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CORPORATE GOVERNANCE GAMING: THE COLLECTIVE POWER OF RETAIL INVESTORS

Sergio Alberto Gramitto Ricci* and Christina M. Sautter**

The GameStop saga and meme stock frenzy have shown the pathway to the most disruptive revolution in corporate governance of the millennium. New generations of retail investors use technologies, online forums, and gaming dynamics to coordinate their actions and obtain unprecedented results. Signals indicate that these investors, whom we can dub wireless investors, are currently expanding their actions to corporate governance. Wireless investors' generational characteristics suggest that they will use corporate governance to pursue social and environmental causes. In fact, wireless investors can set in motion a social movement able to bring business corporations to serve their original partly-private-partly-public purpose. This Article discusses premises, architecture, and characteristics of the movement that would cause business corporations to re-marry their partly-private-partly-public purpose. If such a movement proves successful, the paradigm shift that finally makes corporations serve the welfare of a broader range of stakeholders would happen at the hands of shareholders.

TABLE OF CONTENTS

INTRODUCTION.....	52
I. FROM GAMBLING TO GAMING	55
A. <i>The GameStop & “Meme Stock” Trading Saga</i>	56
B. <i>Gaming to the Rescue</i>	62
II. GENERATIONS AND THE CORPORATE GOVERNANCE GAME	67

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A.	<i>Generational and Investing Trends</i>	67
1.	<i>Generational Differences</i>	67
2.	<i>Wireless Generations and Generational Warfare</i>	70
3.	<i>Investing Trends</i>	73
4.	<i>Millennials and ESG Investing</i>	76
B.	<i>Disruption Effects of Gaming Dynamics on Corporate Governance</i>	78
1.	<i>Why Retail Shareholders Do Not Vote</i>	79
2.	<i>How Technology, Social Media, and Gaming Dynamics Can Revolutionize Current Corporate Governance</i>	83
III.	THE NEW PARADIGM AND THE THEORETICAL JUSTIFICATION.....	88
A.	<i>The Cascade: None, One, A Hundred Thousand</i>	88
B.	<i>Citizens' Influence Through the Corporate Sector: The Return to the Partly-Private-Partly-Public Corporate Purpose</i>	92
	CONCLUSION.....	96

INTRODUCTION

History might consider the GameStop and meme stock trading frenzy as a watershed moment setting forth a chain of events that shifts corporate governance forever. GameStop not only represents generational warfare but also signals the rise of Generation Y (“Millennials”) and Generation Z (“GenZ”) as retail shareholders.¹ Millennials and GenZ’ers are wired generations, who are more than at ease using technology, including smartphones, apps, and online forums.² They grew up gaming and bring gaming-like dynamics to their trading.³

These generations, who we dub the *wireless generations*, communicate differently than preceding generations, being quite comfortable “gathering” in online forums, like the Reddit forum, or subreddit, r/WallStreetBets (also referred to as “WSB”).⁴ WSB was founded initially as a place where people could exchange higher risk trading and investing ideas, but it has grown into much more.⁵ WSB users, or Redditors, are drawn to the subreddit not just for trading ideas; they also use the platform as a form of entertainment where they find a

¹ See *infra* Part II for a discussion of the generational differences between Millennials and GenZ on the one hand and Baby Boomers on the other hand.

² See *infra* Section II.A.1 for a discussion of the characteristics of Millennials and GenZ’ers.

³ See JAIME ROGOZINSKI, WALLSTREETBETS: HOW BOOMERS MADE THE WORLD’S BIGGEST CASINO FOR MILLENNIALS 65 (2020) (“[T]here is something to be said about the gamification in all aspects of life in the minds of [M]illennials.”). The founder of r/WallStreetBets, states:

[Millennials are] also tech savvy; lots of them play video games. For those who have, their minds have been molded from a young age to beat bosses and find secret passageways and bonus levels. And that’s how they view the world—things are games that can be beat, optimal strategies that can be used, and cheat codes that can be found.

Id. at 67.

⁴ For a discussion of generational differences, see *infra* Section II.A.1. The r/WallStreetBets subreddit can be accessed at <http://www.reddit.com/r/wallstreetbets> [perma.cc/G9LM-LKEY].

⁵ ROGOZINSKI, *supra* note 3, at 4.

sense of “camaraderie.”⁶ Many WSB Redditors also utilize the commission-free trading app Robinhood to execute their trades.⁷ By being the first to introduce commission-free trading, Robinhood transformed the online brokerage industry by making trading cheaper and more accessible.⁸ It laid the foundation not only for increased retail shareholding but also likely for an amplified retail shareholder voice by way of engaging with corporate governance, including voting, in the long term. As the phenomenon evolves and more people follow in the footsteps of the GameStop and meme stock traders, there will be long-lasting effects on corporate governance dynamics.

In particular, as more individuals invest directly in corporate shares rather than in funds, share ownership will become more granular, with more retail shareholders owning small stakes. Of course, share ownership comes with governance rights, especially voting rights.⁹ Retail shareholders have always had lower voting turnout due to rational apathy, free riding, and collective action problems.¹⁰ But just as investing in GameStop and meme stocks is experiencing a snowball effect with more and more people participating in trading, so will corporate shareholder voting. There are strong signals that wireless generations of investors, *wireless investors*, are extending their attention to voting and corporate governance engagement.¹¹ This is precipitated by social media and evolving technologies making shareholder voting and coordinating more affordable.¹² Similar to the way wireless investors approach trading differently and bring gaming dynamics to trading, they are likely to do the same when voting.

⁶ The Journal, *An Oral History of WallStreetBets*, WALL ST. J., at 18:45–19:16 (Feb. 11, 2021), <https://www.wsj.com/podcasts/the-journal/an-oral-history-of-wallstreetbets/4a6bd02d-e1e0-43b2-addc-8572640f8f0e> [perma.cc/DFX2-NJ2C].

⁷ Ryan Browne, *Online Trading Platforms See a Surge in Usage as Redditors Take on Wall Street*, CNBC, <https://www.cnbc.com/2021/01/27/online-trading-app-usage-surges-as-reddit-ors-take-on-wall-street.html> [perma.cc/VT9M-6PBT] (Jan. 28, 2021, 7:38 AM) (describing how usage of Robinhood increased as WSB Redditors bought more GameStop and other meme stocks). Adoption rates of Robinhood and r/WallStreetBets have been “nearly identical” since 2015. ROGOZINSKI, *supra* note 3, at 26 (including a chart showing adoption rates of both).

⁸ Matt Egan, *This App Completely Disrupted the Trading Industry*, CNN BUS. (Dec. 13, 2019, 6:52 PM), <https://www.cnn.com/2019/12/13/investing/robinhood-free-trading-fractional-shares> [perma.cc/A5G3-DQ2F].

⁹ Shareholders typically have the right to vote on items such as the election and removal of members of the board of directors, DEL. CODE ANN. tit. 8, § 141(k) (2021); mergers, § 251(c); sales of all or substantially all of the assets, § 271; adoption, amendment, and repeal of bylaws, § 109(a); and amendments to the certificate of incorporation, including the number of authorized shares, § 242. *See also* § 216 (quorum and required vote for stock corporations). In addition, shareholders have the right to propose and vote on shareholder precatory proposals. 17 C.F.R. § 240.14a-8 (2021). Under Securities and Exchange Commission rules for listed companies, shareholders also have an advisory vote on executive compensation and golden parachute compensation. § 240.14a-21.

¹⁰ *See infra* Section II.B.1 for a discussion of the reasons why shareholders do not vote their shares.

¹¹ *See infra* Section II.B.

¹² *See infra* Section II.B.2.

When voting, wireless investors are most likely to prioritize environmental and societal interests rather than pursue the maximization of economic returns.¹³ This is in line with numerous studies finding that Millennials consider environmental, social, and governance (or “ESG”) issues when investing.¹⁴ By changing the focus from mere economic goals to ESG, wireless investors will set in motion a social movement leading to a paradigm shift in corporate governance.¹⁵ A large number of investors across generations will likely follow the example of wireless investors.¹⁶ As this occurs, more and more citizens will see ESG voting succeed.¹⁷ In turn, they will join the movement and disintermediate their investments to invest directly in corporate stock, therefore obtaining voting power.¹⁸ Ultimately, this movement will return public corporations to their partly-private-partly-public roots.¹⁹

Although much has been written about GameStop and meme stock trading, this is the first academic article to analyze the long-term corporate governance effects of GameStop and meme stock trading. Part I summarizes the GameStop stock trading saga, showing how wireless investors utilized social media to share their trades, which propelled others to trade.²⁰ This Part discusses how gaming techniques are used to reach significant masses of people.²¹ Part II explores generational differences leading to Millennial and GenZ’s investing strategies and describes recent retail investing trends.²² In addition, it discusses how retail shareholders often refrain from voting shares due to rational apathy, free riding, and collective action problems.²³ It also briefly explores how technology and social media can invert that trend.²⁴ Finally, Part III analyzes how wireless investors will set in motion a social movement aimed at steering corporations

¹³ See *infra* Section III.B.

¹⁴ See generally ALLIANZ LIFE INS. CO. OF N. AM., ESG INVESTOR SENTIMENT STUDY REPORT (2019), <https://www.allianzlife.com/-/media/files/allianz/pdfs/esg-white-paper.pdf> [<https://perma.cc/7SW8-TR6L>] (presenting results from a December 2018 online survey of 1,000 respondents 18 years of age and older regarding their “attitudes toward socially conscious investing”); MORGAN STANLEY INST. FOR SUSTAINABLE INVESTING, SUSTAINABLE SIGNALS: INDIVIDUAL INVESTOR INTEREST DRIVEN BY IMPACT, CONVICTION AND CHOICE 3 (2019) [hereinafter MORGAN STANLEY], https://www.morganstanley.com/pub/content/dam/msdotcom/in-fographics/sustainable-investing/Sustainable_Signals_Individual_Investor_White_Paper_Final.pdf [perma.cc/JD4W-JFB4] (presenting results of a February 2019 online survey of “800 U.S. individual investors with minimum investable assets of \$100,000” and “an oversample of 200 Millennials, aged 18–37”).

¹⁵ See *infra* Part III.

¹⁶ See *id.*

¹⁷ See *id.*

¹⁸ See *id.*

¹⁹ See *id.*

²⁰ See *infra* Part I.

²¹ See *id.*

²² See *infra* Part II.

²³ See *id.*

²⁴ See *id.*

toward ESG goals.²⁵ Such a movement will be characterized by shareholders voting as citizens of the world, consistent with ESG interests, as opposed to focusing on the maximization of economic returns.²⁶ This will create a new paradigm for corporate governance, returning corporations to their partly-private-partly-public roots.²⁷

I. FROM GAMBLING TO GAMING

Laypeople have long compared Wall Street to a casino.²⁸ For years, Baby Boomers (“Boomers”) and Generation X (“GenX”) have dominated the trading (or gambling) in this “casino” and lead the institutional investors such as mutual funds and pension funds, which are the primary investors in the stock markets.²⁹ Millennials and GenZ, however, are now emerging as the next generations to dominate Wall Street.³⁰ These social media and technology savvy generations bring their unique cultural perspectives and life experiences to the market and how they invest.³¹ One of the major life-shaping events for Millennials was the Great Recession, which some argue left Millennials “psychologically scarred.”³² As a result of the Great Recession, a not insignificant 37% of Millennials have indicated that they do not trust financial institutions.³³ Millennials often blame

²⁵ See *infra* Part III.

²⁶ See *id.*

²⁷ See *id.*

²⁸ Irwin Friend, *The Economic Consequences of the Stock Market*, 62 AM. ECON. ASS'N 212, 212 (1972) (“To much of the public, the stock market seems to be a legalized gambling casino.”). This Article does not address the debate among economists regarding whether stock markets are too speculative in nature. For more on this debate, see Lynn A. Stout, *Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities Regulation*, 81 VA. L. REV. 611, 615 n.10 (1995).

²⁹ Michael Santoli, *Older Americans Are Selling the Stock Market, Slowly but Ceaselessly, to Junior Generations*, CNBC (Oct. 17, 2020, 10:04 AM), <https://www.cnbc.com/2020/10/17/older-americans-are-selling-the-stock-market-slowly-but-ceaselessly-to-junior-generations.html> [perma.cc/Y4JT-9HXP] (containing a graph indicating that Boomers and GenX’ers, together, control 80% of equity and mutual fund ownership).

³⁰ Matthew Fox, *Millennials Are Driving a Regime Change in the Stock Market. Here Are the 6 Major Differences Between Them and Baby-Boomer Investors, According to Fundstrat’s Tom Lee*, BUS. INSIDER (Jan. 30, 2021, 9:02 AM), <https://markets.businessinsider.com/news/stocks/stock-market-outlook-millennials-driving-regime-change-from-baby-boomers-2021-1-1030022079> [perma.cc/22TJ-L48M].

³¹ For a discussion of the qualities of Millennials and GenZ and their investment tendencies, see *infra* Section II.A.

³² Kate Taylor, *‘Psychologically Scarred’ Millennials Are Killing Dozens of Industries—and It’s Their Parents’ Fault*, BUS. INSIDER (June 5, 2017, 9:50 AM), <https://www.businessinsider.com/baby-boomers-caused-millennials-destructive-spending-habits-2017-6> [perma.cc/L24C-4XQR].

³³ Maitane Sardon, *A Guarded Generation: How Millennials View Money and Investing*, WALL ST. J. (Mar. 13, 2020, 1:22 PM), <https://www.wsj.com/articles/the-recession-left-millennials-loaded-with-debtand-cynical-11583956727> [perma.cc/6M6G-YC6A] [hereinafter Sardon, *Guarded Generation*]. This is compared with 29% of GenX and 22% of Boomers. *Id.* One Millennial summed up the feelings of his generation regarding financial institutions and

the Great Recession and the general state of the economy on the generations preceding them, particularly Boomers.³⁴ The recent GameStop and meme stock trading frenzy may exhibit acts of revenge on Boomers, or at the very least demonstrate how Millennials and GenZ'ers approach investing.

A. *The GameStop & "Meme Stock" Trading Saga*

In true David-versus-Goliath fashion, amateur retail investors struck first in early 2021, landing a devastating punch on Wall Street investors. These investors coordinated to purchase stock in GameStop Corporation, the world's largest video game retailer, as well as a number of other companies, including BlackBerry, AMC Entertainment, Macy's, Bed Bath & Beyond, and Nokia.³⁵ As a result, these stocks earned the moniker "meme stocks," a term used to refer to popular stocks that "trade[] more on hype than [their] underlying fundamentals."³⁶ There were a few common denominators among these companies—their stock prices were low, so they were easily accessible to the average person, and they were culturally popular.³⁷ But perhaps the most important denominator was that

the Great Recession by saying, "I am skeptical of the large financial institutions and was very much concerned with the bailout they received [during the financial crisis], as I think that communicated from our government that poor practice and poor oversight won't result in negative consequences." Maitane Sardon, *Millennials Prefer Apps to Humans, for Financial Advice*, WALL ST. J. (Mar. 16, 2020, 12:45 PM), <https://www.wsj.com/articles/millennials-prefer-apps-to-humans-for-financial-advice-11584377127> [perma.cc/Q5ND-8BLL] [hereinafter Sardon, *Millennials*]. Millennials' skepticism about institutional investors matches that of sophisticated scholars. For example, Professor Stephen Bainbridge has noted,

Because we are concerned with the internal governance of corporations . . . our attention focuses on a different concern: the risk that institutional investors may abuse their control by self-dealing and other forms of overreaching. The interests of large and small investors often differ. As management becomes more beholden to interests of large shareholders, it may become less concerned with the welfare of smaller investors.

Stephen M. Bainbridge, *The Case for Limited Shareholder Voting Rights*, 53 UCLA L. REV. 601, 634 (2006).

³⁴ Paul W. Gleason, *Should Millennials Blame Boomers for Economic Woes? A New Book Says Yes.*, PAC. STANDARD (July 16, 2019), <https://psmag.com/ideas/should-millennials-blame-boomers-for-economic-woes-a-new-book-says-yes> [perma.cc/QL52-T8EC].

³⁵ See Allison Morrow, *Everything You Need to Know About How a Reddit Group Blew up GameStop's Stock*, CNN BUS. (Jan. 28, 2021, 6:40 AM), <https://www.cnn.com/2021/01/27/investing/gamestop-reddit-stock/index.html> [perma.cc/M4K7-NR5Q]; Christopher J. Brooks, *AMC, Nokia and Other "Meme Stocks" Targeted by Reddit's WallStreetBets*, CBS NEWS (Feb. 1, 2021, 6:47 AM), <https://www.cbsnews.com/news/meme-stocks-reddit-wallstreetbets-amc-nokia-stock> [perma.cc/25YX-6DFA].

³⁶ Thomas Niel, *9 Meme Stocks That Social Media Won't Shut Up About*, INVESTORPLACE (Feb. 12, 2021, 1:54 PM), <https://investorplace.com/2021/02/9-meme-stocks-social-media-wont-shut-up-about> [perma.cc/KAG2-679Q].

³⁷ Naaman Zhou, *What Is GameStop, Where Do the Memes Come in, and Who Is Winning or Losing?*, THE GUARDIAN (Jan. 28, 2021, 1:46 AM), <https://www.theguardian.com/culture/2021/jan/28/what-is-gamestop-where-do-the-memes-come-in-and-who-is-winning-or-losing> [perma.cc/N2UV-Q3UP].

Wall Street investors were betting that these stocks were going to lose value in the future and had shorted them.³⁸

Shorting involves borrowing stock from another investor (many times a broker-dealer), including putting up collateral for the borrowed stock, and then selling the borrowed stock in the market.³⁹ Short sellers do not own the stocks they are selling, so at some point they must return the borrowed stocks.⁴⁰ For short sellers, the hope is that when they must purchase the stocks in the market to return them to their lender (i.e., covering the position), the shorted stock will have lost value.⁴¹ In turn, the short seller will be able to purchase the stock for less than what they had sold it for, pocketing the difference.⁴² Upon the return of the shares, the lender will return the short seller's collateral.⁴³ If, however, the stock price rises before the short sellers must return the stock, short sellers may quickly buy shares before the share price rises even higher.⁴⁴ If the stock price rises, the lender of the stock also will require more collateral, making it more expensive for the short seller to leave the position open.⁴⁵ Moreover, the broker-dealer who originally lent the shares may demand that the shares be returned immediately.⁴⁶ As more short sellers purchase the stock, the price rises further, in turn forcing more short sellers to quickly purchase the stock to cut their losses.⁴⁷ This phenomenon is called a "short squeeze."⁴⁸

GameStop was a prime target for short sellers as it had been in steady decline for years.⁴⁹ Described as "a melting ice cube," its disc-based business model was expected to bring about its demise.⁵⁰ In fact, GameStop's lowest point came on April 3, 2020, when its stock closed at a mere \$2.80 per share.⁵¹ Beginning mid-

³⁸ Morrow, *supra* note 35.

³⁹ Douglas M. Branson, *Nibbling at the Edges—Regulation of Short Selling: Policing Fails to Deliver and Restoration of an Uptick Rule*, 65 BUS. LAW. 67, 68 (2009); Adam V. Reed, *Short Selling*, 5 ANN. REV. FIN. ECON. 245, 247 (2013).

⁴⁰ See Branson, *supra* note 39, at 68.

⁴¹ *Id.*

⁴² *Id.*

⁴³ Reed, *supra* note 39, at 247.

⁴⁴ Matt Krantz, *Ask Matt: 'Short Squeeze' Can Cause Big Investor Pain*, USA TODAY (May 27, 2013, 6:15 PM), <https://www.usatoday.com/story/money/columnist/krantz/2013/05/27/short-squeeze-telsa/2151663> [perma.cc/LR9B-ZF3R].

⁴⁵ Reed, *supra* note 39, at 247.

⁴⁶ See Kevin A. Crisp, *Giving Investors Short Shrift: How Short Sale Constraints Decrease Market Efficiency and a Modest Proposal for Letting More Shorts Go Naked*, 8 J. BUS. & SEC. L. 135, 155 (2008).

⁴⁷ *Id.* at 151.

⁴⁸ *Id.*

⁴⁹ See Ben Gilbert, *We Went on a Tour of New York City's GameStop Stores to See if the Company Is Doomed to Become the Next Blockbuster Video—Here's What We Found*, BUS. INSIDER (Aug. 1, 2019, 10:42 AM), <https://www.businessinsider.com/gamestop-failing-store-tour-shows-flawed-business-2019-8> [perma.cc/HE6L-Y946].

⁵⁰ *Id.*

⁵¹ Aila Slisco, *GameStop Stock Closes at \$90, Biggest One-Day Decline in Company's History*, NEWSWEEK (Feb. 2, 2021, 5:14 PM), <https://www.newsweek.com/gamestop-stock-closes-90-biggest-one-day-decline-stocks-history-1566314> [perma.cc/EDB8-XA8R].

2020, however, things started to look up for the company. In August, billionaire co-founder of Chewy, Ryan Cohen, bought 9% of the company.⁵² In October, GameStop and Microsoft announced a deal that gave GameStop a cut of every digital purchase made on any Xbox console sold through its stores.⁵³ The following month marked the beginning of a new console cycle, which was predicted to extend GameStop's lifespan.⁵⁴ In December 2020, GameStop announced that it had closed over 460 stores in the first three quarters of 2020 and said there was "stronger demand across its e-commerce unit."⁵⁵ Still, its third quarter 2020 net sales were over 30% lower than the previous year, and it had only \$450 million in cash after having spent \$200 million alone in the third quarter.⁵⁶

GameStop's vulnerability acted as "a magnet for short-selling interest" as hedge funds were betting on its failure.⁵⁷ At the same time, by the end of December 2020, GameStop's stock was trading for approximately \$20 per share, whereas earlier in the month it had been trading for between \$12.72 and \$16.94.⁵⁸ By the end of the year, "more than 138% of [GameStop's] shares available for trading were sold short."⁵⁹ As the short interest in GameStop increased, a short squeeze occurred as investors attempted to defend their original shorts.⁶⁰ That is, as the share price increased, short sellers were forced to buy GameStop shares at

⁵² David J. Lynch, *The GameStop Stock Craze Is About a Populist Uprising Against Wall Street. But It's More Complicated than That.*, WASH. POST (Feb. 1, 2021, 6:01 PM), <http://www.washingtonpost.com/business/2021/02/01/gamestop-origins> [perma.cc/XR58-RZEU].

⁵³ Chaim Gartenberg, *GameStop Will Reportedly Get a Cut of Xbox Games, Even if You're Not Buying Them from GameStop*, THE VERGE (Oct. 15, 2020, 3:15 PM), <https://www.theverge.com/2020/10/15/21517970/gamestop-revenue-sharing-microsoft-xbox-digital-downloads-games> [perma.cc/4FXG-Y9U3].

⁵⁴ Gilbert, *supra* note 49; Marianne Wilson, *GameStop Cites 'Unprecedented Demand' in November After Sales Plummet in Q3*, CHAIN STORE AGE (Dec. 9, 2020), <https://chainstoreage.com/gamestop-cites-unprecedented-demand-november-after-sales-plummet-q3> [https://perma.cc/8S7Y-JSE9].

⁵⁵ Micah Maidenber, *GameStop Shares Surge After Traders Shift Bets, Board Gets Makeover*, WALL ST. J. (Jan. 13, 2021, 4:51 PM), <http://www.wsj.com/articles/gamestop-shares-surge-after-traders-shift-bets-board-gets-makeover-11610563910> [perma.cc/QR4C-J2UG].

⁵⁶ Peter Cohan, *With 138% Short Interest, Board Change Sends GameStop Stock Soaring*, FORBES (Jan. 15, 2021, 8:10 AM), <https://www.forbes.com/sites/petercohan/2021/01/15/with-138-short-interest-board-change-sends-gamestop-stock-soaring> [perma.cc/Y6LA-GSXX].

⁵⁷ Anders Bylund, *Please Be Careful with GameStop Stock*, NASDAQ (Jan. 26, 2021, 9:38 AM), <https://www.nasdaq.com/articles/please-be-careful-with-gamestop-stock-2021-01-26> [perma.cc/42LC-Y2R3].

⁵⁸ Historical Stock Prices for GameStop Corporation (GME), YAHOO!FINANCE, <https://finance.yahoo.com/quote/GME/history> [perma.cc/S945-6B9H] (showing a closing price of \$12.72 on December 14, 2020, and \$16.94 on December 8, but closing prices of \$19.46 on December 22; \$20.57 on December 23; \$20.15 on December 24; \$20.99 on December 28; \$19.38 on December 29; \$19.26 on December 30; and \$18.84 on December 31).

⁵⁹ Cohan, *supra* note 56. More shares were shorted than actually existed because shares can be "loaned more than once." *Id.* However, shorted shares raise a significant issue when it comes time to vote at a shareholder meeting. See *infra* Section II.B.1 for a discussion of this issue.

⁶⁰ Morrow, *supra* note 35.

a higher price to cover their short positions, and, as more short sellers purchased shares, the share price further increased.⁶¹

In January 2021, users of WSB, which is primarily comprised of Millennial and GenZ day traders, amplified the short squeeze.⁶² WSB was formed in 2012 as a way to share higher risk trading and investing ideas, which was missing from other online investing forums at the time.⁶³ WSB quickly evolved into a meme-filled forum, where users, who refer to themselves as “degenerates” or “apes,” developed their own language, including coining the term “stonk” as a reference to stock, and shared, often in real time, big wins and losses.⁶⁴ The Wall Street establishment, particularly hedge funds, are favorite targets of WSB members, who often specifically invest in stocks that Wall Street has shorted.⁶⁵ GameStop has been no exception.

In fact, WSB Redditors had been contemplating a short squeeze of GameStop’s stock for months.⁶⁶ In the fall of 2020, shortly after Cohen’s investment, a WSB Redditor going by the name of u/Player896 authored a WSB post titled “Bankrupting Institutional Investors for Dummies, ft GameStop.”⁶⁷ In this post, Player896 not only outlined detailed reasons why GameStop was fundamentally more valuable than its share price but also explained how many hedge funds had shorted GameStop shares.⁶⁸ Moreover, Player896 explained that at the time of writing, “70 [percent] of the shorts [were] underwater” and further explained that if the stock price were to reach \$15 per share, there would be a

⁶¹ See Cohan, *supra* note 56 (describing the GameStop short squeeze).

⁶² *Id.*; Zhou, *supra* note 37.

⁶³ ROGOZINSKI, *supra* note 3, at 4.

⁶⁴ *Id.* at 5–6 (describing WSB); see also *Dissecting the Unique Lingo and Terminology Used in the Subreddit r/Wallstreetbets*, WALLSTREETBETS SHOP (Aug. 30, 2020) [hereinafter *WallStreetBets Glossary*], <https://www.wallstreetbets.shop/blogs/news/dissecting-the-unique-lingo-and-terminology-used-in-the-subreddit-r-wallstreetbets> [perma.cc/WY4G-C7KT] (containing a glossary of terms used on WSB and defining stonks); Christina Hadly, *WallStreetBets Is America*, VOX (Feb. 4, 2021, 8:00 AM), <https://www.vox.com/the-goods/22264303/wallstreetbets-reddit-gamestop-stocks-language-community> [perma.cc/AD99-DS9R] (describing WSB and explaining the meaning of “degenerates,” “apes,” and other popular WSB terms).

⁶⁵ Charlie Wells & Misyrlena Egkolfopoulou, *GameStop’s Reddit Revolution Echoes Occupy Wall Street Crusade*, BLOOMBERG (Jan. 28, 2021, 5:00 AM), <https://www.bloomberg.com/news/articles/2021-01-28/why-are-reddit-wall-street-bets-traders-buying-gamestop-and-fighting-hedge-funds> [perma.cc/ETB7-UUU6]. According to a study conducted by Appel and Fos, hedge funds account for the large majority of short selling campaigns. Ian Appel & Vyacheslav Fos, *Active Short Selling by Hedge Funds* (Eur. Corp. Governance Inst., Working Paper No. 609, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3242516 [perma.cc/9CGR-KH5C].

⁶⁶ Zhou, *supra* note 37 (“[O]ver the past six months, accelerating in [January, WSB] users have zeroed in [on GameStop stock] and a tactic involving the ‘short squeeze.’”).

⁶⁷ u/Player896, *Bankrupting Institutional Investors for Dummies, ft GameStop*, Posting to *WallStreetBets*, REDDIT (Sept. 19, 2020, 6:03 AM), http://www.reddit.com/t/wallstreetbets/comments/ivs6dw/bankrupting_institutional_investors_for_dummies [perma.cc/L5NE-L9RE].

⁶⁸ *Id.*

“massive short squeeze.”⁶⁹ Following this post, throughout the fall of 2020, GameStop’s share price rose.⁷⁰

When WSB Redditors finally pulled the trigger in January 2021, it forced GameStop prices to sky-rocket.⁷¹ The surge in GameStop stock followed the company’s January 11 announcement of its newest board members—Ryan Cohen, Alan Attal, and Jim Grube—whose collective expertise in digital commerce would help to revamp the company’s outdated business model.⁷² On January 26, after GameStop closed at almost \$148 per share, Tesla CEO Elon Musk further increased the frenzy by tweeting “GameStonk!!”⁷³ The following day, GameStop stock closed at \$347.51, and on January 28, its shares reached a trading high of a whopping \$483 each.⁷⁴ In all, GameStop stock surged almost 3,000% in January.⁷⁵ The surge was not exclusive to GameStop, however, as WSB Redditors had also employed this tactic with other meme stocks and even silver.⁷⁶ Because of the success of these short squeezes, hedge funds and other short sellers experienced losses totaling around \$20 billion in January alone.⁷⁷

Much of the WSB Redditors’ trading was facilitated by the trading platform Robinhood.⁷⁸ With its zero-dollar account minimums and no trading commissions, the 2013-founded fintech startup revolutionized trading in the United

⁶⁹ *Id.*

⁷⁰ Planet Money, *Can’t Stop GameStop*, NPR (Jan. 29, 2021, 9:26 PM), <https://www.npr.org/transcripts/960454567> [perma.cc/Z9SC-BHVT].

⁷¹ Zhou, *supra* note 37.

⁷² Morrow, *supra* note 35; *GameStop Announces Additional Board Refreshment to Accelerate Transformation*, GLOBENEWSWIRE (Jan. 11, 2021), <https://www.globenewswire.com/news-release/2021/01/11/2156168/0/en/GameStop-Announces-Additional-Board-Refreshment-to-Accelerate-Transformation.html> [perma.cc/Z5CH-677U].

⁷³ Allison Morrow, *Elon Musk Tweet Fuels Frenzied GameStop Surge*, CNN BUS. (Jan. 28, 2021, 6:43 AM), <https://www.cnn.com/2021/01/26/investing/gamestop-stock-elon-musk-reddit/index.html> [perma.cc/CT3F-LDJC].

⁷⁴ Stephen Gandel, *GameStop Shares Fall More than 40% as Prominent Booster Draws Inquiry*, CBS NEWS (Feb. 5, 2021, 7:06 AM), <https://www.cbsnews.com/news/gamestop-gme-stock-down-reddit-2021-02-04> [perma.cc/VNA9-6BS4]. To see January 26 and 27 numbers, use the following link and type “GME” in the search bar: <https://finance.yahoo.com/quote/GME> [perma.cc/QRS3-Y234].

⁷⁵ Gandel, *supra* note 74.

⁷⁶ Morrow, *supra* note 35; Eddie Spence et al., *Silver Prices Surge to Eight-Year High Amid Reddit-Fueled Frenzy*, BLOOMBERG, <http://www.bloomberg.com/news/articles/2021-01-31/silver-spikes-at-the-week-s-open-as-reddit-hordes-pile-in-again> [perma.cc/4BVN-7U33] (Feb. 1, 2021, 2:39 PM).

⁷⁷ Yun Li, *GameStop Short Sellers Are Still Not Surrendering Despite Nearly \$20 Billion in Losses this Month*, CNBC (Jan. 29, 2021, 5:24 PM), <https://www.cnbc.com/2021/01/29/game-stop-short-sellers-are-still-not-surrendering-despite-nearly-20-billion-in-losses-this-year.html> [perma.cc/HRM4-WHGW].

⁷⁸ See David Ingram & Jason Abbruzzese, *Robinhood and Reddit: A Timeline of Two Apps Tormenting Wall Street*, NBC NEWS (Jan. 28, 2021, 3:25 PM), <https://www.nbcnews.com/tech/tech-news/robinhood-reddit-timeline-two-apps-tormenting-wall-street-n1256080> [perma.cc/TWX8-D3ZT].

States and is popular with Millennial and GenZ investors.⁷⁹ On January 28, Robinhood, alongside other trading platforms like TD Ameritrade, placed trading restrictions on companies like GameStop and AMC, causing GameStop's stock price to drop for the first time in six days.⁸⁰ Robinhood initially barred retail investors from purchasing stocks being pushed by r/WallStreetBets before permitting limited purchases and eventually lifting all restrictions on February 4.⁸¹ Unsurprisingly, Robinhood came under fire as some of its users felt slighted by its decision, alleging that the company, at their expense, shielded Wall Street hedge funds from mounting losses.⁸² Although the investment app admits that the restrictions were bad for customers, it maintained that it was necessary in order to be in compliance with deposit requirements.⁸³

The U.S. House Committee on Financial Services held hearings on the GameStop and meme stock trading frenzy. The first hearings were held in February 2021 and were aimed at understanding why GameStop had attracted so many retail investors, if Wall Street had “benefited at the expense of [retail] investors, and whether [the GameStop trading] events highlighted shortcomings of market structure or regulation.”⁸⁴ The first hearing included testimony from the CEOs of both Robinhood and Reddit, hedge fund traders, and Keith Gill, a WSB Redditor, while a second hearing on March 17, 2021, focused on the practices underlying commission-free trading apps, like Robinhood.⁸⁵ Gill, who is also

⁷⁹ *Id.*; Jaime Catmull, *The 15 Best Investment Apps for Everyday Investors*, FORBES (Oct. 7, 2019, 1:30 PM), <https://www.forbes.com/sites/jaimecatmull/2019/10/07/the-15-best-investment-apps-for-everyday-investors> [perma.cc/VW7L-44SD]; Oscar Gonzalez & David Priest, *Robinhood Backlash: What You Should Know About the GameStop Stock Controversy*, CNET (Mar. 17, 2021, 3:42 PM), <https://www.cnet.com/personal-finance/robinhood-backlash-heres-what-you-should-know-about-the-gamestop-stock-controversy> [perma.cc/7PKM-T72E].

⁸⁰ Morrow, *supra* note 35; Li, *supra* note 77.

⁸¹ See Ben Lovejoy, *Robinhood Trading Restrictions Were Bad for Customers, but It Had No Choice, Says Company*, 9TO5MAC (Feb. 1, 2021, 5:40 AM), <https://9to5mac.com/2021/02/01/robinhood-trading-restrictions> [perma.cc/Z85F-QQSY]; Sam Shead, *Robinhood Lifts Trading Restrictions on GameStop and All Other Stocks*, CNBC (Feb. 5, 2021, 5:39 AM), <https://www.cnbc.com/2021/02/05/robinhood-gamestop-trading-restrictions-lifted-with-other-stocks.html> [perma.cc/XT7Y-5Y2E].

⁸² Roman Chiarello, *Robinhood Faces Class-Action Lawsuit over Trading Platform That's 'Designed to Go down.'* FOX BUS. (Feb. 9, 2021), <https://www.foxbusiness.com/markets/robinhood-class-action-lawsuit-trading-platform-designed-down> [perma.cc/SYX6-E32A].

⁸³ Lovejoy, *supra* note 81; Alyse Stanley, *Robinhood: So About That Whole GameStonks Thing...*, GIZMODO (Jan. 30, 2021, 4:34 PM), <https://gizmodo.com/robinhood-so-about-that-whole-gamestonks-thing-1846167125> [perma.cc/VE6X-64UU].

“It was not because we wanted to stop people from buying these stocks,” Robinhood continued.

“We did this because the required amount we had to deposit with the clearinghouse was so large . . . that we had to take steps to limit buying in those volatile securities to ensure we could comfortably meet our requirements.”

Id.

⁸⁴ Nathaniel Popper & Matt Phillips, *In GameStop Saga, Robinhood Is Cast as the Villain*, N.Y. TIMES (Feb. 18, 2021), <https://www.nytimes.com/2021/02/18/business/gamestop-robinhood-hearing.html> [perma.cc/83FN-G89J].

⁸⁵ See *Next Congressional Hearing Set for Robinhood-GameStop Debacle*, PYMNTS (Feb. 26, 2021), <https://www.pymnts.com/markets/2021/next-congressional-hearing-set-for>

known as RoaringKitty on Twitter and YouTube and as DeepFuckingValue on Reddit, first invested in GameStop stock in June 2019 and was a big proponent of the stock during the January short squeeze.⁸⁶ During the first hearing, Gill testified that he was still “bullish” on GameStop and that he “like[d] the stock.”⁸⁷ The day after his testimony, Gill posted a screenshot on Reddit reflecting his purchase of an additional 50,000 GameStop shares, bringing his total holdings to 100,000 shares.⁸⁸ On the next trading day, GameStop shares surged 13%.⁸⁹ Then, on April 16, 2021, Gill shared a screenshot of his portfolio showing that he had doubled his GameStop holdings to 200,000 shares.⁹⁰

B. Gaming to the Rescue

During both the February and March 2021 Congressional hearings, some members of Congress expressed a fear that instead of democratizing investing, Robinhood’s real effect was the “democratization of financial addiction” and a “gamification of investing.”⁹¹ This was not the first time that such a criticism had been lodged against Robinhood. In December 2020, the Massachusetts state

robinhood-gamestop-debacle [perma.cc/DWP7-NG8N]. A third hearing also is anticipated. *Id.* See also Matt Phillips, *Congress Hears Testimony Again on GameStop, Focusing on the Financial Plumbing Behind the Frenzy*, N.Y. TIMES (March 17, 2021), <https://www.nytimes.com/2021/03/17/business/gamestop-hearing.html> [perma.cc/7ARN-QGCS].

⁸⁶ Matthew Fox, *Famed Reddit Trader Keith Gill Has Piled More Money into His GameStop Investment*, MKTS. INSIDER (Feb. 22, 2021, 10:42 AM), <https://markets.businessinsider.com/news/stocks/reddit-trader-keith-gill-roaring-kitty-buys-more-gamestop-stock-2021-2-1030108477> [perma.cc/7STD-6CCU].

⁸⁷ *Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide: Hearing Before H. Comm. on Fin. Servs.*, 117th Cong. 5 (2021) [hereinafter *Gill Testimony*] (statement of Keith Patrick Gill, GameStop Investor) <http://financialservices.house.gov/uploadedfiles/hhrg-117-ba00-wstate-gillk-20210218.pdf> [perma.cc/JYX8-BB3J].

⁸⁸ Gunjan Banerji & Caitlin McCabe, *GameStop Shares Jump After Reddit Legend Keith Gill Doubles Down*, WALL ST. J. (Feb. 22, 2021, 5:13 PM), <https://www.wsj.com/articles/gamestop-shares-surge-after-reddit-legend-keith-gill-doubles-down-11614008117> [perma.cc/MN6Y-5XXX].

⁸⁹ *Id.*

⁹⁰ Theron Mohamed, *GameStop Investor ‘Roaring Kitty’ Doubled His Stake to \$31 Million Worth of Shares in His Final Portfolio Update*, BUS. INSIDER (Apr. 17, 2021, 7:18 AM), <https://markets.businessinsider.com/news/stocks/gamestop-stock-investor-roaring-kitty-doubles-stake-31-million-shares-2021-4-1030314253> [perma.cc/T6R7-K4TU].

⁹¹ Popper & Phillips, *supra* note 84; JD Alois, *What Did We Learn from the House Financial Services Committee Hearing on GameStop/Reddit/Robinhood?*, CROWDFUND INSIDER (Mar. 21, 2021, 2:58 PM), <https://www.crowdfundinsider.com/2021/03/173392-what-did-we-learn-from-the-house-financial-services-committee-hearing-on-gamestop-reddit-robinhood> [perma.cc/452G-8GN3] (quoting remarks of Dr. Vicki Bogan). Moreover, in response to Warren Buffett and Charlie Munger’s criticisms that Robinhood was taking advantage of society’s “gambling instincts,” Robinhood responded, “The new generation of investors aren’t a ‘casino group.’ They are tearing down old barriers to investing and taking control of their financial futures. Robinhood is on the right side of history.” Jenna Telesca & Geoffrey Rogow, *Warren Buffett Defends Berkshire’s Moves over Pandemic Year*, WALL ST. J. (May 1, 2021, 8:35 PM), <https://www.wsj.com/articles/warren-buffett-set-to-discuss-pandemic-markets-at-berkshires-annual-meeting-11619887342> [perma.cc/KPE6-C5PF].

securities regulator brought suit, accusing the app of “blurring the boundaries between an easy to use customer interface and gamification” due to techniques it utilizes to encourage more trades.⁹² For example, when a customer completes a trade, they receive “emoji-laden messages prompting them to purchase additional shares.”⁹³ In addition, new users are given a free share of stock after scratching off images, similar to a lottery ticket.⁹⁴ These gaming qualities are aimed at attracting Millennial and GenZ users, who are Robinhood’s target audience and primary users.⁹⁵ Though some may question a broker using gaming tactics as a way of drawing users, the theories underlying modern day “gaming” have been used for many years to motivate and engage people, particularly in the field of education.⁹⁶ In addition, gaming is being fully embraced in other areas as a way of supporting environmental and social causes.

A 2019 United Nations Environment Programme (UNEP) report found that video games could be used to promote awareness of environmental conservation and encourage individuals to take steps to save the environment.⁹⁷ With approximately 2.5 billion gamers worldwide and estimates of the gaming industry growing in the double digits in the following five years, the UNEP predicted there were “unprecedented opportunities in video games.”⁹⁸ Following up on its gaming report, the UNEP launched the Playing for the Planet Alliance, an initiative

⁹² Madison Darbyshire & Eric Platt, *Robinhood Faces Legal Action Over ‘Gamification’ of Investing*, FIN. TIMES (Dec. 16, 2020), <https://www.ft.com/content/0e451231-fa4c-4686-bf2f-a5e107f337b9> [perma.cc/9ZGA-9VPY].

⁹³ *Id.* Robinhood also had used digital confetti to celebrate various occasions, but in March 2021, it announced it was removing the confetti in an attempt to respond to gamification criticisms. Caitlin McCabe, *Robinhood to Remove Controversial Digital Confetti from Trading App*, WALL ST. J. (Mar. 31, 2021, 7:11 PM), <http://www.wsj.com/articles/robinhood-to-remove-controversial-digital-confetti-from-trading-app-11617195612> [perma.cc/RE5Y-HXH2].

⁹⁴ Nathaniel Popper, *Robinhood Has Lured Young Traders, Sometimes with Devastating Results*, N.Y. TIMES, <https://www.nytimes.com/2020/07/08/technology/robinhood-risky-trading.html> [perma.cc/9V6B-V6B3] (Sept. 25, 2021).

⁹⁵ Ainsley Harris, *How Brokerage App Robinhood Got Millennials to Love the Market*, FAST CO. (Aug. 14, 2017), <https://www.fastcompany.com/40437888/how-brokerage-app-robinhood-got-millennials-to-love-the-market> [perma.cc/85K5-NGPJ] (stating that 78% of Robinhood users are under the age of 35); Kate Rooney, *Fintech App Robinhood Is Driving a Retail Trading Renaissance During the Stock Market’s Wild Ride*, CNBC (June 17, 2020, 4:27 PM), <https://www.cnbc.com/2020/06/17/robinhood-drives-retail-trading-renaissance-during-markets-wild-ride.html> [perma.cc/3BUU-KALR] (noting that mainly Millennials use Robinhood, which has a median customer age of 31); Manole Capital Management, *Does Gen-Z Care About Investing?*, SEEKING ALPHA (June 22, 2020, 2:26 PM), <https://seekingalpha.com/article/4355033-gen-z-care-investing> [perma.cc/CPZ8-DD7L] (finding Robinhood to be the most popular brokerage firm among GenZ investors).

⁹⁶ See generally KARL M. KAPP, THE GAMIFICATION OF LEARNING AND INSTRUCTION: GAME-BASED METHODS AND STRATEGIES FOR TRAINING AND EDUCATION 51–73 (2012) (explaining theories underlying games and exploring how they have been and can be used in education at various levels).

⁹⁷ *UN Official Says Gaming Industry Key to Environmental Conservation*, XINHUANET (Mar. 13, 2019, 9:36 AM), http://www.xinhuanet.com/english/2019-03/13/c_137890663.htm [perma.cc/9LAP-5XZZ].

⁹⁸ *Id.*

that, as of early 2021, had nearly thirty video gaming companies as signatories.⁹⁹ As part of the Alliance, the signatories agree to take various environmentally friendly actions, including implementing “green nudges” in every video game created.¹⁰⁰ The Alliance announced that it had reached 110 million users in 2020 via its “green nudges” in video games.¹⁰¹ The UNEP has not stopped at creating the Alliance. In early 2021, it also announced its own video game, *Reset Earth*, aimed at bringing GenZ’s attention to the ozone.¹⁰²

The United Nations also has recently used gaming to survey over 1.2 million people in fifty countries on their attitudes regarding climate change.¹⁰³ Mission 1.5 (also known as The People’s Climate Vote), which was the largest climate survey ever, appeared in mobile games as a playable advertisement.¹⁰⁴ The two-minute game was designed not only to allow people to vote but also to “raise awareness of policy choices and their impact on carbon emissions.”¹⁰⁵ Jude Ower, the founder and CEO of Playmob, who worked with the UN to design and administer the game, explained that using gaming as a data gathering tool is a valuable “two-way communication tool.”¹⁰⁶ It provides a method for learning about users’ opinions and is an easy way to convey information to users to empower them to confront societal issues.¹⁰⁷ In the words of Ower, Playmob is giving the users of their games, “[thirty] seconds to be a real-world superhero in a fun way they relate to.”¹⁰⁸

Individual gamers also are acting as real-world superheroes by using gaming to raise money for charitable purposes. For example, they have created Gaming for Global Change, which runs livestream marathon games for charitable

⁹⁹ Doloresz Katanich, *The UN Wants Us to Play Video Games to Save the Environment*, EURONEWS (Feb. 24, 2021), <https://www.euronews.com/living/2021/02/17/the-un-wants-us-to-play-video-games-to-save-the-environment> [perma.cc/X9D4-HV85]; *Video Games Industry Levels up in Fight Against Climate Change*, UN ENV’T PROGRAMME (Sept. 23, 2019), <https://www.unep.org/news-and-stories/press-release/video-games-industry-levels-fight-against-climate-change> [perma.cc/4Z9D-YKDR].

¹⁰⁰ *Playing for the Planet*, UNITED NATIONS, <https://unric.org/en/playing-for-the-planet> [perma.cc/P9MC-Y53R] (May 15, 2020); TRISTA PATTERSON & SAM BARRATT, UN ENV’T, *PLAYING FOR THE PLANET: HOW VIDEO GAMES CAN DELIVER FOR PEOPLE AND THE ENVIRONMENT* 22 (2019), <https://unric.org/en/wp-content/uploads/sites/15/2020/03/playing-for-the-planet-pdf-unep-2019.pdf> [perma.cc/3CPQ-2CG3] (including descriptions of “green nudge” examples).

¹⁰¹ Katanich, *supra* note 99.

¹⁰² *Id.*

¹⁰³ Afdhel Aziz, *Playing for the Planet: How Playmob Helped the UN Conduct the Largest Climate Change Survey Ever Using the Power of Gaming*, FORBES (Jan. 28, 2021, 12:00 PM), <https://www.forbes.com/sites/afdhelaziz/2021/01/28/playing-for-the-planet-how-playmob-helped-the-un-conduct-the-largest-climate-change-survey-ever-using-the-power-of-gaming> [perma.cc/LVT3-QF8V].

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

fundraising, and have raised over \$20,000.¹⁰⁹ Game developers also are leveraging the power of gaming by developing games that bring awareness to various social and environmental causes.¹¹⁰ Using gaming entertainment as a way of achieving social and environmental benefits is only likely to grow as the gaming industry continues to expand.

Gaming now brings in more revenue than both the movie and North American sports industries combined.¹¹¹ That may not be surprising as “two in three Millennials in the U.S. play video games every month.”¹¹² Moreover, 71% of Millennial gamers also watch others playing games online or watch video content about games.¹¹³ Gaming is even more popular among GenZ’ers, with 90% of the generation being gamers.¹¹⁴ Seventy-three percent of GenZ’ers own video game consoles compared to 66% of Millennials.¹¹⁵ Approximately 68% of GenZ males consider gaming to be a “prevalent part of their personal identity.”¹¹⁶

GenZ is changing the way society views gamers. Gone are the days when gamers were isolated.¹¹⁷ Gaming now connects players and is a valued part of gamers’ social lives.¹¹⁸ In fact, Amazon-owned Twitch, a virtual gaming, live-streaming, and chat platform, is quite popular among GenZ, accounting for 60% of Twitch users.¹¹⁹ During 2020, daily visitors to Twitch increased from seventeen million to twenty-seven million.¹²⁰ Twitch is so popular that various brands,

¹⁰⁹ *About Us*, GAMING FOR GLOB. CHANGE, <https://gamingforglobalchange.org/about-us> [perma.cc/5XF4-2DXV].

¹¹⁰ Cian Maher, *A New Wave of Indies Are Using Games to Explore Climate Change*, THE VERGE (Feb. 13, 2020, 4:21 PM), <https://www.theverge.com/2020/2/13/21135321/video-games-climate-change-beyond-blue-bee-simulator-ten-tem-endling> [perma.cc/H9BH-DJQL]; GAMING FOR GLOB. CHANGE, *supra* note 109.

¹¹¹ Wallace Witkowski, *Videogames Are a Bigger Industry Than Movies and North American Sports Combined, Thanks to the Pandemic*, MARKETWATCH, <https://www.marketwatch.com/story/videogames-are-a-bigger-industry-than-sports-and-movies-combined-thanks-to-the-pandemic-11608654990> [perma.cc/2U4P-ZYB6] (Jan. 2, 2021, 10:27 AM).

¹¹² *Game On: Video Games Are a Staple Among Millennials’ Media Diets*, NIELSEN (June 6, 2019), <https://www.nielsen.com/us/en/insights/article/2019/game-on-video-games-are-a-staple-among-millennials-media-diets> [perma.cc/4Q5G-2PQQ].

¹¹³ *Id.*

¹¹⁴ Sarah Mahoney, *Gen Z’s Favorite Social-Media Platform? None of the Above*, MEDIAPOST (Mar. 5, 2020), <https://www.mediapost.com/publications/article/348093/gen-zs-favorite-social-media-platform-none-of-th.html> [perma.cc/7E3V-JLDV].

¹¹⁵ Frankie Wallace, *The Impact of Generation Z on the Gaming Community*, HEADSTUFF (Apr. 23, 2019), <https://www.headstuff.org/entertainment/gaming/the-impact-of-generation-z-on-the-gaming-community> [perma.cc/FHD6-3DS5].

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ Mayank Kabadi, *Twitch and the Untapped Gen Z Potential*, BEHINDSPORT (Jan. 30, 2021), <http://behindsport.com/twitch-and-the-untapped-gen-z-potential> [perma.cc/A6VF-D35C].

¹²⁰ *Id.*

athletes, celebrities, and even politicians use it to effectively and efficiently reach their desired audiences.¹²¹

Twitch is not the only gaming-related platform to transform and attract users whose primary goal may be something other than gaming. Discord began as a “hub for gamers to connect via text, voice, and video messaging.”¹²² But it has morphed into a venue for non-gaming purposes. For example, 70% of its 140 million monthly active users say that “they either use the platform mainly for non-gaming purposes, or equally for gaming and other purposes.”¹²³ Discord consists of micro-communities with their own servers, and most Discord communities tend to be small, with generally less than 200 people.¹²⁴ The small groups provide a sense of intimacy, which some groups, like Gen Z Mafia, use for networking.¹²⁵ Gen Z Mafia was formed with the goal of creating a more inclusive environment for GenZ’ers trying to break into Silicon Valley.¹²⁶ The inclusive nature of Gen Z Mafia is in contrast to Silicon Valley, “which its members say is exclusive, elitist and riddled with systemic problems including sexism, ageism and racism.”¹²⁷ In addition to gaming and networking, wireless investors have been using Discord as another forum to collaborate and exchange investing ideas.¹²⁸ Wireless investors even live stream trading sessions on both Discord and Twitch, further mixing gaming and investing.¹²⁹

¹²¹ See Sara Wilson, *Where Brands Are Reaching Gen Z*, HARV. BUS. REV. (Mar. 11, 2021), <https://hbr.org/2021/03/where-brands-are-reaching-gen-z> [perma.cc/GY9K-2CPB] (explaining how brands and politicians have used Twitch); Fernando Pizarro, *How AOC Showed Politicians the Power of Live-Streaming*, FORTUNE (Dec. 8, 2020, 2:30 PM), <https://fortune.com/2020/12/08/aoc-twitch-live-streaming-young-voters> [perma.cc/5GV3-CY66] (describing how U.S. Representatives Alexandria Ocasio-Cortez and Ilhan Omar played *Among Us* on Twitch to interact with constituents); Ben Strauss, *From Courts to Consoles: With Live Sports Canceled, Pro Athletes Join the Streaming Surge*, WASH. POST (April 4, 2020), <https://www.washingtonpost.com/video-games/esports/2020/03/30/athletes-streaming-twitch-video-games-coronavirus> [perma.cc/BT3X-BFD6] (describing how professional athletes used Twitch during the pandemic to engage with fans).

¹²² Wilson, *supra* note 121.

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ Taylor Lorenz, *Gen Zers Say Silicon Valley Is Elitist and Exclusive. Can They Build a New System?*, N.Y. TIMES, <https://www.nytimes.com/2020/09/15/style/gen-z-tech-mafia.html> [perma.cc/PDE3-EJ7Y] (Sep. 16, 2020).

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ Jack Kelly, *Freewheeling Millennials and Gen-Zers Are Starting a New Side-Hustle Career: Aggressively Trading Stocks Online, Minting Money and Showing up the Wall Street Pros*, FORBES (Jan. 25, 2021, 11:14 AM), <https://www.forbes.com/sites/jackkelly/2021/01/25/freewheeling-millennials-and-gen-zers-are-starting-a-new-side-hustle-career-aggressively-trading-stocks-online-minting-money-and-showing-up-the-wall-street-pros> [perma.cc/QJ3J-EF P8] (“Scores of newly minted, self-taught traders are . . . collaborat[ing] with each other on sites, such as a Reddit, TikTok and Discord.”).

¹²⁹ Katie Martin & Robin Wigglesworth, *Rise of the Retail Army: The Amateur Traders Transforming Markets*, FIN. TIMES (Mar. 8, 2021), <https://www.ft.com/content/7a91e3ea-b9ec-4611-9a03-a8dd3b8b8db5> [perma.cc/36P9-MEWG].

II. GENERATIONS AND THE CORPORATE GOVERNANCE GAME

The wireless generations' interest in gaming is only one example of the differences that exist among generations, including the differences between the wireless generations and older generations like GenX and Boomers. This Part explores those differences, including the major events that have shaped each generation. Each generation's specific characteristics influence not only their values generally, but how they participate in the markets via investing and trading, and ultimately how they will vote their shares and partake in corporate governance.

A. *Generational and Investing Trends*

The GameStop and meme stock trading phenomenon accentuates the differences that exist among generations. These differences are further exhibited in how and why each generation invests. This Section briefly explores generational differences as well as trends in investing, including the growth of retail investors, and the goals of different generations when investing.

1. *Generational Differences*

Generational cohorts are shaped and determined by birth year and by distinct cultural experiences.¹³⁰ In particular, generational differences are understood to result from three intertwined processes: life cycle effects, period effects, and cohort effects.¹³¹ Lifecycle effects acknowledge the influence that age has on a person's ideology.¹³² As a generation ages, it may become more similar to the generations before them.¹³³ Period effects recognize that an age group's location in the life cycle will affect the degree of impact that major events have.¹³⁴ Cohort effects place emphasis on major events and trends that young adults experience, noting that these individuals are "still developing their core values."¹³⁵ For that reason, these "imprints" are believed to "stay with them as they move through their life cycle."¹³⁶

By most definitions, Boomers include individuals born between 1946 and 1964.¹³⁷ The majority of these 71.6 million individuals are now in their sixties

¹³⁰ Mary Ann Becker, *Understanding the Tethered Generation: Net Gens Come to Law School*, 53 DUQ. L. REV. 9, 12 (2015).

¹³¹ Paul Taylor & Scott Keeter, *Preface* to PEW RSCH. CTR., *MILLENNIALS: A PORTRAIT OF GENERATION NEXT* (2010), <https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/millennials-confident-connected-open-to-change.pdf> [perma.cc/783X-HUVU].

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ See, e.g., *Boomers, Gen X, Gen Y, Gen Z, and Gen A Explained*, KASASA (July 6, 2021) [hereinafter KASASA], <https://www.kasasa.com/articles/generations/gen-x-gen-y-gen-z> [per

and seventies.¹³⁸ The generation that followed, GenX, is comprised of around 65 million members born between 1965 and 1980.¹³⁹ At 72.1 million people, the next generation, Millennials, surpassed Boomers as the nation's largest living generation.¹⁴⁰ Millennials are currently between twenty-five and forty years old, with birth years ranging from 1981 to 1996.¹⁴¹ The newest generation, GenZ (also called "Net Gens" or "Zoomers"), includes the 68 million individuals born between 1997 and 2012.¹⁴²

Defining experiences are considered a primary driving force behind generational differences.¹⁴³ This is because as cultures change, young members of a generation are socialized with new and distinct values.¹⁴⁴ Growing up, Boomers were exposed to "dramatic social change and political turmoil."¹⁴⁵ This generation dedicated itself to changing the world and is credited with fighting the "good fights," including the War on Poverty, women's liberation, the sexual revolution, and the civil rights movement.¹⁴⁶ Boomers are currently the most significant consumers of traditional news media like television and newspapers.¹⁴⁷ However, Boomers are adapting to new technologies to be able to communicate with family

ma.cc/5Z7Y-DWTL]; Kristen Bialik & Richard Fry, *Millennial Life: How Young Adulthood Today Compares with Prior Generations*, PEW RSCH. CTR. (Jan. 30, 2019), <https://www.pewresearch.org/social-trends/2019/02/14/millennial-life-how-young-adulthood-today-compares-with-prior-generations-2> [perma.cc/H47P-PH9D]. This article focuses on five generations, with the Silent Generation, the generation prior to the Boomers, being the oldest among them. The Silent Generation continues to have influence and still represents 17% of equities and mutual fund ownership. See Santoli, *supra* note 29 (containing a graph of generational equity and mutual fund ownership). The Silent Generation encompasses those born between 1928 and 1945, Bialik & Fry, *supra*, and includes the legendary investor, Warren Buffett, born in 1930. *Warren Buffett*, BIOGRAPHY, <https://www.biography.com/business-figure/warren-buffett> [perma.cc/64BX-QB8N]. His long-time business partner, Charlie Munger, born in 1924, is a member of the "Greatest Generation." James Chen, *Charlie Munger*, INVESTOPEDIA (May 11, 2021), <https://www.investopedia.com/terms/c/charlie-munger.asp> [perma.cc/SZ5W-PUHB].

¹³⁸ KASASA, *supra* note 137.

¹³⁹ *Id.*

¹⁴⁰ Richard Fry, *Millennials Overtake Baby Boomers as America's Largest Generation*, PEW RSCH. CTR. (Apr. 28, 2020), <https://www.pewresearch.org/fact-tank/2020/04/28/millennials-overtake-baby-boomers-as-americas-largest-generation> [perma.cc/W447-UQDZ].

¹⁴¹ KASASA, *supra* note 137.

¹⁴² *Id.*

¹⁴³ See Team CGK, *Moments That Shape a Generation: How a Generation is Defined by More than Just Their Birth Year*, CGK: THE CTR. FOR GENERATIONAL KINETICS, <https://genhq.com/moments-shape-generation> [perma.cc/KT6X-25LX] (explaining that a group's "generation-shaping moments" will improve understanding of their distinct behaviors).

¹⁴⁴ Jean M. Twenge et al., *Generational Differences in Young Adults' Life Goals, Concern for Others, and Civic Orientation, 1966–2009*, 102 J. PERSONALITY & SOC. PSYCH. 1045, 1045 (2012).

¹⁴⁵ Laurie Morin & Susan Waysdorf, *The Service-Learning Model in the Law School Curriculum*, 56 N.Y.L. SCH. L. REV. 561, 581 (2012).

¹⁴⁶ *Id.*

¹⁴⁷ KASASA, *supra* note 137.

members and old friends.¹⁴⁸ For example, 90% of Boomers have a Facebook account.¹⁴⁹ Unlike Boomers, GenX is “digitally savvy” as the advent of personal computing was a major shaping event for this generation.¹⁵⁰ But like Boomers, GenX’ers still consume traditional media, although of the four generations, this generation spends the most hours a week on Facebook.¹⁵¹ Being wedged between two larger, distinct generations, GenX bridges the gap between Boomers and Millennials and tends to fall in the middle in various senses, including demographic measurements.¹⁵² True to their middle child position, a large portion of GenX’ers do not even rate themselves as unique.¹⁵³

Millennials, quite distinctively, “came of age during a time of terrorism, natural and man-made disasters,” the explosive growth of technology and social media, and the Great Recession.¹⁵⁴ The average Millennial has several social media accounts and is “extremely comfortable with mobile devices.”¹⁵⁵ This generation is more racially and ethnically diverse than preceding generations and was projected to become the most educated cohort in American history.¹⁵⁶ Despite their diversity and high education, there is a debate among academics as to whether Millennials are more “Generation We” or “Generation Me.”¹⁵⁷ Under the former classification, “Millennials are more community oriented, caring, activist, civically involved, and interested in environmental causes” than the generations before them.¹⁵⁸ However, under the Generation Me classification, Millennials “reflect[] an increasingly extrinsic and materialistic culture that values money, image, and fame over concern for others and intrinsic meaning.”¹⁵⁹ Regardless of whether Millennials are more Generation We or Me, there is no question that the Great Recession had a defining impact on the cohort. Millennials fault Boomers for the Great Recession and the structure of the financial

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.* (stating that GenX spends approximately seven hours a week on Facebook).

¹⁵² Paul Taylor & George Gao, *Generation X: America’s Neglected ‘Middle Child,’* PEW RSCH. CTR. (June 5, 2014), <https://www.pewresearch.org/fact-tank/2014/06/05/generation-x-americas-neglected-middle-child> [perma.cc/RA98-TBCV].

¹⁵³ *Id.* (containing a graph showing that only 49% of GenX’ers consider their generation unique).

¹⁵⁴ Morin & Waysdorf, *supra* note 145, at 582 (These events include “the shooting at Columbine High School, the terrorist attacks of 9/11, global climate change, Hurricane Katrina, [and] the wars in Iraq and Afghanistan.”); KASASA, *supra* note 137.

¹⁵⁵ KASASA, *supra* note 137. Ninety-five percent of Millennials still watch television, though streaming services are also popular. *Id.*

¹⁵⁶ Morin & Waysdorf, *supra* note 145, at 577.

¹⁵⁷ Twenge et al., *supra* note 144, at 1046.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

markets.¹⁶⁰ Some even say that Millennials “hate their elders with a ferocity never before seen in our culture.”¹⁶¹

Technology has played a major role in shaping GenZ. This is the “only generation to have grown up in a completely wired culture with constant access to social media.”¹⁶² They received their first cell phone at an average of 10.3 years of age, so it is no surprise that this generation prefers to communicate via their smartphones.¹⁶³ This generation is even more diverse than Millennials, and the oldest GenZ’ers “are enrolling in college at a significantly higher rate than Millennials were at a comparable age,” leading GenZ to likely become the most diverse and well-educated generation yet.¹⁶⁴ In fact, GenZ’ers have been described as “so smart” and having no “tolerance for what they see as [a] cumbersome or inauthentic experience.”¹⁶⁵ Another significant event for GenZ has been witnessing their parents (GenX) struggle financially.¹⁶⁶ As a result, GenZ’ers “are hyper aware of income inequality and the disparities in access to wealth in America.”¹⁶⁷ As exhibited with the popular “Ok, Boomer” saying, GenZ has expressed frustration with what they perceive to be a lack of understanding by Boomers of equality and changes in technology.¹⁶⁸ They also blame climate change on the “corporate greed of older generations” and hold those generations responsible for rising college tuition.¹⁶⁹ In general, they argue that the decisions Boomers made, and continue to make, have hurt GenZ’ers and their futures.¹⁷⁰

2. *Wireless Generations and Generational Warfare*

GenZ’s and Millennials’ frustration and anger with older generations, particularly Boomers, has given rise to a generational warfare currently impacting the markets and trading. In fact, the very app that many Millennials and GenZ’ers use to trade, Robinhood, was founded to “provide *everyone* with access to the

¹⁶⁰ Gleason, *supra* note 34; Steve Cuozzo, *Millennials’ Extreme Hatred for Baby Boomers Is Totally Unjustified*, N.Y. POST (Nov. 2, 2019, 9:39 AM), <https://nypost.com/2019/11/02/millennials-extreme-hatred-for-baby-boomers-is-totally-unjustified> [perma.cc/E6DP-DAED].

¹⁶¹ Cuozzo, *supra* note 160.

¹⁶² Becker, *supra* note 130, at 12.

¹⁶³ KASASA, *supra* note 137.

¹⁶⁴ Richard Fry & Kim Parker, *Early Benchmarks Show ‘Post-Millennials’ on Track to Be Most Diverse, Best-Educated Generation Yet*, PEW RSCH. CTR. (Nov. 15, 2018), <https://www.pewresearch.org/social-trends/2018/11/15/early-benchmarks-show-post-millennials-on-track-to-be-most-diverse-best-educated-generation-yet> [perma.cc/8PER-B2D5].

¹⁶⁵ Wilson, *supra* note 121.

¹⁶⁶ KASASA, *supra* note 137.

¹⁶⁷ Taylor Lorenz & Mike Isaac, *The Misfits Shaking Wall Street*, N.Y. TIMES (Jan. 29, 2021), <https://www.nytimes.com/2021/01/29/technology/stock-traders-reddit-tiktok-youtube.html> [perma.cc/P89T-2GHD].

¹⁶⁸ Taylor Lorenz, *‘OK Boomer’ Marks the End of Friendly Generational Relations*, N.Y. TIMES, <https://www.nytimes.com/2019/10/29/style/ok-boomer.html> [perma.cc/DU3F-2NBD] (Jan. 15, 2020).

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

financial markets not just the wealthy.”¹⁷¹ Keeping with the democratization of finance theme, the app was named after the folklore character who was known for robbing from the rich to give to the poor.¹⁷² As a result, Robinhood established commission-free trading, requiring no account minimums, thus making the markets more accessible.¹⁷³

In spring 2021, Robinhood made markets even more accessible. It launched IPO Access, a trading platform that enables retail investors to directly purchase shares in an IPO.¹⁷⁴ Traditionally, retail investors have been unable to purchase shares directly and instead have to wait until the shares begin trading.¹⁷⁵ By allowing retail investors “in” on the IPO, they would then be able to take advantage of the first day “pop” that often occurs. Generally, only institutional investors, as the initial purchasers in the IPO, get the benefit of the pop.¹⁷⁶ So Robinhood’s platform will not only cut away at institutional investors’ profits but also at its share ownership.¹⁷⁷

For at least some of the WSB Redditors and meme stock traders, the recent GameStop trading represents a “battle against Wall Street establishment” and “class warfare.”¹⁷⁸ One WSB Redditor points out that as a Millennial her generation has “felt shut out of the market.”¹⁷⁹ In his congressional testimony, Keith Gill pointed out that hedge funds and investment banks have the advantage of analyst teams that retail investors do not have.¹⁸⁰ Gill said, “Social media platforms like YouTube, Twitter, and WallStreetBets on Reddit are leveling the playing field.”¹⁸¹

The WSB Redditor who expressed a concern with feeling “shut out of the market,” also said that she has found a sense of “camaraderie” on WSB.¹⁸² She says that WSB provides “that inspiration and that energy to band together as a group and to actually, tangibly exercise action that could lead to a way to distribute wealth, since our politicians can’t seem to get their shit together to actually do anything about it.”¹⁸³ She agrees that her participation is a “form of protest”

¹⁷¹ *Our Story*, ROBINHOOD, <https://robinhood.com/us/en/support/articles/our-story> [perma.cc/HAU2-YNVT].

¹⁷² Popper, *supra* note 94.

¹⁷³ ROGOZINSKI, *supra* note 3, at 25.

¹⁷⁴ Maggie Fitzgerald, *Robinhood Will Give Retail Investors Access to IPO Shares*, CNBC (May 20, 2021, 1:34 PM), <https://www.cnbc.com/2021/05/20/robinhood-will-give-retail-investors-access-to-ipo-shares-a-longstanding-wall-street-dominion.html> [perma.cc/DH9L-A66].

¹⁷⁵ *Robinhood Building Platform to Allow Users to Buy into IPOs, Sources Say*, CNBC, <https://www.cnbc.com/2021/03/25/robinhood-building-platform-to-allow-users-to-buy-into-ipo-sources-say.html> [perma.cc/E7T2-9CGE] (Mar. 26, 2021, 7:31 AM).

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ *The Journal*, *supra* note 6, at 14:13–14:30.

¹⁷⁹ *Id.* at 17:16–17:30.

¹⁸⁰ *Gill Testimony*, *supra* note 87, at 4.

¹⁸¹ *Id.*

¹⁸² *The Journal*, *supra* note 6, at 18:03–18:27.

¹⁸³ *Id.*

and that she is “trying to do what [she] can to help these stocks go up, and everybody [and] every investment is important for the greater good.”¹⁸⁴

In his congressional testimony, Keith Gill also echoed his fellow WSB Redditor’s sentiment regarding camaraderie, saying that during quarantines, “engaging with other investors on social media was a safe way to socialize. We had fun.”¹⁸⁵ The camaraderie and social aspects of WSB extend even further than what one sees at first glance. Multiple comments on WSB have indicated that the subreddit has helped users overcome depression.¹⁸⁶ Moreover, users have donated to various causes, often accompanied by some WSB humor.¹⁸⁷ For example, a user going by the name “InverseInception” donated 100 lunches of chicken tenders to a local children’s hospital to show support for healthcare workers after the trying year they had.¹⁸⁸ InverseInception chose chicken tenders because “tendies” is the term used by WSB Redditors for making a gain from their investments, and users often celebrate by eating chicken tenders.¹⁸⁹ In a post titled “Tendies with your tendies,” InverseInception encouraged other WSB Redditors to support local hospitals and organizations.¹⁹⁰

In honor of their nickname of “apes,” WSB Redditors adopted gorillas through the Dian Fossey Gorilla Fund International.¹⁹¹ As of March 18, 2021, 3,500 gorillas had been adopted and \$383,000 had been raised.¹⁹² It all started with a WSB Redditor named “Pakistani_in_MURICA,” who posted a photo of a gorilla they had adopted in the name of GameStop.¹⁹³ Other WSB Redditors

¹⁸⁴ *Id.* at 18:27–18:43.

¹⁸⁵ *Gill Testimony*, *supra* note 87, at 4.

¹⁸⁶ Hadley, *supra* note 64, at 5.

¹⁸⁷ *See id.* at 7 (listing example donations by WSB Redditors); Victoria Park & Kris Bramwell, *Reddit Investors Adopt 3,500 Gorillas in Six Days*, BBC (Mar. 18, 2021), <https://www.bbc.com/news/business-56416954> [perma.cc/2HDS-4BXA] (describing WSB donations, including donations of crayons to schools).

¹⁸⁸ Hadley, *supra* note 64, at 7.

¹⁸⁹ *Wallstreetbets Glossary*, *supra* note 64 (defining tendies); Jake, *Stonks, Tendies and YOLO: A Guide to Reddit Stock and Crypto Slang*, MOD. FELLOWS (June 23, 2021), <https://www.modernfellows.com/stonks-tendies-and-yolo-a-guide-to-reddit-stock-and-crypto-slang> [perma.cc/E6Z5-68YD] (defining various WSB terms, including tendies, and explaining that WSB will celebrate investment gains “by eating, and posting pictures of, chicken tenders”).

¹⁹⁰ u/InverseInception, *Tendies with Your Tendies: 100 Tendie Lunches for the Local Children’s Hospital Workers*, Posting to *WallStreetBets*, REDDIT (Jan. 31, 2021, 12:03 PM), https://www.reddit.com/r/wallstreetbets/comments/19kkih/tendies_with_your_tendies_100_tendie_lunches_for/gljiaqd [perma.cc/Y76A-TUPN].

¹⁹¹ *See* Jason Murdock, *WallStreetBets Users Adopt 3,500 Gorillas, Raise \$377,000 for Charity*, NEWSWEEK, (Mar. 18, 2021, 12:47 PM), <https://www.newsweek.com/reddit-wallstreetbets-members-adopt-gorillas-charity-raise-money-update-1577148> [perma.cc/JDX2-LH38].

¹⁹² *See id.* (stating 3,500 gorillas had been adopted); Dian Fossey Gorilla Fund (@SavingGorillas), TWITTER (Mar. 18, 2021, 1:06 PM), <https://twitter.com/SavingGorillas/status/1372640452625768458> [perma.cc/B9BT-ZW83] (thanking WallStreetBets and worldwide supporters for raising more than \$383,000).

¹⁹³ u/Pakistani_in_MURICA, *Adopted a Gorilla*, Posting to *WallStreetBets*, REDDIT (Mar. 12, 2021 5:23 PM), http://www.reddit.com/r/wallstreetbets/comments/m3w2jj/adopted_a_gorilla [perma.cc/37Y4-8SYL].

quickly followed suit, and “[w]ithin hours” others were posting that they, too, had adopted and donated.¹⁹⁴ The number of people donating and the amount of money raised is particularly apropos when one considers the origins of why WSB Redditors refer to each other as apes.¹⁹⁵ The term “suggest[s] they can overcome hedge funds or corporations by working together.”¹⁹⁶ Users often use the slogan “apes together strong,” which originated in the movie *Rise of the Planet of the Apes*.¹⁹⁷ Whether it be working together to overcome hedge funds or to save apes, the teamwork being exhibited by WSB Redditors may be a prelude to how the wireless generations could participate in corporate governance.

3. Investing Trends

GameStop and meme stock trading are emblematic of recent investing trends. Investors can be divided into two categories: retail investors and institutional investors.¹⁹⁸ Retail investors are individuals who hold securities—such as shares—directly, perhaps as a saving strategy or to trade them. Retail investors hold only 30% of the outstanding shares of publicly traded corporations.¹⁹⁹ Most of the shares (approximately 70%) are held by institutional investors, such as pension funds, mutual funds, and other pooled investment vehicles.²⁰⁰ As this Article discusses retail investors’ power to bring change in the share market and in corporate governance, it is useful to first observe some traits of retail investors’ investing trends, placing emphasis on those of wireless investors.

According to Credit Suisse, retail investing doubled from approximately 15–18% of trades in January 2020 to 30% of all trades in January 2021.²⁰¹ In 2020, individual investors opened a record-setting 10 million new brokerage accounts.²⁰² In fact, “[r]etail trading now accounts for almost as much volume as

¹⁹⁴ Murdock, *supra* note 191.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ Phil Mackintosh, *Who Counts as a Retail Investor?*, NASDAQ (Dec. 17, 2020, 10:15 AM), <https://www.nasdaq.com/articles/who-counts-as-a-retail-investor-2020-12-17> [perma.cc/Y7GB-A7PZ]; *Institutional Investor*, CORP. FIN. INST., <https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/institutional-investor> [perma.cc/4LA6-56X2].

¹⁹⁹ JAMES R. COPLAND ET AL., PROXY ADVISORY FIRMS: EMPIRICAL EVIDENCE AND THE CASE FOR REFORM I, 9 (2018), <https://media4.manhattan-institute.org/sites/default/files/R-JC-0518-v2.pdf> [perma.cc/D6UH-8UGH].

²⁰⁰ *Id.*; James R. Copland et al., *The Big Thumb on the Scale: An Overview of the Proxy Advisory Industry*, STAN. CLOSER LOOK SERIES, May 30, 2018, at 1, 2.

²⁰¹ Maggie Fitzgerald, *The GameStop Mania Might Be over, but Retail Investors Look Here to Stay*, CNBC (Feb. 13, 2021, 9:53 AM), <https://www.cnbc.com/2021/02/13/why-retail-investors-are-here-to-stay.html> [perma.cc/G34Q-ZA79].

²⁰² Caitlin McCabe, *New Army of Individual Investors Flexes Its Muscle*, WALL ST. J. (Dec. 30, 2020, 7:00 AM), <https://www.wsj.com/articles/new-army-of-individual-investors-flexes-its-muscle-11609329600> [perma.cc/Z9T9-TAM9].

mutual funds and hedge funds combined.”²⁰³ Moreover, “some proxy intermediaries have noticed an uptick of 50% in email accounts [in 2021] compared to [2020][.]”²⁰⁴ The increase in retail investing is attributed to a number of factors. First, retail investing has been increasing since the fall of 2019 when the brokerage industry followed Robinhood’s lead and adopted zero commission policies.²⁰⁵ Additionally, the COVID-19 pandemic’s impact on investing cannot be overstated. Some, particularly Millennials and GenZ’ers, turned to investing apps as a form of entertainment, often choosing to invest in their “favorite companies.”²⁰⁶

As entertainment, these new investors “often view [their] trading as a sort of video game, similar to chasing a new high score on a puzzle app or accumulating likes on an Instagram post.”²⁰⁷ Some wireless investors are trading together by day and then gaming together by night.²⁰⁸ They are even exchanging their old

²⁰³ Matt Phillips, *Hungry for Investors, Some Companies Woo the Little Guy*, N.Y. TIMES (Apr. 14, 2021), <https://www.nytimes.com/2021/04/13/business/stock-market-investors.html> [perma.cc/B5S3-D8ND]. Other investors are now taking notice as the *Financial Times* reports: “retail traders are now a community of market participants that savvy investors want to understand and plug in to their own trading models.” Martin & Wigglesworth, *supra* note 129.

²⁰⁴ Liz Dunshee, *The Returning Influence of Retail Investors: This Year’s “Sleeper Issue”?*, THECORPORATECOUNSEL.NET (Apr. 23, 2021), <http://www.thecorporatecounsel.net/blog/2021/04/the-returning-influence-of-retail-investors-this-years-sleeper-issue.html> [perma.cc/5REN-THKT].

²⁰⁵ Fitzgerald, *supra* note 201.

²⁰⁶ Dawn Allcot, *Gen Z and Millennials Lead ‘Retail Investing’ Trend – Owning up to 25% of the Stock Market*, YAHOO!FINANCE (Dec. 14, 2020), <https://finance.yahoo.com/news/gen-z-millennials-making-mark-153305638.html> [perma.cc/94HJ-44DN]; McCabe, *supra* note 202 (explaining that new investors can, in part, be attributed to free time in which investors “learn[ed] about the markets,” while “[o]thers, unable to bet on sports or visit casinos, found the stock market’s outsize swings presented the perfect outlet to make bets”). Retail investors also are drawn to option trading—particularly call options—as opposed to simply trading in the underlying stocks. See Fitzgerald, *supra* note 201; see also *Day Traders Have Sent GameStop’s Share Price Sky-High*, ECONOMIST (Jan. 27, 2021), <https://www.economist.com/graphic-detail/2021/01/27/day-traders-have-sent-gamestops-share-price-sky-high> [perma.cc/K68H-HJSS] (discussing retail investors’ tendency to purchase call options to put upward pressure on stock prices). Purchasing call options is a tactic used to increase the underlying stock’s market price, which in turn allows investors to make money more quickly. *Id.* In fact, according to the *Financial Times*, “retail investors have . . . sparked an option trading boom” with over 40 million option contracts being entered into in January 2021. Martin & Wigglesworth, *supra* note 129 (citing and referencing bar chart in article).

²⁰⁷ Lorenz & Isaac, *supra* note 167. One trader compared the feelings obtained from trading to that obtained from gaming, stating, “When you’re in ‘Call of Duty,’ there’s a rush when you win your match, and you’re doing well With Robinhood, you’re seeing your account go up, and it’s that same euphoric feeling.” Rachel Louise Ensign, *Robinhood, Three Friends and the Fortune That Got Away*, WALL ST. J. (Apr. 22, 2021, 9:56 AM), <https://www.wsj.com/articles/robinhood-three-friends-and-the-fortune-that-got-away-11619099755> [perma.cc/B82X-7MVD].

²⁰⁸ See Ensign, *supra* note 207 (detailing the story of three friends who regularly communicate throughout a typical day regarding investments and then would play “online videogames together” at night).

gamer usernames for names reflecting stocks they like.²⁰⁹ In addition to entertainment, there was a marked increase in retail investing following receipt of stimulus checks in April 2020.²¹⁰ A study of the bank accounts of 2.5 million Americans revealed that spending of those who received stimulus checks increased over 80% from the previous week and that a portion of the spending was in the stock market.²¹¹

GenZ and Millennials account for a significant portion of new retail investors.²¹² According to one survey, 22% of GenZ respondents opened a brokerage account in 2020 (the most of any age group) with 17% of Millennials being the second largest group.²¹³ Moreover, according to Robinhood, more than half of their users are first-time investors, and their users' median age is thirty-one years old.²¹⁴ This should come as no surprise as Millennials tend to favor "self-directed investments" and trading apps as opposed to investing via mutual funds and investment banks, which are more popular with Boomers.²¹⁵ As was evident in the GameStop and meme stock trading frenzy, Millennials and GenZ'ers obtain information via social media platforms such as Reddit, TikTok, and StockTwits whereas Boomers rely more upon traditional sources of investment

²⁰⁹ *Id.*

²¹⁰ Fitzgerald, *supra* note 201.

²¹¹ Maggie Fitzgerald, *Many Americans Used Part of Their Coronavirus Stimulus Check to Trade Stocks*, CNBC (May 22, 2020, 1:52 PM), <https://www.cnbc.com/2020/05/21/many-americans-used-part-of-their-coronavirus-stimulus-check-to-trade-stocks.html> [perma.cc/E473-TRVC]. See also Maggie Fitzgerald, *Robinhood Traders Cash in on the Market Comeback That Billionaire Investors Missed*, CNBC (June 9, 2020, 10:43 AM), <https://www.cnbc.com/2020/06/09/robinhood-traders-cash-in-on-the-market-comeback-that-billionaire-investors-missed.html> [perma.cc/PH85-898H] (detailing stories of Robinhood investors using stimulus checks to invest).

²¹² Allcot, *supra* note 206 ("Retail investors accounted for as much as 25% of the stock market's activity during the summer [of 2020], compared to just 10% in 2019.").

²¹³ AJ Horch, *What Charlie Munger and Bill Gates Overlook in the Robinhood Retail Stock Trading Boom*, CNBC (Feb. 27, 2021, 9:38 AM), <https://www.cnbc.com/2021/02/26/what-charlie-munger-bill-gates-overlook-in-robinhood-trading-.html> [perma.cc/S3SY-9K8F].

²¹⁴ Rooney, *supra* note 95.

²¹⁵ Fox, *supra* note 30; Sardon, *Millennials*, *supra* note 33.

information.²¹⁶ In fact, as of July 28, 2021, WSB had over 10.7 million members, up from just over 8 million in early February 2021.²¹⁷

Even how the wireless generations learn about places to obtain investing information is unique to those generations. For example, the Hulu documentary *GameStopped* featured a WSB Redditor and GameStop investor named Alicia who goes by u/proptart666 on WSB.²¹⁸ While she was growing up, her grandmother would day trade, making detailed analytical sheets to assist in trading.²¹⁹ Her grandmother would tell her, “The stock market [is] . . . a rich person’s game, but if you learn about it, it’s not the hardest thing, and you can make money.”²²⁰ Alicia had been looking for an app that would be easy for her grandmother to use and to invest in the stock market.²²¹ Around the same time, Alicia said that she was playing *World of Warcraft* and was communicating with another player who told her that she had to “check out WallStreetBets.”²²² She also appeared to learn about Robinhood through WSB and said that “Robinhood seemed to be the easiest plug and play system.”²²³

4. Millennials and ESG Investing

The impending impact of the wireless generations, particularly Millennials, on investing cannot be overestimated. As Boomers age, they have been exiting equity investments and transitioning to less risky bond holdings.²²⁴ As a result, equity has been slowly shifting to Millennial investors.²²⁵ However, Millennial investing is likely to ramp up as the generation will be “inheriting \$68 trillion in

²¹⁶ See Fox, *supra* note 30; see also Kelly, *supra* note 128 (noting younger investors are using Reddit, TikTok, and Discord to “collaborate” in trading); Cheryl Winokur Munk, *TikTok Is the Place to Go for Financial Advice if You’re a Young Adult*, WALL ST. J. (May 2, 2021, 12:00 PM), <https://www.wsj.com/articles/tiktok-financial-advice-11619822409> [perma.cc/VUC3-J9DQ] (stating that 41% of GenZ’ers had used TikTok to obtain investment information in the previous month compared to 15% of Millennials); McCabe, *supra* note 202 (explaining that, during the pandemic, online forums and “social-media sites such as Facebook, TikTok and the messaging platform Discord became hubs to talk up trades”); Amit Chowdhry, *How StockTwits Is Building upon Its Social Platform for Millennials*, FORBES (Oct. 10, 2017, 8:30 AM), <https://www.forbes.com/sites/amitchowdhry/2017/10/10/how-stocktwits-is-building-upon-its-social-platform-for-millennials> [perma.cc/B5P7-FFM5] (“StockTwits, which has really focused on catering to a younger generation of investors—millennials and digital natives who have grown up in a culture of collaboration and sharing—is growing at over 50% per year.”).

²¹⁷ Compare *WallStreetBets*, REDDIT, <https://www.reddit.com/r/wallstreetbets> [perma.cc/H7FX-MM7C] (listing 10,698,056 “Degenerates” or members), with Hadly, *supra* note 64 (stating that as of the date of writing—February 4, 2021—WSB had over 8 million members).

²¹⁸ *GAMESTOPPED* (Hulu 2021).

²¹⁹ *Id.*

²²⁰ *Id.*

²²¹ *Id.*

²²² *Id.*

²²³ *Id.*

²²⁴ See Santoli, *supra* note 29.

²²⁵ See *id.*

assets over the next two decades,” which accounts for “70% of the \$100 trillion [in assets] controlled by US households.”²²⁶ In considering the shift in wealth from Boomers to GenX and Millennials, experts have noted that it will be the “largest intergenerational wealth transfer in history.”²²⁷

Millennials are not only unique in their personal characteristics as discussed in the previous Section, but they also bring distinctive values to investing. For example, Millennials are more apt to invest pursuant to their ESG values than to make a profit.²²⁸ A *Wall Street Journal* survey found that “almost 70% of [M]illennials would choose to invest in companies with positive sustainability elements even if that meant a 5% lower return on investment.”²²⁹ A 2019 Morgan Stanley study revealed that a stunning 95% of Millennials were interested in sustainable investing.²³⁰ This is compared to an already high 85% of the general population.²³¹ Further, a 2018 Allianz Life Insurance Company study found that Millennials were more likely than preceding generations to make decisions to either invest or stop investing based on the effect the “company’s products or services have on people’s health or well-being.”²³² Finally, Millennials’ ESG-friendly investment views are not simply for short-term investing. The Allianz study found that Millennials thought that “companies that support social causes have better long-term financial success than traditional companies.”²³³

Growing out of the desire of younger generations to invest in companies supporting “social causes,” investing apps like Public have been developed and are aimed specifically at wireless investors.²³⁴ Public categorizes stocks through themes to facilitate value driven investing and also capitalizes on wireless investors’ preference for technology by offering social media features.²³⁵ Public notes

²²⁶ Fox, *supra* note 30. A Morgan Stanley publication, however, places the amount to change hands at only \$30 trillion. Audrey Choi, *How Younger Investors Could Reshape the World*, MORGAN STANLEY (Jan. 24, 2018), <https://www.morganstanley.com/access/why-millennial-investors-are-different> [perma.cc/9WDA-PCSG]. Others estimate the figure to be between \$12 trillion and \$30 trillion. Michal Barzuza et al., *Shareholder Value(s): Index Fund ESG Activism and the New Millennial Corporate Governance*, 93 S. CAL. L. REV. 1243, 1286 (2020).

²²⁷ Choi, *supra* note 226.

²²⁸ Barzuza et al., *supra* note 226, at 1285 (“The evidence suggests not that [millennials] are indifferent to investment returns, but that they have a greater tendency to assess and even prioritize the social and other real world effects of their investments.”).

²²⁹ Sardon, *Guarded Generation*, *supra* note 33.

²³⁰ MORGAN STANLEY, *supra* note 14, at 4. In addition, according to a 2018 Bank of America survey, “77% of high-net-worth millennials currently own or are interested in so-called impact investments.” Dieter Holger, *Startups Target Millennials with Social-Investing Apps*, WALL ST. J. (June 10, 2019, 10:13 PM), <https://www.wsj.com/articles/startups-target-millennials-with-social-investing-apps-11560219180> [perma.cc/PV6W-Y7KJ].

²³¹ MORGAN STANLEY, *supra* note 14, at 4.

²³² ALLIANZ, *supra* note 14, at 4.

²³³ *Id.*

²³⁴ Allcot, *supra* note 206.

²³⁵ Genevieve Schoepke, *Robinhood Alternative—Public Features vs. Robinhood Features*, PUBLIC.COM, <https://www.public.com/learn/robinhood-alternative> [perma.cc/VZH7-P9XY] (detailing Public’s features in comparison to Robinhood and explaining how stocks are

that 75% of its investors are making investments for the long-term and are seeking companies that “align with their values.”²³⁶ As Millennials and GenZ’ers are still relatively new investors, we are only on the tip of the iceberg regarding the impact they will have. But all the foregoing statistics indicate that their impact is likely to be quite significant. In fact, one institutional analyst predicts that the shift to Millennial investors is “going to upend how many industries operate.”²³⁷

B. Disruption Effects of Gaming Dynamics on Corporate Governance

Wireless investors will evolve from trading to engaging in corporate governance by way of exercising their governance rights deriving from the shares they hold. In fact, as we write, there are strong signs that wireless investors are doing just that. For example, a WSJ Megathread was formed on March 20, 2021, for the purpose of discussing how to vote at the 2021 AMC Entertainment shareholders’ meeting.²³⁸ In less than a day it had garnered over 2,300 comments.²³⁹ Another subreddit devoted solely to AMC, r/amcstock, contained posts prior to the date originally scheduled for the 2021 shareholders’ meeting urging retail shareholders to vote.²⁴⁰ At the last minute, AMC’s May 4, 2021, meeting was rescheduled to July 29, 2021, to allow “additional time for its millions of current individual shareholders to have their voices heard and more time to cast ballots on important shareholder matters.”²⁴¹ Following the postponement, the CEO of AMC recognized that “AMC now has an army of passionate, interested individual shareholders” owning more than 80% of AMC’s outstanding shares.²⁴²

grouped in themes such as “Clean and Green, The Future is Female, Cannabis, and Self-Driving Cars”).

²³⁶ Allcot, *supra* note 206.

²³⁷ Fox, *supra* note 30.

²³⁸ u/Opinion_is_Unpopular, *AMC Voting Megathread for Saturday, March 20th, 2021*, Posting to *WallStreetBets*, REDDIT (Mar. 20, 2021, 7:14 AM), https://www.reddit.com/r/wallstreetbets/comments/m97v39/amc_voting_megathread_for_saturday_march_20th_2021 [perma.cc/G94L-AUW6].

²³⁹ *Id.*

²⁴⁰ See, e.g., u/Goalie29, *Why Do You Think AA Said I Don’t Care if You Vote No*, Posting to *AMCStock*, REDDIT (Apr. 25, 2021, 3:33 AM), https://www.reddit.com/r/amcstock/comments/my5nxi/why_do_you_think_aa_said_i_dont_care_if_you_vote [perma.cc/ZVQ6-YSA7]; u/skyphoenix, *This Is Why You Still Need to Vote*, Posting to *AMCStock*, REDDIT (May 1, 2021, 9:33 AM), https://www.reddit.com/r/amcstock/comments/n2lwel/this_is_why_you_still_need_to_vote_spam_this_all [perma.cc/3A8D-KSL7]. The interest in voting extended beyond posting on Reddit and encouraging others to vote. One Redditor even posted a photo of the sign they encountered when they physically showed up for the May 4th shareholders meeting. u/Kittenplatoon, *I Showed up for the Annual Meeting*, Posting to *AMCStock*, REDDIT (May 4, 2021, 11:49 AM), https://www.reddit.com/r/amcstock/comments/n4uu0m/i_showed_up_for_the_annual_meeting_of [perma.cc/8GDF-T52Z] (including a photo of a sign on a door stating the annual meeting of stockholders had been rescheduled).

²⁴¹ *AMC Entertainment Holdings, Inc. Reschedules Its Annual Meeting of Stockholders to July 29*, YAHOO!FINANCE (May 4, 2021), <https://finance.yahoo.com/news/amc-entertainment-holdings-inc-reschedules-151500583.html> [perma.cc/VH6S-RT9F].

²⁴² AMC Entertainment Holdings, Inc. (AMC), *AMC Entertainment Holdings, Inc.’s (AMC) CEO Adam Aron on Q1 2021 Results – Earnings Call Transcript*, SEEKING ALPHA (May 6,

Redditors are not just concerned with the AMC shareholders' meeting—several threads also exist regarding voting GameStop shares.²⁴³ Notwithstanding Redditors' interest in voting their AMC and GameStop stock, there are a number of reasons why many retail shareholders have traditionally not exercised their corporate voting rights.

1. *Why Retail Shareholders Do Not Vote*

Common shareholders are typically granted the possibility to have a say in the life of a corporation.²⁴⁴ In theory, common shareholders, at least by electing directors, can steer the way corporations are run.²⁴⁵ Even scholars who believe that boards should be insulated from shareholder pressure ultimately recognize that, barring a legislative intervention, only shareholders can ultimately cause a paradigm shift in corporate governance impacting the very purpose of corporations.²⁴⁶

When an average citizen provides their wealth to institutional investors, for example a mutual fund, they obtain shares in the fund.²⁴⁷ The mutual fund can buy and hold shares using the financial means provided by the average citizen. When that happens, the institutional investor can exercise influence, through governance power, on the corporate sector by using the wealth of the average citizen. True, institutional investors are supposed to exercise that corporate governance power in the interest of the beneficiary—a person who has provided the

2021, 10:55 PM), <https://seekingalpha.com/article/4425374-amc-entertainment-holdings-incs-amc-ceo-adam-aron-on-q1-2021-results-earnings-call> [perma.cc/G2ZM-H4HQ] (indicating that individual shareholders “owned more than four fifths of our then 450 million outstanding shares as of that March 11th date [the record date for the May 4, 2021 meeting]”).

²⁴³ See, e.g., u/CadsuaneSedai, *An Open Letter to GameStop's Board of Directors*, Posting to *WallStreetBets*, REDDIT (Feb. 14, 2021, 3:30 PM), https://www.reddit.com/r/Wallstreetbetsnew/comments/lk081a/gme_stockholders_did_you_know_you_have_rights_did [perma.cc/3YSK-8P7W]; u/appleman33145, *We Can Call for an Emergency Proxy Vote*, Posting to *GME*, REDDIT (Feb. 3, 2021, 10:40 PM), https://www.reddit.com/r/GME/comments/lc9oky/we_can_call_for_an_emergency_proxy_vote_this [perma.cc/PR2C-TRP6]; u/appleman33145, *Open Letter to GameStop Board*, Posting to *WallStreetBets*, REDDIT (Feb. 4, 2021, 7:51 PM), https://www.reddit.com/r/Wallstreetbetsnew/comments/lcyqo9/open_letter_to_gamestop_board_from_stockholder [perma.cc/6FFW-96MJ]; u/appleman33145, *GME Proxy Vote Update*, Posting to *GME*, REDDIT (Feb. 4, 2021, 2:53 PM), https://www.reddit.com/r/GME/comments/lcsmdy/gme_proxy_vote_update_force_a_proxy_vote_shorts [perma.cc/E7P9-ACMN]; u/GuitarEvil, *One of the Best Articles on Share Recall*, Posting to *GME*, REDDIT (Mar. 18, 2021, 1:38 PM), https://www.reddit.com/r/GME/comments/m804mm/one_of_the_best_articles_on_share_recall [perma.cc/KLX8-MCC7].

²⁴⁴ See Steven M. Haas, *Stockholders' Rights*, in 1 CORPORATE GOVERNANCE: LAW AND PRACTICE ch. 3, § 3.02 (Amy L. Goodman & Steven M. Haas eds., 2021).

²⁴⁵ *Id.*

²⁴⁶ See generally Margaret M. Blair, *Beating Shareholder Activism at Its Own Game*, 10 J. ACCT. ECON. & L., no. 3, 2020, at 1; Lynn Stout & Sergio Gramitto, *Corporate Governance as Privately-Ordered Public Policy: A Proposal*, 41 SEATTLE U. L. REV. 551 (2018); LYNN STOUT ET AL., CITIZEN CAPITALISM: HOW A UNIVERSAL FUND CAN PROVIDE INFLUENCE AND INCOME TO ALL (2019).

²⁴⁷ See Mackintosh, *supra* note 198; see also *Institutional Investor*, *supra* note 198.

financial means to buy those shares.²⁴⁸ However, as a matter of fact, mutual fund managers would need diabolic mindreading skills to vote shares in a fashion that accurately mirrors the preferences of the beneficiary with respect to each item of a shareholders' meeting agenda. In addition, since people have different views, it remains to be answered which holders of the fund shares should the fund managers make happy when voting.²⁴⁹ There is also a risk that fund managers prefer to vote shares held in the fund's portfolio in a way that serves their goals. For example, trying to maximize the short-term value of shares to see those results reflected in their pay is an omnipresent concern that can hardly be overlooked.²⁵⁰

Moreover, when average citizens provide their wealth to institutional investors in exchange for equity interests in the institutional investors, not only do citizens deprive themselves of the power to exercise influence on corporations, but they also virtually *donate* that corporate governance power to institutional investors and their managers.²⁵¹ The concentration of shares of companies publicly listed in the United States in the hands of institutional investors provides enough evidence to infer that institutional investors dominate the corporate governance arena.²⁵² The issue is exacerbated when retail shareholders in public corporations largely do not vote their shares.²⁵³

The reasons why retail shareholders refrain from voting are intertwined. For one, if we consider the breakdown of share ownership, the argument that retail investors consider themselves, as a category, too weak to actually determine the outcome of voting would not sound unreasonable.²⁵⁴ Since their votes often

²⁴⁸ *Institutional Investor*, *supra* note 198. Adopting an innovative perspective, Gordon argues that in determining what the interests of beneficiaries are, pension fund managers should factor in systematic risk such as climate change risk, financial distress risk, and social stability risk. Jeffrey N. Gordon, *Systematic Stewardship* 3, 8 (Eur. Corp. Governance Inst., Working Paper No. 566, 2021), <https://ssrn.com/abstract=3782814> [perma.cc/88BL-PFQK]. Failing to do so would result in "falling short of the objective of maximizing risk-adjusted returns." *Id.*

²⁴⁹ For a discussion of the challenges that institutional investors face in conveying the views of their beneficiaries, see Alessio M. Paces, *Sustainable Corporate Governance: The Role of the Law* 6–10 (Eur. Corp. Governance Inst., Working Paper No. 550, 2020), <https://ssrn.com/abstract=3697962> [perma.cc/G9JJ-3URC].

²⁵⁰ For a broader discussion of fund managers' behavior, see STOUT ET AL., *supra* note 246, at 35–36.

²⁵¹ See Sean J. Griffith & Dorothy S. Lund, *Conflicted Mutual Fund Voting in Corporate Law*, 99 B.U. L. REV. 1151, 1151 (2019) ("Instead, voting outcomes increasingly are determined not by those holding the ultimate economic interest but rather by institutional intermediaries who buy, hold, and vote shares on behalf of someone else."). In fact, average citizens cannot ensure that institutional investors vote as they would *ex ante* and can hardly police that *ex post*. See *id.*

²⁵² COPLAND ET AL., *supra* note 199, at 7.

²⁵³ *Id.* at 9.

²⁵⁴ Lisa M. Fairfax, *From Apathy to Activism: The Emergence, Impact, and Future of Shareholder Activism as the New Corporate Governance Norm*, 99 B.U. L. REV. 1301, 1304 (2019). Even scholars notoriously skeptical of increasing shareholders' franchise have emphasized how

[p]utting together a winning coalition will require, among other things, ready mechanisms for communicating with other investors. Unfortunately, SEC rules on proxy solicitations, stock

cannot determine the outcome of a voting contest, retail shareholders often take a rationally apathetic stance.²⁵⁵ Moreover, even when their vote would be determinant in a voting contest, the costs associated with collecting and elaborating information would make the trade-off for voting negative.²⁵⁶ In fact, voting on an informed basis would supposedly benefit everybody, but the informed, engaged shareholder would bear all the costs.²⁵⁷ So, if the pro-quota benefits enjoyed by the shareholder are smaller than all the costs associated with voting in an informed fashion, the shareholder could be *better off* staying apathetic.²⁵⁸ Since the benefits increase with the number of shares held, the more shares a shareholder has, the more advantageous (and less costly) voting would be.²⁵⁹ As a matter of fact, the advantages of voting are directly proportional to the number of shares, and the costs associated with voting in an informed manner would be spread across the shares voted.²⁶⁰ More shares mean more votes, so the number of voting shares is a multiplier: a shareholder uses the information times the number of voting shares. More shares also mean dividing the cost of acquiring information by a larger number of shares, which means that the cost of voting each share in an informed fashion decreases. So, two variables determine whether it is rational to be apathetic. The first variable is the cost to become informed and exercise the vote. The second variable is the number of shares across which such cost is spread.

Two additional phenomena complete the picture: free riding and the collective action problem.²⁶¹ They could be easily explained with the example already discussed: a shareholder bears all the costs related to informed voting, while all the shareholders obtain the benefits of it.²⁶² When a shareholder bears the costs of acquiring and analyzing information to cast an informed vote, all the other shareholders take a free ride: they do not need to inform themselves and vote; somebody else is doing that for them.²⁶³ Free riding is a somewhat selfish attitude, but—especially for holders of small amounts of shares—a rational one.²⁶⁴

The collective action problem takes free riding to the next level: imagine that a shareholder bears the costs of informing themselves and knows that their vote

ownership disclosure, and controlling shareholders liabilities have long impeded communication and collective action. Even though the 1992 SEC rule amendments somewhat lowered the barriers to collective action, important impediments remain.

Bainbridge, *supra* note 33, at 631.

²⁵⁵ See Bernard S. Sharfman, *The Risks and Rewards of Shareholder Voting*, 73 SMUL. REV. 849, 854 (2020); Paul H. Edelman et al., *Shareholder Voting in an Age of Intermediary Capitalism*, 87 S. CAL. L. REV. 1359, 1384–85 (2014); Fairfax, *supra* note 254, at 1310–11.

²⁵⁶ Jeffrey N. Gordon, *The Mandatory Structure of Corporate Law*, 89 COLUM. L. REV. 1549, 1576 (1989); Edelman et al., *supra* note 255, at 1385.

²⁵⁷ Bainbridge, *supra* note 33, at 632–33; Fairfax, *supra* note 254, at 1310–11.

²⁵⁸ Bainbridge, *supra* note 33, at 633; Fairfax, *supra* note 254, at 1310–11.

²⁵⁹ Bainbridge, *supra* note 33, at 633; Edelman et al., *supra* note 255, at 1379.

²⁶⁰ See Bainbridge, *supra* note 33, at 633.

²⁶¹ Fairfax, *supra* note 254, at 1310–11.

²⁶² Bainbridge, *supra* note 33, at 633; Fairfax, *supra* note 254, at 1310–11.

²⁶³ Fairfax, *supra* note 254, at 1310–11.

²⁶⁴ *Id.* at 1311.

would be a drop in the ocean if casted quietly because it would be virtually irrelevant with respect to the voting outcome. The informed shareholder could bear the costs of informing themselves and cast an inconsequential vote. Alternatively, the shareholder could bear further costs in the form of preparing materials to be distributed to other shareholders, distributing the materials, and promoting voting in the hope that other shareholders will vote rather than taking a free ride.²⁶⁵ If the effort turns out to be successful, the informed shareholder bore all the costs for the success.²⁶⁶ If the effort fails, all the costs are simply wasted.

As a result of rational apathy combined with free riding and collective action problems, retail shareholders cast only approximately 29% of votes attached to the shares they hold.²⁶⁷ Often, retail shareholders settle for the “Wall Street Walk,” meaning they sell their shares when they are unhappy, or they settle for passive shareholding.²⁶⁸ After all, the mere fact that institutional investors hold 70% of the shares of publicly traded corporations in the United States could psychologically deter citizens from voting the shares they hold.²⁶⁹ The assumption that little or nothing could be done might have pushed the average citizen to disengage from corporate governance and, possibly, to provide more wealth to institutional investors. In providing more of their wealth to institutional investors, the average citizen may be assuming that institutional investors have more power and can provide a better check on the governance of corporations.²⁷⁰

Even when retail shareholders are determined to exercise their rights to vote their corporate shares, they may face additional obstacles. Only holders of voting shares as of the record date set for the shareholders’ meeting may vote at the meeting and receive proxy materials.²⁷¹ Among the concerns expressed in the WSB threads is that shares that had been loaned, pledged, or hypothecated may not be voted at the shareholders’ meeting unless the shares are returned to the shareholder’s account prior to the record date.²⁷² This is because, in the eyes of the company, “the borrower owns the shares (and the associated votes).”²⁷³

²⁶⁵ Edelman et al., *supra* note 255, at 1379, 1385.

²⁶⁶ In fact, unless other cost distribution arrangements exist or are achieved by incurring additional costs, one shareholder or a group of shareholders would bear the costs of collective action. Jeffrey N. Gordon, *Ties That Bind: Dual Class Common Stock and the Problem of Shareholder Choice*, 76 CAL. L. REV. 1, 43–44 (1988).

²⁶⁷ COPLAND ET AL., *supra* note 199, at 9. Institutional investors cast votes representing 91% of the shares held. *Id.*

²⁶⁸ Bainbridge, *supra* note 33, at 619 (discussing the “Wall Street” Rule according to which switching to a different investment is easier than engaging).

²⁶⁹ See COPLAND ET AL., *supra* note 199, at 9; Edelman et al., *supra* note 255, at 1384, 1386.

²⁷⁰ See Fairfax, *supra* note 254, at 1313–14. However, Bainbridge argues that institutional investors suffer problems of free riding and collective action very similar to those of retail investors. Bainbridge, *supra* note 33, at 633.

²⁷¹ See Henry T.C. Hu & Bernard Black, *The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership*, 79 S. CAL. L. REV. 811, 832 (2006) (describing shareholder voting process).

²⁷² See u/CadsuaneSedai, *supra* note 243 (setting forth instructions received from GameStop for the 2020 shareholders’ meeting).

²⁷³ Hu & Black, *supra* note 271, at 832–33.

However, many times the shareholder is unaware that the broker through which they purchased and hold the shares may have loaned out the shares.²⁷⁴ For the true owner of the shares to have the right to vote, the owner must recall those shares.²⁷⁵ On March 15, 2021, GameStop shareholders submitted a letter to the GameStop board requesting that the board fix a record date without a meeting.²⁷⁶ This would then allow shareholders to start the process of having shares recalled so that the shareholder lists as of the record date for the annual meeting more accurately reflect true ownership.²⁷⁷ Such an additional burden is a technical, but not irrelevant, obstacle to retail shareholder voting.

2. *How Technology, Social Media, and Gaming Dynamics Can Revolutionize Current Corporate Governance*

The use of new technologies, social media, online forums, and gaming dynamics might invert two trends: the way shares are held and the way shares are voted.²⁷⁸ The changes in the ways shares are held and voted will produce radical, lasting effects in corporate governance. New technologies, social media, online forums, and gaming dynamics would likely lead to significant disintermediation of investments. Citizens might withdraw their money from institutional investors and buy corporate shares directly. Such a phenomenon would be interrelated with a drastic increase in retail shareholders' engagement in corporate governance, especially via voting.²⁷⁹

First, new technologies, such as smartphones and apps, allow retail investors to buy, hold, and trade shares by way of utilizing services offered by online platforms. These platforms are user friendly and provide immediate access to information about the performance of the user's shares.²⁸⁰ Trading apps are making the transaction costs of buying, holding, and trading shares minimal, virtually zero.²⁸¹ The services already offered by online trading platforms, like

²⁷⁴ Shaun Martin & Frank Partnoy, *Encumbered Shares*, 2005 U. ILL. L. REV. 775, 779 (2005).

²⁷⁵ Kara Scannell, *How Borrowed Shares Swing Company Votes*, WALL ST. J. (Jan. 26, 2007, 11:59 PM), <https://www.wsj.com/articles/SB116978080268188623> [perma.cc/3A8Q-X8R8].

²⁷⁶ *GameStop Stockholders Open Letter to the Board of Directors*, STOCKHOLDERSRIGHTS.COM (Mar. 15, 2021) [hereinafter GameStop Letter], <https://www.stockholdersrights.com/letter-to-the-board> [perma.cc/X6WR-S9UP]. On a subreddit dedicated to AMC, r/amcstock, Redditors also expressed a similar interest in recalling AMC shares prior to the 2021 shareholders' meeting. See, e.g., u/MoneyisPowerful, *Can We Request a Stock Recall Prior to the Shareholders Meeting? #SaveAMC*, Posting to *AMCStock*, REDDIT (Apr. 3, 2021, 5:33 PM), https://www.reddit.com/r/amcstock/comments/mjl4io/can_we_request_a_stock_recall_prior_to_the [perma.cc/W6U3-7BSR].

²⁷⁷ GameStop Letter, *supra* note 276.

²⁷⁸ See Seth C. Oranburg, *A Little Birdie Said: How Twitter Is Disrupting Shareholder Activism*, 20 *FORDHAM J. CORP. & FIN. L.* 695, 696 (2015) (arguing that social media enhances shareholder activism).

²⁷⁹ See *id.* at 698, 715.

²⁸⁰ For a discussion of some features of Robinhood, see Egan, *supra* note 8.

²⁸¹ See Mark Fenwick et al., *The End of 'Corporate' Governance: Hello 'Platform' Governance*, 20 *EUR. BUS. ORG. L. REV.* 171, 172, 175–76 (2019).

Robinhood, are examples.²⁸² This would facilitate citizens' disintermediation of their investments. In fact, the current volume of retail trading appears to confirm that such trend has already gained traction.²⁸³

Second, social media, apps, online forums, and online communication platforms popular among gamers (together, "online communication venues") allow citizens and retail shareholders to share information about which shares to buy, to hold, and to sell in an unprecedentedly efficient fashion.²⁸⁴ WSB, for example, played a pivotal role in the GameStop saga.²⁸⁵ The growth in number of WSB Redditors likely signals an increasing interest in its content and format.²⁸⁶ In addition, wireless investors could strengthen the use of communication strategies and live-broadcasting platforms that characterize the gaming world to facilitate the circulation of information about trading.²⁸⁷ This would make citizens' disintermediation of their investments appealing. In fact, not only would retail investors affordably hold and trade their shares directly, but they could also affordably keep informed about corporations and corporate stocks. In addition, gaming-like communication strategies could add a layer of entertainment to trading, which would draw more retail investors. In fact, wireless investors already use communication platforms typically used by gamers, such as Discord and Twitch, to share and compare investing tips and strategies.²⁸⁸

Third, online communication venues facilitate the circulation of information among shareholders and citizens with respect to voting, too.²⁸⁹ Practically all the communication strategies and channels wireless investors use, or could use, with respect to trading would be applicable to voting and, more generally, to corporate governance engagement. For example, wireless investors could use WSB and Twitch to share information about the election or removal of board members as well as the proposals and voting of shareholder precatory resolutions. In fact, as discussed previously, WSB Redditors are already using the platform to share information about trading.²⁹⁰ Moreover, we are already seeing companies actively seeking out, and engaging with, wireless investors on the new communication platform, Clubhouse.²⁹¹ Companies are beginning to treat retail investors as they

²⁸² See discussion *supra* Section II.A.3.

²⁸³ Martin & Wigglesworth, *supra* note 129.

²⁸⁴ See Elizabeth Blankespoor, *Firm Communication and Investor Response: A Framework and Discussion Integrating Social Media*, 68–69 ACCT. ORGS. & SOC'Y 80, 80, 84 (2018) (finding that "social media has . . . created opportunities for unprecedented interactions" and greatly simplifies communications among investors).

²⁸⁵ Morrow, *supra* note 35; Zhou, *supra* note 37.

²⁸⁶ See *supra* text accompanying note 217.

²⁸⁷ See discussion *supra* Section II.A.3.

²⁸⁸ Martin & Wigglesworth, *supra* note 129.

²⁸⁹ See Blankespoor, *supra* note 284, at 84 (emphasizing the role of social media in circulating and certifying information given to investors).

²⁹⁰ See discussion *supra* Section II.A.

²⁹¹ Courtenay Brown, *Companies Ride Retail Trading Wave to Clubhouse*, AXIOS (Mar. 9, 2021), <https://www.axios.com/earnings-markets-retail-clubhouse-1de3c247-3ea0-48a3-a077-40294dc7ddc2.html> [perma.cc/4Y9G-UXEM] (describing how Carparts.com and Restaurant

treat institutional investors—meeting them in their own spaces.²⁹² We expect this phenomenon to become incrementally relevant as brokers begin to no longer vote uninstructed shares.²⁹³ As such, corporations will increasingly need to rely on retail investors to reach a quorum at shareholder meetings.

The use of these online communication venues would increase the appeal of direct investing because retail investors could more affordably participate in the governance of corporations in which they own stocks. In turn, this could set in motion a more robust disintermediation trend with consequential redistribution of shares across a much broader shareholder basis. The result of such redistribution would be appreciably more granular share ownership. As we discuss in other work, most likely, engagement would be boosted by legislative reforms that modernize shareholders' meetings.²⁹⁴

Fourth, online communication venues facilitate the coordination among citizens and shareholders regarding trading or voting.²⁹⁵ By easing the circulation of information and the coordination among shareholders, new communication

Brands International, the parent company of Burger King, Popeyes, and Tim Hortons, have been using Clubhouse to reach retail investors).

²⁹² See Phillips, *supra* note 203 (describing how Carparts.com executives held a conference call with analysts, and the same executives logged onto Clubhouse thirty minutes later and communicated with 2,000 guests). Executives also are trying to reach their retail shareholder base by “doing interviews on podcasts, websites and YouTube programs popular with retail investors.” *Id.* During a First Quarter 2021 Earnings Call, AMC CEO Adam Aron explained how the increase in individual investors at AMC has changed the way he is communicating with shareholders. See AMC Entertainment Holdings, Inc. (AMC), *supra* note 242 (“[Y]ou’re going to see a lot more outreach to literally millions of investors in our company. And it’s going to be quite public.”). He indicated that he has started tweeting and that he had recently given a 90-minute YouTube interview, which garnered 250,000 views. *Id.* He further alluded to the ease of using online communication venues versus traditional mass media. *Id.* (“[T]ry getting four minutes on CNBC. That’s pretty hard. Well, we got 90 minutes on YouTube and it had 250,000 views.”).

²⁹³ Brokers are increasingly ending the custom of discretionary voting and proportionate voting. In July 2019, Charles Schwab announced it was no longer going to be voting uninstructed shares. Brian Valerio & Tyler Herka, *Charles Schwab No Longer Utilizing Proportionate Voting*, ADVISOR (Mar. 2020), https://uploads-ssl.webflow.com/5f6b70b40b9f16c04a0fe20a/5f6b70b40b9f1600c40fe3f8_Alliance-Advisors-Newsletter-Mar.-2020-Charles-Schwab-No-Longer-Utilizing-Proportionate-Voting.pdf [perma.cc/8RQT-DLPQ]. In March 2021, TD Ameritrade, which was purchased by Charles Schwab in 2020, also announced it would not be voting uninstructed shares beginning with the 2021 proxy season. Tom Ball, *TD Ameritrade Eliminates Discretionary Voting*, S’HOLDER SERVS. ASS’N (Mar. 22, 2021), <https://www.shareholderservices.org/blogpost/1923700/367680/TD-Ameritrade-Eliminates-Discretionary-Voting> [perma.cc/TQ9Y-RG9W]. Accordingly, if shareholders do not instruct these brokers on how their shares will be voted, the brokers will not be voting the shares. As such, those shares will not be deemed present at the meeting for purposes of a quorum, and there is a possibility that a quorum may not be obtained. *Id.* Accordingly, companies may increasingly reach out to retail investors to solicit their votes. *Id.* Companies may also likely increasingly try to placate wireless investors’ desires for ESG. In turn, this could accelerate the cascade effect that we discuss *infra* Section III.A.

²⁹⁴ We discuss technology-based shareholders’ meetings in a work-in-progress paper tentatively titled *Wireless Shareholders Meetings*.

²⁹⁵ See Blankespoor, *supra* note 284, at 84.

strategies and channels decrease the costs of collective action.²⁹⁶ In addition, new ways to communicate would allow retail investors to gather momentum with respect to collective action and efforts. Moreover, gaming dynamics could increase the engagement of retail investors and solidify the will to work together towards the achievement of common goals, giving a new appeal to collective initiatives.²⁹⁷ The recent WSB-GameStop saga and meme stock trading frenzy could be interpreted as only the tip of the iceberg of retail investors' collective initiatives and efforts. Strong signals, including WSB posts regarding shareholder meetings at both GameStop and AMC, indicate that wireless investors aim to extend their attention to corporate governance engagement.²⁹⁸ This means that wireless investors will likely undertake initiatives to gather critical masses of votes to determine the results of shareholders' meeting resolutions. As a result, despite a granular share ownership, retail investors would be able to coordinate impactful trading and voting initiatives. Retail investors could decouple their economic interests from their governance goals because they would benefit from the economic interest on a granular share ownership basis. But they would pursue their governance goals as coordinated, powerful aggregate groups of investors.

The fifth change that new technologies can generate is more affordable and effective access to voting.²⁹⁹ We see affordability, accessibility, and effectiveness distributed along a curve starting where technology and the law are now and increasing as technology evolves and legislative reforms take place.³⁰⁰ Namely, if synchronous remote participation were enhanced by using technologies such as blockchain, distributed ledgers, or even virtual reality, access to shareholders' meetings and voting during shareholders' meetings for retail investors would come at very affordable costs.³⁰¹ This would entail allowing remote participants to express their vote online, in real-time, after discussions in the shareholders' meeting occur.³⁰² This appears particularly relevant to decreasing the costs

²⁹⁶ See Oranburg, *supra* note 278, at 696.

²⁹⁷ Christopher Bailey et al., *Using Video Games to Develop Social, Collaborative and Communication Skills*, in PROCEEDINGS OF ED-MEDIA 2006—WORLD CONFERENCE ON EDUCATIONAL MULTIMEDIA, HYPERMEDIA & TELECOMMUNICATIONS 1154, 1155 (Elaine Pearson & Paul Bohman eds., 2006) (noting that video gamers “share ideas” and “often collaborate in teams”).

²⁹⁸ See *supra* text accompanying notes 238–43.

²⁹⁹ See Gaia Balp, *The Corporate Governance Role of Retail Investors*, 31 LOY. CONSUMER L. REV. 47, 90 (2018) (noting that technology is among the “most promising tools” for encouraging shareholder voting).

³⁰⁰ We discuss technology-based shareholders' meetings in a work-in-progress paper tentatively titled *Wireless Shareholders Meetings*.

³⁰¹ Balp, *supra* note 299, at 88; Anne Lafarre & Christoph Van der Elst, *Blockchain Technology for Corporate Governance and Shareholder Activism* 6, 26 (Eur. Corp. Governance Inst., Working Paper No. 390, 2018), <http://ssrn.com/abstract=3135209> [perma.cc/G6BZ-EZN5]; Luca Enriques & Dirk A. Zetsche, *Corporate Technologies and the Tech Nirvana Fallacy*, 72 HASTINGS L.J. 55, 67–70 (2020); Christopher M. Bruner, *Distributed Ledgers, Artificial Intelligence and the Purpose of the Corporation*, 79 CAMBRIDGE L.J. 431, 434–41 (2020).

³⁰² Companies are already using technology allowing shareholders to interact with management during corporate events. See Phillips, *supra* note 203 (describing Say Technologies' “social-media style platform,” which allows investors to ask questions during corporate events).

attached to accessing and processing information, thus facilitating retail investors' engagement in corporate governance. This would make access to corporate governance affordable for virtually all retail investors with the result being that an increasingly larger number of citizens would be able to engage with the corporate sector.

Moreover, virtual shareholders' meetings could be structured in a fashion that places emphasis on interaction, perhaps through dynamics that resemble those of gaming, to a point that engaging with corporate governance would not only be accessible but also be entertaining.³⁰³ By teaming up, retail investors would acquire an unprecedented collective power.³⁰⁴ Retail investors would also develop a sense of belonging and a sense of purpose, especially when fighting together for causes they are passionate about.³⁰⁵

We are already seeing this sense of purpose and belonging playing out. For example, as we have previously detailed, some investors are being drawn to WSB for a sense of "camaraderie" and to feel as though they are making a difference in distributing wealth.³⁰⁶ Moreover, we are seeing WSB collective action expanding beyond investments and into charitable distributions.³⁰⁷ For example, WSB Redditors coordinated to symbolically adopt over 3,800 gorillas, raising over \$383,000, and to also donate to other charitable causes.³⁰⁸ Unsurprisingly, companies are beginning to recognize the power of wireless investors and want to make the most of their affinities.³⁰⁹

Ultimately, new technologies, social media, online forums, and gaming dynamics will have two radical consequences. First, retail investors will reengage with corporate governance. Second, also in light of a more granular share ownership, the way shares will be voted will mirror the vision of the world of retail investors who likely see themselves first as citizens and then as investors.³¹⁰

³⁰³ See Lafarre & Van der Elst, *supra* note 301, at 19, 26 (arguing that blockchain and smart contracting technology improves governance processes by facilitating efficient involvement of shareholders).

³⁰⁴ For a discussion of this collective power already being exercised in the context of WSB and donations, see *supra* Section II.B.2.

³⁰⁵ *Id.*

³⁰⁶ See The Journal, *supra* note 6, at 18:03–18:43; see also *supra* Section II.B.2 for a further discussion of the satisfaction beyond simply making money that WSB Redditors point to.

³⁰⁷ See the discussion *supra* Section II.B.2 for a description of these charitable donations.

³⁰⁸ See Dian Fossey Gorilla Fund, *supra* note 192 (thanking WSB and worldwide supporters for raising more than \$383,000).

³⁰⁹ Phillips, *supra* note 203 (discussing how the GameStop and meme stock trading frenzy and increase in retail investing has "forced companies to understand the importance of retail investors" and how "[c]ompanies are seeing the opportunity to kind of tap into shareholder loyalty, tap into that passion").

³¹⁰ To put this statement in context, it is worth considering how commentators have pointed out that if provided with more significant services, the power of *non-professional* young investors would exponentially increase. "What the youngsters on WSB do from their cell phones pales in comparison to what they could do if they were actually equipped with a fully loaded Bloomberg terminal as is the case with the so-called professionals." ROGOZINSKI, *supra* note 3, at 8.

Current trends in financial markets already show that retail investors heavily engage with direct investing.³¹¹ Engaging with corporate governance would not just be the next logical step for retail investors, but it would also be the consequential step for new generations who want to have an impact on the real world.

III. THE NEW PARADIGM AND THE THEORETICAL JUSTIFICATION

A. *The Cascade: None, One, a Hundred Thousand*

“None, one, a hundred thousand,” an expression evocative of Pirandello’s famous novel, actually describes the cascade or snowball effect that wireless investors can originate in corporate governance.³¹² By using technology, social media, and gaming dynamics to invest directly in the stock market and to engage with corporate governance, wireless investors have the capacity to produce lasting changes, able to shift the very purpose of business corporations for ages.

Economists and sociologists emphasize how individuals engage in interdependent decision-making and actions.³¹³ Among the theories to consider here is the Diffusion of Innovations (“DOI”) theory, which was developed by Everett M. Rogers in 1962.³¹⁴ DOI describes how, over time, an idea may spread through, or an innovation may be adopted by, members of a group or social system.³¹⁵ Under this theory, individuals are divided into categories based on their willingness to adopt a certain idea or innovation: Innovators, Early Adopters, Early Majority, Late Majority, and Laggards.³¹⁶ Innovators, who account for approximately 2.5% of the population, tend to have a high risk tolerance and like to cause change, while Early Adopters, who comprise 13.5% of a group, are

³¹¹ See Martin & Wigglesworth, *supra* note 129 (“The retail trading boom is a global phenomenon, with stock trading clubs, messaging groups, chat forums and even ‘rooms’ on audio social networking site Clubhouse mushrooming across the world, from South Korea to Norway. But the US is the epicentre of an international stock market earthquake.”).

³¹² “None, one, a hundred thousand” is a twist on the title of Luigi Pirandello’s classic novel, *One, None and a Hundred-Thousand: A Novel*. See generally LUIGI PIRANDELLO, *ONE, NONE AND A HUNDRED-THOUSAND: A NOVEL* (Samuel Putnam trans., E.P. Dutton & Co., Inc. 1933) (1926).

³¹³ GERALD MARWELL & PAMELA OLIVER, *THE CRITICAL MASS IN COLLECTIVE ACTION: A MICRO-SOCIAL THEORY* 9 (1993) (assuming persons act interdependently and defining interdependence as “behavior that takes account of the effect of one’s participation in collective action on the participation of others”).

³¹⁴ See generally EVERETT M. ROGERS, *DIFFUSION OF INNOVATIONS* (5th ed. 2003). Various scholars had been engaging in diffusion research across Europe prior to the publication of the first edition of Rogers’s book in 1962. *Id.* at 31–33. However, Rogers is typically credited with bringing the research together.

³¹⁵ *Id.* at 5–6.

³¹⁶ *Id.* at 282–85. Some diffusion scholarship breaks these categories down into four categories instead of five and refers to them as innovators, early adopters, later adopters, and non-adopters. See Rebecca Kolins Givan et al., *The Dimensions of Diffusion*, in *THE DIFFUSION OF SOCIAL MOVEMENTS: ACTORS, MECHANISMS, AND POLITICAL EFFECTS* 1, 8 (Rebecca Kolins Givan et al. eds., 2010).

“opinion leaders” who welcome change.³¹⁷ Early Adopters also use their social networks to influence others to adopt the innovation.³¹⁸ As an example, Innovators and Early Adopters were likely the groups behind the WSB GameStop and meme stock trades in terms of using social media and trading apps to share information and trade. Innovators likely represented the early trades in 2020, but people who joined WSB and also began trading in GameStop stock in January 2021 may be considered Early Adopters.

The other categories vary in their comfort level in adopting new ideas or innovations. The Early Majority accounts for approximately 34% of the population and are comfortable with change so long as the innovation or idea is proven.³¹⁹ Conversely, the Late Majority, who comprise another 34% of a group, are much more doubtful and tend not to adopt ideas or innovations until they feel societal or economic pressure to do so.³²⁰ Finally, the Laggards, who account for approximately 16% of the population, are the most suspicious.³²¹ They tend to be older, age-wise, and more traditional in nature.³²² They frequently are not as social as other groups, often limiting their social groups to just family members or good friends.³²³

Both sociologists and economists have addressed how ideas and innovations become diffused through these various categories of adopters via communication networks.³²⁴ According to Rogers, mass media communication channels are the most effective and quickest way to inform groups about an innovation or idea.³²⁵ Mass media has played a significant role in “amplifying and editing the diffusion of collective action” and research has shown that many social movements have been spurred on by mass media coverage.³²⁶ Although mass media might be the quickest way to make an idea known, interpersonal channels, defined as face-to-face communications between two individuals, are more effectual at convincing another to adopt the innovation or idea.³²⁷ More recently, interactive communication channels using the Internet and social media now play a significant role in diffusion.³²⁸ In fact, we have seen internet memes being used by various groups, including WSB, to “diffuse ideas into groups pretty quickly,” to “persuade and

³¹⁷ Christopher Sirk, *Diffusion of Innovation: How Adoption of New Tech Spreads*, CRM.ORG (Aug. 21, 2020), <https://crm.org/articles/diffusion-of-innovations> [perma.cc/WE2C-9L4S].

³¹⁸ *See id.*

³¹⁹ *Id.*

³²⁰ *Id.*

³²¹ *Id.*

³²² *Id.*

³²³ *Id.*

³²⁴ *See, e.g.*, ROGERS, *supra* note 314, at 274; Michael Suk-Young Chwe, *Communication and Coordination in Social Networks*, 67 REV. ECON. STUD. 1, 1 (2000).

³²⁵ ROGERS, *supra* note 314, at 205.

³²⁶ David Strang & Sarah A. Soule, *Diffusion in Organizations and Social Movements: From Hybrid Corn to Poison Pills*, 24 ANN. REV. SOCIO. 265, 271 (1998) (providing examples of social movements amplified by mass media).

³²⁷ ROGERS, *supra* note 314, at 205.

³²⁸ *Id.* at 215–16.

mobilize people,” and to define groups and “inspir[e] that [group] into collective action.”³²⁹

Communication channels have two important functions: they convey information about previous adoptions by other categories of adopters and “creat[e] common knowledge”³³⁰ or “knowledge of other people’s knowledge” within a particular adopter category.³³¹ Communication channels can be considered based on the types of links that exist among individuals. Weak links circulate information broadly.³³² Weak links include mass media channels and, depending on the technology and the relationship among the individuals communicating, interactive channels. Strong links are more effective at “locally creating the common knowledge . . . essential for collective action.”³³³ Strong links or ties generally entail “frequent interaction” leading to the “exchange of information about the character, motivations, and effects of diffusing practices.”³³⁴ This frequent interaction and exchange of information often in turn leads to the adoption of the same viewpoint and “exert[s] powerful pressures for conformity.”³³⁵ Interpersonal communication channels fall within the strong links category, as do some forms of interactive communication.³³⁶

As they look to expanding beyond simply investing and into voting, retail investors who are aiming for a shift in corporate governance will need to utilize communication channels in the pursuit of a critical mass. Because wireless investors are already using communication channels like Reddit, Discord, Twitch, WhatsApp, and Twitter to exchange investing ideas, it is only logical that they would use the same communication venues to ultimately achieve a critical mass for voting.³³⁷ Moreover, anecdotal evidence suggests that older generations are using social media like Discord and TikTok to both share and obtain investing tips.³³⁸ This leads us to believe that a critical mass for voting can be obtained

³²⁹ Natalie Zhang, *How Memes, Reddit and Retail Investors Flipped Wall Street Upside Down*, CNBC (Apr. 23, 2021, 12:10 PM), <https://www.cnbc.com/2021/04/23/how-reddit-me-me-stocks-like-gamestop-and-amc-changed-wall-street.html> [perma.cc/4AEM-V4JR]. Also see the text accompanying that video, which quotes Professor Ryan Milner, College of Charleston communication professor.

³³⁰ Chwe, *supra* note 324, at 1.

³³¹ Michael Suk-Young Chwe, *Structure and Strategy in Collective Action*, 105 AM. J. SOCIO. 128, 129 (1999).

³³² *Id.*

³³³ *Id.*

³³⁴ Strang & Soule, *supra* note 326, at 272.

³³⁵ *Id.*

³³⁶ See Matthew O. Jackson et al., *Networks: An Economic Perspective*, in THE OXFORD HANDBOOK OF SOCIAL NETWORKS 535, 538–39, 543 (Ryan Light & James Moody eds., 2020) (explaining how friends influence friends).

³³⁷ See discussion *supra* Section I.B (describing wireless investors’ use of Twitch and Discord); Martin & Wigglesworth, *supra* note 129 (describing wireless investors using various social media platforms to exchange trading ideas).

³³⁸ See Misyrlena Egkolfopoulou & Katharine Gemmill, *The Robinhood Generation Is Debating Old School Investors on Trading Stocks*, BLOOMBERG (Apr. 6, 2021, 4:46 AM), <https://www.bloomberg.com/news/articles/2021-04-06/how-to-trade-stocks-the-robinhood-genera>

easily via these types of online communication venues. A critical mass is needed to achieve intertwined outcomes: being able to effectively have a say in the governance of one or more corporations and making the trend (or movement) gain momentum and scale up. In fact, the real shift in the way shares are held and voted will happen when a critical mass of retail investors engage with the governance of business corporations.³³⁹ Leading by example, Millennials and GenZ'ers, acting as Innovators, Early Adopters, and possibly Early Majority, might show that investing in the stock market directly and participating in corporate governance is now much easier and more affordable than in the past. Investing in the stock market directly allows citizens to decide where to put their money and their hopes. It also allows them to steer corporations on a path that is sustainable for the planet and society.

This will develop as a social movement. When a certain threshold of participants is reached, the trend will snowball.³⁴⁰ In fact, sometimes the costs and benefits of two alternative choices depend on how many other individuals choose which alternative.³⁴¹ The number of other individuals who must make a decision, including adopting a particular innovation, before an individual will do the same is that actor's "threshold."³⁴² At the threshold, the benefits of making the decision exceed the costs of doing so.³⁴³ Adoption can occur exponentially as "one individual's choice of an alternative has the potential to push another individual over her threshold; the second individual's action in turn may induce other individuals to follow."³⁴⁴ In this case, as the power of retail investors grows (to the detriment of the power of institutional investors), increasingly more retail investors will recognize the possibility to rearrange the power dynamic between retail investors and institutional investors. Hence, more and more people might see the opportunity to invest in the stock market, perhaps withdrawing their money from institutional investors.

tion-is-debating-old-school-investors [perma.cc/5BUM-STTP] (providing examples of "traditional investors" using TikTok and Discord to share investing tips); Lorenz & Isaac, *supra* note 167 (stating that WSB Redditors include Boomers).

³³⁹ Rogers has explained that "[t]he critical mass occurs at the point at which enough individuals in a system have adopted an innovation so that the innovation's further rate of adoption becomes self-sustaining" or, put differently, "further diffusion becomes self-sustaining." ROGERS, *supra* note 314, at 343–44. As such, the critical mass is like a "tipping point." *Id.* at 352. Approaching the tipping point or critical mass, "a few more adopters . . . suddenly make a big difference, as the rate of adoption rapidly escalates." *Id.* Once the tipping point is passed, social norms come into play and "encourage further adoption." *Id.* Therefore, the process has a cascade-type effect.

³⁴⁰ See Chwe, *supra* note 331, at 146 (stating that as the number of adopters increases, more people participate, creating a "snowball" or "bandwagon" effect").

³⁴¹ One individual's adhesion has the potential to induce another individual to adhere; the second individual's action in turn may push other individuals to participate, and a cascade is generated. See Mark Granovetter, *Threshold Models of Collective Behavior*, 83 AM. J. SOCIO. 1420, 1422–23 n.2 (1978).

³⁴² *Id.* at 1420.

³⁴³ *Id.*

³⁴⁴ Susanne Lohmann, *The Dynamics of Informational Cascades: The Monday Demonstrations in Leipzig, East Germany, 1989–91*, 47 WORLD POL. 42, 47 (1994).

The result will be that a large number of people will hold a small number of shares directly. Share ownership will be much more granular, and more corporations will have disbursed shareholders. From a shareholder's perspective, holding a small amount of shares in a corporation means that the economic interest of the shareholder in that stock is limited. At the same time, voting is made accessible and affordable by new technologies. Shareholders would be better off voting their shares in a fashion that primarily takes into account their interest as a citizen and secondarily as an investor. To a large extent for a citizen, the marginal benefits of voting shares according to ESG principles would arguably exceed those of maximizing financial return.

B. Citizens' Influence Through the Corporate Sector: The Return to the Partly-Private-Partly-Public Corporate Purpose

Innovators and First Adopters would ultimately set in motion a movement of *wireless investors* able to cause a revolution in the way shares are held and in the way shares are voted. This would allow retail shareholders to pursue ESG goals, leveraging on the corporate sector. In a climactic fashion, this trend will result in the re-marriage of business corporations with their partly-private-partly-public roots.

The use of online communication venues, combined with no-fee service providers, has drastically decreased the cost of investing directly in the stock market, while bumping up the fun. Shareholders can trade shares at virtually zero costs. Staying informed and engaging in corporate voting is getting exponentially more affordable. Through the application of gaming dynamics, it is also becoming entertaining and appealing to an increasingly larger audience. Following the lead of wireless investors, who already master the technology and communication channels that facilitate retail investors' trading, more people will likely invest directly in the stock market. This trend has the potential to revolutionize the way shares are held. In fact, if a critical mass invested directly in the stock market, the cascade effect of this trend could push citizens to disintermediate their investments. When citizens disintermediate their investments, they withdraw their money from institutional investors and purchase corporate shares directly. A real revolution in the way shares are held would take place. Share ownership would return to, or surpass, the level of granularity characterizing the corporations of the Berle and Means era.³⁴⁵

A revolution in the way shares are held, based on disintermediation and granular share ownership, would likely lead to a more disruptive revolution: a revolution in the way shares are voted, accompanied by a consequential new paradigm for corporate governance. In general, most investors are sensitive to the pursuit of a sustainable economy, and wireless investors belong to generations that place particular emphasis on social and environmental causes.³⁴⁶ Investing

³⁴⁵ See generally ADOLF A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (1932).

³⁴⁶ See discussion *supra* Section II.A.2.

directly in the stock market allows citizens to pursue their ESG goals, exercising their votes in shareholder meetings and leveraging on some of the most powerful institutions in the world: business corporations.³⁴⁷

Disintermediation re-enfranchises citizens with their corporate votes. Citizens who hold a small economic interest in a corporation would likely prioritize their interests as human beings living in a society and on a shared planet when voting their shares. They would have rational reasons to do so even if that would not mean maximizing the financial return of their equities. In a number of circumstances, citizens would be better off voting their shares with the goal to contain the externalization of the costs of corporate performance on society and the planet. In addition, citizens' prosocial attitudes would tilt their preferences towards ESG-oriented voting even when a pure cost-benefit analysis did not provide an unequivocal result.³⁴⁸

If disintermediation and wireless investors reach a critical mass, wireless investors could cause a radical shift in the way corporations are run by exercising their aggregate power in shareholders' meetings. If wireless investors are able to determine who sits on the board of directors and pick directors who have displayed an ESG record, the shift in the governance of corporations would be so deep-seated that the very purpose of the corporation would be impacted. After decades of debates regarding whether corporations should pursue goals beyond shareholder value maximization, shareholders themselves would align the aim of a corporation with that of socially and environmentally conscious citizens.³⁴⁹

³⁴⁷ There are market-based and law-based mechanisms aimed at reducing agency costs between fund managers and the beneficiaries of the funds. However, institutional investment comes with agency costs that do not attend direct investing. *See* Paces, *supra* note 249, at 7. The way fund managers are paid and assessed, based on economic performance, does not appear to be aligned with social and environmental priorities. *See* STOUT ET AL., *supra* note 246, at 36. Moreover, "[i]nstitutional investors have incentive to maximize fee income net of management cost," which, with the exception of hedge funds, is obtained by increasing the value of the assets under management of the funds they manage. *See* Paces, *supra* note 249, at 7. Paces emphasizes this aspect and points out how

[t]o attract as many beneficiaries as possible, institutional investors try to offer attractive performance, in different risk classes, combined with a prosocial goal widely supported by beneficiaries. Environment-friendly investments are a good example of such a prosocial goal. However, institutional investors may not be entirely honest in pursuing ESG investment and, even if they are, their ESG labels may not correspond with what beneficiaries actually want.

Id.

³⁴⁸ For a discussion of people's prosocial and unselfish behaviors, see generally LYNN STOUT, *CULTIVATING CONSCIENCE: HOW GOOD LAWS MAKE GOOD PEOPLE* (2011).

³⁴⁹ The North American debate on the purpose of corporations dates back at least to the 1930s when Adolf A. Berle and Merrick Dodd found themselves at odds in a famous exchange published in the *Harvard Law Review*. A.A. Berle, Jr., *Corporate Powers as Powers in Trust*, 44 HARV. L. REV. 1049 (1931). Berle advocated that "all powers granted to a corporation or to the management of a corporation . . . are necessarily and at all times exercisable only for the ratable benefit of all the shareholders as their interest appears." *Id.* at 1049. In 1932, with words that appear vogue today, Dodd countered that

public opinion, which ultimately makes law, has made and is today making substantial strides in the direction of a view of the business corporation as an economic institution which has a social

Such an alignment would be consistent with the original goals of corporations, which were entities with a partly-private-partly-public purpose that were granted legal personality and a charter only when their scope was considered in the interest of the nation-state or, in other words, of the public.³⁵⁰

When a corporation's shares are really dispersed, virtually the whole society has an interest in the corporation. Roles as shareholders, customers, employees, and community members happen to overlap in a fashion that almost re-internalize some corporate externalities.³⁵¹ It would be in the interest of everybody, including those who have shares in the corporation, that the positive externalities

service as well as a profit-making function, that this view has already had some effect upon legal theory, and that it is likely to have a greatly increased effect upon the latter in the near future.

E. Merrick Dodd, Jr., *For Whom Are Corporate Managers Trustees?*, 45 HARV. L. REV. 1145, 1148 (1932). A temporary reconciliation seemed to be achieved when Berle conceded that “[t]he argument has been settled (at least for the time being) squarely in favor of Professor Dodd’s contention.” ADOLF A. BERLE, JR., *THE TWENTIETH (20TH) CENTURY CAPITALIST REVOLUTION* 169 (1954). However, when, in 1970, Milton Friedman wrote that the responsibility of a corporate executive is to have the corporation “make as much money as possible while conforming to the basic rules of the society,” the foundations for a paradigm shift towards shareholder value maximization were laid. Milton Friedman, *A Friedman Doctrine—The Social Responsibility of Business Is to Increase Its Profits*, N.Y. TIMES MAGAZINE, Sept. 13, 1970, at 33. Although it appears that some concessions have been made on the shareholder value maximization’s part lately, the debate has been lively since and has occupied the agenda of some of the finest scholars. See generally Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547 (2003); Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Stakeholder Governance*, 106 CORNELL L. REV. 91 (2020); Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833 (2005); Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247 (1999); David Ciepley, *Beyond Public and Private: Toward a Political Theory of the Corporation*, 107 AM. POL. SCI. REV. 139 (2013); Einer Elhauge, *Sacrificing Corporate Profits in the Public Interest*, 80 N.Y.U. L. REV. 733 (2005); R. EDWARD FREEMAN, *STRATEGIC MANAGEMENT: A STAKEHOLDER APPROACH* (1984); Oliver Hart & Luigi Zingales, *Companies Should Maximize Shareholder Welfare Not Market Value*, 2 J. L. FIN. & ACCT. 247 (2017); COLIN MAYER, *PROSPERITY: BETTER BUSINESS MAKES THE GREATER GOOD* (2018); Jill E. Fisch & Steven Davidoff Solomon, *Should Corporations Have a Purpose?* (Eur. Corp. Governance Inst., Working Paper No. 510, 2021); LYNN A. STOUT, *THE SHAREHOLDER VALUE MYTH: HOW PUTTING SHAREHOLDERS FIRST HARMS INVESTORS, CORPORATIONS, AND THE PUBLIC* (2012); Lynn A. Stout, *Bad and Not-So-Bad Arguments for Shareholder Primacy*, 75 S. CAL L. REV. 1189 (2002).

³⁵⁰ For a discussion of the nature of corporations at their origins, see Sergio Alberto Gramitto Ricci, *Archeology, Language, and Nature of Business Corporations*, 89 MISS. L.J. 43, 51–54 (2019); Giancarlo Anello et al., *Divine Law for Corporations*, 45 SEATTLE L. REV. (forthcoming) (discussing the role of purpose and the corporate form). For a discussion of the nature of business corporations, see Ciepley, *supra* note 349, at 141. For a doctrinal framework supporting directors’ freedom to deviate from strict shareholder value maximization, see Hart & Zingales, *supra* note 349, at 263–64 (arguing that directors should maximize shareholder welfare, not shareholder value). See generally Elhauge, *supra* note 349.

³⁵¹ For a discussion of how shareholders are also employees, taxpayers, consumers, and citizens who live in a society and on a shared planet, see Stout & Gramitto, *supra* note 246, at 566. For a discussion on how shareholders, who are also citizens who live in a society, internalize externalities, see Hart & Zingales, *supra* note 349, at 248.

generated by the corporation exceed the negative externalities. Through some circular dynamics, the shareholders would be brought to bear the welfare of all stakeholders. Quite in an ironic fashion, barring legislative interventions that would require business corporations to pursue a public end, business corporations' re-marriage with their partly-private-partly-public purpose is most likely to happen at the hands of shareholders.³⁵²

Wireless investors' endeavor will be strengthened by index funds' rush to harness wireless generations' affinities. To attract and manage wireless generations' money, some index funds are tapping into wireless generations' ESG values, marketing themselves to wireless generations as ESG-driven.³⁵³ To back their promises, funds that present themselves as ESG-driven will expectedly vote as wireless investors do. In addition, wireless investors' endeavor will be supplemented by institutional investors' systemic risk stewardship: striving to contain climate change risk, financial distress risk, and social stability risk, institutional investors might develop a form of ESG-inspired systematic stewardship.³⁵⁴ As a result, a number of institutional investors will systematically or occasionally vote with wireless investors.

The wireless investors' movement to make corporations serve people and the planet will also benefit from brokers no longer voting uninstructed shares.³⁵⁵ As brokers are transitioning out of voting uninstructed shares, unless shareholders express their votes, their shares will go unvoted. In fact, retail investors would not be able to rely on discretionary or proportionate voting by brokers. Discretionary voting involves brokers voting in line with board recommendations, while with proportionate voting, they vote uninstructed shares in proportion to how the broker was instructed by the other holders of those shares.³⁵⁶ Hence, either shareholders express their votes, or they leave the corporation's destiny in the hands of other unknown investors. Furthermore, corporations risk failing to obtain quorums at shareholders' meetings. In response, corporations might have to nurture their relations with retail investors and solicit them to vote, and retail investors would have an additional reason to internalize the frictional cost attached to informing themselves, possibly through online communication venues, and vote their shares. Compelled to stay informed and vote, other retail investors might vote with wireless investors and take part in the game-changing movement to make corporations serve people and the planet.

Several trends and circumstances are positively aligning to boost the wireless investors' movement. It appears that one question still surrounding the success of wireless investors' efforts to have corporations re-marry their partly-

³⁵² For a discussion on the reasons why it would be preferable to leave it to shareholders to contain corporate externalities rather than relying on governments, see Hart & Zingales, *supra* note 349, at 249.

³⁵³ See Barzuza et al., *supra* note 226, at 1285–86.

³⁵⁴ See Gordon, *supra* note 248, at 27–33.

³⁵⁵ See *supra* note 292 and accompanying text (describing how brokerages are choosing to no longer vote uninstructed shares).

³⁵⁶ Valerio & Herka, *supra* note 293.

private-partly-public purpose is *how fast*? The answer depends on a few variables, including, in particular, legislative reforms that allow synchronous interaction in shareholders' meetings. Experiences developed through remote working, remote education, and remote shareholders' meetings offer a blueprint for permanent legislative reforms. But only online shareholders' meetings that mirror an in-person experience would be able to create an environment resembling dynamics of a face-to-face shareholders' dialogue for the making of a corporation's will and decisions.³⁵⁷

CONCLUSION

After decades of debates on whether corporations should exclusively serve shareholders, values, skills, and habits of shareholders themselves could bring corporations to serve the broader society and the planet. Wireless investors have already taken on institutional investors by trading on online platforms and communicating through social media and online forums. They managed to coordinate, work as a team on a global scale, and gather enough power to achieve unprecedented collective action results. Their generational characteristics lead us to predict that they will apply similar dynamics to engage with the governance of business corporations and steer them towards ESG goals.

Leading by example, wireless investors have the potential to set in motion a social movement able to produce radical, lasting effects in corporate governance and the corporate sector. If a critical mass of retail investors follows the trend set by wireless investors, the way shares are held and voted would be revolutionized. An increasing number of citizens would disintermediate their investments and hold shares directly, in order to increase their corporate governance power. In turn, share ownership would become appreciably more granular. Retail investors could then decouple their economic interests from their governance goals. Their marginal benefits of minimizing negative externalities would arguably exceed those of maximizing financial return. Retail investors with a contained economic interest in a corporation's stock would likely be better off voting their shares according to ESG principles.

New technologies and communication strategies combined with no-fee trading platforms make voting affordable even for holders of a small number of shares. They also facilitate the coordination and collective action of an infinite number of retail investors. Retail investors would be able to exercise an unprecedented amount of collective power in corporate governance. Through their collective power, retail investors would cause business corporations to serve the interests of people and the planet. In doing so, retail investors would make business corporations re-marry their original partly-private-partly-public purpose.

³⁵⁷ In a work-in-progress paper tentatively titled *Wireless Shareholders Meetings*, we discuss how online shareholders' meetings could not only mirror in-person shareholders' meetings but also how technology could be used to enhance retail shareholder participation in shareholders' meetings.

Fall 2021] *CORPORATE GOVERNANCE GAMING* 97

Like in a plot twist, corporations' re-marriage with their partly-private-partly-public purpose would happen at the hands of shareholders.

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