterring arbitrary participation simply to improve one's reputation.

^{123.} Belleflamme et al., *supra* note 24, at 22 (indicating that no actual platforms currently use this method).

^{124.} See supra Section II.C.

raise funding above the required level. ¹²⁵ However, the imposition of investment limits prevents an investor from accomplishing this alone, making it more difficult for an issuer or small group of investors to artificially inflate funding level.

Additionally, this measure may be particularly costly for funding portals. Hiding the funding level may make it more difficult for issuers to meet their target funding level and may lengthen the time it takes for issuers to receive funding. Accordingly, this measure may adversely impact the volume of offerings initiated and funded on the funding portal. If one funding portal implements this measure, its competitors may benefit by capturing the future business of issuers dissatisfied with the change. Moreover, competitors may refuse to follow the first mover's lead in order to retain their new customers. If investors do not understand the value created by the first mover, ¹²⁶ investors may also be drawn to competitor platforms because investors prefer platforms with more offerings. ¹²⁷ Thus, unless an issuer has a special competitive advantage it would retain despite implementing the change, ¹²⁸ a funding portal is unlikely to incur these costs at the risk of losing its customers.

B. INSUFFICIENT FUNDING PORTAL INCENTIVES

Funding portals will only intervene to support crowd wisdom if they are incentivized to do so. If investor and funding portal interests are inconsistent, funding portals may guide the crowd toward offerings in their own interest rather than offerings in the crowd's best interest. In analyzing funding portals' (1) financial and (2) reputational incentives, this section finds that some motivation exists for funding portals to align their interests with those of investors, but that, on balance, funding portals are too insulated from financial and reputational risk to act in the crowd's best interest.

1. Financial Incentives of Funding Portals

In drafting Regulation Crowdfunding, the SEC considered the implications of intermediaries' financial interests. ¹²⁹ Intermediary directors and officers cannot personally have financial interests in issuers using intermediary services; however, intermediaries themselves may have financial interests in an issuer if securities (1) are received as compensation for services provided and (2) have the same rights and terms as the securities sold on the platform. ¹³⁰ This permits "align[ed] interests of intermediaries and investors." ¹³¹

^{125.} *Cf.* Belleflamme et al., *supra* note 24, at 22 n.37 (discussing the risk of investors "excessively commit[ting] further funds").

^{126.} In fact, investors may prefer platforms without this measure, because they will allow for cheaper freeriding.

^{127.} Belleflamme et al., *supra* note 24, at 15.

^{128.} SeedInvest, the only funding portal assuming an interest in successful offerings, competes through its ability to supply "highly vetted" offerings. SEEDINVEST, https://www.seedinvest.com/[https://perma.cc/DV4U-HDRY] (last visited July 31, 2019). This type of product differentiation may allow a funding portal to become a first mover at a lower cost.

^{129.} See Crowdfunding, 80 Fed. Reg. 71,388, 71,431–32 (Nov. 16, 2015).

^{130. 17} C.F.R. § 227.300(b) (2017).

^{131.} Crowdfunding, 80 Fed. Reg. at 71,431.

Three funding portals currently dominate the market in terms of number of equity crowdfunding offerings: StartEngine (29.7%), Wefunder (22.8%), and SeedInvest (10.1%). StartEngine does not charge issuers to initiate an offering, imposing a percentage fee on issuers only if the target funding level is reached. Wefunder profits by imposing a percentage fee on investors' contributions, by charging issuers a one-time fee to begin an offering, and, for successful offerings, by charging issuers a percentage fee on total funds raised. SeedInvest charges investors a percentage fee on investments and charges issuers a percentage fee on total funds raised, and other expense reimbursements. This demonstrates that only one of the leading platforms—SeedInvest—has elected to align its interests with those of investors by acquiring security interests in funded offerings.

Funding portals would benefit from taking security interests in issuers because it would signal confidence in the securities they sell. If funding portals join investors in assuming the risks of the venture succeeding—even if the risks are not truly the same—failed investments are less likely to be blamed on the funding portal, because they will not appear to be the result of the portal's volition.¹³⁷ Additionally, issuers may view this as the funding portal taking an interest in their venture. Taking an interest in issuers would either reduce the up-front cost of capital for issuers or allow funding portals to charge more without alienating issuers.

Requesting security interests as payment may allow issuers to both keep more of the funds raised now and pay later. This reduces the cost of raising capital in the short-term, allowing the company to benefit from increased funding in the present. However, funding portals may be unwilling to lower existing cash fees to take interests with uncertain future returns. Alternatively, funding portals could use security interest compensation as a mechanism for raising prices for issuers

^{132.} Max Crawford, *Equity Crowdfunding in Review: March 2019*, STARTENGINE (Apr. 10, 2019), https://www.startengine.com/blog/equity-crowdfunding-in-review-march-2019/ [https://perma.cc/GT4K-CV7C].

^{133.} Finance Your Company While You Build It, STARTENGINE [https://perma.cc/TB6T-KQBR] (last visited July 31, 2019).

^{134.} Frequently Asked Questions: Investors, WEFUNDER, https://wefunder.com/faq/investors [https://perma.cc/L9BX-83UP] (last visited July 31, 2019); Frequently Asked Questions: Founders, WEFUNDER, https://wefunder.com/faq/founders [https://perma.cc/CL3G-J7KD] (last visited July 31, 2019).

^{135.} Frequently Asked Questions, SEEDINVEST, https://www.seedinvest.com/faqs [https://perma.cc/NL9C-5BYN] (last visited July 31, 2019).

^{136.} That said, many funding portals attempt to obtain repeat business from issuers when they seek follow-on funding. *See infra* Section III.B.2. This may have a similar effect as taking an interest, because funding portals profit from follow-on funding, which only high-quality issuers are likely to seek or receive.

^{137.} See Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630, 736–37 (1999) (claiming that customers' view of failed products as "the consequence of the manufacturer's volition" impacts the likelihood of repurchase of the product); *see also infra* Section III.B.2.

^{138.} After all, a dollar today is worth more than a dollar tomorrow.

without reducing the supply of issuers because issuers may be inclined to take the benefit of money now and delay the costs.

Although this may suggest that the potential for aligned interests could arise naturally in the market, one must consider whether funding portal security interests sufficiently align portal and investor goals. Funding portals receiving securities as compensation will obtain a highly diversified portfolio of investments, consisting of securities in all successful offerings conducted on the platform. In contrast, investors are limited in their ability to diversify by liquidity and the investment cap. This indicates that funding portals may have a higher risk tolerance than investors, distinguishing the parties' objectives. Although one issuer's failure could be devastating to an investor, the funding portals will likely offset these losses with other issuers' successes.

The differing risk profiles between funding portals and issuers may decrease the efficacy of giving funding portals security interests in issuers as a tool for aligning funding portal and investor interests. If the cost of independently researching the viability of issuers is high—which, depending on volume of issuers using the platform, it likely is—funding portals may lack an incentive to ensure high-quality offerings. Overall, the financial benefits funding portals could receive from equity in successful offerings are likely insufficient to justify incurring high costs to improve crowd decisionmaking.

2. Reputational Incentives of Funding Portals

Reputation influences firm behavior because a strong reputation may provide a "competitive advantage" that is difficult to replicate within the industry, creating an opportunity to increase profits and to establish sustainable market power. ¹⁴⁰ Accordingly, funding portals should be influenced by reputational consequences as they attempt to prevail over competitors. However, funding portals must manage their reputations both among investors and among issuers.

Investors typically "prefer platforms with a larger number of campaigns."¹⁴¹ This may facilitate market consolidation among funding platforms as the industry develops. Consolidation may increase funding portals' ability to prioritize investors over issuers because issuers will have fewer choices and competition will be

^{139.} This is especially true given that funding portals are prohibited from disseminating investment advice, which reduces the commercial value of funding portal due diligence. As a practical matter, funding portals can manipulate the choice environment to drive funding decisions, benefiting selected issuers without formally disseminating investment advice. However, funding portals will still be unable to compete based on this information if they cannot formally share it and if investors do not recognize the generated benefit. This caps the potential returns from identifying high-quality investments, reducing the incentive for funding portals to expend resources to do so.

^{140.} Charles Fombrun & Mark Shanley, What's in a Name? Reputation Building and Corporate Strategy, 33 ACAD. MGMT. J. 233, 233–35 (1990); Peter W. Roberts & Grahame R. Dowling, Corporate Reputation and Sustained Superior Financial Performance, 23 STRATEGIC MGMT. J. 1077, 1077 (2002).

^{141.} Belleflamme et al., *supra* note 24, at 15. Although this is the dominant trend, investors may still prefer platforms with fewer campaigns because campaigns may be more likely to "achieve the required threshold." *Id.*

lower. 142 Issuers are likely to have inelastic demand for the service provided by funding portals, because young companies have limited opportunities to raise capital. In contrast, investors are likely to have more elastic demand for crowdfunding securities given the availability of substitute markets in which to invest. 143

Funding portals, like credit rating agencies, have an incentive to foster ongoing relationships with issuers to increase revenues. Issuers may only use one funding portal to conduct an offering. ¹⁴⁴ In addition to the fees charged to issuers and investors in Regulation Crowdfunding offerings, most funding portals also conduct offerings under Regulation A+ and Regulation D to increase profits. ¹⁴⁵ This demonstrates funding portals' desire to turn issuers into repeat users of the platform for multiple rounds of funding.

In many ways, this interest in ongoing issuer relationships makes funding portals similar to credit rating agencies. Credit rating agencies have been viewed as one of the more conflicted financial market "gatekeepers," because their revenues predominantly come from fees paid by issuers. ¹⁴⁶ Prior to the 2008 financial crisis, many believed reputation moderated credit rating agencies' conflicts of interest, leading rating agencies to prioritize investor protection over issuer satisfaction. ¹⁴⁷ However, this theory was challenged after the financial crisis, during which unrealistically high ratings of mortgage-backed securities contributed to a market collapse. In the wake of this failure, some cited "lack of competition, absence of transparency, [and] conflicts of interest" as factors that prevented reputation from reigning in credit rating agencies. ¹⁴⁸ Credit rating agencies showed that, where high-quality firms do not benefit from their quality and where low-quality firms do not suffer, competition fails to support "a well-functioning reputation mechanism." ¹⁴⁹ Unfortunately, this is likely the case with funding portals.

^{142.} Cf. Daniel M. Covitz & Paul Harrison, Testing Conflicts of Interest at Bond Ratings Agencies with Market Anticipation: Evidence that Reputation Incentives Dominate 3 (Fed. Reserve Bd., Working Paper No. 2003-68, 2003), https://www.federalreserve.gov/pubs/feds/2003/200368/200368pap.pdf [https://perma.cc/4BU4-TTJA] ("With less pressure to compete for fees, rating agencies may have little incentive to coddle issuers and may instead focus on managing their reputations.").

^{143.} Although the crowdfunding market is unique in that it provides access to securities in young ventures with uncertain but substantial potential returns, there are other methods by which investors can satisfy their risk profiles and demand for security ownership.

^{144.} See Regulation Crowdfunding for Issuers, supra note 30.

^{145.} See JD Alois, There Are Now 21 FINRA Approved Reg CF Crowdfunding Portals, CROWDFUND INSIDER (Nov. 21, 2016, 1:47 PM), https://www.crowdfundinsider.com/2016/11/92810-now-21-finra-approved-reg-cf-crowdfunding-portals/.

^{146.} See Frank Partnoy, How and Why Credit Rating Agencies Are Not Like Other Gatekeepers, in FINANCIAL GATEKEEPERS: CAN THEY PROTECT INVESTORS? 59, 60 (Yasuyuki Fuchita & Robert E. Litan eds., 2006).

^{147.} See Covitz & Harrison, supra note 142, at 23.

^{148.} John Patrick Hunt, Credit Rating Agencies and the "Worldwide Credit Crisis": The Limits of Reputation, the Insufficiency of Reform, and a Proposal for Improvement, 2009 COLUM. BUS. L. REV. 109, 129.

^{149.} See Id. at 138.

Funding portals may not be impacted by their relative quality, because investors are unlikely to recognize quality. Similar to the credit rating market, funding portal quality is only determined ex post, after an investment is made. This may make it more difficult for investors to connect investment success to high or low funding portal quality. The extent to which investors attribute their failed investments to funding portals will depend on whether the investor believes the funding portal or the investor's decisionmaking caused the failure. Is Investment success or failure is usually attributed to the person choosing the investments, rather than the person hosting the transactions. This may not be the case if investment failure is caused by issuer fraud, for which the funding portal was required to screen. However, especially given the extensive disclosures funding portals are required to provide regarding the riskiness of crowdfunding investments, it is unlikely that an investor would attribute the failure of a venture to the funding portal itself. Therefore, funding portals likely have a weak reputation mechanism.

Even if consolidation does not stymie competition among funding portals, if investors are unaware of the implications of low-quality offerings, competition could lead to more lenient funding portal screening. Similarly to credit rating agencies, for which competition spurred "ratings inflation" rather than stricter standards, ¹⁵³ competition could cause maintaining a reputation for leniency among issuers to be more valuable than a reputation for thorough screening among investors. However, unlike rating agencies, which received deals from behemoth investment banks on a regular basis, ¹⁵⁴ there is no evidence that funding portals will regularly interact with the same issuers on such a large scale. Although the interest in sustaining a good reputation among issuers may be weaker than it is for credit rating agencies, funding portals' reputations among investors may still not carry the necessary weight to counteract the conflicting

^{150.} Because there is a time lag between investment and return, quality is unlikely to be readily ascertainable. *Cf.* Brian Galle, *Self-Regulation of Social Enterprise*, *in* RESEARCH HANDBOOK ON SOCIAL ENTERPRISE LAW, (forthcoming) (manuscript at 3), https://papers.ssrn.com/sol3/papers.cfm? abstract_id=2978023 [https://perma.cc/ZCG5-J9BZ] (discussing factors that make it difficult for consumers to identify product quality). Although investors may be able to research funding portal quality ex ante, investors will usually lack sufficient information until they have participated in an offering. Before the offering, investors will likely struggle to gauge the extent to which funding portals screen issuers, require adequate disclosure, or effectively cultivate reliable communication.

^{151.} Hanson & Kysar, *supra* note 137, at 736. However, there is also a risk that, like credit rating agencies, portals with market power will not need to invest in screening because they provide the "keys" necessary to raising capital. *See* Frank Partnoy, *Historical Perspectives on the Financial Crisis: Ivar Kreuger, the Credit-Rating Agencies, and Two Theories About the Function, and Dysfunction, of Markets*, 26 YALE J. ON REG. 431, 432 (2009).

^{152.} Funding portal duties to screen for fraud are limited. Although funding portals must have a reasonable basis for believing the issuer is complying with applicable regulations, they may also rely on issuer representations. *See* 17 C.F.R. § 227.301 (2017).

^{153.} John C. Coffee, Jr., What Went Wrong? An Initial Inquiry into the Causes of the 2008 Financial Crisis, J. CORP. L. STUD., Apr. 2009, at 1, 8.

^{154.} See Id. at 9 (asserting that four or five investment banks accounted for "over 40% of the rating agencies business").

interest. Therefore, reputational considerations are unlikely to incentivize funding portals to invest in crowd wisdom.

IV. REGULATORY INTERVENTION

Given the costs of funding portal intervention, regulatory intervention may be necessary to incentivize expansion of investors' bounded rationality and group moderation of individual biases. In order to facilitate formation of a wiser crowd, the SEC should consider methods for (1) increasing the number or reliability of investors conducting research, (2) reducing the interdependence of investor decisionmaking, or (3) incentivizing increased screening and optimal framing by intermediaries. However, none of these methods fully address the problem of crowd rationality. Accordingly, the SEC should also consider whether it was a mistake to authorize securities crowdfunding as an exemption from ordinary registration requirements.

A. INCREASING THE SUPPLY OF RELIABLE INFORMATION

First, increasing the number or reliability of investors conducting research in the crowd may improve the ability of the crowd to average out individual biases and increase the chances of the crowd considering important information in aggregate. Because expert investors may not have similar risk profiles to retail investors, and thus may crowd them out, this is not the optimal method for influencing the crowd. Instead, the SEC could enforce a minimum investment in each crowdfunding offering to increase the incentive to research and decrease the incentive to manage risk through pure diversification. The minimum investment amount should be calculated as a percentage of the total investment limit to which an investor is subject to avoid allowing wealthier investors to diversify more than less wealthy investors.

Although this may increase the cost of each investment, potentially increasing the salience of each investment's outcome and counteracting the disincentive created by investment limits, diversification is a rational strategy for managing the high risks that come with securities crowdfunding investments. Thus, one must consider whether the potential increased losses individuals may suffer with a less diversified portfolio outweigh the losses created by uninformed investing. Additionally, this response fails to address the lack of incentive to share information and allows investors to continue to undersupply negative information and misrepresent positive information. Thus, further action may be necessary.

The SEC must address the reliability of positive information and the supply of negative information. To address the reliability of positive information, the SEC could require funding portals to establish systems for tracking and disclosing investor reputations.¹⁵⁵ This may include making investors' historic successes or failures available for other investors to view. Although this may reduce the costs of assessing reliability of pooled information, it would be difficult to delineate

standards through regulation and may not influence the behavior of investors that fail to identify unreliable information.

To address the supply of negative information, the SEC could require funding portals to generate more objective information. For example, funding portals could be required to disclose the number of investors viewing an offering's disclosures for over a specified period of time relative to the number of investors that have actually invested. This would allow those relying on the research of others to better understand the extent to which negative information may exist, even if it is not explicitly articulated. Unfortunately, this method may be abused if some investors intentionally try to generate negative information, and investors may struggle to interpret this information.

B. REDUCING INTERDEPENDENCE OF DECISIONMAKING

Second, reducing the interdependence of decisionmaking may prevent investors from relying on the decisions of uninformed members of the crowd. The SEC could prevent funding portals from screening information based on certain types of "objective" criteria, such as level of funds raised or number of investors. Although investors may still view such "objective" criteria, this may make it costlier for investors to rely on these factors as the sole method for making decisions, encouraging reliance on other offering characteristics. Nevertheless, this may instead discourage participation by investors unwilling to expend resources to rely on other factors.

Additionally, funding level and number of investors may still be legitimate signals of offering quality. Therefore, hiding this information until a certain funding level is reached may better serve the crowd. If early investors cannot rely on the decisions of others, they may be more likely to conduct research and share positive information. However, the SEC could also require funding portals to hide information shared by early funders until the threshold level of investors has been met. Although this may discourage early funders from sharing positive information, this would further reduce the interdependence of decisionmaking and encourage early investors to consider different information in making their decisions, averaging out some biases. Moreover, this would eliminate the need to police communications by preventing investors from communicating about the hidden funding level. Once the threshold is met, investors relying on the wisdom of the crowd to reduce the costs of investing will have a more robust foundation of information from which to draw. However, if the number of investors conducting independent research is too low—or is not increased by this measure—this method may discourage participation by investors that rely on other investors' information and that may choose not to invest due to the increased difficulty of free riding. This may generate stagnation within the market.

C. TARGETING INTERMEDIARIES

Third, the SEC could impose fiduciary duties on intermediaries to discourage intermediaries from favoring issuer preferences over investor protection.

Currently, SeedInvest competes on the basis of superior screening of investments, accepting approximately 1% of offerings submitted to the platform. This indicates that funding portals may be able to remain profitable while compensating for investor free riding by doing some of the research for investors.

If financial and reputational incentives fail to incentivize funding portals to prioritize investors' best interests, ¹⁵⁷ intermediaries may provide "keys that unlock[] the financial markets" instead of effectively screening issuers and informing investors. ¹⁵⁸ By imposing fiduciary duties on intermediaries, the SEC would allow investors to hold intermediaries liable for prioritizing issuers, increasing the costs of selling "keys" to issuers. However, investors may over-rely on intermediaries if intermediaries begin giving investors more conspicuous guidance. This may further incentivize investor free riding in the market. Nonetheless, it may also better protect investors that free ride, even if intermediaries are not made legally accountable for safeguarding investor wellbeing.

Free riding may be of less concern if intermediaries take their fiduciary duties seriously and only accept high-quality issuers. However, the extent to which intermediaries take fiduciary duties seriously may depend on the ease of imposing liability and the extent to which investors associate failed investments with intermediary neglect. Unfortunately, investors may not identify breaches of intermediary fiduciary duty, which may make imposing duties and liabilities less meaningful. If this is the case, intermediaries may retain their ability to shirk their investor protection responsibilities in favor of courting issuers.

D. REEVALUATING THE CROWDFUNDING EXEMPTION

Ultimately, if no solution can fully address the weakness of the crowd, the SEC should consider revoking Regulation Crowdfunding altogether. Implementing changes to how investors view and perceive offerings may help improve crowd wisdom. However, there may not be a solution that fully addresses the tendencies of crowdfunding investors to over-rely on the decisions of other investors and underinvest in research. All of the proposed solutions have shortcomings or barriers to effective implementation via regulation. This may indicate that regulation cannot generate crowd wisdom and that Regulation Crowdfunding was a mistake.

The JOBS Act authorized an exemption from ordinary registration requirements, allowing for reduced disclosure and for sales to everyday investors.

^{156.} SEEDINVEST, https://www.seedinvest.com/ [https://perma.cc/DV4U-HDRY] (last visited July 31,2019).

^{157.} See supra Section III.B.

^{158.} *Cf.* Partnoy, *supra* note 151, at 432 (discussing credit rating agencies' failure to protect investors). Despite the mandate that issuers use a funding portal to host their offerings, thereby attempting to establish funding portals as "third-party monitors" of issuers, issuers' ability to choose among funding portals creates the opportunity for issuers to seek "lax" funding portals. *See* Galle, *supra* note 150, at 7–8 (discussing the flaws of voluntary self-regulation). Ultimately, this creates a credibility problem for funding portals. *See Id.* However, if funding portals develop more distinctly known reputations for quality, this credibility problem may be mitigated. *See Id.* at 8–9 (discussing the economics of auditors).

^{159.} See supra Section III.B.2.

However, if investors lack the resources and incentives to conduct research and identify viable new ventures, whether on an individual basis or through drawing on the wisdom of the crowd, crowdfunding will not effectively fund startups or generate returns. High-quality issuers may seek other avenues for raising capital, viewing securities crowdfunding as futile and deciding to expend resources on soliciting funding elsewhere. If this occurs, the securities crowdfunding market truly will become a market for lemons. If there is no "wisdom of the crowd," there should be no crowd. Investors capable of identifying high-quality issuers may exit the market, leaving only those that cannot identify quality issuers. In this case, less-experienced investors may be harmed. Exemptions are only appropriate if the goals of the ordinary registration process can still be met. If investors cannot protect themselves, the SEC has a duty to intervene. Thus, the SEC may have a responsibility to revoke this exemption and prioritize investor protection over capital formation.

CONCLUSION

Crowdfunding may incentivize reduced research and pervasive free riding. Although these behaviors are rational given the abridged disclosures and high cost of conducting research, these market characteristics make the crowd likely to reach worse decisions together than they may have reached individually, indicating there may be weakness, rather than strength, in numbers. Unfortunately, the SEC's regulations may exacerbate this problem. Although a market-leading funding portal may be able to guide the crowd toward more optimal collective decisionmaking, the costs of implementing changes within the existing regulatory framework outweigh the financial and reputational benefits that funding portals would expect to receive in return. This makes relying on the market to correct itself impractical. Therefore, regulatory intervention may be necessary to increase the number of investors analyzing offerings, reduce the interdependence of decisionmaking, and sustain the viability of retail securities crowdfunding as an avenue for raising capital and earning returns. As companies develop and use this new exemption, generating more conclusive empirical data, the proper form of regulatory intervention should become clearer. However, if regulatory intervention cannot accomplish these goals, regulators should reconsider whether crowdfunding provides sufficient investor protection to justify an exemption from ordinary securities registration requirements.