REGULATING DEMOCRATIZED INVESTING

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(forthcoming, *The Ohio State Law Journal*)

6.14.22 Draft

Robinhood and its imitators activated millions of new investors. Perhaps we should applaud them for finally resurrecting the retail investor after a decades-long decline. There are, however, reasons for concern. Robinhood racked up record fines in the run up to its IPO. Its users are young, inexperienced, and prone to speculating in risky investments. Given these concerns, this article considers how to protect this new class of "ultra-retail" investor while also leaving regulatory breathing room for these new market participants. It concludes that many current regulatory approaches risk being ineffectual or stamping out ultra-retail investing altogether by targeting product features that were instrumental to Robinhood's ascent. This article therefore proposes a new approach that better balances paternalistic notions of investor protection, on the one hand, and investor access and choice, on the other hand. Specifically, this article proposes a regulatory safe harbor for small accounts. Instead of trying to make investing safe, or excluding investors from investments deemed unsafe, the proposal maximizes investor choice and access within limits.

INTRODUCTION

In 2014, Robinhood set out to "democratize" stock trading by developing an app that targeted neophyte investors wagering relatively small amounts.[1] By the time the company filed for its initial public offering ("IPO") in 2021, it reported substantial progress towards that goal. According to the IPO prospectus, Robinhood hosts 18 million funded accounts.[2] Over 50% of its customers are first-time investors.[3] By the company's estimates, it was responsible for nearly 50% of all new brokerage accounts opened across all brokerages from 2016 to 2021.[4] In short, Robinhood and its imitators activated a new sub-strata of retail investor, referred to below as "ultra-retail investors."[5]

In a sense, Robinhood's business success is the realization of an elusive policy goal. Throughout most of the post-war period, direct stock ownership by retail investors, as compared to institutional investors, steadily declined.[6] At

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[1] *See* Robinhood Markets, Inc., Prospectus (Form 424B4) ii, 8 (July 1, 2021) [hereinafter "Robinhood Prospectus"].

[2] *See id.* at 2.

[3] *See id.*

[4] *See id.*

[5] Robinhood's "imitators" include first-generation discount brokers that matched Robinhood's prices and upstarts that imitated aspects of Robinhood's business model. *See* Chris Davis, *Robinhood Vs. 5 Alternatives,* NERDWALLET (Oct. 20, 2021), https://www.nerdwallet.com/article/investing/robinhood-alternatives (identifying as competitors: Fidelity, Acorns, Gemini, Charles Schwab, and Webull).

[6] *See* Steven M Davidoff, *Paradigm Shift: Federal Securities Regulation in the New Millenium,* 2 BROOK. J. CORP. FIN. & COM. L. 339, 351 (2008) ("Retail investors are simply no longer the mainstay of the public markets and are unlikely to return to this position."); Donald C. Langevoort, *The SEC, Retail Investors, and the Institutionalization of the Securities Markets,* 95 VA. L. REV. 1025, 1026 (2009) ("That the market for corporate securities traded on the New York Stock Exchange or the NASDAQ Global Market is no longer substantially retail in nature is now common knowledge"). A paper by Marshall E. Blum and Donald B. Kelm details the trend:

> [F]rom 1900 to 1945, the proportion of equities managed by institutional investors hovered around 5%. After World War II, however, institutional ownership started to increase, and by 1980, institutions held $473 billion, or 34%, of the total market value of U.S. common stocks. By 2010, institutions held $11.5 trillion, or 67% of all stocks.

Growth in Institutional Investing: A Role in Market Liquidity?, KNOWLEDGE@WHARTON (Nov. 5, 2012), https://knowledge.wharton.upenn.edu/article/growth-in-institutional-investing-a-role-in-market-liquidity/. Although the percentage of the stock market owned by retail investors has declined, retail investors do own more stock in absolute terms than they did in prior decades.

the same time, a substantial amount of investing activity moved to private markets from which retail investors are excluded as a practical and regulatory matter.[7] Regulators and academics grappled with the consequences of this trend.[8] Some commentators emphasized inequities, noting that retail investors increasingly lacked access to the same investing opportunities as wealthier investors.[9] Others expressed concern that, without regulatory interventions to boost investor confidence, dwindling retail participation would sap public equities markets of their vitality.[10] The securities industry launched a broad-based marketing campaign to reverse the trend and promote "mass shareownership."[11] Against this backdrop, perhaps we should applaud a plucky startup for finally resurrecting the retail investor.[12]

On the other hand, there are reasons to be concerned for ultra-retail investors and the market more generally.[13] Rather than trading in pursuit of

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See Langevoort, *supra* note 6, at n. 4. And retail investors own shares indirectly through managed funds. *See id.* at 1030.

[7] *See, e.g.,* Davidoff, *supra* note 6, at 343 (discussing "the emergence of a private, or 'shadow,' securities market in the United States" for institutional investors); Brian G. Cartwright, General Counsel, SEC, *The Future of Securities Regulation,* SEC. AND EX. COMM. (Oct. 24, 2007), https://www.sec.gov/news/speech/2007/spch102407bgc.htm (discussing exclusion of retail investors from private debt markets, venture capital, and private equity).

[8] *See, e.g.,* Davidoff, *supra* note 6 (discussing how institutionalization may diminish the effectiveness of regulatory efforts); Langevoort, *supra* note 6, at 1026 ("There are scores of academically interesting questions raised for securities regulation by the process of institutionalization (or 'deretailization')"); Cartwright, *supra* note 7 (discussing the policy consequences of "deretailization" such as increasing concentration of ownership).

[9] *See* Usha Rodrigues, *Securities Law's Dirty Little Secret*, 81 FORDHAM L. REV. 3389, 3390-91 (2013) ("The dirty little secret of U.S. securities law is that the rich not only have more money--they also have access to types of wealth-generating investments not available, by law, to the average investor."); Cartwright, *supra* note 8 (identifying as one consequence of institutionalization "the exclusion of retail investors entirely from some of the most important and dynamic new trading markets and new asset classes").

[10] *See* Lynn A. Stout, *The Investor Confidence Game*, 68 BROOK. L. REV. 407, 430 (2002) ("Rather than dismiss the 'unsophisticated investor' as the weak animal that must sadly but necessarily be culled out of the investing herd in order to improve the species, perhaps we should pay close attention to his care and feeding.").

[11] *See* Janice Traflet, *Spreading the Ideal of Mass Shareownerhip: Public Relations and the NYSE*, 22 ESSAYS IN ECON. & BUS. HIST. 257, 260 (2004) (discussing efforts to promote retail investing).

[12] Corporate law scholars have identified several positive effects of the recent uptick in ultra-retail investing. *See* Sergio Alberto Gramitto Ricci & Christina M. Sautter, *Corporate Governance Gaming: The Collective Power of Retail Investors,* 22 NEV. L.J. 51, 53-54 (2021) (arguing that a newer generation of online investors will improve corporate governance and advance ESG goals); Jill Fisch, *GameStop and the Reemergence of the Retail Investor,* 102 B.U. L. REV. 22, 27, 40 (forthcoming Oct. 2022) (identifying as benefits: empowerment of younger and more diverse investors, giving "ordinary citizens" more voice in corporate decisions, and creating opportunities for promoting financial literacy).

[13] This article focuses primarily on protecting ultra-retail investors from suffering financial losses, rather than protecting stock markets more generally. For discussion of how ultra-retail

conventional investment objectives,[14] some Robinhood users appear to herd[15] and speculate[16] to their detriment even more than other retail investors.[17] They dabble in volatile crypto currencies and complex options.[18] They tend to be young and inexperienced,[19] with sometimes tragic results such as the suicide of a young customer who misinterpreted a temporary negative account balance.[20]

Moreover, Robinhood has sometimes exhibited the same swashbuckling attitude towards regulatory compliance as some of its more notorious Silicon Valley neighbors.[21] In the lead up to its IPO, the company racked up over $165

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investing might adversely affect the market, see Fisch, *supra* note 12, at 15 ("The GameStop frenzy has also caused commentators to worry about the broader capital market impact of retail investing. Three related concerns dominate: volatility, systemic instability, and capital allocation."); Sue S. Guan, *Meme Investors and Retail Risk*, B.C. L. REV. 4-7 (forthcoming 2022) (considering how coordinated retail trading might adversely affect price accuracy, allocational efficiency, liquidity, and corporate governance).

14 By traditional investment objectives, I mean "saving for retirement, meeting liquidity needs, harvesting tax losses, or rebalancing [a] portfolio." *See* Brad M. Barber et. al., *Attention-Induced Trading and Returns: Evidence from Robinhood Users* (February 2021) at 2.

15 Herding refers to highly correlated investing activities. While the general population of retail investors concentrates 24% of net buying in 10 stocks, Robinhood investors concentrate 35% of net buying in 10 stocks. Herding episodes by Robinhood users appear to be driven by features of the Robinhood app, such as its "Top Movers List," and are associated with abnormal negative returns. *See id.* at 1-4.

16 Speculating refers to frequent buying and selling for reasons other than conventional personal finance reasons. Robinhood investors trade more frequently than most investors. *See id.* at 1 (noting that Robinhood users trade nine times more often than E-Trade customers and 40 times more often than Schwab customers).

17 *See* Terrance Odean, *Do Investors Trade Too Much?*, 89 THE AM. ECON. REV. 1279, 1279 (1999) ("This paper demonstrates that the trading volume of a particular class of investors, those with discount brokerage accounts, is excessive."); Barber et. al., *Systematic Noise*, 12 J. FIN. MARKETS 547, 548 (2009) (finding a high degree of correlated trading by individual investors).

18 As of March 31, 2021, Robinhood reported assets under custody approximately as follows: $65 billion in equities, $2 billion in options, $11.5 billion in crypto currencies. *See* Robinhood Prospectus, *supra* note 1, at 134. For a description of options trades available on Robinhood, see *infra* text accompanying notes 130-140.

19 *See* Robinhood Prospectus, *supra* note 1, at 2 (indicating that over 50% of account holders are first-time investors); Andrew Keshner, *A Burning Question to Ask Before Buying Robinhood IPO Stock – Will Users "Age Out" of the App?,* MARKETWATCH (July 31, 2021 (reporting that the average age of a Robinhood user is 31, compared to 49 for Schwab).

20 *See* Sergei Klebnikov & Antoine Gara, *20-Year-Old Robinhood Customer Dies By Suicide After Seeing A $730,000 Negative Balance*, FORBES (June 17, 2020), https://www.forbes.com/sites/sergeiklebnikov/2020/06/17/20-year-old-robinhood-customer-dies-by-suicide-after-seeing-a-730000-negative-balance/?sh=67bf57ac1638.

21 *See* Jordan M. Barry & Elizabeth Pollman, *Regulating Entrepreneurship,* 90 SO. CAL. L. REV. 383, 398 (2017) (identifying startups that take advantage of legal grey areas and "beg forgiveness" rather than "ask[ing] for permission"); Matthew Wansley, *Taming Unicorns*, 97 IND, L. J. (Forthcoming 2021) (discussing scandals at Uber and Theranos); Abraham J.B. Cable, *Institutional Disruption: The Rise of the Reformer Startup,* 12 HASTINGS BUS. J. 1, 2 (discussing startups

million in fines from the Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority ("FINRA").[22]

This article examines how regulators should think about protecting ultra-retail investors given Robinhood's business successes and regulatory entanglements. It critiques current regulatory initiatives as either: (1) likely to be futile or (2) so incongruent with the ultra-retail business model that they may stamp out this new class of investing altogether.[23] To provide an example of the first criticism, requiring brokers to disclose more fully the risks of options trading is likely futile in a digital environment where online brokers have increasingly sophisticated understanding of user behavior and incentives to craft intentionally ineffective disclosure.[24] To provide an example of the second criticism, characterizing especially engaging features of Robinhood's app as investment "recommendations," thereby triggering onerous suitability duties to customers, might stamp out ultra-retail investing altogether by effectively prohibiting key product features.[25]

Accordingly, I propose looking to other regulatory regimes – those governing "crowdfunding" in particular – for models that more effectively protect ultra-retail investors from severe harm while still leaving room for these investors in securities markets. Much as recent crowdfunding regulations try to contain the damage of failed crowdfunding investments through annual investment caps,[26] the proposal would try to protect ultra-retail investors from large losses through limiting the sizes of their brokerage accounts. Specifically, the proposal would deem small accounts (but only small accounts) as compliant with forms of broker regulation that might otherwise threaten the viability of

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that launch businesses and secure funding in the face of regulatory uncertainty about their core products).

[22] *See supra* Part III (discussing regulatory actions by the SEC and FINRA relating to, *inter alia*, Robinhood's execution quality, disclosure to investors, and process for approving options trading). More recently, Robinhood appears to have bolstered its compliance efforts by hiring a former SEC commissioner as its Chief Legal Officer. *See* Peter Rudegeair *et. al., Robinhood's Reckoning: Facing Life After GameStop,* WALL ST. J. (Feb. 5, 2021).

[23] *See infra* Part IV.A (critiquing current regulatory approaches).

[24] *See infra* Part III.B.2 (discussing FINRA Rule 2220's requirement that a broker adequately explain to customers the risks of options trading); *infra* Part IV.A (arguing that FINRA Rule 2220 is likely to be ineffective in a contemporary digital environment).

[25] *See infra* Part III.C (describing claims by the Massachusetts regulators that Robinhood's "Top Movers List" and gamification techniques constitute "recommendations" and therefore require Robinhood to determine that investments are suitable for customers in light of their financial condition and investing experience); *infra* Part IV.A.3 (arguing that features of the app targeted by Massachusetts were instrumental to Robinhood's ascent).

[26] *See infra* text accompanying note 204 (discussing a provision of crowdfunding regulations that limits an individual to investing no more than 10% of his or her net worth in crowdfunding offerings annually).

ultra-retail investing, such as broad-ranging suitability obligations.[27] This regulatory safe harbor would promote investor choice and access, but only within clear limits.

The analysis proceeds in four parts. Part I describes efforts by policy makers and the securities industry to promote retail investing. Part II explains Robinhood's success in finally resurrecting retail investing by examining the company's pricing model, marketing, and user experience design. Part III describes existing regulatory efforts aimed at Robinhood and ultra-retail investing. Part IV critiques current regulatory initiatives and outlines this article's proposal.

I. PROMOTING RETAIL INVESTING: AN ELUSIVE GOAL

This part describes efforts by regulators, commentators, and the securities industry to promote retail investing. These efforts, though achieving mixed results, form an important backdrop to the current age of ultra-retail investing.

A. Retail Investing as Policy

Protection of retail investors, as distinguished from institutional investors, is a long-running theme in securities regulation. As Donald Langevoort has written:

> The Securities and Exchange Commission thinks of itself as the investors' advocate, by which it means retail investors--individuals and households--as opposed to institutional investors. To be sure, it sometimes helps the latter as well. But throughout the SEC's history and culture, the rhetorical stress has been on the plight of average investors, ones who lack investing experience and sophistication so as to need the protection of the securities laws.[28]

What is less clear is precisely how or why regulators should prioritize the needs of retail investors. To answer this question, it is necessary to interrogate the meaning of "investor protection," a phrase that is not especially well defined

[27] *See infra* Part IV.B (discussing the scope and requirements of the proposed safe harbor for small brokerage accounts).
[28] Langevoort, *supra* note 6, at 1025.

given its prominence in securities regulation.[29] In previous work, I identified at least three different philosophies of investor protection in existing regulations and scholarship.[30] While each of these philosophies takes a somewhat different view of retail investors, they are, on the whole, cautiously supportive of special efforts to make space for retail investors in capital markets.

The predominant notion of investor protection in U.S. securities law might be called "investor-choice protection."[31] This philosophy has somewhat libertarian undertones in that it does not try to save investors from their own unadvisable choices.[32] Instead, it tries to facilitate mutually beneficial investment transactions by reducing information asymmetries and associated problems of fraud and agency costs.[33] Investor-choice protection is most clearly reflected in the anti-fraud and disclosure provisions in the '33 and '34 Acts.[34] While these mechanisms do benefit retail investors, especially in public markets where information is incorporated into pricing,[35] investor-choice protection is, by its nature, relatively tolerant of retail investors making bad decisions as judged by traditional investment criteria.

Other aspects of securities laws, however, reflect a palpably different philosophy we might call "paternalistic investor protection."[36] This philosophy is more willing to save retail investors from themselves by either prohibiting choices that defy conventional investment advice or actively promoting such advice. This philosophy sometimes emerges outside the core provisions of the

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[29] *See* Michael D. Guttentag, *Protection From What? Investor Protection and the JOBS Act*, 13 U.C. DAVIS BUS. L.J. 207, 209 (2013) (noting that the concept of investor protection is surprisingly under-theorized).

[30] *See* Abraham J.B. Cable, *Mad Money: Rethinking Private Placements*, 71 WASH. & LEE L. REV. 2253, 2267-75 (2014).

[31] *See id.* at 2267-68 (identifying a philosophy of investor-choice protection in legal scholarship and exiting regulatory structures).

[32] *See* Guttentag, *supra* note 29, at 229-32 ("There is less evidence in the historical record that federal securities regulations were enacted for the purpose of protecting investors from their own unwise investment decisions than might be expected").

[33] *See* Tony A. Paredes, *On the Decision to Regulate Hedge Funds: The SEC's Regulatory Philosophy, Style and Mission,* 2006 U. ILL. L. REV. 975, 1005 (discussing "investor protection in the sense of remedying information assymetries and rooting out fraud").

[34] Jeff Schwartz, *Fairness, Utility, and Market Risk*, 89 OR. L. REV. 175, 182 (2010) (describing disclosure as a form of investor protection that gives investors "tools to look out for themselves").

[35] *See* FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 297 (1990).

[36] *See* Cable, *supra* note 30, at 2268-2274 (identifying a philosophy of paternalistic investor protection in existing rules and regulatory initiatives).

'33 and '34 Act.[37] For example, FINRA, the securities industry's self-regulatory organization, requires brokers to evaluate whether certain kinds of investments, such as options, are appropriate for an investor based on factors such as investment experience and financial condition.[38] Paternalistic investor protection is also reflected in the SEC's public outreach efforts such as educational initiatives that promote diversification and conventional asset allocation strategies.[39]

There is a third notion of investor protection that might be called "investor-access protection."[40] According to this philosophy, a major goal of securities regulation is ensuring retail investors broad access to markets. Prominent examples are insider trading rules that seek to create a level playing field among all investors,[41] Regulation FD's requirements to communicate simultaneously with retail and institutional investors,[42] and crowdfunding rules that try to bring startup investing to the masses.[43] Although these regulatory efforts might sometimes be justified in terms of the SEC's other goal of "capital formation,"[44] they should also be understood as a version of investor protection that

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37 *See* Howard M. Friedman, *On Being Rich, Accredited, and Undiversified,* 47 OKLA. L. REV. 291, 308 (1994) (discussing the history of paternalistic approaches in the industry's self-regulatory organizations).

38 *See* FINRA Rule 2360(b)(16). For a discussion of these obligations, see *infra* text accompanying notes 144-147.

39 *See* Cable, *supra* note 30, at 2270 (discussing the SEC's investor education efforts).

40 *See id.* at 2274-75 (identifying a philosophy of "populist investor protection" in legal scholarship and existing regulations). In my prior work, I referred to "populist" investor protection. Because the term populist has taken on greater meaning in political discourse, I instead use the term "access" here to avoid unintended associations.

41 *See* Donald C. Langevoort, *Rereading Cady, Robert: The Ideology and Practice of Insider Trading Regulation,* 99 COLUM. L. REV. 1319, 1325 (1999) (suggesting that insider trading law reflects an ideology grounded in "envy and frustration at the wealth and power of economic elites").

42 *See* Regulation FD, 17 C.F.R. 243.100 (2022).

43 *See* Darian M. Ibrahim, *Crowdfunding Without the Crowd*, 95 N.C. L. REV. 1481, 1486 (2017) ("Crowdfunding was also designed to democratize startup investing, so that 'ordinary Americans' could have a chance to own the next Facebook or Twitter before they are public (and commanding a much higher stock price)."); Andrew A. Schwartz, *Inclusive Crowdfunding,* 2016 UTAH L. REV. 661, ("Inclusivity is foundational to securities crowdfunding. The essence of the concept is the creation of an inclusive market where ordinary investors will be able to make investments that have traditionally been the exclusive purview of wealthy and connected investors."). For an explanation of crowdfunding regulations, see *infra* text accompany notes 200-205.

44 *See* Stout, *supra* note 10, at 430 (noting that retail investor confidence allowed the United States "to develop a multi-trillion dollar public securities market"); Andrew A. Schwartz, *The Gatekeepers of Crowdfunding,* 75 WASH. & LEE L. REV. 885, 905 (2018) ("[T]he first policy goal of securities crowdfunding is to provide startup companies with an efficient way to raise capital from the public.").

incorporates notions of equity and takes particular interest in the fair treatment of everyday investors.[45]

Part IV will return to these regulatory philosophies in critiquing current and proposed regulation of Robinhood. For now, the key insight is that promoting retail investing is a recognized, though challenging, policy goal. While paternalistic impulses might counsel for shielding novice investors from the consequences of their own limitations, access and choice are also important values in securities regulation and may justify special efforts to accommodate small investors.

B. Industry-Led Initiatives

One might expect that the securities industry would unequivocally embrace the cause of promoting widespread investing, but in fact stockbrokers have a complicated history with retail investors. For much of the 20th century, the profession was insular and highly skeptical of small investors. The old guard of Wall Street firms publicly blamed inexperienced investors and their "mob psychology" for stock market instability, including the crash of 1929.[46] In the early decades of the 20th century, professional norms and rules of the New York Stock Exchange ("NYSE"), the industry's then-current vehicle for self-regulation, restricted mass advertising by brokerages for fear that recruiting "speculative incompetents" to the market would have a destabilizing effect.[47] Retail investors, still feeling the bite of the crash, often reciprocated those chilly feelings.[48]

In some respects, this antagonism softened by mid-century. A new generation of brokerage firms, more focused on sales commissions than upper-crust investment banking, were more solicitous of the investing public. Merrill Lynch, for example, invested heavily in advertising with a goal of finding new customers and "bring[ing] Main Street to Wall Street."[49] A new generation of

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[45] *See* Schwartz, *supra* note 43, at 671-74 (discussing the importance of "inclusivity" in crowdfunding and other regulatory fields); Rodriguez, *supra* note 9, at 3390 (arguing that the unfair treatment of retail investors is security law's "dirty little secret"); Cartwright, *supra* note 8 (discussing "the exclusion of retail investors entirely" from certain asset classes).

[46] *See* Traflet, *supra* note 11, at 260.

[47] *See id.* at 258-259.

[48] *See id.* at 259-61 (discussing negative perceptions of the brokerage industry both before and after the stock market crash).

[49] *See id.* at 263. *See also* RON CHERNOW, THE DEATH OF THE BANKER: THE DECLINE AND FALL OF THE GREAT FINANCIAL DYNASTIES AND THE TRIUMPH OF THE SMALL INVESTOR (1997) (describing the ascendance of commission-oriented banking firms, such as Goldman Sachs, corresponding with an emerging class of institutional investor).

leadership at the NYSE initiated a wide-ranging publicity campaign to encourage mass share ownership. Under the slogan "Own Your Share," the NYSE produced films, advertised, and held promotional events encouraging middle-class Americans to buy stock in support of a "people's capitalism."[50]

Yet, more conservative elements of the profession were apprehensive about the new direction,[51] and the industry's more concrete actions sometimes belied the inclusive messaging. Member firms of the NYSE coordinated to set minimum commission rates, insulating brokers from the kind of competition that would eventually transform the industry.[52]

When the SEC and Congress ended rate collusion in 1975,[53] the regulatory shakeup ushered in a new era of competition and innovation with the rise of "discount brokers" like Charles Schwab.[54] These new entrants charged customers substantially lower commissions on securities transactions than their predecessors.[55] These discounts were made possible in part by reduced overhead and a narrower product offering, such as cutting research and advisory services.[56] In addition to slimmer offerings, discount brokerages shifted their attention to new sources of revenues. Instead of relying primarily on commissions for stock trades, discount brokers earned profits from charging

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50 *See* Traflet, *supra* note 11, at 257, 266-267.

51 *See* Michael P. Coyne & Janice M. Traflet, *Ending a NYSE Tradition: The 1975 Unraveling of Brokers' Fixed Commissions and Its Long-Term Impact on Financial Advertising,* 25 ESSAYS IN ECON. & BUS. HIST. 131, 136 (2007) ("Historically, NYSE members resisted advertising their services, even when the Board, through the Own Your Share marketing campaign, encouraged them to do so.").

52 *See id.* at 131-134; Jason Zweig, *Lessons of May Day 1975 Ring True Today: The Intelligent Investor*, WALL ST. J. (April 30, 2015). The standardized rate schedules are summarized in Charles M. Jones, *A Century of Stock Market Liquidity and Trading Costs* (May 22, 2002), https://ssrn.com/abstract=313681. The fees included a flat per-trade amount and a component calculated as a percent of the trade amount. *See id.*

53 *See* Coyne, *supra* note 51, at 132-135.

54 *See* Victor F. Zonana, *Schwab Prospers as More Investors Favor Cut-Rate Fees,* L.A. TIMES (April 28, 1985); Traflet, *supra* note 52, at 136; Zweig, *supra* note 52.

55 *See* Traflet, *supra* note 11, at 136; Zonana, *supra* note 54 (reporting in 1985 that discount brokers offered commissions at a 70% discount to traditional brokers); Richard D. Hylton, *All About: Discount Brokers; Now Fewer Firms Are Chasing Small Investors,* N.Y. TIMES (June 17, 1990) at Section 3, Page 10; Zweig, *supra* note 52 ("[T]he cost of trading has fallen by more than 80%—without adjusting for inflation"); Zonana, *supra* note 54 (reporting on an interview with Charles Schwab in which he indicated that he initially offered a 50% discount to traditional commissions).

56 *See* Hylton, *supra* note 55 (explaining that discount brokers must cut overhead); Zonana, *supra* note 54 ("Discount brokers are able to undercut the majors' commission rates and still make a profit because they lack the platoons of highly paid research analysts and commissioned salesmen of the established firms.").

interest on margin loans,[57] offering proprietary mutual funds or other financial products,[58] and a practice known as payment for order flow ("PFOF") that is discussed below.

The 1990s and early 2000s witnessed one more step towards wide-spread investing. The first generation of discount brokers, and upstart firms like E-trade and Ameritrade, invested heavily in software interfaces for customers.[59] Trading commissions continued to decline, in some cases to $5 per trade.[60]

To be clear, this first generation of discount broker did not necessarily cater to the broad swath of novice investors targeted by Robinhood. One might think of the quintessential Schwab or Ameritrade customer of the 1990s as a self-directed day trader without need for much hand holding.[61] Still, certain building blocks of Robinhood's business plan were already in place by the company's founding in 2014: changing attitudes towards retail investors, a key regulatory shakeup, and a precedent for diversifying revenue sources away from trading commissions.

II. ROBINHOOD'S INNOVATIONS

These historical antecedents notwithstanding, Robinhood *has* managed to do something new and significant. It catered its product offerings specifically to a new sub-strata of *novice* retail investors with *small* accounts. How did Robinhood make a viable business out of this previously dormant or overlooked customer base? This part identifies three primary elements of Robinhood's business success: technical product design, a new economic model, and ideological marketing.

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[57] *See* Lisa Beilfuss & Alexander Osipovich, *The Race to Zero Commissions,* WALL ST. J. (Oct. 5, 2019) (discussing sources of revenues).

[58] *See* Hylton, *supra* note 55 (describing financial products offered by Charles Schwab, such as certificates of deposit and mutual funds, and a reduced reliance on commissions).

[59] *See id.* (discussing efforts by Charles Schwab to automate customer interfaces); Zonana, *supra* note 54 (describing discount brokers as "pioneer[ing]" the use of personal computers for trading); Jennifer Wu et. al., *Online Trading: An Internet Revolution,* RESEARCH NOTES 6 (June 1999), http://web.mit.edu/smadnick/www/wp2/2000-02-SWP%234104.pdf (discussing the business plans of Ameritrade and E-trade).

[60] *See id.* at 6.

[61] *See* Hylton, *supra* note 55 (discussing the target Schwab investor as "investors who make their own decisions"); Zonana, *supra* note 54 (describing discount brokerages as "cater[ing] to investors who like to call their own shots" and describing customers who "furiously punch stock symbols into five Quotron machines and watch intently as orange luminescent characters reporting the latest prices of New York and American exchange stocks stream across two electronic blackboards.").

A. Product Design

Robinhood came of age in an era of increasingly refined user experience ("UX") design.[62] UX design is a field dedicated to enhancing "user delight."[63] It is a maturing profession with its own cannon of design principles ("heuristics" in UX design lingo) taught at leading institutions.[64]

Robinhood embraces contemporary UX design with enthusiasm. In its IPO filing, the company refers to its product as being "delightful" eight times – a conspicuous word choice given its frequent use in UX design circles.[65] Many features of the Robinhood app adhere to key UX design heuristics: familiar and intuitive controls,[66] clear feedback on the status of user actions,[67] and a minimalist approach to displaying information.[68]

Of these design features, information minimalism is the most conspicuous departure from the prior generation of discount brokers. Recall that earlier discount brokers often catered to a relatively sophisticated, or at least

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62 *See* Sheelah Kolhatkar, *Robinhood's Big Gamble,* THE NEW YORKER (May 10, 2021) ("They're the first company that introduced premier user experience and design in a mobile application to finance.").

63 *See* Therese Fessenden, *A Theory of User Delight: Why Usability Is the Foundation for Delightful Experiences,* NIELSON NORMAN GROUP (March 5, 2017), https://www.nngroup.com/articles/theory-user-delight/ (defining the term "user delight").

64 For a statement of the key principles of UX design, see Jakob Nielson, *10 Usability Heuristics for User Interface Design,* NIELSON NORMAN GROUP (Nov. 15, 2020), https://www.nngroup.com/articles/ten-usability-heuristics/. For a list of schools with UX design or related programs, see Lillian Kiao, *Best HCI Graduate Programs in the US,* MEDIUM (June 13, 2016), https://medium.theuxblog.com/best-hci-graduate-programs-in-the-us-fb02387c59f9 (describing programs at Carnegie Mellon, MIT, University of Washington, University of Michigan, Stanford, Cornell, and UC Berkeley).

65 *See* Robinhood Prospectus, *supra* note 2, at 1, 6, 7, 161, 168, 169, 174, 183.

66 *See* Nielson, *supra* note 64 (identifying usability heuristic #4 as "Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions"). Examples from the Robinhood app are iPhone-style navigation (a ">" graphic denoting a sub-menu) and tab bars (a menu running across the bottom of the app providing immediate access to other sections of the app).

67 *See id.* (identifying usability heuristic #1 as "The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time"). For example, when a user registers for Robinhood he or she sees a graphic depicting which steps in the registration process have been completed and which steps remain.

68 *See id.* (identifying usability heuristic #8 as "Interfaces should not contain information which is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility").

enthusiastic, set of self-directed investors.[69] As brokers built out websites for this day-trading clientele, it must have seemed advisable to stock the sites with as many research resources as possible.

Robinhood took a different approach.[70] The research feature of the app, for example, is noticeably stripped-down. Instead of starting with a crowded page of charts, acronyms, and indexes, it is dominated by simple "lists" bearing titles like "Daily Movers," "100 Most Popular," and "Crypto." There are more advanced research features deeper in the app, but even these resources are circumscribed compared to legacy online brokerages. Ameritrade allows a user to chart nearly 500 measures; Robinhood allows a user to chart 5.[71]

Besides avoiding decision fatigue,[72] this minimalistic approach also expands the reach of the product by allowing for a *mobile* interface. In its IPO filing, Robinhood explains the importance of this "mobile-first" philosophy for ultra-retail investors: "By untethering investing from the desktop computer we've seen new categories of people, including gig economy workers, first responders, construction workers, and many more, discovering Robinhood and becoming investors."[73]

The most controversial design feature of the Robinhood app is the use of "gamification" techniques. In design literature, gamification is defined as "the use of game design elements in non-game contexts."[74] Frequently cited techniques include the use of levels or point systems to increase user interactions with an app.[75] Gamification has been used as a motivational tool in a variety of contexts, such as workplace, healthcare, and educational settings.[76]

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[69] *See supra* note 61.

[70] Robinhood Prospectus, *supra* note 2, at 3 ("We believe investing should be familiar and welcoming, with a simple design and an intuitive interface, so that customers are empowered to achieve their goals.").

[71] *See* Barber, *supra* note 14, at 2.

[72] *See* Hora Loranger, *Simplicity Wins Over Abundance of Choice,* NIELSON NORMAN GROUP (November 22, 2015), https://www.nngroup.com/articles/simplicity-vs-choice/.

[73] *See* Robinhood Prospectus, *supra* note 2, at 6, Letter to Investors.

[74] Sebastian Deterding et. al., *From Game Design Elements to Gamefulness: Defining "Gamification,"* MINDTREK'11 (September 28-30, 2011), at 10.

[75] *See id.* at 9.

[76] *See* Miriam A. Cherry, *The Gamification of Work,* 40 HOFSTRA L. REV. 851, 852-57 (focusing on the workplace setting); Stephanie Kimbro, *What We Know and Need to Know About Gamification and Online Engagement,* 67 S.C. L. REV. 345, 358-75 (2016) (discussing gamification in the legal profession); Yifat Nahmias et. al., *Games of Terms,* 45 VT. L. REV. 387, 391-398 (2021) (describing the successful use of gamification in different contexts).

In a recent regulatory action, Massachusetts securities regulators pointed to two features of the Robinhood app that "gamified" the user experience.[77] First, they noted that the app celebrated a user's first stock trade with a bust of virtual confetti.[78] Second, regulators focused on a waitlist feature that prioritized users based on how frequently they interacted with the app throughout the day.[79]

It is of course difficult to prove just how pivotal UX design has been in Robinhood's ascent. But there is evidence that users are responsive to the app's core features, the minimalist look and feel is one of the most conspicuous distinctions from first-generation discount brokers, and the app is proving "sticky" even as competitors match other product features such as zero-commission trading.[80]

B. New Economics

Robinhood's newly acquired customer base is not just new at investing;[81] it also tends to invest small amounts compared to customers of other brokerages. The median account size is \$240 and the average account size is \$5,000.[82]

Building a product for small accounts required innovations. For example, Robinhood is a registered broker-dealer regulated by the SEC and FINRA. As such, Robinhood has an obligation to determine that an investor is qualified to engage in certain activities, such as options trading.[83] To the chagrin of some regulators, Robinhood created algorithms or "bots" that almost entirely automated these determinations.[84] Without these automated processes, making individualized assessments of many small account holders might not be economically feasible.

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77 *See* In the Matter of Robinhood Financial, LLC, Commonwealth of Massachusetts Office of the Secretary of the Commonwealth Securities Division, Docket No. E-2020-0047 (December 16, 2020) [hereinafter "MSD Compliant"].

78 *See id.*

79 *See id.* ("Customers who did not interact daily with the application watched their position on the waitlist precipitously decline, while those who succumbed to the psychological effects of Robinhood's gamification soared up and up the waitlist.").

80 *See* Barber, *supra* note 15, at 1-4 (discussing herding episodes correlated to Robinhood's "Top Movers List"); *see infra* note 98 (discussing continuing popularity of the app even after price competition among discount brokers).

81 *See supra* note 3 (reporting that most users are first-time investors).

82 *See* Financial Industry Regulatory Authority Letter of Acceptance, Waiver, and Consent No. 2020066971201 (June 22, 2021) at n.5 [hereinafter "Second FINRA Action"].

83 *See id.* at 17 (discussing an alleged violation of FINRA Rule 2360(b)(16)).

84 *See id.* (describing Robinhood's "option account approval bots").

Robinhood also adjusted its product offerings to accommodate smaller trades. For example, it began offering fractional (partial) shares of stock.[85] This practice allows small investors to purchase shares that trade at high per-share prices, such as Tesla.[86]

The lynch pin for serving small customers was a new pricing model – commission-free trading.[87] As discussed above, existing online brokers had already driven trading commissions to the $5 range.[88] While these commission rates were low compared to historical standards and fees charged by full-service brokers,[89] they still took a large chunk out of a small trade. Robinhood took a vital next step of eliminating commissions altogether.

Free trades might sound too good to be true, so it is important at this point to understand this business model in more detail. As mentioned above, discount brokers have been diversifying revenues for years.[90] One important source of revenue, beyond charging customers commissions, is payment for order flow ("PFOF").

PFOF has become controversial in connection with Robinhood,[91] but it is a long-standing practice of discount brokerages.[92] When a retail broker receives an order from a customer the retail broker can fill the order by either (1) executing the trade through an exchange, where the order would be completed at a nationally announced bid or ask price for a fee or (2) routing the order to a dealer who pays the retail broker PFOF for the privilege of effecting the trade out of the dealer's own inventory or funds. [93]

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[85] *Investing for Everyone,* ROBINHOOD (last visited February 10, 2021), https://robinhood.com/us/en/.

[86] According to Yahoo! Finance, Tesla shares traded at over $900 per share on February 10, 2021.

[87] *See* Robinhood Prospectus, *supra* note 1, at Letter to Investors ("When we started Robinhood, we wanted to build a company that operated at 1/10th the margins of other financial companies, but with 10x the customers. This led us to obliterating trading commissions across stocks, options, and cryptocurrencies.").

[88] *See supra* note 60 (discussing the emergence of first-generation discount brokers).

[89] *See id.*

[90] *See* text accompanying notes 57-58.

[91] *See* Alexander Osipovich, *Robinhood's Debut Is Clouded by SEC Scrutiny of Payment for Order Flow,* WALL ST. J. (July 7, 2021) (discussing SEC and congressional inquiries into PFOF following the ascent of Robinhood).

[92] *See* Payment for Order Flow, Exchange Act of 1934, Release no. 34-34902 (April 3, 1995) (providing early guidance on how brokers can receive PFOF consistent with their duty of best execution and related disclosure obligations) [hereinafter "PFOF Release"].

[93] *See* In the Matter of Robinhood Financial, LLC, Securities Act of 1933, Release No. 10906 (December 17, 2020) at 3-4 [hereinafter "SEC Order"] ("Rather than sending customer orders to buy or sell equity securities directly to national exchanges, Robinhood, like other retail broker-dealers, routed its orders to other broker-dealers . . . to either execute those orders or route them

Critics of PFOF worry that brokers will route orders based on the level of fees offered by the dealer rather than on the dealer's ability to complete the trade at the best price for the customer.[94] But brokers have a legal obligation of "best execution" and a broker runs afoul of this duty by sending orders to dealers who complete trades on terms that are unfavorable to the customer compared to terms available on exchanges or alternative venues.[95] Due to competition and these legal obligations, customers can receive a better outcome ("price improvement") under a PFOF arrangement than they would if their order was

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to other market centers."). For cogent explanations of PFOF, see generally Robert H. Battalio & Tim Loughran, *Does Payment for Order Flow to Your Broker Help or Hurt You?,* 80 J. BUS. ETHICS 37 (2008); Scott Kupor & Alex Rampell, *Breaking Down the Payment for Order Flow Debate,* ANDREESSEN HOROWITZ (last visited August 16, 2021), https://a16z.com/2021/02/17/payment-for-order-flow/; Matt Levine, *Money Stuff: People Are Worried About Payment for Orderflow*, BLOOMBERG (February 5, 2021), https://www.bloomberg.com/opinion/authors/ARbTQlRLRjE/matthew-s-levine. I use the term "dealer" here, but the counterparty to the trade might go by other terminology, such as market maker, wholesaler, electronic trading firm, principal trading firm, or internalizer. *See* SEC Order, *supra* note 93, at 3 (using the terms "principal trading firms" and "electronic market makers"); Matt Levine, *Money Stuff: The IPO Market Was Too Good,* BLOOMBERG (January 7 2021), https://www.bloomberg.com/opinion/authors/ARbTQlRLRjE/matthew-s-levine (using the terms "dealer" and "electronic trading firm") [hereinafter "Levine II"]; Levine, *supra* note 93 (using the terms "wholesaler," "internalizer", and "high-frequency trader"). For explanations of why it makes economic sense for the dealer to pay for order flow, see Battalio, *supra* note 93, at 38-39; Kupor, *supra* note 93; Levine, *supra* note 93. In essence, there is room inside the nationally announced bid and ask prices for dealers to profit even after taking into consideration what they pay for order flow. *See* Kupor, *supra* npte 93 ("When things go according to plan, market makers receive more and more orders and can often trade 'inside' the published bid-ask spread—actually improving the price you receive compared to the best quoted price on any exchange.").

[94] *See* Gina-Gail Fletcher, Written Testimony Before the United States Senate Committee on Banking, Housing, and Urban Affairs (March 9, 2021) at 15 ("Under the PFOF model, brokers are incentivized to put their own profit-seeking interests above their clients in deciding where to route client orders.").

[95] *See* SEC Order, *supra* note 93, at 4 ("Best execution requires that a broker-dealer endeavor to execute customer orders on the most favorable terms reasonably available in the market under the circumstance."); Robert P. Bartlett, *Modernizing Odd Lot Trading,* 2021 COLUM. BUS. L. REV. 520, 523-24 (explaining that for retail orders "best execution is typically defined as receiving the best price available across different market centers.").

routed by the discount broker through the exchange,[96] though there are reasons to question whether price improvement is as large as industry statistics suggest.[97]

Part III will discuss regulatory actions against Robinhood based on its PFOF practices. For now, the key point is that eliminating commissions was instrumental in making a viable business out of small accounts, so much so that Robinhood's competitors have followed suit.[98]

C. Ideological Marketing

As with the NYSE's Own Your Share campaign,[99] Robinhood's stated goal of "democratizing" investing is noticeably ideological. The company's name is a clear reference to the mythical crusader against the elite.[100] The company's marketing materials are full of testimonials expressing feelings of

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[96] *See* SEC Order, *supra* note 93, at 4 (explaining that "[p]rice improvement occurs when a customer order receives an execution at a price that is superior to the best available quotation then appearing on the public quotation feed" and that "most retail broker-dealers obtain price improvement on the vast majority of customer orders that they send to principal trading firms"); Battalio, *supra* note 93, at 43 ("On the whole, payment for order flow, although it sounds unethical, appears to be beneficial for investors"); Kupor, *supra* note 93 ("Today, retail investors benefit from trading at better prices than are publicly available—to the tune of $3.6 billion in 2020.").

[97] *See* Bartlett, *supra* note 95, at 536-60 (finding that (1) odd-lot orders of under 100 shares executed on non-exchange venues receive less price improvement than larger orders according to conventional measures and (2) conventional measures overstate price improvement because they exclude bid and ask information relating to odd-lot transactions); Hitesh Mittal & Kathryn Berkow, The Bad & Ugly of Payment for Order Flow, at 7-10 (May 3, 2021), https://f.hubspotusercontent10.net/hubfs/4982966/BestEx%20Research%20PFOF%2020210503.pdf?utm_medium=email&_hsmi=124860443&_hsenc=p2ANqtz-_ZVtiLEqUBzQb9Jzzg8eL7ZQPzveUwoyLMUEfFTO0vdfg1_QIujxbiw3-v4B4DCH-NyZsWgzu-tdIwzSuyWy8F2GarvQ&utm_content=124860443&utm_source=hs_email (estimating that standard measures of price improvement overstate improvement by 8% of the national best bid and offer ("NBBO") spread); Dave Michaels & Alexander Osipovich, *SEC to Review Market Structure as Meme Stocks Stir Frenzy,* WALL ST. J. (June 9, 2021) (quoting Chairman Gensler as stating "I believe there are signs . . . that the NBBO is not a complete enough representation of the market").

[98] *See* Kolhatkar, *supra* note 62, at 6 ("The commission-free trading that Robinhood offers its users has been so popular that its competitors, including Fidelity, Charles Schwab, and E-Trade, were driven, in October, 2019, to cut their commissions of around five dollars per trade to zero."); Kate Rooney, *Robinhood Reports More Monthly Trades Than Rivals Charles Schwab, E-Trade Combined,* CNBC (August 10, 2020), https://www.cnbc.com/2020/08/10/robinhood-reports-more-monthly-trades-than-rivals-charles-schwab-e-trade-combined.html (reporting that Robinhood continued to lead competitors in daily average revenue trades even after competitors matched Robinhood's commission structure).

[99] *See* Traflet, *supra* note 49, at 257, 266-267 (describing efforts by NYSE to create "a people's capitalism" through share ownership).

[100] *See* Kolhatkar, *supra* note 62, at 8.

empowerment.[101] In interviews, the company's founders cite Thomas Picketty and the Occupy Wall Street movements as key influences.[102]

While it is tempting to dismiss the ideological messaging as typical Silicon Valley bluster, there are indications that it resonates with a meaningful portion of the user base. Robinhood is closely associated with online communities like WallStreetBets, where participants encourage trading strategies for "beating [hedge funds] at their own game."[103] Most famously, Robinhood users acting through WallStreetBets ran up the price of Game Stop, a previously sleepy public company, in part to squeeze hedge funds that had bet against the stock.[104]

III. Current Regulatory Approaches

Robinhood's regulatory problems have sometimes been as striking as its business success. In its short history, the company has attracted the attention of Congress,[105] been a topic of conversation for an incoming SEC Chairman,[106] and racked up record-breaking fines from FINRA and the SEC.[107] This part describes these initial confrontations with regulators.

A. Policing Payment for Order Flow

Robinhood's initial regulatory entanglements arose from its heavy reliance on PFOF. As discussed above, registered broker-dealers have a duty of best execution, which requires them to complete customer transactions at the best available price.[108] Because receipt of PFOF could influence a broker-dealer to route orders sub-optimally from the customer perspective, the SEC has for decades provided guidance on how broker-dealers can accept PFOF consistent with their obligations of best-execution.[109] Under that framework, a broker-dealer must (1) disclose to customers the extent of PFOF received by the

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[101] *See e.g., Our Customers,* ROBINHOOD (last visited February 10, 2021), https://robinhood.com/us/en/our-customers/ ("The investor in my head was someone who wore a suit and a tie. Robinhood *changed* that for me.").

[102] *See* Kolhatkar, *supra* note 62, at 7.

[103] *See id.* at 1-5.

[104] *See id;* Ricci, *supra* note 12, at 51-61 (describing the ideology of WallStreetBets and associated trading activity).

[105] *See* Osipovich, *supra* note 91 (describing Congressional inquiries).

[106] *See* Avi Salzman, *SEC Chairman Says Banning Payment for Order Flow Is "On the Table,"* BARRON'S (August 30, 2021), https://www.barrons.com/articles/sec-chairman-says-banning-payment-for-order-is-on-the-table-51630350595.

[107] *See infra* Parts III.A&B (describing regulatory actions and fines by FINRA and the SEC).

[108] *Supra* note 95 (describing the duty of best execution).

[109] *See* PFOF Release, *supra* note 92.

broker-dealer[110] and (2) periodically assess whether the broker-dealer's PFOF arrangements are providing competitive levels of price improvement.[111] These obligations are further codified by FINRA in its Rule 5310, which elaborates on what constitutes best execution and requires broker-dealers to conduct "regular and rigorous review" of order routing decisions pursuant to written policies.[112] Moreover, any communication by a broker-dealer to its customers regarding order execution and PFOF is subject to the general antifraud provisions of federal securities law.[113]

In December 2019, Robinhood agreed, without admitting fault, to pay fines of $1,250,000 to FINRA in connection with its order routing practices.[114] According to FINRA, Robinhood in its early years failed to undertake the kind of regular and rigorous review of order execution required by FINRA Rule 5310.[115] While Robinhood did create a nominal best-execution committee, it failed to review all relevant order types, compare its routing destinations to competitors, and maintain adequate written procedures. These regulatory failures raised concerns that Robinhood allowed its PFOF arrangements to affect routing decisions to the detriment of customers.[116]

One year later, Robinhood's PFOF-related compliance issues escalated. In December 2020, Robinhood agreed, again without admitting fault, to pay fines of $65,000,000 to the SEC for additional problems with its order routing.[117] According to the SEC's findings, Robinhood made misleading statements on its web site. Though Robinhood did reveal its PFOF payments in SEC-required reports, it intentionally deleted reference to those payments in an FAQ entitled "How does Robinhood make money" in an apparent effort to avoid negative

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[110] *See id.* (adopting the precursor to Rule 607 of Regulation NMS requiring disclosure of PFOF in account statements to customers). For other disclosure requirements relating to PFOF, see Securities and Exchange Act Section 10b-10(a)(2)(c) (requiring disclosure of PFOF in confirmations of transactions); Rule 606 of Regulation NMS (requiring broker-dealers to publicly disclosure PFOF arrangements in quarterly reports).

[111] *See* PFOF Release, *supra* note 92, at 11 (stating the SEC's view that PFOF does not violate the duty of best execution if routing practices are subject to adequate periodic review).

[112] *See* FINRA Rule 5310.

[113] *See* SEC Order, *supra* note 93, at 10-11 (finding that Robinhood's misleading disclosures violated Section 17(a)(2)&(3) of the Securities Act of 1933 and Section 17 of the Securities and Exchange Act of 1934).

[114] *See* Financial Industry Regulatory Authority Letter of Acceptance, Waiver, and Consent No. 2017056224001 (December 19, 2020) at 7 [hereinafter "First FINRA Action"].

[115] *See id.* at 3.

[116] *See id.* at 4-5 (warning that best execution is a "heightened consideration" when a broker-dealer received PFOF).

[117] *See* SEC Order, *supra* note 93, at 15.

publicity about PFOF following a book by Michael Lewis.[118] The SEC also found that Robinhood misled investors through claims about the quality of its trade execution at a time when internal reviews were suggesting inferior trade execution compared to competitors.[119] The SEC therefore determined that Robinhood had made misleading statements in violation of the Exchange Act's antifraud provisions.[120]

Policy makers seem interested in reforms related to PFOF. Congress held multiple hearings on the topic.[121] Most prominently, SEC Chairman Gary Gensler stated early in his tenure that banning PFOF was "on the table" because it presents "an inherent conflict of interest."[122]

It is both too early and beyond the scope of this article to comprehensively evaluate the percolating reform proposals. Broadly speaking, one could imagine reforms falling into at least three categories. First, narrowly crafted proposals could leave the basic market structure intact, continue to allow PFOF, and focus on improving market participants' ability to gauge price improvement and execution quality.[123] Second, reforms could simply prohibit PFOF to eliminate perceived conflicts of interest.[124] Third, reformers could pursue more fundamental changes that not only eliminate PFOF but also push all trading to exchanges or a centralized auction process.[125] The SEC has already initiated incremental reforms of the first type, and Chairman Gensler has signaled an interest in more sweeping reforms of the third type.[126]

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118 *See id.* at 7-9. *See also* Levine II, *supra* note 93, at n.6 (suggesting that the book referenced in the SEC Order is Michael Lewis's *Flash Boys*).

119 *See* SEC Order*, supra* note 93, at 9-10 ("Between October 2016 and June 2019, certain Robinhood orders lost a total of approximately $34.1 million in price improvement compared to the price improvement they would have received had they been placed at competing retail broker-dealers, even after netting the approximately $5 per-order commission costs those broker-dealers were charging at the time.").

120 *See id.*

121 *See* Fletcher, *supra* note 94 (reporting testimony at a Senate hearing committee); Paul Kiernan, *Gary Gensler Focuses on Crypto Trading Platforms, Payment for Order Flow in Senate Hearing,* WALL ST. J. (Sept. 15, 2021).

122 Salzman, *supra* note 106.

123 *See e.g.,* Bartlett, *supra* note 95, at 560-567 (discussing possible reforms related to odd-lot trading).

124 *See, e.g.,* Fletcher, *supra* note 94 at 16 ("Congress should explore whether PFOF ought to be banned given its inherent incompatibility with best execution and brokers acting in the best interest of their clients.").

125 *See, e.g.,* Joel Seligman, *Payment for Order Flow and the Great Missed Opportunity,* 18 HASTINGS BUS. L. J. 3, 26 (2021) (advocating for "one market system where all participants trade on equal footing").

126 Gary Gensler, Market Structure and the Retail Investor: Remarks Before the Piper Sandler Global Exchange Conference (June 8, 2022), https://www.sec.gov/news/speech/gensler-remarks-piper-sandler-global-exchange-

B. Options Trading

A large percentage of Robinhood's revenues are generated by options trading.[127] Because options introduce new complexities and risks, FINRA requires broker-dealers to (1) accurately disclose the risks of options trading and (2) determine whether options trading is appropriate for individual customers.[128] As described further below, Robinhood agreed to pay almost $70 million in fines and restitution for, among other matters, violating these obligations.[129]

1. Options & Associated Risks

Like most brokers, Robinhood defines two different levels of options trading.[130] According to Robinhood's website, "Basic Options Strategies" include:

Buying a call option. A call option is a right to buy shares of stock within a specified time and at a designated price. An investor who purchases a call option pays a premium for this right and generally faces maximum potential losses equal to that premium (if the option expires without value).[131]

Selling a covered call option. When an investor *sells* a call option, the investor *receives* a premium in exchange for agreeing to *sell* shares within a specified time and at a designated price. Robinhood requires such an option to be "covered," meaning the investor has the shares in his or her account at the time the option is created.[132] Without covering, selling a call option would open the account holder to unlimited potential loss because there is no theoretical limit to how expensive the shares might be at the time the option must be settled.

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conference-060822 (discussing the implementation timeline for existing reforms to the NBBO and the possibility of a centralized auction process for retail trades).

127 Although options positions constitute a small percentage of Robinhood's assets under management, options trading generates more revenue than either equities or cryptos. *See supra* note 18 (reporting assets under management for options, equities, and crypto); Robinhood Prospectus, *supra* note 1, at 144 (reporting revenues from options, equities, and crypto of $198 million, $133 million, and $86 million, respectively, for the three months ended March 31, 2021).

128 *See infra* Part III.B.2 (describing FINRA rules relating to options trading).

129 The other matters for which this fine was imposed are primarily related to outages resulting from technical problems that prevented Robinhood customers from trading in March 2020. *See* Second FINRA Action, *supra* note 82, at 4-5.

130 *See Basic Options Strategies (Level 2),* Robinhood (last visited September 28, 2021), https://robinhood.com/us/en/support/articles/basic-options-strategies/. Basic options strategies also include "straddles" and "strangles," which combine a call and a put on the same stock but with different strike prices. *See id.*

131 *See id.*

132 *See id.*

Buying a put option. A put option is a right to *sell* shares within a specified time and at a designated strike price. A purchaser of a put option generally faces maximum potential losses equal to the premium paid for the put option.[133]

Selling a cash covered put option. Just as an investor can receive a premium for selling a call option, an investor can receive a premium for selling a put option. Selling a put option obligates the investor to *buy* shares. Such an option is covered by setting aside sufficient cash to satisfy the future purchase obligation. A seller of a put option faces maximum losses for the full strike price of the option (less the premium already received) because the stock could theoretically fall all the way to zero.[134]

Robinhood approves some customers for "Advanced Options Strategies."[135] These advanced options strategies are built by combining the more basic option trades described above. For example, a call credit spread involves (1) selling a call option (i.e., receiving a premium in exchange for agreeing to later sell shares) at a low strike price and (2) buying a call option (i.e., paying a premium for the right to later buy shares) at a higher strike price. The investor receives a net payment for initiating the trade because the premium received for selling the option in the first leg exceeds the cost of buying the option in the second leg. If the stock remains at or below the lower strike price, the investor keeps the net premium and the options expire as worthless. Losses are somewhat constrained because the investor can satisfy his or her obligation to sell shares under the first leg by exercising the call option under the second leg of the trade (albeit at a higher strike price).[136]

Trading options – basic or advanced – involves risks that are not normally present when investing directly in underlying stocks. For example, selling calls or puts can trigger losses that substantially exceed any premium collected if the stock runs well above (for calls) or below (for puts) the exercise price. Even advanced strategies that involve hedging, such as call credit spreads, can result in some amount of loss beyond the collected premium because of the spread between the exercise prices of the two legs of the trade. Robinhood regulates these basic risks of negative account balances in part through cash or stock collateral requirements, but a loss against collateral is a loss nonetheless.[137]

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133 *See id.*

134 *See id.*

135 *See Advanced Options Strategies (Level 3),* ROBINHOOD (last visited February 10, 2022), https://robinhood.com/us/en/support/articles/advanced-options-strategies/.

136 *See id.*

137 *See Option Collateral,* ROBINHOOD (last visited January 10, 2021), https://robinhood.com/us/en/support/articles/options-collateral/

Importantly, collateral requirements are calculated assuming that the options strategy is properly executed in the sense of the investor monitoring the trade and understanding when to close out or exercise positions. Novice investors, however, may not be up to the task. For example, there is a small chance that one leg of an advanced options strategy will be exercised by a counterparty after the close of market, in which case it may not be possible for the investor to exercise the offsetting leg of the strategy before expiration.[138] Such execution risks, which experienced traders can mitigate through closing out positions before a looming expiration, can exceed required collateral and result in negative account balances.[139]

Options present other esoteric risks. For example, an investor who sells a call option may incur losses when the counterparty exercises near the time of a corporate dividend. In that case, the investor who sold the option may become responsible for paying the dividend to the counterparty out of cash reserves in the investor's account, and it is possible this requirement leads to a negative cash balance.[140] While Robinhood may alert investors to this risk as dividend dates approach, and may even take proactive steps to mitigate it, the investor remains ultimately responsible for dividend risk.[141]

In some cases, advanced options strategies may result in large negative account balances that are temporary but nonetheless induce panic. For example, in a call credit spread, the option that the investor sells can be "assigned" (exercised) by the counterparty at any time prior to the option's expiration date. Until the investor exercises the other leg of the spread, the investor's account balance may display a large negative balance.[142] In one tragic incident, a young investor named Alexander Kearns reacted to a temporary negative balance from a multi-leg trade by committing suicide because he mistakenly believed he had suffered losses of over $700,000.[143]

As described further below, Robinhood uses an automated system to determine which investors should be qualified to trade options and at what level. This system is based on questionnaires that ask the user about his or her investing experience and an algorithm – deemed an "options approval bot" – that interprets the results for instantaneous approvals.[144]

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[138] *See* Second FINRA Action, *supra* note 82, at 11 (citing incidents involving Tesla stock).

[139] *See id.*

[140] *Options Dividend Risk,* ROBINHOOD (last visited January 13, 2022), at https://robinhood.com/us/en/support/articles/expiration-exercise-and-assignment/.

[141] *See id.*

[142] *Advanced Options Strategies (Level 3), supra* note 135 (describing early assignment risk).

[143] *See* Klebnikov, *supra* note 20.

[144] *See* Second FINRA Action, *supra* note 82, at 17-21.

2. Regulatory Violations Relating to Options

FINRA alleged two violations in connection with Robinhood's options trading program: (1) inaccurate disclosure and (2) a deficient process for approving customers for options trading.

FINRA rules prohibit communications to customers that "fail to reflect the risks attendant to options transactions and the complexities of certain options investment strategies."[145] According to FINRA, Robinhood violated this rule by failing to adequately disclose many of the risks of options trading described above. In particular, Robinhood allegedly failed to explain how certain advanced options strategies used margin and could result in negative balances, with specific reference to the Kearns suicide.[146] FINRA also identified nearly $5 million in customer losses from execution errors that Robinhood allegedly contributed to through misleading communications with investors about potential effects of looming expiration dates.[147]

In addition, FINRA rules require a broker to conduct due diligence before approving a customer for options trading.[148] The diligence is supposed to include investigation of the knowledge, experience, financial condition, and objectives of customers.[149] The rule requires that this diligence be performed under the supervision of certain qualified personnel at the brokerage firm.[150]

FINRA identified many problems with Robinhood's automated approval-bot system. According to the complaint, Robinhood approved customers for advanced options based on purportedly having three years of experience trading options when those customers were too young to have legally traded options for that long.[151] Robinhood also allowed customers to immediately re-take the questionnaire multiple times in rapid succession and prompted customers to change answers that precluded approval.[152] FINRA further alleged that supervisors rarely checked the work of the approval bots.[153]

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145 *See* FINRA Rule 2220.

146 *See* Second FINRA Action, *supra* note 82, at 7-8; Klebnikov, *supra* note 20 (reporting on the Kearns suicide). FINRA further asserted that the app erroneously doubled the negative cash balance. *See* Second FINRA Action, *supra* note 82, at 7-8.

147 *See id.* at 9-11.

148 *See* FINRA Rule 2360(b)(16).

149 *See id.*

150 *See id.*

151 *See* Second FINRA Action, *supra* note 82, at 17-20.

152 *See id.*

153 *See id.*

In its public statements, FINRA appeared noticeably frustrated with Robinhood and its compliance efforts. In a press release describing the record-breaking fine, FINRA's head of compliance admonished:

> This action sends a clear message—all FINRA member firms, regardless of their size or business model, must comply with the rules that govern the brokerage industry, rules which are designed to protect investors and the integrity of our markets. Compliance with these rules is not optional and cannot be sacrificed for the sake of innovation or a willingness to "break things" and fix them later.[154]

FINRA has expressed an interest in tightening its regulation of options trading. In a 2022 regulatory notice, it noted a sharp uptick in options trading in retail accounts and solicited comments on whether existing regulatory requirements are adequate.[155]

C. Gamification & Suitability

In December 2020, the Massachusetts Securities Division (the "MSD") made sweeping allegations against Robinhood under Massachusetts state law. In part, the complaint covered topics already scrutinized by the SEC or FINRA, such as improper approval of accounts for options trading and inadequate infrastructure resulting in trading outages.[156]

In addition, the MSD asserted more novel legal theories centered on Robinhood's marketing and UX design. The MSD characterized Robinhood's national advertising campaigns featuring "broke" college students as "aggressive tactics" that "lured" inexperienced investors.[157] The MSD also characterized Robinhood's "100 Most Popular" and other stock lists as unsuitable "encourage[ment]" of, or "influence" over, inexperienced customers.[158] Finally, the complaint criticized Robinhood's gamification techniques as efforts to "lure," "entice," "stimulate," and "encourage" customers to engage in "continuous" and "repetitive" use, with some Massachusetts customers averaging over 100 trades per day.[159]

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154 *FINRA Orders Record Financial Penalties Against Robinhood Financial,* FINRA (June 30, 2021), https://www.finra.org/media-center/newsreleases/2021/finra-orders-record-financial-penalties-against-robinhood-financial.

155 FINRA, *Regulatory Notice 22-08: Complex Products and Options* (March 8, 2022), https://www.finra.org/sites/default/files/2022-03/Regulatory-Notice-22-08.pdf.

156 *See* MSD Complaint, *supra* note 77, at 2 (summarizing the bases for the complaint).

157 *See id.* at 2, 9.

158 *See id.* at 11.

159 *See id.* at 2, 12-18.

Massachusetts law was especially conducive to these novel theories. In 2020, the state adopted a broad fiduciary rule that applied to a variety of interactions between a broker and customer, such as recommending an investment strategy, opening an account, or buying or selling securities.[160] According the MSD complaint, these duties required brokers to exercise "utmost care and loyalty" when dealing with customers, and Robinhood's conduct fell short of this standard.[161] Robinhood contested the MSD action and the validity of the Massachusetts fiduciary rule more generally. Robinhood argued that (1) its advertising and product features are not the kinds of interactions to which the fiduciary rule applied by its terms, (2) the MSD exceeded its authority under Massachusetts law when adopting the fiduciary rule, and (3) the fiduciary rule was preempted by a less rigorous standard of conduct applicable to brokers under federal law.[162] A Massachusetts state court ruled in favor of Robinhood on the grounds that the MSD exceeded its authority in adopting the rule, but it declined to rule on Robinhood's other theories and the MSD is appealing the decision.[163]

The current state of the MSD action leaves Robinhood in a precarious position. First, it is possible that an aggressive plaintiff could make similar allegations under applicable federal law. Under federal law, a broker has a duty of care to only *recommend* investments that are suitable for the customer based

160 Specifically, the MSD's fiduciary rule defines the following as "unethical or dishonest conduct" for which the MSD may impose sanctions: "Failing to act in accordance with a fiduciary duty to a customer when providing investment advice or recommending an investment strategy, the opening of or transferring of assets to any type of account, or the purchase, sale, or exchange of any security." *See id.* at 21.

161 *Id.* at 19. According to the MSD, the duty of care under Massachusetts law means that the broker must "use the care, skill, prudence, and diligence that a person acting in a like capacity and familiar with such matters would use, taking into account all of the relevant facts and circumstances." *Id.* The MSD suggests this duty of care includes the obligation to consider suitability when "encourage[ing]" customers to purchase securities. *See id.* The duty of loyalty includes, *inter alia*, "mak[ing] recommendations and provid[ing] investment advice without regard to the financial or any other interest of any party other than the customer." *Id.* According to the MSD Complaint, this would prohibit prioritizing the broker's revenue over the interests of the customer when "encouraging" trading. *See id.*

162 Complaint for Injunctive and Declaratory Relief, Robinhood Financial LLC v. William F. Galvin, Commonwealth of Massachusetts Superior Court Department of the Trial Court Business Litigation Session (April 15, 2021), *available at* https://cdn.robinhood.com/assets/robinhood/legal/complaint-for-injunctive-and-declaratory-relief.pdf [hereinafter "Robinhood Complaint"].

163 Memorandum of Decision and Order on Cross-Motions for Judgment on the Pleadings, Robinhood Financial, LLC v. William F. Galvin, Commonwealth of Massachusetts Superior Court Department of the Trial Court Business Litigation Session (March 30, 2022)., *available at* *https://www.masscourts.org*.

on the customer's "investment profile and the potential risks, rewards, and costs of the investment."[164] In other words, the obligation to make suitability determinations—an obligation that would likely be unmanageable at Robinhood's scale—does not generally apply to a self-directed brokerage account and kicks in only when a broker makes a recommendation.[165] Federal law, however, is not clear on what constitutes a "recommendation."[166] The MSD complaint provides a roadmap for trying to characterize various forms of influence over users as recommendations.

Second, even if courts interpret federal law more narrowly, the current state of the MSD litigation leaves the door open for other states, which are not constrained by Massachusetts administrative law considerations, to enact schemes that follow the logic of the MSD complaint. In fact, other states seem to share the MSD's concern that "digital engagement" tools unduly influence investor behavior and have signaled support for the MSD initiative.[167]

Finally, the SEC has requested public comment on how digital engagement tools should be regulated.[168] In the request, the SEC specifically posed the question of whether digital engagement practices constitute recommendations for purposes of federal securities laws, thereby signaling an openness to the MSD's characterizations of Robinhood's activities.[169]

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164 17 C.F.R. 240.151-1(a)(ii)(B) (2021). This rule is contained in Regulation Best Interest, which was adopted by the SEC in 2019. *See* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,320 (July 12, 2019) (to be codified at 17 C.F.R. 240.151-1). Suitability obligations, however, predated the adoption of Regulation Best Interest. *See* Jerry W. Markham, *Regulating Broker-Dealer Investment Recommendations—Laying the Groundwork for the Next Financial Crisis,* 13 DREXEL L. REV. 377, 387-91 (2021) (describing the "shingle theory," which is the traditional basis for a broker's suitability obligations).

165 *See* Robinhood Complaint, *supra* note 162, at 2 ("Robinhood is a 'self-directed' brokerage firm that does not make investment recommendations or provide investment advice.").

166 *See* Markham, *supra* note 164, at 414 (noting that Regulation Best Interest "did not answer the question of what constitutes a recommendation, which had long plagued the application of suitability requirements"); Fisch, *supra* note 12, at 39 (discussing when technological design might constitute a recommendation under existing guidance from the SEC).

167 *See* Miriam Rozen, *States Line up Behind Mass. Regulators in Targeting Robinhood,* ADVISORHUB (Sept. 20, 2021), https://www.advisorhub.com/states-line-up-behind-mass-regulators-in-targeting-robinhood/.

168 *See* Paul Kiernam & Peter Rudegeair, *SEC Launches Review of Online Strategies Used by Brokers, Advisors,* WALL ST. J. (Aug. 27, 2021).

169 Request for Information and Comments on Broker-Dealer and Investment Adviser Digital Engagement Practices, Exchange Act Release No. 34-92766, Investment Adviser Act Release No. IA-5833 (Aug. 27, 2021) at 44 ("Do broker-dealers consider the observable impacts of [digital engagement practices] when determining if they are making 'recommendations' for purposes of Reg BI?").

In short, the MSD complaint presents novel and potentially far-reaching legal theories that are still being actively litigated.

IV. A Better Regulatory Approach?

Clearly, Robinhood has the attention of regulators. But are those regulators focused on the right issues, and do they have the necessary tools? Answering those questions requires consideration of a more fundamental question: what makes for effective investor protection?

The answer is complicated by the competing philosophies described in earlier: investor choice protection, paternalistic investor protection, and investor-access protection.[170] These philosophies do not always point in the same direction. For example, measures that limit certain kinds of investing to those deemed sufficiently knowledgeable or financially secure may in theory be effective paternalistic investor protection, but those measures may also reduce access and choice for investors.[171] Similarly, efforts to level the playing field for more novice investors may promote investor access, but those measures may also introduce excessive risks to novice investors or impede market efficiency for other investors.[172] What's a regulator to do?

One standard for evaluating a proposed regulation is to ask whether the intervention effectively advances one or more philosophy of investor protection without doing substantial harm under the other philosophical approaches. This part evaluates current efforts to regulate ultra-retail investing under that standard and proposes new approaches that might achieve better balance among competing considerations.

A. Regulatory Critique

Part III catalogued a variety of current and proposed regulatory initiatives. These initiatives can be roughly categorized as follows: (1) scrutiny of Robinhood's revenue model (PFOF) under existing regulations,[173] (2) scrutiny of Robinhood's disclosure practices under existing regulations,[174] (3) more aggressive and novel efforts to alter Robinhood's product design such as

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170 *See infra* Part I.A (discussing different approaches to investor protection).

171 *See id.* at 2270 (discussing how suitability requirements might operate to exclude from the market a hypothetical retiree with an appetite for investing in startups).

172 *See id.* 2274-75 (discussing how policy makers might prohibit insider trading based on a philosophy of investor access protection even though some scholars assert that insider trading might improve price accuracy and therefore enhance investor choice).

173 *See supra* Part III.A.

174 *See supra* Part III.A & Part III.B.2 (describing alleged disclosure failures in connection with PFOF and the risks of options trading).

banning PFOF and curtailing gamification techniques or other especially enticing app features, and (4) an inchoate desire by FINRA to revisit how retail brokers approve customers for options trading.[175] In this subpart, I argue that scrutiny under existing regulations is likely to be either somewhat beside the point or ineffectual and that more aggressive efforts risk stamping out ultra-retail investing altogether.

1. Beside the Point (Best Execution and PFOF)

Scrutiny of Robinhood's PFOF arrangements under current law is fine so far as it goes. There is no principled reason why Robinhood should escape consequences for brazenly removing reference to PFOF from its website and falling short of industry-standard procedures for evaluating execution quality and price improvement on customer trades.[176]

It is far from clear, however, that Robinhood users particularly value these protections. As business writer Matt Levine puts it: "[W]e are talking about, often, fractions of pennies per share. If you bought GameStop Corp. stock when it was trading at $483, I simply do not care if you paid $483.01 or $483.007 or even $483.20, and neither should you."[177] This is especially true of the smallest investors, who have especially benefitted from the elimination of fixed commissions and for whom the costs of poor execution quality are modest in absolute terms.[178]

2. Ineffectual Mechanisms (Options Disclosure)

It is more plausible that Robinhood users would value better disclosure regarding the risks of options trading,[179] but it is questionable whether this will prove an effective regulatory strategy.

Law and technology scholars have expressed concerned that online environments amplify the kind of market manipulation that has long been observed in consumer transactions.[180] Even in a bricks-and-mortar

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175 *See supra* Parts III.A&C.

176 *See supra* Part III.A (describing regulatory scrutiny of Robinhood's PFOF practices).

177 Matt Levine, *Money Stuff: Someone Is Going to Drill the Oil*, BLOOMBERG (July 8, 2021), https://www.bloomberg.com/news/newsletters/2021-07-08/money-stuff-someone-is-going-to-drill-the-oil. .

178 *See* Levine II, *supra* note 93 ("Robinhood's appeal was largely to new investors with small accounts, many of whom were buying one share at a time rather than 100, or 2,000. Those investors saved money.").

179 *See infra* Part III.B.2 (discussing violations of FINRA disclosure standards).

180 *See* Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, 1002-12 (2014); Horst Eidenmuller & Gerhard Wagner, *Down by Algorithms? Siphoning Rents, Exploiting Biases, and*

environment, retailers can manipulate warnings and disclosures to achieve desired legal results without actually deterring customers from harmful behaviors.[181] Recent scholarship observes that online retailers are armed with considerably more refined data regarding consumer behavior than traditional retailers.[182] Though this data can be used to enhance the consumer experience in desirable ways, it can also be used to harm consumers – so-called "dark user-experience design."[183] In this contemporary online environment, it may be naïve to believe that brokers will design disclosure that does more than check a regulatory box.

3. Unbalanced Approaches (Banning PFOF & MSD)

The most assertive regulatory efforts and proposals to date risk stamping out ultra-retail investing altogether. This might be a satisfactory result under a philosophy of paternalist investor protection, but it makes for a poor balance with investor-choice and investor-access protection.

In the business press and political dialogue, banning PFOF is perceived as the most existential threat to Robinhood.[184] These concerns cannot be entirely

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Shaping Preferences: Regulating the Dark Side of Personalized Transactions, 86 U. CHI. L. REV. 581, 593 (2019) (considering "whether businesses might abuse their novel technological tools to systematically exploit consumers."); James Niels Rosenquist, Fiona M. Scott Morton & Samuel N. Weinstein, *Addictive Technology and Its Implications for Antitrust Enforcement*, 100 N.C. L. REV. 431, 457-58 (discussing "empirical evidence that firms exploit behavioral biases" with particular emphasis on digital platforms).

181 *See* Calo, *supra* note 180, at 1001 ("[Co]mpanies and other firms will use what they know about human psychology to set prices, draft contracts, minimize perceptions of danger or risk, and otherwise attempt to extract as much rent as possible from their consumers.") (citing Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 74 N.Y.U. L. Rev. 630, 637 (1999)).

182 *See id.* at 1002 ("[F]irms can generate a fastidious record of their transaction with the consumer and, importantly, personalize every aspect of the interaction. This permits firms to surface the specific ways each individual consumer deviates from rational decision making, however idiosyncratic, and leverage that bias to the firm's advantage."); Eidenmuller, *supra* note 180, at 593 (providing examples of companies using big data to create "rationality traps"). For a particularly dramatic example of how online platforms use data to guide user behavior, see Ari Ezra Waldman, *Privacy, Sharing, and Trust: The Facebook Study*, 67 CASE W. RESERVE L. REV. 193, 195 (2016) (recounting how a "trust engineering" group at Facebook ran large-scale experiments on how small wording changes affected user behavior).

183 Katie Deighton, *Subscription Companies Rethink Irksome Cancelation Practices,* WALL ST. J. (Dec. 1, 2021) (describing efforts to make it more difficult to cancel online subscriptions as "dark user design").

184 Nir Kaissar, *Banning Payment for Order Flow Would Be a Huge Mistake,* WASH. POST (Sept. 13, 2021) ("Payment for order flow is an indispensable tool in the democratization of markets. . . . But it's under assault, undeservedly so, and needs support."); Avi Salzman, *Congress Is Split Over Crypto and Payment for Order Flow,* BARRON'S (Sept. 14, 2021) (quoting Senator Tim Scott as

brushed aside. Heavy reliance on PFOF is one of the most distinctive features of Robinhood.[185] It accounts for over 80 percent of Robinhood revenues.[186] When SEC Chairman Gensler merely suggested that banning PFOF was "on the table," Robinhood's shares dropped by 7%.[187]

At the same time, it is important to acknowledge there are other ways for Robinhood to make money. PFOF is already banned in several countries, including the U.K.[188] Due to negative publicity surrounding PFOF, some U.S. brokers have already experimented with new revenue models.[189] Robinhood's primary competitors rely less heavily than Robinhood on PFOF due to their more diversified business models.[190] One could imagine a future in which Robinhood adapts and replaces PFOF with a mixture of subscription fees for premium services, commissions scaled to small trades, "internalizing" some transactions,[191] and charging fees for ancillary services such as research or branded credit cards.

On balance, PFOF reform does not inevitably spell the end of Robinhood, but eliminating the company's primary source of revenue *is* at least a material threat to ultra-retail investing.

The MSD's regulatory action has not received as much attention as PFOF, but it may present an even greater threat to the viability of ultra-retail investing. According to Part II, Robinhood's catchy app and subversive branding were pivotal to the company's ascent. The MSD theory turns these same features into triggers for suitability obligations (and maybe even stronger fiduciary obligations under state law) that would seem impossible to discharge at scale.[192]

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stating that talk of banning PFOF sends "shivers down the spines" of people who support broad access to brokerage accounts).

185 *See supra* text accompanying notes 53-60 (discussing the rate structures and revenue models of first-generation discount brokers); *supra* text accompanying notes 87-98 (discussing Robinhood's move to zero-commission trading).

186 *See* Osipovich, *supra* note 91.

187 *See* Maggie Fitzgerald, *Robinhood Tanks After SEC Chair Tells Barron's That Banning PFOF is a Possibility*, CNBC (August 30, 2021), https://www.cnbc.com/2021/08/30/robinhood-tanks-after-sec-chair-tells-barrons-banning-payment-for-order-flow-is-a-possibility-.html

188 Michaels, *supra* note 97.

189 Tomio Geron, *Payment for Order Flow Made Robinhood Huge. Now Everyone's Arguing About It,* PROTOCOL (April 27, 2021), https://www.protocol.com/fintech/payment-for-order-flow-explained (describing a "tip" model implemented by a brokerage named Public).

190 Alexander Osipovich, *Robinhood's Debut Is Clouded by SEC Scrutiny of Payment for Order Flow*, WALL ST. J. (July 7, 2021) (indicating that PFOF accounts for only 6% of revenues of Charles Schwab).

191 "Internalizing" means that a retail broker satisfies a customer order by buying or selling shares for its own account ("trading against" the customer). *See* Matt Levine, *Money Stuff: Does Robinhood Need Payment for Order Flow?,* BLOOMBERG (Aug. 31, 2021).

192 *See supra* Part III.C (describing the MSD Complaint).

In the short run, Robinhood could adapt by eliminating specific offending features. In the long run, however, the MSD theory creates a difficult environment for innovation by creating a fundamental tension between effective product design and regulatory compliance.

It may seem hyperbolic to describe these regulatory initiatives as mortal threats to Robinhood and ultra-retail investing in general. But the history laid out in Parts I and II above suggest that seemingly minor or cosmetic differences between Robinhood and its predecessors have made all the difference in activating this segment of the market.

4. Ineffective or Unbalanced (Options Approval)

As stated above, FINRA has both (1) enforced existing requirements to approve investors for options trading and (2) signaled an interest in bolstering those requirements.[193] At first blush, focusing on this approval process feels promising. By calibrating product offerings to an investor's individual level of financial sophistication, this approach attempts a certain kind of balance by providing access and choice to those who can handle it while protecting those who are more vulnerable. On close examination, however, this approach risks being either ineffectual (if brokers are allowed to continue relying on self-reported experience) or unbalanced (if regulators demand a substantially more rigorous process).

Currently, Robinhood depends on self-reported information regarding the user's investing experience.[194] FINRA's action focused on Robinhood's failures to identify clear inconsistencies in such information.[195] Even if Robinhood fixes the kinds of rudimentary problems identified by FINRA, there are reasons to doubt that self-reported experience is really an effective way to sort investors. For one, it would seem difficult to verify this kind of information. In addition, it is not self-evident that investors are in fact qualified to trade options just because they traded options in the past. Measuring sophistication through self-reported experience may suffer from the same shortcomings that have plagued other efforts to measure investor qualifications.[196]

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[193] *See supra* Part III.B.2.

[194] *See supra* text accompanying note 144 (describing Robinhood's options approval system).

[195] *See* Part III.B.2 (discussing FINRA's action regarding options approval).

[196] *See* Greg Oguss, Note, *Should Size or Wealth Equal Sophistication in Federal Securities Laws?,* 107 NW. U. L. REV. 285, 288-90, 301-09 (2012) (critiquing the accredited investor standard and identifying examples of fraud against institutional investors); Cable, *supra* note 30, at n. 158 (cataloguing criticisms of the accredited investor definition as a measure of investor sophistication).

One could imagine a different approach that tested the investor's knowledge of options trading more directly. Robinhood could, for example, administer a quiz that tested knowledge of specific risks of options trading.

Assuming *in arguendo* that Robinhood developed a valid test, one has to wonder about the effects on Robinhood's business plan. Robinhood derives a large percentage of its revenues from options trading.[197] These transactions result in substantially higher rates of PFOF than straightforward buy and sell transactions.[198] It is simply hard to imagine there are sufficient ultra-retail investors with bona fide qualifications to trade options.

As with banning PFOF and imposing broad suitability requirements, one could respond to these potential difficulties by invoking paternalistic notions of investor protection and concluding that Robinhood should not exist. But such an approach is unsatisfying because it neglects investor choice and access.

B. A Proposal: Ultra-Retail Accounts

In light of the above critique, how should the SEC regulate ultra-retail investing so that investors are protected in some meaningful way but not excluded from the market altogether?

In previous work, I advocated for what I called the "mad-money" approach to protecting investors.[199] The mad-money approach does not try to make investing safe through disclosure or limiting participation to qualified investors. Instead, it allows investors to make risky investments within parameters.

The most prominent example of mad-money regulation to date is Regulation CF, which creates a regulatory apparatus for crowdfunding.[200] In this context, crowdfunding refers to financing a business through aggregating small investments from large numbers of investors.[201] Such a practice was not compatible with existing private placement exemptions, which generally prohibit broad solicitations of investors and limit eligibility to wealthy

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[197] *See supra* note 127 (breaking down Robinhood's revenues by investment product).

[198] *See* Gunjan Banerji & Alexander Osipovich, *How Robinhood Cashes in on the Options Boom,* WALL. ST. J. (Oct. 31, 2021) (reporting that the average PFOF rate for options is more than twice the average rate for equities).

[199] *See* Cable, *supra* note 30, at 2298-2303.

[200] *See* Regulation Crowdfunding, 17 C.F.R. 227.100-504 (2022) [hereinafter "Regulation CF"].

[201] *See* C. Steven Bradford, *Crowdfunding and the Federal Securities Laws,* 2012 COLUM. BUS. L. REV. 1, 10-28 (2012) ("The basic idea of crowdfunding is to raise money through relatively small contributions from a large number of people.").

(accredited) investors. Proponents of crowdfunding therefore pressed for legislative action and SEC rulemaking to accommodate the practice.[202]

Regulation CF and associated legislation employs a mix of traditional and more novel regulatory mechanisms.[203] Most relevant to this analysis, Regulation CF features an investment cap. Individual investors are only allowed to invest a certain amount – generally capped at about 10% of income or wealth – in crowdfunding investments annually.[204] This is a mad-money mechanism. It tolerates risk, but only to an extent. In doing so, it comports with conventional investing advice that seeks to manage risk by diversification across individual investments and across asset classes.[205]

Online brokerages could be regulated by an analogous approach. The key feature of such a proposed regulation would be a limit on account size for ultra-retail investors. Accounts within those limits would be deemed "ultra-retail accounts," and holders of ultra-retail accounts would have unfettered access to investment products without special approval requirements or suitability determinations. Such an approach would not exclude any investor but would provide a measure of paternalistic protection for every investor. In the subsections below, I flesh out the proposal.

1. Safe Harbor Status

The proposed regulation would operate as a safe harbor for a broker's obligation to make suitable recommendations and to exercise due diligence in allowing options trading. Any investment activity conducted through an ultra-retail account would be deemed suitable for the investor, rendering moot the question of whether gaming techniques constitute recommendations.[206] Also,

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[202] *See* Schwartz, *supra* note 43, at 897-903 (describing acts of Congress and rulemaking by the SEC to accommodate crowdfunding)

[203] *See id.* at 900-903 (describing regulatory requirements for crowdfunding).

[204] *See* Regulation CF, 17 C.F.R. 227.100(a)(2). The investment cap is calculated in a somewhat complex fashion. For investors with income or net worth below $107,000, the cap is equal to the greater of $2,200 or 5 percent of the greater of income or net worth. For investors with income and net worth at or above $107,000, the cap is equal to ten percent of the greater of income or net worth, but the cap cannot exceed $107,000.

[205] *See* Cable, *supra* note 30, at 2299-302 (discussing how investment caps can encourage at least modest diversification benefits).

[206] *See supra* Part III.C (describing claims by the MSD that app features are recommendations that may trigger suitability obligations under Massachusetts law and Regulation Best Interest). One could craft a narrower safe harbor that would shield only automated site or app features from suitability requirements, thereby leaving personal recommendations (such as a phone call from a broker) outside the safe harbor. Such line drawing, however, might create some doubt as to whether certain personalized recommendations generated by algorithm should fit within the safe harbor. Because personally

even advanced options strategies would be deemed appropriate, eliminating the charade of individualized options approvals.[207] Prohibitions on misleading communications,[208] and disclosure obligations relating to PFOF and options trading, would remain intact.[209]

As a safe harbor, ultra-retail accounts would not be the exclusive method for complying with existing regulatory obligations. A broker could maintain accounts outside the safe harbor. For those accounts, however, the broker should expect the full panoply of broker regulation to apply. This would presumably include a process for approving options trading that is more rigorous than the process that led to Robinhood's record-breaking fines. It also may include restrictions on gamification and other digital engagement techniques, either under the MSD legal theory or other regulatory proposals that emerge from the SEC's recent calls for public comment.[210]

This relatively flexible regulatory structure has advantages, as demonstrated by the example of crowdfunding. By some measures, implementation and uptake for Regulation CF has been slow.[211] But crowdfunding platforms still managed to launch by relying on alternative exemptions that provide more latitude for sales to wealthier investors.[212] In some cases, the experiences of these early platforms may have helped mold the final shape of Regulation CF.[213]

Similarly, ultra-retail accounts might be only one of many account levels offered by discount brokers. This multi-tier approach would provide regulators, investors, and brokers with potentially valuable information. For example, one could imagine ultra-retail investors "training" on ultra-retail accounts and

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targeted features may in fact enhance the user experience, this article's proposal declines to draw distinctions between traditional recommendations and site or app features.

[207] *See supra* Part III.B.2 (discussing a broker's obligation to approve customers for options trading under FINRA Rule 2360(b)(16)).

[208] *See, e.g., supra* note 113 (discussing Robinhood's alleged violation of Section 17(a)(2)&(3) of the Securities Act of 1933 and Section 17 of the Securities and Exchange Act of 1934).

[209] *See supra* Part III.A (describing disclosure obligations relating to PFOF under Rules 606 and 607 of Regulation NMS and Section 10b-10(a)(2)(c) of the Securities and Exchange Act).

[210] *See supra* Part III.C (discussing the MSD Complaint and SEC inquiries into digital engagement techniques).

[211] *See* Jo Won, Note and Comment, *Jumpstart Regulation Crowdfunding" What Is Wrong and How to Fix It,* 22 LEWIS & CLARK L. REV. 1393, 1404 (2018) (suggesting that use of Regulation CF was low as compared to levels of crowdfunding in other countries).

[212] *See See* Ibrahim, *supra* note at 43, at 1496-99 (discussing FoundersClub, an early crowdfunding platform that relied on Rule 506(c) of Regulation D for offerings to wealthier investors).

[213] *See id.* (describing changes to Regulation CF that permitted the kind of issuer curation engaged in by FoundersClub); Schwartz, *supra* note 44, at 907-912 (describing changes to the final crowdfunding rules made in response to comment letters).

eventually graduating to traditional accounts based on a demonstrated ability to trade options without large losses. Alternatively, one could imagine some brokers eschewing ultra-retail accounts and instead preferring compliance with full regulation, thereby providing regulators with important feedback on the feasibility of the safe harbor.

Ideally, the safe harbor would be created through coordinated rule making by the SEC and FINRA. The SEC could likely compel FINRA to cooperate if for some reason that became necessary.[214] There being no obvious reason for locally differentiated policy on this topic, this article recommends that state securities regulators also cooperate and rely on the federal scheme to protect investors rather than pursue actions similar to the MSD complaint.[215]

2. Account Size

The key feature of the proposed regulation would be a limit on the size of individual accounts: an investor could deposit no more than $1,000 in a qualifying account.

To an extent, $1,000 is just an educated guess offered here to spark discussion. The brokerage industry might argue that it is too low to build a viable business. While it is nearly four times the median Robinhood account, it is only about 25% of the average Robinhood account.[216] The primary response to this argument is that the safe harbor does not preclude larger accounts subject to the full range of current regulations.

From the regulator's perspective, a useful comparator might be census data on household wealth. According to this data, median household wealth in the U.S. is approximately $100,000, with a majority of households reporting ownership of bank accounts, vehicles, real estate, and retirement accounts.[217] At the 25th percentile, household wealth falls to approximately $5,500.[218] Even at

[214] *See* 15 U.S.C. §78s(c)(describing the authority of the SEC to amend or abrogate rules of a self-regulatory organization).

[215] If Robinhood prevails in its preemption claims, then state actions that are inconsistent with the safe harbor could be preempted. *See supra* note 162 (describing Robinhood's responses to the MSD Complaint).

[216] *See supra* text accompanying note 82.

[217] *See* Jonathan Eggleston et. al., *The Wealth of Households: 2017* (Aug. 2020), https://www.census.gov/content/dam/Census/library/publications/2020/demo/p70br-170.pdf.

[218] *See id.*

the 25th percentile, a $1,000 limit would prevent investors from concentrating assets in Game Stop stock or a volatile crypto currency.[219]

Of course, there will be some individuals at the low end of the distribution who have $1,000 or less of household wealth and therefore could put their entire life savings at risk through a qualifying account. But there are innumerable ways to misspend $1,000, including literal gambling.[220] The proposal reflects a judgment to tolerate this level of risk out of respect for investor choice and access.

Even if the concept is sound, the proposal is admittedly primitive in some respects. For example, it sets a uniform standard for all investors. One could imagine a more finely tuned system, mirroring crowdfunding investment caps, that sets account limits at a percentage of individual wealth. Although Regulation CF adopts this more nuanced model,[221] it is not clear how effectively crowdfunding platforms verify this information.[222] The proposal opts for administrative ease over perfection.

The proposal also determines account size based on cash deposits rather than tracking account size based on the value of the positions over time. This is less than ideal from a personal finance perspective because best practice would be to occasionally rebalance (move some value from the account to other assets) as the account grows.[223] Again, the proposal seeks only rough justice.

Perhaps the most significant potential criticism of the proposal is that investors might evade the $1,000 limit by opening multiple accounts, either by falsifying personal information and opening more than one account at a single brokerage firm or by opening accounts at multiple brokerage firms. The risk of multiple accounts at a single broker should be mitigated by a broker's existing obligations to verify customer identity under anti-money-laundering regulations. FINRA, the SEC, and the U.S. Treasury already require a broker-dealer to

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[219] The kind of diversification prompted by the proposal might not be optimal. Ideally, an investor would spread investments broadly across individual investments and asset classes. In theory, investments in a safe-harbor account could be correlated to the investor's other assets held outside the account. But diversification does not need to be optimal to be helpful. *See* Cable, *supra* note 30, at 2299-302.

[220] Allison Prang, *New York to Allow Mobile Sports Gambling as Soon as Saturday,* WALL ST. J. (Jan. 6, 2022) ("Sports betting is legal in more than 30 states and mobile betting is operational in at least 18.").

[221] *See supra* note 204 (describing the Regulation CF investment cap).

[222] *See* Brice Kindred, *An Uneasy Balance: Personal Information and Crowdfunding Under the JOBS Act,* 21 RICH. J. L. & TECH. 4, 33-47 (discussing the challenges of enforcing investment caps on crowdfunding sites due to logistical, privacy, and security concerns).

[223] *See* Anne Tergesen, *Portfolio Rebalancing Is a Good Retirement Habit,* WALL ST. J. (June 4, 2021).

establish a customer identification program ("CIP").[224] Under a qualifying CIP, a broker must gather identifying information such as name, date of birth, address, and social security number. Brokers are then expected to take a "risk-based" approach to determining when additional follow-up is required, such as requesting documents from the customer or verifying information through other means such as public databases.[225] These regulatory requirements have given rise to a cottage industry of outside vendors focused on identity verification through automated records searches or artificial intelligence.[226]

The possibility that a customer might establish accounts at multiple brokerage firms is a thornier problem. The crowdfunding experience might again be instructive. In promulgating Regulation CF, the SEC considered and ultimately rejected the concept of a central repository to aid in verification of investments across platforms.[227] Although several commentators suggested that such a repository was necessary, feasible, and advisable, the SEC took a wait-and-see approach and committed to studying the need for a centralized system in a future report.[228] When the SEC issued that follow-up report three years later, it did not appear to change its initial view that the administrative burdens and privacy concerns associated with a repository outweighed the potential benefits.[229]

In a similar vein, regulators could take a wait-and-see approach with ultra-retail investors. It is possible that most ultra-retail investors find the $1,000 limit to be acceptable. And the headache of establishing and maintaining accounts at multiple institutions may be sufficient deterrence – in the way that state lottery games curb impulsive gambling by requiring bets to be placed in $1 or $2 increments at convenience stores. If evasion becomes a substantial problem, however, then a centralized repository of ultra-retail investors may be worth considering.

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[224] Notice to Members 03-04, FINRA (Oct. 1, 2003), https://www.finra.org/rules-guidance/notices/03-34 (describing a FINRA-members anti-money-laundering obligations under FINRA Rule 3310 and the Bank Secrecy Act).

[225] *See id.*

[226] *See* Emily Daniel, *Top Online KYC Solution Providers to Watch Out in 2020,* DATA DRIVEN INVESTOR (February 17, 2020), https://medium.datadriveninvestor.com/top-online-kyc-solution-providers-to-watch-out-in-2020-b0ed471aa542; Candice Spencer, *Top 10 KYC & AML Service Providers,* MEDIUM (Aug. 17, 2018), https://candices.medium.com/top-10-kyc-aml-service-providers-d8bee5744904.

[227] *See* Crowdfunding, Securities Act Release No. 33-9974, Exchange Act Release No. 34-76324, 80 Fed. Reg. 71,397 (Nov. 16, 2015) at 204-211.

[228] *See id.*

[229] *See* Report to the Commission Regulation Crowdfunding (June 17, 2019) at 51-52, https://www.sec.gov/smallbusiness/exemptofferings/regcrowdfunding/2019Report.

3. No Negative Balances

As described above, there are several situations in which an investor's account can go negative, meaning that the investor owes a balance to the broker.[230] Such a possibility undermines the purpose of limiting account size. Therefore, the final element of the proposal is to prohibit brokers from collecting these negative balances for ultra-retail accounts. Ideally, this approach will result in brokers internalizing these particularly harmful losses and either withholding some forms of investment from ultra-retail accounts or bolstering efforts to take protective actions when negative balances are a possibility.

Though this aspect of the proposal may sound drastic, it may be preferable from the broker's perspective to the alternative of regulators prohibiting investment products based on the possibility of negative balances. In addition, there is some indication in message-board gossip that Robinhood does not aggressively seek collection of negative balances in any event.[231]

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In sum, the proposal represents a balance between providing access and choice, on the one hand, and preventing catastrophic losses, on the other hand. What the proposal lacks in fine calibration it makes up for in ease of implementation. If certain features prove unattractive to brokers or susceptible to evasion by customers, the requirements can be adjusted over time. The key innovation is a new regulatory mindset.

CONCLUSION

If we want to understand how Robinhood finally coaxed small investors back to the market, we should focus on how the company's business plan differs from its predecessors: new pricing, engaging UX design, and effective marketing. Too many current regulatory efforts seem determined to slam the door shut on ultra-retail investing by viewing these same features as predatory practices rather than legitimate consumer preferences. This article advocates for a shift in regulatory mindset. Like a diet that permits an occasional indulgence of good chocolate, rather than relegating the dieter to the disappointing sugar-free stuff, this article's proposal serves ultra-retail investors a modest portion of what they really want.

[230] *See supra* Part III.B.1 (discussing the risks of options trading).

[231] *See How Does Robinhood Go About Collecting Debts / Punishing Negative Account Balances,* REDDIT, https://www.reddit.com/r/RobinHood/comments/bp57ce/how_does_robinhood_go_about_collecting/.