10-2018

The Securities Law Implications of Financial Illiteracy

Lisa Fairfax
University of Pennsylvania Carey Law School

VIRGINIA LAW REVIEW

VOLUME 104 OCTOBER 2018 NUMBER 6

ARTICLES

THE SECURITIES LAW IMPLICATIONS OF FINANCIAL ILLITERACY

*Lisa M. Fairfax**

Every financial literacy study conducted over the last few decades concurs: Americans, including American investors, are financially illiterate. This Article argues that America's financial illiteracy poses a significant, widespread, and long-term challenge for our federal securities regime because that regime is premised almost entirely on disclosure as the best form of investor protection and, by extension, on investors' ability to understand disclosure. By advancing a typology of investors and their disclosure needs, this Article further argues that we may have significantly underestimated the extent of the financial illiteracy problem based on at least two flawed assumptions. First, we have presumed that the financial illiteracy problem is limited to retail investors—individuals (as opposed to institutions) who invest directly in the securities markets and who represent a small segment of the overall investor population. However, such a presumption fails to sufficiently account for the literacy concerns of individuals who invest indirectly in the market in the form of holdings in mutual funds,

* Leroy Sorenson Research Professor of Law. Founder and Director, Corporate Law and Governance Initiative, George Washington University Law School. A.B., Harvard; J.D., Harvard Law School. I would like to thank the participants of faculty workshops at the Tulane University Law School and the UNLV-William S. Boyd School of Law for their helpful comments and insights on earlier versions of this Article. Special thanks to the excellent research assistance from Vincent Glynn, Arie Smith, and Brooke Thompson. As always, thanks to Roger A. Fairfax, Jr. for your insightful comments as well as your continuous support and encouragement. All errors, of course, are mine. This Article is dedicated to the memory of my aunts Gladys Eunice White Billups and Catherine White Hardy—till we meet again, I hope you are resting well with your brother Tommy.

pension funds, and other institutions, and who comprise a substantial segment of the market. The second flawed presumption relates to the notion that disclosure is not intended for the individual retail investor. Many insist that disclosure is intended for sophisticated institutional investors and financial intermediaries who provide signals to less sophisticated investors about suitable investment choices. However, the anecdotal and empirical evidence suggests not only that our presumptions about the sophistication of institutional investors and intermediaries are debatable, but also that such actors do not perform their signaling function as effectively or as consistently as we presumed. Thus, the effort to minimize the financial literacy problem through reliance on these other investors is misguided. Finally, this Article contends that the very fact that regulators have sought to combat financial illiteracy for more than two decades without appreciable changes in financial literacy rates suggests that the problem may be long-term and that the reform of choice—investor education—may require supplementation. Based on these conclusions, this Article insists that we must grapple much more seriously with the financial literacy problem and offers suggestions about the best path forward.

Americans are financially illiterate. This is the consensus of every financial literacy study conducted over the last few decades,[1] despite studies differing not only in how they define financial literacy, but also in the metrics they use to measure financial literacy and the groups on

[1] See Marco Angrisani, Arie Kapteyn & Annamaria Lusardi, The National Financial Capability Study: Empirical Findings from the American Life Panel Survey 41 (2016); Applied Research & Consulting LLC, Financial Capability in the United States: Initial Report of Research Findings from the 2009 National Survey 37–41 (2009), http://www.usfinancialcapability.org/downloads/NFCS_2009_Natl_Full_Report.pdf [https://perma.cc/8AWW-L6FV] [hereinafter Financial Capability Study 2009] (finding that Americans have difficulty with basic financial concepts); Seth L. Elan, Fed. Research Div., Library of Cong., Financial Literacy Among Retail Investors in the United States 5 (2011) (noting that since 2006, studies "have consistently found that American investors do not understand the most basic financial concepts"); Annamaria Lusardi, Noemi Oggero & Paul J. Yakoboski, TIAA Inst. & Glob. Fin. Literacy Excellence Ctr., The TIAA Institute-GFLEC Personal Finance Index: A New Measure of Financial Literacy 3–5 (2017), https://www.tiaainstitute.org/sites/default/files/presentations/2017-04/TIAA%20Institute-GF LEC%20PFin%20Index%20Report_2.pdf [https://perma.cc/FTC2-YJTK] [hereinafter Lusardi et al., A New Measure]; Annamaria Lusardi, Financial Literacy: An Essential Tool for Informed Consumer Choice? 2 (Nat'l Bureau of Econ. Research, Working Paper No. 14084, 2008), http://www.nber.org/papers/w14084.pdf [https://perma.cc/TVK7-4BXV] (noting that most individuals lack knowledge of basic financial concepts) [hereinafter Lusardi, Financial Literacy].

An Organisation for Economic Co-operation and Development (OECD) study of some thirty countries and economies reveals that, similar to the United States, levels of financial literacy are relatively low around the globe. See Org. for Econ. Co-operation and Dev., OECD/INFE International Survey of Adult Financial Literacy Competencies 7 (2016), http://www.oecd.org/daf/fin/financial-education/OECD-INFE-International-Survey-of-Adult-Financial-Literacy-Competencies.pdf [https://perma.cc/F24N-A8KM] [hereinafter OECD Survey]. The study found that "many adults around the world are currently unable to reach the minimum target score on financial knowledge." Id. at 9.

which they focus.[2] Most studies refer to financial literacy as the ability to know and understand basic financial concepts such as interest rates, risk, and debt.[3] Some studies define financial literacy as the ability to effectively apply basic financial concepts when making financial decisions, such as choosing among investment options or managing a budget.[4] Moreover, studies have tested a wide array of groups, including older adults, college students, high school students, women, different racial groups, and individual investors.[5] Irrespective of the definition utilized, the metric employed, or the group studied, all the studies reach the same conclusion: The average American, including the average American investor, does not understand the most rudimentary financial concepts or how to effectively apply those concepts when making financial decisions.[6] In other words, Americans are financially illiterate.

Such a conclusion has serious implications for the federal securities law regime for a variety of reasons. First, and perhaps most importantly, the regime is premised almost entirely upon investors being financially literate. America's federal securities law system reflects a deliberate normative preference for disclosure embodied in the oft-cited refrain from former Supreme Court Justice Louis Brandies that sunlight is the best disinfectant.[7] The founders of America's federal securities law regime rejected other normative models that would have relied on regulatory evaluation of securities in favor of one focused on disclosure

[2] See infra Part I Sections A and B.

[3] See, e.g., Angrisani et al., supra note 1, at 33–34; Lusardi, et al., A New Measure, supra note 1, at ii, 2–3 (referring to financial literacy as the knowledge and understanding of personal finances).

[4] Letter from David M. Walker, Comptroller Gen. of the U.S., to Chairman and Ranking Minority Member of S. Comm. on Banking, Hous., & Urban Affairs and Chairman and Ranking Minority Member of H. Comm. on Fin. Servs. (Nov. 15, 2004) [hereinafter Letter from David M. Walker], *in* U.S. Gov't Accountability Office, Highlights of a GAO Forum: The Federal Government's Role in Improving Financial Literacy 1 (2004) [hereinafter GAO Forum] (defining financial literacy as "the ability to make informed judgments and to take effective actions regarding the current and future use and management of money"); Sandra J. Huston, Measuring Financial Literacy, 44 J. Consumer Aff. 296, 307 & fig. 1 (2010) (defining financial literacy to include both a knowledge dimension and an application dimension, consisting of the "[a]bility and confidence to effectively apply or use knowledge related to personal finance concepts and products").

[5] See infra Part I Section B.

[6] See id.

[7] See Louis D. Brandeis, Other People's Money and How the Bankers Use It 92 (1914) ("Sunlight is said to be the best of disinfectants."); see also 1 Thomas Lee Hazen, Treatise on the Law of Securities Regulation § 1:16, at 36–37 (7th ed. 2016) (noting that the focus on disclosure was deliberate).

to investors. The premise was that the best way to protect investors was to provide them with sufficient disclosure, thereby enabling them to make informed investment decisions.[8] In this regard, the federal securities law regime is inextricably linked to financial literacy because the regime presumes investors have the capacity to sufficiently understand the information being disclosed to them and thus the capacity to make suitable investment choices for themselves.[9] If most Americans are financially illiterate, this premise is flawed, and so is the normative foundation of the federal securities law regime. Second, many contend that market efficiency depends upon financially literate investors.[10] In their view, the securities markets rely at least to some extent upon investors having the financial capacity to discipline markets by weeding out inappropriate investment opportunities.[11] Financial illiteracy means that investors are ill-equipped for this task, and thus illiteracy increases the likelihood that our markets will be inefficient. Third, securities markets depend, at least in part, upon investors having the capacity to distinguish between legitimate and illegitimate investment opportunities to help detect and prevent securities and investment fraud.[12] Financial illiteracy undermines the notion that investors can provide meaningful assistance in this arena. In other words, financial illiteracy runs counter to core presumptions, embedded in our securities system, that investors will have the capacity to protect themselves, discipline the markets, and

[8] See J. Robert Brown, Jr., The Regulation of Corporate Disclosure § 4.01 (4th ed. 2018) (noting that the adoption of the federal securities laws represented a deliberate choice to embrace the disclosure philosophy articulated by Brandies, coupled with Congress's decision to decline approval of a scheme focusing on merit review); Hazen, supra note 7, § 1:16 n.4, at 37 (noting that Felix Frankfurter, instrumental in shepherding the Act through Congress, was greatly influenced by the value of disclosure over merit regulation); id. § 1.17, at 38 (noting that after considerable debate Congress "eschewed the idea of a merit approach" in favor of a system of full disclosure).

[9] See infra notes 114–118 and accompanying text.

[10] See Brown, supra note 8, § 4.01 (noting connection between disclosure and efficient pricing in the market); Hazen, supra note 7, § 1:16 nn.4, 6, at 37; Roger J. Dennis, Materiality and the Efficient Capital Market Model: A Recipe for the Total Mix, 25 Wm. & Mary L. Rev. 373, 414 (1984); Jonathan R. Macey, A Pox on Both Your Houses: Enron, Sarbanes–Oxley and the Debate Concerning the Relative Efficacy of Mandatory Versus Enabling Rules, 81 Wash. U. L.Q. 329, 329 (2003) (noting that "[t]he U.S. securities laws reflect the deeply imbedded assumption that timely, full, and complete corporate disclosure" will achieve accurate and efficient pricing of securities).

[11] Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1.

[12] See Brown, supra note 8, § 4.01 (noting the theory that abuses could be eliminated through disclosure, and that duping investors would be more difficult with disclosure).

help guard against securities fraud. As a result, financial illiteracy poses a challenge to that system.

This Article makes three contributions. First, it highlights the need to devote greater resources and attention to this issue. To be sure, for at least two decades, regulators and other market participants have both acknowledged and sought to respond to financial illiteracy.[13] However, there has been a dearth of scholarly attention given to its significance. Second, this Article argues that financial illiteracy poses a significant, widespread, and long-term challenge to our current federal securities law regime. Indeed, the very fact that regulators and other market participants have been seeking to combat financial illiteracy for more than a decade without appreciable changes to financial illiteracy rates suggests that the problem may be long term or even intractable.[14] Third, this Article argues for a fundamental shift in our response to the financial literacy problem. To date, most reform efforts have sought to tackle the financial literacy problem by focusing on investor behavior. This Article asserts that it has become clear that we must alter our focus. Financial illiteracy challenges fundamental presumptions of our system; the system itself must respond to those challenges. Such a response may require us to alter that regime to account for illiteracy at all of the critical stages at which investors are required to make investment decisions.

Part I of this Article expands upon the concept of financial literacy and demonstrates that financial illiteracy in America is consistently documented by empirical evidence. Part II demonstrates the manner in which financial illiteracy poses significant, widespread, and long-term challenges to our securities law regime. This Part argues that we have underestimated the problem by suggesting that illiteracy is limited to a small segment of investors. Instead, Part II demonstrates that the financial literacy problem encompasses all investors—including those who invest directly in the market and those who invest indirectly through various institutions. Importantly, Part II acknowledges that many may discount the importance of financial illiteracy based on the contention that disclosure is only intended for sophisticated investors and financial intermediaries, who not only have the capacity to interpret complex financial information, but also provide signals that enable less

[13] See infra Part II Section D.
[14] See id.

sophisticated investors to make suitable investment choices.[15] Part II demonstrates the flaws in this contention. Part II further demonstrates that even if investors have significantly greater financial capacity than noninvestors (a fact which the data does not support),[16] the interconnectedness of our economic system means that the financial illiteracy of noninvestors still impacts the securities regime. In this regard, Part II reveals that the financial literacy problem is widespread. Part II also demonstrates the potentially long-term nature of the problem by highlighting the significant limits of investor education—the current reform mechanism of choice. Part III analyzes some of the securities law implications of the financial illiteracy problem articulated by this Article. The mission of the Securities and Exchange Commission (the "SEC"), like that of the federal securities laws in general, is to "[p]rotect investors[,] [m]aintain fair, orderly, and efficient markets[, and] [f]acilitate capital formation."[17] Financial illiteracy may undermine the SEC's ability to successfully fulfill that mission.

[15] See infra Part II Section C.

[16] See infra Part I Section B.

[17] Sec. Exch. Comm'n, The Role of the SEC, Investor.gov, https://www.investor.gov/introduction-investing/basics/role-sec [https://perma.cc/3GMX-GNRZ] (last visited Mar. 14, 2018).

I. FINANCIAL ILLITERACY IN AMERICA

A. Defining Financial Illiteracy

1. Some Reflections on Defining Literacy

Studies differ in how they define financial literacy. Many studies embrace a cognitive test that defines financial literacy as the extent to which someone has knowledge and understanding of basic financial concepts.[18] Other studies focus on behavior and the extent to which an individual can make sound financial choices.[19] This Article primarily adopts the cognitive test for financial literacy.

This Article acknowledges the inextricable link between financial literacy and financial decision making. Financial literacy is multi-dimensional and therefore includes both an ability to understand fundamental financial concepts as well as the ability to understand how best to effectively apply those concepts when making financial decisions.[20] An individual cannot make effective financial decisions without sufficient understanding of core financial concepts.[21] Studies reveal that we cannot fully measure the understanding of financial concepts without testing whether an individual knows how to effectively apply those concepts.[22] Thus, even studies that define financial literacy to include only a cognitive dimension acknowledge the importance of

[18] See Lusardi, et al., A New Measure, supra note 1, at 2.

[19] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1; see also Huston, supra note 4, at 307 (referring to the ability to understand essential concepts and products as financial knowledge, which she posits is just one aspect of financial literacy, the other being the ability to apply financial knowledge).

[20] See Lusardi, et al., A New Measure, supra note 1, at 2 (noting that financial literacy enables sound and effective financial decision making); Lusardi, Financial Literacy, supra note 1, at 4 (noting the importance of adding data on financial literacy with data on financial behavior). Recognizing the importance of both concepts, some surveys do combine both tests. Hence, some studies refer to the combination of financial knowledge and financial decision making as financial capability, with financial literacy as a component of overall capability. See Angrisani, et al., supra note 1, at 12; FINRA Inv'r Educ. Found., Financial Capability in the United States 2016, at 3 (2016), https://www.usfinancialcapability.org/downloads/NFCS_2015_Report_Natl_Findings.pdf [https://perma.cc/786D-5S8A] [hereinafter Financial Capability in the United States 2016].

[21] See Angrisani et al., supra note 1, at 12; Financial Capability in the United States 2016, supra note 20, at 3.

[22] See, e.g., Angrisani et al., supra at 1, at 12; Financial Capability in the United States 2016, supra note 20, at 3.

studying the concepts of knowledge and decision making together in order to best measure an individual's financial understanding and competency.[23]

However, this Article focuses on the cognitive test for several reasons. First, such a focus is consistent with the securities law inquiry of this Article, which centers on the extent to which individuals have sufficient knowledge of financial concepts to understand information being disclosed to them. Second, this focus is consistent with the normative underpinnings of the securities regime, which reject a focus on the quality of an individual's decision in favor of a focus on the provision of information to ensure that individuals have the capacity to make appropriate decisions.[24]

Third, there may be many circumstances in which relying on financial behaviors as a determinant of financial literacy is problematic. This is because studies use certain behaviors as proxies for whether individuals appropriately understand the impact of their behaviors on financial decisions—and hence should be deemed financially literate. However, the use of such proxies is inexact at best. For example, studies acknowledge that one critical aspect of financial decision making is the ability to understand how best to manage debt.[25] To test this ability, studies focus on behaviors such as whether an individual overdraws on her checking account, pays the minimum balance on her credit card, uses her credit card for cash advances, or routinely charges more than the maximum amount of her credit card limit.[26] These kinds of behaviors

[23] See, e.g., Angrisani et al., supra at 1, at 12; Financial Capability in the United States 2016, supra note 20, at 3.

[24] See supra note 8.

[25] Studies that define financial literacy in terms of the ability to make informed decisions around the current and future use of money focus on at least three core financial decisions: (1) the ability to manage current financial resources; (2) the ability to plan ahead; and (3) the ability to manage debt and financial products. See, e.g., Angrisani et al., supra note 1, at 12 (noting that financial literacy encompasses managing resources to make ends meet, planning for the future, and managing debt and financial products); Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1 (noting that literacy includes the ability to spend wisely, plan for the future, including for unexpected events and long-term goals such as college and retirement, and understand financial choices). The ability to manage debt appropriately is a component of financial literacy because it helps determine whether an individual appreciates how best to use her financial resources to experience successful financial outcomes or otherwise avoid serious financial distress. See Angrisani et al., supra note 1, at 25; Financial Capability in the United States 2016, supra note 20, at 19.

[26] See Financial Capability in the United States 2016, supra note 20, at 7, 21–22. When testing whether individuals can appropriately manage financial debt, researchers also focus

subject individuals to high fees and thus may be a sign of financial irresponsibility.[27] However, the studies cannot determine whether an individual is engaging in such behaviors because she does not understand their repercussions or because she does not have the ability to access products that one would deem more financially appropriate.[28] In this regard, it seems inappropriate to characterize this behavior as reflective of financial irresponsibility or illiteracy.

Finally, characterizing a financial decision as appropriate or inappropriate (or literate or illiterate) contains a value judgment about individual choice that may be problematic.[29] If an individual decides to overdraw her checking account in order to pay for a child's college education, should this be characterized as an inappropriate financial decision? If the decision is an informed one, there is a strong argument that it is a misnomer to suggest that the decision is an indicator of financial illiteracy. Indeed, the premise of our disclosure-based federal securities system is that so long as individuals make an informed decision, we should not judge the substance of the ultimate decision.[30] From this perspective, the normative assumptions embedded in the federal system run counter to the notion that we should focus on the types of decisions people make, and instead suggest that the appropriate focus should be the cognitive ability to make decisions.

For these reasons, this Article focuses primarily on the cognitive test for defining financial literacy. To be sure, the behavioral component must be taken into account, at least at some level. This is because, to a

on the extent to which individuals use nonbank borrowing methods such as payday loans, auto-title loans or pawnshops. See id. at 25.

[27] See id.

[28] Similarly, studies indicate that planning ahead for both expected and unexpected financial events is a critical aspect of financial decision making, and thus financial literacy because it determines whether individuals can make decisions that will help ensure financial stability and security. See Angrisani et al., supra note 1, at 18. To test this competency, studies examine whether an individual saves money for retirement or child's anticipated college education, or whether an individual has a "rainy day" fund (defined as three-months' worth of salary) or can come up with $2,000 within a month to cover financial emergencies. See id. at 19; Financial Capability in the United States 2016, supra note 20, at 13. However, the studies cannot differentiate between individuals who do not understand the importance of planning ahead in these ways, and those who understand but do not have the resources for such planning.

[29] See Lauren E. Willis, Against Financial-Literacy Education, 94 Iowa L. Rev. 197, 275–82 (2008) (discussing concerns related to the "blaming the consumer" mentality associated with financial literacy education).

[30] See supra note 8.

certain extent, it seems clear that financial literacy includes the cognitive ability to understand financial concepts as well as the ability to apply those concepts in various financial settings. Fortunately, the cognitive and behavioral tests overlap at some level. Moreover, both tests yield the same empirical results.[31]

2. Testing the Cognitive Test

In the context of the cognitive test, studies suggest that financial literacy involves understanding three core concepts: interest rates, inflation, and risk diversification. In 2004, Professors Annamaria Lusardi and Olivia Mitchell, two of the acknowledged leaders in the field of financial literacy, pioneered the first modules for use in testing financial literacy based on these three core concepts.[32] In 2006, Lusardi and Mitchell transformed those modules into three questions aimed at testing competency in the three core concepts.[33] Two of the questions are

[31] See Angrisani et al., supra note 1, at 42; Financial Capability in the United States 2016, supra note 20, at 3.

[32] See Elan, supra note 1, at 6 (noting that Lusardi and Mitchell have conducted focused research on the financial literacy issue and developed the module that has formed the basis for most of the financial literacy surveys); Jere R. Behrman et al., How Financial Literacy Affects Household Wealth Accumulation, 102 Am. Econ. Rev. 300, 301 (2012) [hereinafter Berhman et al., Household Wealth Accumulation] (noting that the United States Health and Retirement Study, designed by Lusardi and Mitchell, first tested three core financial literacy concepts).

[33] See Lusardi, Financial Literacy, supra note 1, at 4. Though Lusardi and Mitchell have refined the three questions over the years, the most recent version of the three questions is as follows (correct answers marked with asterisks):

Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

- More than $102**
- Exactly $102
- Less than $102
- Do not know
- Refuse to answer

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

- More than today
- Exactly the same
- Less than today**
- Do not know
- Refuse to answer

Please tell me whether this statement is true or false. "Buying a single company's stock usually provides a safer return than a stock mutual fund."

- True

multiple choice and the third is a true-false question. All the questions enable respondents to indicate that they "do not know" the answer. Lusardi and Mitchell believe that these three questions, and the concepts they represent, are most appropriate for determining whether an individual possesses basic financial literacy, because the questions evaluate whether an individual has knowledge of fundamental economic concepts, competency with basic financial numeracy, and knowledge of risk diversification.[34] The core concepts and questions developed by Lusardi and Mitchell have been incorporated into a number of studies that seek to evaluate financial literacy.[35]

Researchers have developed different ways to test these three core concepts.[36] Some studies merely reproduce the three questions.[37] Others have developed additional questions, with some studies having as few as five questions,[38] and others having as many as fifty questions.[39] Even Lusardi and Mitchell have since expanded the number of survey questions they employ. In 2016, Lusardi and two colleagues developed a

---

- False**
- Do not know
- Refuse to answer

See Glob. Fin. Literacy Excellence Ctr., Three Questions to Measure Financial Literacy, http://gflec.org/wp-content/uploads/2015/04/3-Questions-Article2.pdf [https://perma.cc/VP5K-TZLF] (last visited Mar. 14, 2018); see also Jere Behrman et al., Financial Literacy, Schooling and Wealth Accumulation 9–10 (Nat'l Bureau of Econ. Research, Working Paper No. 16452, 2010), http://www.nber.org/papers/w16452.pdf [https://perma. cc/U6CH-79AA] [hereinafter Behrman et al., Financial Literacy].

[34] See Lusardi, Financial Literacy, supra note 1, at 5.

[35] See Elan, supra note 1, at 6; Lusardi et al., A New Measure, supra note 1, at 2 n.1.

[36] See, e.g., Angrisani et al., supra note 1, at 34 (using survey questions that are designed to determine an individual's understanding of interest rates and how interest is calculated, the relationship between interest rates and bond prices, and the concept of risk diversification); Lusardi et al., A New Measure, supra note 1, at 2–3 (using survey questions to focus on eight areas: earning, consumption, saving, investing, borrowing/managing debt, insuring, comprehending risk, and go-to information sources); Financial Capability in the United States 2016, supra note 20, at 28 (questions involving interest rates, inflation, bond prices, mortgages, and risk).

[37] See Behrman et al., Financial Literacy, supra note 33, at 9; Glob. Fin. Literacy Excellence Ctr., supra note 33 (noting that the three questions have been used in more than 20 countries to measure financial knowledge).

[38] See Financial Capability in the United States 2016, supra note 20, at 28.

[39] The Jump$tart survey included forty-nine questions for high school students and fifty-six questions for college students. See Lewis Mandell, The Financial Literacy of Young American Adults: Results of the 2008 National Jump$tart Coalition Survey of High School Seniors and College Students 10 (2008). Another study included twelve questions. See Behrman et al., Household Wealth Accumulation, supra note 32, at 301.

broader set of questions referred to as the Personal Finance Index (the "Index") to produce a more nuanced examination of individual understanding of the core financial concepts in different contexts.[40] Irrespective of the number of survey questions used, each study seeks to measure the same thing—the extent to which individuals understand rudimentary financial and economic concepts.

B. Documenting America's Financial Illiteracy

Regardless of how they define and measure financial literacy, studies uniformly conclude that Americans are not financially literate.[41] To be sure, empirical research on financial literacy is relatively new. Thus, as a general matter, empirical research in this area only dates back to the mid-1990s.[42] Those initial studies revealed a troubling lack of financial literacy among Americans.[43] Thus, by 2004, the Government Accounting Office ("GAO") raised a host of concerns about the "growing evidence that large numbers of Americans lack knowledge about basic personal economics and financial planning."[44] Such concerns spurred an increase in both research and attention on financial literacy. While the number of financial literacy programs and surveys increased, however, the findings have remained relatively consistent.

In 2011, the Library of Congress, in partnership with the SEC, conducted a review of quantitative studies of financial literacy of retail investors published since 2006.[45] The report analyzed ten different

[40] See Lusardi et al., A New Measure, supra note 1, at 2–5. While the survey began in 2016, the study publishing the survey results was released in 2017. Id.

[41] See Angrisani et al., supra note 1, at 35 (noting that the National Financial Capability Study's finding that Americans had a poor knowledge of basic financial concepts was consistent with the finding of prior national financial literacy studies conducted in 2009 and 2011); Elan, supra note 1, at 1 (noting that the findings about American's lack of basic financial literacy was consistent across surveys); Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1 (noting the "growing evidence that large numbers of Americans lack knowledge about basic personal economics and financial planning").

[42] See, e.g., Annamaria Lusardi & Olivia S. Mitchell, Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education, Bus. Econ., Jan. 2007, at 35, 38 (discussing 1995 and 1998 study that first warned of the relationship between financial literacy and savings and investment); Mandell, supra note 39, at 7–10 (detailing the first major financial literacy study of high school students).

[43] See Lusardi & Mitchell, supra note 42, at 36–39 (reviewing the existing empirical literature on financial literacy in the United States and around the world).

[44] Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1–2 (pinpointing evidence from an AARP study and a Jump$tart survey).

[45] Elan, supra note 1, at 5.

studies, many of which focused on the general population, with a few focusing on subgroups such as women, older Americans, specific racial groups, and members of the military.[46] The report found that the studies consistently revealed that American investors "do not understand the most basic financial concepts, such as the time value of money, compound interest, and inflation."[47]

Surveys conducted after the Library of Congress report confirmed these findings. In 2009, the Financial Industry Regulatory Authority ("FINRA") conducted its first National Financial Capability Study ("NFC Study"), a nationwide survey aimed at measuring the financial capacity of Americans.[48] The 2009 NFC Study found that Americans performed poorly on basic financial literacy questions and concluded that Americans lacked basic financial literacy.[49] FINRA conducted successive surveys in 2012 and 2015, both of which confirmed the findings of the 2009 NFC Study.[50] The 2015 NFC Study concluded that there were "relatively low levels of financial literacy among Americans."[51] The survey included five questions covering fundamental concepts of economics and finance.[52] According to the 2015 NFC Study, only 14% of respondents answered all five survey questions correctly, while only 37% of respondents answered four or more questions correctly.[53] This reflected a slight downward trend from previous NFC Studies. In 2012, 39% of respondents answered four or more questions correctly and 42% answered four or more questions correctly in 2009.[54] Overall, therefore, the 2015 results confirmed the findings of earlier FINRA studies that Americans lacked basic financial literacy.[55]

A 2012 survey of a nationally representative sample of Americans similarly found a "lack of financial literacy and poor knowledge of basic

[46] See id. at 6, 20.

[47] Id. at 5.

[48] See Financial Capability Study 2009, supra note 1, at 3. The Library of Congress report included the first NFC Survey, but did not include analysis of the 2015 Survey.

[49] See id. at 37–41.

[50] See Financial Capability in the United States 2016, supra note 20, at 2–3, 28. While the most recent survey was conducted in 2015, the study publishing the survey results was released in 2016.

[51] Id. at 3, 28.

[52] See id. at 28.

[53] See id.

[54] See id.

[55] See Elan, supra note 1, at 1.

economic concepts among American adults."[56] Only 18% of respondents answered all five of the questions correctly, and only 31% answered four questions correctly.[57] The authors of the report concluded that their findings revealed a general lack of literacy among Americans, consistent with the findings of other studies.[58]

Seeking to add more depth and breadth to their surveys, in 2016, Lusardi and two colleagues developed the Index. The Index includes twenty-eight questions aimed at assessing an individual's knowledge of fundamental financial concepts.[59] In 2016, the Index was used to survey a nationally representative sample of American adults. The results of the survey were consistent with earlier studies, revealing that many Americans lack basic personal finance knowledge.[60] According to the Index survey, the average respondent was able to answer 49% of the Index questions correctly.[61] Sixteen percent of adults demonstrated a high level of personal finance knowledge and understanding, defined as being able to answer over 75% of questions correctly, while 20% showed relatively low levels of financial literacy, defined as answering 25% or less of the questions correctly.[62]

Financial literacy surveys of younger adults reflect similar findings. In 1997, the Jump$tart Coalition for Personal Financial Literacy (the "Jump$tart Coalition") launched the most comprehensive national financial literacy survey of high school seniors.[63] The survey was conducted biennially, and produced six surveys between 1997 and 2008.[64] In 1997, the average financial literacy score for high school seniors was 57.3%, which the survey authors defined as a "high flunk."[65] Survey authors hoped that over time the average score would rise to a "passing" grade of at least 60%.[66] Instead, the scores never reached the initial high flunk grade. The average score for high school seniors was

[56] Angrisani et al., supra note 1, at 2, 35.
[57] See id. at 34.
[58] See id. at 35.
[59] See Lusardi et al., A New Measure, supra note 1, at 2.
[60] See id. at 3. The survey focused on Americans ages 18 and older and concluded that personal finance knowledge among American adults was "modest."
[61] See id.
[62] See id.
[63] Mandell, supra note 39, at 7.
[64] Id. at 7–8.
[65] Id. at 8.
[66] Id.

51.9% in 2000, 50.2% in 2002, 52.3% in 2004, and 52.4% in 2006.[67] By 2008, the financial literacy scores of high school seniors had fallen to an average score of 48.3%, its lowest level since the survey's launch.[68] Collectively, the average grade for high school seniors over the life of all of the surveys was a failing grade.[69] Indeed, only 10% of high school students could answer three out of the four questions correctly in the 1997–98 survey.[70] Survey authors explained that these results were especially troubling because they did not capture the many high school-aged students who did not make it to their senior year, and who were presumably even less financially literate than the high school seniors being surveyed.[71] The survey is consistent with the findings of later surveys about younger adults, all of which reveal a lack of understanding of core financial concepts.[72]

Surveys of college students, while more promising, also paint a bleak picture. In 2008, the Jump$tart Coalition survey included college students for the first time. The survey findings revealed that college students had an average score of 62.2%, a passing grade, albeit barely.[73] The survey authors explained that while such scores indicated that college education had an impact on financial literacy, they nevertheless cautioned that the "bad news is that only 28 percent of Americans graduate from college, leaving nearly three quarters ill-equipped to make critical financial decisions."[74] Moreover, while college students and college graduates tend to outperform the general population on these tests, their scores are often just below or just above the baseline indicator for financial literacy. For example, the 2015 NFC Study revealed that respondents with a college education answered an average of 3.9 questions correctly as compared to the overall average of 3.2.[75] Such scores are comparatively better, but still below a passing grade of at least four questions answered correctly.

---

[67] Id. at 5.
[68] Id. at 5, 8.
[69] Id. at 5, 7.
[70] Id.
[71] Id. at 6.
[72] See Financial Capability in the United States 2016, supra note 20, at 30; Lusardi et al., A New Measure, supra note 1, at 7, 11.
[73] Mandell, supra note 39, at 5.
[74] Id. at 8–9.
[75] See Financial Capability in the United States 2016, supra note 20, at 30.

Surveys also consistently show that the financial literacy scores of particular groups are even more troubling. In particular, women, certain racial groups, and the elderly consistently perform worse than the general population on financial literacy tests.[76] In 2008, while 64.4% of white high school seniors had a failing grade, 89.1% of African American seniors had a failing grade, 83.4% of Hispanic seniors had a failing grade, 77.2% of Asian seniors had a failing grade, and 88.8% of Native American seniors had a failing grade.[77] Thus, while on average all high school seniors failed to achieve a passing grade, nonwhite high school seniors had significantly higher fail rates than their white counterparts. These discrepancies persist in studies of adults. Thus the 2016 Index survey revealed that on average, whites answered 55% of literacy questions correctly, while nonwhites answered only 39% of questions correctly.[78] While both groups failed to achieve the passing grade of 60%, whites fared better than nonwhites. In addition, 60% of whites answered more than half of the questions correctly, while only 27% of nonwhites answered more than half of the questions correctly.[79] Plus, while 22% of whites answered more than 75% of the questions correctly, only 5% of nonwhites did so.[80] Thus, albeit a relatively small percentage of the overall population, a higher percentage of whites versus nonwhites had what would be deemed a higher level of personal finance knowledge. These findings were consistent with financial literacy patterns identified in prior studies.[81] In this same vein, the 2015 NFC Study revealed that while whites answered 3.4 questions correctly, African Americans answered only 2.5 questions correctly and Hispanics and Asians answered 2.7 and 3.2 questions correctly, respectively.[82] Here again the pattern persists—no group achieved a passing grade, but whites performed better than nonwhites.

A 2017 study of U.S. Hispanics (which the study defined as those of Mexican, Puerto Rican, Cuban, or other Hispanic descent) found "substantially low levels of knowledge and understanding of personal

[76] See Angrisani et al., supra note 1, at 35 (detailing "substantial differences" in overall financial literacy levels across particular demographics); Elan, supra note 1, at 1, 24.
[77] See Mandell, supra note 39, at 14.
[78] See Lusardi et al., A New Measure, supra note 1, at 7.
[79] See id. at 8.
[80] See id.
[81] See id. at 7.
[82] See Financial Capability in the United States 2016, supra note 20, at 30.

finance concepts among Hispanics."[83] Thus, Hispanics answered 40% of the literacy questions correctly, as compared to 49% for the general population.[84] Moreover, 30% of Hispanics answered more than half of the questions correctly, as compared to 48% of the general population.[85]

Empirical evidence also highlights gender differences in financial literacy rates. Thus, the Index survey revealed that men answered an average of 51% of questions correctly, while women answered an average of 48% of questions correctly.[86] Moreover, 20% of men answered more than 75% of the questions correctly, while only 13% of women did so.[87] Similarly, the 2015 NFC Study revealed that on average, women answered 2.9 questions correctly while men answered 3.5 questions correctly.[88] To be sure, since the baseline for financial literacy was four correctly answered questions, neither group earned a passing grade.[89] However, the survey confirmed the considerable differences in overall literacy levels between men and women documented by prior studies.[90]

Studies also indicate that Americans lack understanding of key investment considerations. Thus, the 2016 Index survey found that on average, individuals answered only 46% of financial literacy questions related to investing correctly—which also translates into a failing grade.[91]

Most importantly for purposes of this Article, studies also confirm that investors are financially illiterate. Some studies reveal that investors perform better on financial literacy tests than noninvestors.[92]

---

[83] TIAA Institute, GFLEC Report Offers Deeper Understanding of Hispanic Financial Literacy (October 11, 2017), https://www.tiaa.org/public/about-tiaa/news-press/press-releases/pressrelease690.html [https://perma.cc/MP64-YQCR]; Andrea Hasler, Annamaria Lusardi & Paul J. Yakoboski, Financial Literacy among U.S. Hispanics: New Insights from the Personal Finance (P-Fin) Index 2 (October 2, 2017), https://www.tiaainstitute.org/sites/default/files/presentations/2017-10/TIAA%20Institute-GFLEC%20Hispanic%20P-Fin%20Index%20Report_October%202017.pdf [https://perma.cc/5XAS-ZL52].

[84] See Hasler et al., supra note 83, at 2. The study also found a significant difference in literacy rates between Hispanics born in the United States and foreign-born Hispanics. See id. at 3–6.

[85] See id. at 2.

[86] See Lusardi et al., A New Measure, supra note 1, at 7.

[87] See id. at 8.

[88] See Financial Capability in the United States 2016, supra note 20, at 29–30.

[89] See id. at 28.

[90] See id. at 30.

[91] See Lusardi et al., A New Measure, supra note 1, at 5.

[92] See Elan, supra note 1, at 6–15.

Nevertheless, investors' scores generally do not amount to a passing grade, and instead reveal that investors, like noninvestors, do not sufficiently understand basic financial concepts or how best to effectively apply them.[93] For example, studies reveal that while investors perform better than average on some basic financial concepts related to long-term returns, they did not get a passing grade on concepts related to interest and diversification.[94] The Library of Congress survey of the financial literacy studies related to investors noted that such studies "conclude overwhelmingly that American investors lack essential knowledge of the most rudimentary financial concepts . . . Consequently, it is not surprising that investors do not understand advanced financial concepts . . . ."[95]

Collectively, these studies find that Americans are not financially literate. This finding has been consistent throughout the years in which Americans have been surveyed. Hence, from the 1990s to 2017, studies highlight a consistent pattern of financial illiteracy in the American population. While some studies document small changes from year to year, those changes do not reflect an appreciable increase in the financial literacy rates of Americans. Instead, the only clear conclusion that can be drawn from this decades-plus body of research related to financial literacy is that, on average, Americans are not financially literate.

C. Literacy Matters

Financial literacy has an impact on both short-term and long-term individual wellbeing.[96] Individuals must make a variety of financial decisions throughout their lives, including consuming, saving, investing, borrowing, and insuring.[97] These financial decisions not only have important repercussions, but also are inextricably linked to financial literacy.[98] Studies indicate that people who are financially literate are more likely to engage in a range of financially responsible behaviors that increase their financial stability and security, while decreasing their

[93] See id. at 5–6.
[94] See id. at 11 (citing study of adult investors).
[95] Id. at 25.
[96] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1 (noting that a lack of financial literacy affects individuals' economic well-being and security).
[97] See Lusardi et al., A New Measure, supra note 1, at 2.
[98] See Lusardi, Financial Literacy, supra note 1, at 2.

likelihood of encountering financial instability and distress.[99] For example, financially literate individuals are more likely to be able to manage their current financial obligations, such as balancing monthly income and expenses.[100] They are more likely to successfully manage debt in ways that avoid financial hardship and upheaval.[101] Financially literate individuals are more likely to plan for the future and save for anticipated and unanticipated financial events.[102] Viewed together, research clearly demonstrates that individuals with greater financial knowledge are more likely to experience positive financial outcomes in a variety of contexts.[103] In contrast, financial illiteracy can lead to poor money management and decision making, which can lower an individual's standard of living and undermine her ability to achieve crucial long-term goals such as buying a home and saving for retirement.[104]

Financial literacy also has a significant impact on an individual's future economic health. Financial literacy enhances the likelihood that someone will contribute to her retirement savings, which has significant short- and long-term implications.[105] Indeed, people who are financially literate are not only more likely to contribute to their retirement savings, but are also more likely to contribute at an early age, to contribute more money, and to avoid early withdrawals from their retirement account.[106] All of these behaviors increase the likelihood that an individual will retire with appropriate savings. By contrast, low levels of financial literacy often translate into difficulty accumulating retirement savings.[107] As one survey concluded, "'[l]ow levels of investor literacy have serious implications for the ability of broad segments of the population to retire comfortably.'"[108]

[99] See Angrisani et al., supra note 1, at 18; Financial Capability in the United States 2016, supra note 20, at 19; Hasler et al., supra note 83, at 13 (noting that financial literacy positively correlates with better financial outcomes); Chiara Monticone, How Much Does Wealth Matter in the Acquisition of Financial Literacy?, 44 J. Con. Aff. 403, 404 (2010).

[100] See Angrisani et al., supra note 1, at 15.

[101] See id. at 18.

[102] See id.

[103] See Lusardi et al., A New Measure, supra note 1, at 16–17.

[104] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1.

[105] See Behrman et al., Household Wealth Accumulation, supra note 32, at 303.

[106] See Financial Capability in the United States 2016, supra note 20, at 15; Lusardi, Financial Literacy, supra note 1, at 13–14; Lusardi & Mitchell, supra note 42, at 39.

[107] See Elan, supra note 1, at 26.

[108] See id.

In addition, financial literacy has both micro- and macro-economic implications because our economy is interconnected and, as a result, individual behaviors significantly influence the broader economy.[109] Research reveals that households that are more financially literate are more likely to build wealth for themselves and future generations.[110] Because financially literate households are more likely to save, they are more likely to have resources to pass on to the next generation. In this regard, financial literacy is one key determinant of the wealth gap in America because it correlates positively to wealth building, distinguishing between those who do and those who do not build wealth.[111] As a corollary, this suggests that financial literacy has the possibility to better ensure that the next generation does not lack the resources to become more economically mobile, thus increasing the likelihood that they will be better positioned to take advantage of opportunities associated with mobility.[112] The financial crisis of 2008 was a clear example of the fact that individual financial decisions can impact the economy as a whole.[113] In this regard, financial literacy has critical implications for individuals and the economy.

II. SECURITIES LAW IMPLICATIONS I: LITERACY MATTERS IN THE SECURITIES MARKET

Part II of this Article not only identifies why low levels of financial literacy matter for the securities market, but also why securities regulators may have underestimated the scope of the financial literacy problem.

---

[109] See Macey, supra note 10, at 329.

[110] See Behrman et al., Household Wealth Accumulation, supra note 32, at 303.

[111] See id.; Annamaria Lusardi & Olivia S. Mitchell, The Economic Importance of Financial Literacy: Theory and Evidence, 52 J. Econ. Literature 5, 22 (2014) (noting that the more financially savvy are more likely to undertake retirement planning, and those who plan for retirement are able to accumulate more wealth than those who don't); Annamaria Lusardi, Pierre-Carl Michaud & Olivia S. Mitchell, Optimal Financial Knowledge and Wealth Inequality 3–4 (Nat'l Bureau of Econ. Research, Working Paper No. 18669, 2013), http://www.nber.org/papers/w18669.pdf [https://perma.cc/GT3J-3KK9] (showing the financial knowledge accounts for large portions of wealth inequality).

[112] See Andrea Newell, Closing the Wealth Gap Through Financial Literacy, Fostering Diversity & Purpose at Work (April 6, 2016), https://www.triplepundit.com/special/fostering-diversity-and-purpose-at-work/closing-wealth-gap-financial-literacy/ [https://perma.cc/NDP5-6FAS]; Angrisani, et al., supra note 1, at 18.

[113] See Lusardi, et al., A New Measure, supra note 1, at 2, 20.

A. Literacy Matters in the Market

1. The Market, Suitable Investment Choices, and Literacy

Our securities regime is premised on disclosure, and by extension, is premised on the ability of investors to understand the information being disclosed. In passing the Securities Act of 1933 and the Securities Exchange Act of 1934, founders of the federal securities regime explicitly rejected other normative framings in favor of disclosure.[114] As Professor Thomas Hazen explains, "It is a basic tenet of federal securities regulation that investors' ability to make their own evaluations of available investments obviates any need that some observers may perceive for the more costly and time-consuming governmental merit analysis of the securities being offered."[115] In rejecting a merit-based system, founders embraced a belief that the best way to protect investors was to provide them with adequate disclosure so that they could make their own decisions about suitable investments:[116] "The theory behind the federal regulatory framework is that investors are adequately protected if all relevant aspects of the securities being marketed are fully and fairly disclosed. The reasoning is that full disclosure provides investors with sufficient opportunity to evaluate the merits of an investment and fend for themselves."[117] The presumption surrounding the benefits of disclosure is so strong that there is often detailed

[114] See Felix Frankfurter, The Federal Securities Act: II, Fortune, Aug. 1933, at 53–54. In his message to Congress when signing the Securities Act of 1933 into law, President Franklin Roosevelt stated the government's actions should not be construed as approving the soundness or value of securities, but insisted that the government had an obligation to insist that securities sold be "accompanied by full publicity and information." President Franklin D. Roosevelt, Message to Congress (March 29, 1933), *quoted in* S. Rep. No. 73-85; see also Hazen, supra note 7, § 1.17; Federal Securities Act: Hearing on H.R. 4314 Before the H. Comm. on Interstate and Foreign Commerce, 73d Cong. 53–55, 143–44 (1933).

[115] Hazen, supra note 7, § 1.17.

[116] See id.; Steven M. Davidoff & Claire A. Hill, Limits of Disclosure, 36 Seattle U. L. Rev. 599, 605 (2013) ("Disclosure is the *sine qua non* of the federal securities law."); Kenneth B. Firtel, Plain English: A Reappraisal of the Intended Audience of Disclosure Under the Securities Act of 1933, 72 S. Cal. L. Rev. 851, 858 (1999) ("Congress intended disclosure to enable the average investor to make an informed investment decision."); see also Brown, supra note 8, § 2.01[A] ("[t]he main focus of the securities laws has always been disclosure" with "investment decisions left in the hands of investors"); id. § 4.01 (noting that disclosure was aimed at providing investors with "an intelligent basis for forming [a] judgment as to the value of" securities).

[117] Hazen, supra note 7, § 1.17.

disclosure even in offerings that are not subject to mandatory-disclosure rules.[118]

The belief that disclosure represents the best form of protecting investors is challenged if investors are not financially literate. As regulators have acknowledged, a basic knowledge of financial concepts and the ability to apply those concepts is crucial for ensuring that investors can act autonomously, without the aid of regulators.[119] However, studies reveal that Americans routinely score very low on financial literacy questions related to investing, including deciding among investment choices.[120] The literacy problem is underscored when viewed in the context of federal securities law disclosure. This is because the concepts being disclosed and the decisions being implicated by disclosure are far from simple. Hence, the fact that Americans have difficulty understanding basic financial terms and concepts means that the problem is even more acute for those American investors tasked with understanding more complex financial terms and concepts.[121]

Further evidence that the premises around disclosure may be flawed stems from literacy data related to risks. On the one hand, research reveals that understanding about risk and risk assessment impacts an individual's ability to make well-informed investment choices.[122] On the other hand, studies consistently reveal that most individuals have a subpar understanding of risk.[123] Overall, financial literacy surrounding risk is the lowest of all financial concepts, with most Americans incorrectly answering questions related to risk and risk assessment.[124] The 2015 NFC Study revealed that Americans could answer only 46% of risk-related questions correctly.[125] In another recent study, individuals

[118] See Davidoff & Hill, supra note 116, at 608.

[119] See OECD Survey, supra note 1, at 19.

[120] See Hasler et al., supra note 83, at 12; Lusardi et al., A New Measure, supra note 1, at 5.

[121] See Elan, supra note 1, at 25–26. Lusardi maintains that knowledge beyond basic financial concepts is critical for ensuring that individuals can competently make saving and investment decisions. Such knowledge requires asking additional questions related to bonds, stocks, mutual funds, and basic asset pricing. See Lusardi, Financial Literacy, supra note 1, at 7–9. Lusardi found that advanced knowledge is not widespread, even among highly educated individuals. Id. at 10.

[122] See Lusardi et al., A New Measure, supra note 1, at 5.

[123] See id. (showing that individual financial knowledge is lowest in the areas of risk).

[124] See Hasler et al., supra note 83, at 12.

[125] Financial Capability in the United States 2016, supra note 20, at 28.

answered only 39% of risk-related questions correctly.[126] This response rate was below the 49% average of overall correct answers.[127] This study was therefore consistent with previous research revealing that individuals experience particular difficulty grasping risk-related concepts.[128] The study concluded that the finding was "particularly troubling given that risk and uncertainty are common features of financial decision making."[129] In other words, investors do not appear to have the financial capacity they need to make many of the risk-related choices they are called upon to make. Because our securities markets depend on investors being able to make these choices, their inability to make them poses a challenge to the markets.

In addition, our securities markets rely upon investors being able to choose among investment products. However, a basic knowledge of financial concepts, and the ability to apply those concepts in a financial context, is crucial for ensuring that investors can compare financial products and make well-informed decisions about those products.[130] Importantly, investors have an increasingly wide and complex array of investment options available to them.[131] A lack of literacy can make choosing among those options difficult, and the empirical evidence supports the fact that investors are experiencing significant difficulties in this area. Moreover, investors are gaining increased responsibility for making their own investment decisions.[132] Historically employers offered pensions or defined-benefit plans pursuant to which employees did not have to select among an array of investment options.[133] But such plans have become rare, shifting the responsibility for investment

[126] See Lusardi et al., A New Measure, supra note 1, at 5.

[127] See id.

[128] See id. at 5–6. The study explains that "[c]omprehending risk involves understanding that the expected financial outcome in a given scenario depends on the range of possible outcomes in the scenario, the financial implication associated with each outcome, and the likelihood of each outcome occurring." Id. at 6.

[129] Id. at 5.

[130] See OECD Survey, supra note 1, at 19.

[131] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 2; Angrisani et al., supra note 1, at 25 (noting the fact that investors must understand and choose from among a variety of complex financial products); Lusardi et al., A New Measure, supra note 1, at 19.

[132] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 2.

[133] See Angrisani et al., supra note 1, at 18 (noting that there has been a progressive shift towards employer-related retirement plans that place more of the decision making in the hands of investors).

selection into the hands of employees.[134] The empirical evidence unequivocally confirms that Americans experience particular difficulty around making investment choices, and selecting among financial products and investment types.[135] This does not bode well for a system that increasingly depends upon investors being able to make such choices in an appropriate manner.

2. *Market Discipline, Efficiency, and Literacy*

The securities markets also depend, at least to some extent, upon investors to discipline the market by "choosing appropriate financial investments, products, and services."[136] Because the market may depend on investors for such discipline, if investors are not financially sophisticated, that discipline will be eroded. The evidence surrounding the ability (or more appropriately, the inability) of investors to effectively choose among investment products and services highlights the literacy concerns associated with the expectation that investors can be a source of market discipline and thus efficiency. Importantly, this discipline is tied to price efficiency.[137] There is debate about the extent to which disclosure enhances price efficiency.[138] However, as one scholar notes, the federal securities laws "reflect the deeply imbedded assumption that timely, full, and complete corporate disclosure" will achieve accurate and efficient pricing of securities.[139] Financial illiteracy means that investors are ill-equipped for this task, increasing the likelihood that our markets will be inefficient.

---

[134] See id.

[135] See id. at 22–25.

[136] Letter from David M. Walker, *in* GAO Forum, supra note 4, at 1; see also Brown, supra note 8, § 4.01 (noting connection between disclosure and efficient pricing in the market); Hazen, supra note 7, § 1:16 (stating that "[t]he focus on disclosure was based on the conclusion that sunlight is the best disinfectant"); Dennis, supra note 10, at 414 (discussing the positive role that analysts play in maintaining an efficient market); Macey, supra note 10, at 329 (arguing that "[t]he 'demand-side' of the market must also function" in order to create accurate and efficient pricing of securities).

[137] See Eugene F. Fama, Efficient Capital Markets: A Review of Theory and Empirical Work, 25 J. Fin. 383, 383, 387–88 (1970); Ronald J. Gilson & Reinier H. Kraakman, The Mechanisms of Market Efficiency, 70 Va. L. Rev. 549, 637–38 (1984); Jeffrey N. Gordon & Lewis A. Kornhauser, Efficient Markets, Costly Information, and Securities Research, 60 N.Y.U. L. Rev. 761, 811–12 (1985).

[138] See Allen Ferrell, Measuring the Effects of Mandated Disclosure, 1 Berkeley Bus. L.J. 369 (2004) (highlighting the flaws in the empirical evidence on the connection between disclosure and price accuracy).

[139] Macey, supra note 10, at 329.

3. Fraud and Literacy

Our markets depend on investor literacy to help detect and prevent fraud.[140] Of course, our securities regime includes numerous antifraud mechanisms aimed at deterring, detecting, and holding individuals accountable for securities and investment fraud. Still, our markets also rely on investors to play a role in this endeavor.[141] Indeed, in passing the federal securities laws, Congress intended disclosure to serve as a form of investor protection from fraudulent securities practices.[142] Financial illiteracy seems to negate the appropriateness of such reliance. Some have suggested that investors' inability to understand financial concepts and compare among appropriate investment choices increases the likelihood that fraud will occur.[143] Moreover, financial illiteracy coupled with over-confidence in financial knowledge (that is, getting literacy questions wrong while thinking they are correct) increases the likelihood of financial fraud and thus also decreases the likelihood that we can depend on investors to protect against fraud.[144] In addition, technological advances have made it easier to target investors, increasing their vulnerability to fraudsters seeking to lure them with inappropriate financial products and investment opportunities.[145] Bolstering financial literacy may help combat this vulnerability.[146]

---

[140] See Angrisani et al., supra note 1, at 25.

[141] See id.

[142] See Firtel, supra note 116, at 856–57.

[143] See Annamaria Lusardi, Financial Literacy and Financial Decision-Making in Older Adults, Generations: J. Am. Soc'y on Aging (July 3, 2012), http://www.asaging.org/blog/financial-literacy-and-financial-decision-making-older-adults [https://perma.cc/639Z-DRNM] (discussion correlation between financial literacy and behaviors that make individuals more susceptible to fraud); S. Duke Han, Financial Literacy: A Way to Address the Problem of Financial Exploitation?, sifma Blog (Feb. 28, 2017), https://www.sifma.org/resources/news/financial-literacy-a-way-to-address-the-problem-of-financial-exploitation/ [https://perma.cc/JL4D-Z9UN] (suggesting that financial literacy can be used to combat financial fraud because greater financial literacy is associated with better financial decision making). But see NASD Investor Education Foundation, Investor Fraud Study Final Report 5 (May 12, 2006), https://www.sec.gov/news/press/extra/seniors/nasd fraudstudy051206.pdf [https://perma.cc/4AQ6-FGQ3] (revealing that investment fraud victims have a better understanding of basic financial literacy than nonvictims).

[144] See Keith Jacks Gamble et al., Aging, Financial Literacy, and Fraud 4–5 (Network for Studies on Pensions, Aging and Retirement, Discussion Paper No. 11/2013-066).

[145] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 2.

[146] By contrast, one survey found that fraud victims score higher than nonvictims on financial literacy quiz—indicating that even knowledgeable victims are susceptible to fraud. The survey suggests that improving financial literacy rates may not have an impact on preventing fraud. See NASD Investor Education Foundation, supra note 143.

This Section argued that financial illiteracy poses challenges for our disclosure-based securities system, because illiteracy seems to negate presumptions that are important for the healthy functioning of that system. The following sections respond to critiques of this argument, and not only demonstrate the flaws associated with such critiques, but also that that those critiques have caused us to underestimate the scope and extent of the challenges posed by financial illiteracy. This underestimation stems in large part from three problematic notions: (1) disclosure is not really important to our securities regime, (2) the financial literacy problem is limited to a small (and potentially insignificant) segment of the investor population, and (3) investor education can serve as the almost exclusive anecdote to our financial literacy concerns.

B. Disclosure Has No Clothes?

One reason for minimizing the importance of the literacy problem in the context of securities regulation may be that many have questioned the effectiveness, and hence importance, of disclosure to federal securities regulation. In other words, if disclosure is not particularly effective, then the financial literacy problem, or the failure to understand that disclosure, is not particularly concerning.

The effectiveness of disclosure has been questioned in several ways. For example, some insist that the information being disclosed in the market is simply too voluminous to be effectively digested.[147] These critics argue that information overload undermines the efficacy of disclosure.[148] Others contend that information being disclosed to the market is too complex to be understood by most.[149] As one set of experts

[147] See Roberta S. Karmel, Disclosure Reform—The SEC is Riding Off in Two Directions at Once, 71 Bus. Law. 781, 822–23 (2016) (describing reforms focused on information overload); see also Troy A. Paredes, Blinded by the Light: Information Overload and Its Consequences for Securities Regulation, 81 Wash. U. L.Q. 417, 441–43 (2003); see also Jeffrey N. Gordon, The Rise of Independent Directors in the United States, 1950–2005: Of Shareholder Value and Stock Market Prices, 59 Stan. L. Rev. 1465, 1547 (2007) (detailing significant growth in length of disclosure documents).

[148] See Omri Ben-Shahar & Carl E. Schneider, The Failure of Mandated Disclosure, 159 U. Pa. L. Rev. 647, 687–88 (2011) (noting that information overload creates problems with assimilating, organizing, and analyzing information).

[149] See Firtel, supra note 116, at 851, 864 (noting critique that disclosure is too complicated to be used effectively and that average investor cannot master complexities of disclosed information); Erik F. Gerding, Disclosure 2.0: Can Technology Solve Overload, Complexity, and Other Information Failures?, 90 Tul. L. Rev. 1143, 1152 (2016); Henry T.

notes, "complexity cannot be explained simply."[150] Still others contend that investors, even the most sophisticated, too often simply either ignore disclosure or use suboptimal shortcuts to digest disclosed information.[151]

A growing body of social psychology and behavioral economics literature confirms that even when people understand disclosed information they will often distort, ignore, or misuse that information when making decisions.[152] Such literature therefore supports the possibility that even investors who we believe to be sophisticated because they understand disclosed information may have problems analyzing information and applying that information when making decisions.[153] Empirical evidence showing a significant lack of retail participation in voting and other investment decisions underscores investors' failure to effectively use available disclosures.[154] This fact is further illustrated by evidence of investors' failure to take advantage of investor education programs when they are offered to them,[155] and the large number of investors who default into investment products rather than commit the time and resources to engage with information being disclosed to them.[156] In these ways, critics question the legitimacy of disclosure as an effective tool for regulating our securities regime. If it is not a critical component of our securities regime, then literacy may not be a such a concern.

However, the regulatory response to criticism regarding the effectiveness of disclosure runs counter to this narrative. The regulatory

C. Hu, Too Complex to Depict? Innovation, "Pure Information," and the SEC Disclosure Paradigm, 90 Tex. L. Rev. 1601, 1602 (2012); Steven L. Schwarcz, Rethinking the Disclosure Paradigm in a World of Complexity, 2004 U. Ill. L. Rev. 1, 4–6.

150 Ben-Shahar & Schneider, supra note 148, at 713 (explaining the difficulty with presenting complex information in an understandable manner).

151 See id. at 665, 721; Paredes, supra note 147, at 484.

152 See Ben-Shahar & Schneider, supra note 148, at 720.

153 See id.

154 See Jill E. Fisch, Standing Voting Instructions: Empowering the Excluded Retail Investor, 102 Minn. L. Rev. 11, 12 (2017).

155 Financial Capability in the United States 2016, supra note 20, at 32 (revealing that 31% of respondents were offered financial education programs at their school, college, or workplace, and 21% of them participated).

156 See Ben-Shahar & Schneider, supra note 148, at 710 ("Even when people know they need information, they may not want it enough to labor to acquire it."); Willis, supra note 29, at 245–246.

response has been to shore up, rather than abandon, disclosure.[157] With respect to the issue of information overload, regulators have advanced several reform efforts aimed at streamlining and reducing disclosure.[158] With regard to complexity, some regulators agree that disclosure may not be completely effective due to the complicated nature of the information disclosed, and thus mechanisms beyond disclosure, such as enhanced oversight, may be necessary.[159] Other regulators have made efforts to use disclosure to reduce complexity.[160] In fact, some have insisted that complexity may be the result of opaque or limited disclosure, thereby suggesting that, rather than render disclosure ineffective, disclosure may be one way to combat complexity.[161] Finally, in the area of investor apathy towards disclosure, regulators have made significant attempts to enhance investor participation and thus counteract that apathy.[162] In so doing, regulators appear to reaffirm the importance of disclosure. The regulatory response, in other words, has been to double down on disclosure rather than abandon it. To be sure, it is not clear if such a response will ameliorate concerns about disclosure's effectiveness. However, that response does make clear that the commitment to disclosure continues.[163] As a result, the concerns about financial literacy remain.

Importantly, even critics of disclosure's effectiveness do not suggest that we completely eradicate our reliance on disclosure. Instead, those critics, like regulators, primarily have encouraged a reassessment of disclosure whereby mechanisms are put in place to better support disclosure or ensure that disclosure is used in a more targeted or tailored fashion.[164] The fact that even the most ardent critics of disclosure's

[157] See Davidoff & Hill, supra note 116, at 600 (noting that the prescriptions for defects in disclosure is generally more disclosure); Firtel, supra note 116, at 851 (noting that the SEC has responded to disclosure concerns with "consistent efforts to make disclosure documents more readable and understandable"); Karmel, supra note 147, at 788 (noting SEC's steady focus on improving disclosure despite criticisms of its effectiveness).

[158] See Karmel, supra note 147, at 823–25 (analyzing SEC efforts to modernize and simplify disclosures).

[159] See Gerding, supra note 149, at 1152.

[160] See Karmel, supra note 147, at 823–25.

[161] See Gerding, supra note 149, at 1158.

[162] See Fisch, supra note 154, at 30–39.

[163] See Davidoff & Hill, supra note 116, at 607.

[164] See id. at 603–04; Paredes, supra note 147, at 484.

effectiveness shy away from advocating an abandonment of disclosure underscores its significance to our system of federal regulation.[165]

C. An Investor By Any Other Name . . .

While regulators appreciate the importance of disclosure, they nevertheless appear to underestimate the scope of the financial literacy problem, because they too often frame the problem in a way that appears to relate only to retail investors—i.e., individuals who invest directly in the market. Framing the problem as one involving primarily retail investors has two implications that serve to minimize financial literacy concerns. First, such a framing suggests that the financial literacy problem is limited to a relatively small percentage of the investor population, as retail investors are both a small and shrinking segment of that population. Second, such a framing suggests that any financial literacy concerns may be relatively unimportant because disclosures are arguably not intended for retail investors.[166]

On the surface, these suggestions have significant merit. First, the fact that retail investors only represent a small segment of the securities market creates the impression that the problem of financial literacy is limited to a relatively small pool of investors. As previously noted, when an individual invests directly into the securities market, she is referred to as a retail investor.[167] Individuals also can invest in the market indirectly through institutions such as mutual funds, pension funds, insurance companies, and hedge funds. When an individual invests indirectly in the market, the institution (as opposed to the individual) is the investor. This means that the primary investment decision made by such an individual is the initial decision to invest in a particular institution. Historically retail investors dominated the securities market, owning about 90% of the federal securities market in 1950.[168] Today, the securities market is dominated by institutional investors, with retail

[165] See Ben-Shahar & Schneider, supra note 148, at 745 (acknowledging that skepticism of mandated disclosure does not mean that it can never work).

[166] See Davidoff & Hill, supra note 116, at 600 (explaining that retail investors might not be expected to read or understand disclosures); Firtel, supra note 116, at 864; see also Davidoff & Hill, supra note 116, at 628 (stating that regulators are "not conceptually troubled by the existence of some retail investors who might be a bit naïve or credulous").

[167] See Lisa M. Fairfax, Shareholder Democracy: A Primer on Shareholder Activism and Participation 45 (2011).

[168] See id. at 45–46.

investors playing an increasingly small role in the markets, holding at most about 37% of the securities market.[169] The dominance of institutional shareholders appears to make the financial literacy problem less acute, because our federal securities laws presume that such institutions are financially literate, and thus sophisticated enough to make appropriate investment decisions.[170] By comparison, the relatively small percentage of retail investors suggests that the financial literacy problem impacts a relatively small segment of the overall securities market.

Second, if disclosure is not intended for the retail investor, their literacy or lack thereof should not be concerning. There is considerable debate regarding the intended audience of disclosure.[171] Many contend that disclosure is not intended for the retail investor.[172] Instead, disclosure is aimed at institutions and other sophisticated investors.[173] Disclosure is also directed at financial intermediaries. Financial intermediaries are financial professionals (both individuals and institutions), such as securities brokers and even lawyers, who help facilitate financial transactions.[174] They are presumed to have a high

[169] See id. at 46; see also Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Statistical Release Z.1, Financial Accounts of the United States: Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, Fourth Quarter 2015 (Mar. 10, 2016), at 126 tbl.L.223 l.11. Studies also show that the vast majority of individual participants in the market are the richest people in America, and that the top 10% of American households, defined by total wealth, hold the vast majority of securities. See Jared Bernstein, Yes, Stocks are Up. But 80 Percent of the Value is Held by the Richest 10 Percent, Wash. Post (March 2, 2017), https://www.washingtonpost.com/posteverything/wp/2017/03/02/perspective-on-the-stock-market-rally-80-of-stock-value-held-by-top-10/; Rob Wile, The Richest 10% of Americans Now Own 84% of All Stocks, Time (Dec. 19, 2017), http://time.com/money/5054009/stock-ownership-10-percent-richest/ [https://perma.cc/565Z-HA7G].

[170] See Cary Martin, Private Investment Companies in the Wake of the Financial Crisis: Rethinking the Effectiveness of the Sophisticated Investor Exemption, 37 Del. J. of Corp. L. 49, 67–68 (2012) (discussing the history of Regulation D, the concept of accredited investor, and the fact that the SEC used the accredited investor standard as a presumption that various institutions should be deemed financially sophisticated).

[171] See Firtel, supra note 116, at 851.

[172] See Davidoff & Hill, supra note 116, at 600 (stating that retail investors might not expected to read or understand disclosures); Firtel, supra note 116, at 864.

[173] See Ben-Shahar & Schneider, supra note 148, at 732 (finding that securities disclosures are aimed at sophisticated participants); Davidoff & Hill, supra note 116, at 600 ("Securities laws rely on the assumption that sophisticated investors read and understand securities disclosures."); Firtel, supra note 116, at 864.

[174] See generally William O. Fisher, Does the Efficient Market Theory Help Us Do Justice in a Time of Madness?, 54 Emory L.J. 843, 854–55 (2005) (noting the importance of market professionals to market efficiency and appropriate price signaling); Kenneth Rosen,

level of financial sophistication.[175] And even though they are not necessarily investors, such intermediaries collect and analyze information and then disseminate it to the investing public, sending signals to retail and other investors about appropriate financial decisions.[176] In contrast, many people argue that retail investors are not intended or expected to understand disclosures; instead they "free ride" off of these information signals.[177] Their ability to "free ride" appears to render their financial literacy a moot issue.[178] The dominance of institutional investors, coupled with the presence of financial intermediaries in the market, may be creating a sense of security that financial literacy is not a pressing concern for the securities markets, since those markets do not need to depend upon the financial literacy of retail investors.

However, this sense of security is false. The notion that disclosure is not intended for the retail investor, and hence we need not worry about their ability to understand that disclosure, is both overly simplistic and inaccurate. In order to better understand why that is so, this Article will advance a typology of the investment community and its disclosure needs to highlight the fact that disclosure is important to all investors, and that the literacy issue raises concern for the effectiveness of disclosure at all levels. Importantly, this Article acknowledges that the nature and content of disclosure may differ for distinct types of investors. However, this Article insists that such different disclosure needs do not undermine the fact that literacy poses a broad concern for the securities market.

Financial Intermediaries as Principals and Agents, 48 Wake Forest L. Rev. 625, 628 (2013); Robert B. Thompson, Market Makers and Vampire Squid: Regulating Securities Markets After the Financial Meltdown, 89 Wash. U. L. Rev. 323, 331–34 (2011) (explaining the role intermediaries play in the investing process).

[175] See Rosen, supra note 174, at 628–29.

[176] See Dennis, supra note 10, at 414; Firtel, supra note 116, at 867–69; Kathryn Judge, Intermediary Influence, 82 U. Chi. L. Rev. 573, 590–93 (2015); Donald C. Langevoort, Information Technology and the Structure of Securities Regulation, 98 Harv. L. Rev. 747, 779 (1985) (noting the role analysts play in monitoring companies and influence investors to purchase or sell securities); Rosen, supra note 174, at 630.

[177] See Gerding, supra note 149, at 1153; Firtel, supra note 116, at 867 (noting that intermediaries perform a filtration function).

[178] See Davidoff & Hill, supra note 116, at 628 (noting that because retail investors are not expected to understand disclosures, regulators are "not conceptually troubled by the existence of some retail investors who might be a bit naïve or credulous").

1. *The Individual as Retail Investor*

It is noteworthy that while retail investors occupy a small percentage of the market relative to institutions, such investors nevertheless have a significant presence in the market. Currently, retail investors hold approximately 37% of the corporate equities market.[179] This represents a large number of individual investors. Further, the percentage of retail investors varies from company to company, with some companies having over 60% of shares held by retail investors.[180] Like institutions that invest directly in the market, retail investors regularly receive securities law disclosures such as prospectuses, annual reports, quarterly reports, and proxy statements, all of which are replete with information about a company and its financial position. While the retail investor pool may be smaller than the institutional pool, retail investors still represent a sizeable share of the market and are being asked to engage with traditional disclosure documents that the financial literacy data suggest they may not be able to fully understand. The tendency, therefore, to minimize the financial literacy problem based solely on the percentage of retail investors is misguided.

Perhaps more importantly, the notion that financial illiteracy does not matter because retail investors can "free ride" off of more sophisticated investors is problematic. Retail investors' ability to "free ride" relies on several presumptions that are debatable at best. First is the presumption that institutions and other so-called sophisticated investors are in fact sophisticated.[181] As this Article will discuss further in Subsection II.B.3, this presumption may be too simplistic. Even if institutional investors are sophisticated, we also have to presume that such investors are appropriately incentivized to invest the time and resources necessary for making suitable investment decisions, thereby signaling that suitability to retail investors.[182] There is little empirical support for this presumption and evidence to refute it. As an initial matter, the historical apathy toward shareholder votes within the institutional investment community seems to cut against this presumption. The tremendous growth in the proportion of institutional investors fostered a belief that

[179] See Bd. of Governors of the Fed. Reserve Sys., supra note 169, at 126 tbl.L.223 l.11.
[180] See Fairfax, supra note 167, at 47.
[181] See Gerding, supra note 149, at 1153 (noting that concerns about disclosure are "less worrisome because more sophisticated investors can analyze the products and less sophisticated investors can free ride off the market price").
[182] Davidoff & Hill, supra note 116, at 622; Thompson, supra note 174, at 342.

such investors would fulfill a much-needed gatekeeping role for retail investors and other market participants when it came to voting.[183] Instead, the empirical evidence revealed that institutional investors had neither the motivation nor the incentive to perform such a function.[184] Even as institutional investors have become more active in recent years, empirical evidence reveals that many institutional investors still rely heavily on advisors when making critical voting and investment decisions.[185] Finally, there is anecdotal evidence suggesting that many institutional investors do not perform their signaling function, or at least do not perform it in the manner we had expected.[186] That evidence reveals that many sophisticated investors ignore or minimize critical disclosures.[187] This Article acknowledges that many institutional investors play an important signaling function to the market and other investors. However, the problem is that this function may not be performed consistently, or may not be performed consistently in the manner we have presumed. Even if only some institutional investors fail to perform their signaling function some of the time,[188] the fact that we cannot rely on them to perform on a consistent basis is problematic if the primary reason why we are unconcerned about retail investor illiteracy is that we have confidence in the reliability of the signaling function played by sophisticated investors.

[183] See Bernard S. Black, Agents Watching Agents: The Promise of Institutional Investor Voice, 39 UCLA L. Rev. 811, 812–813 (1992) (noting that large institutions can overcome the incentives of passivity); Bernard S. Black, Shareholder Passivity Reexamined, 89 Mich. L. Rev. 520, 523–524 (1990).

[184] See Black, Shareholder Passivity Reexamined, supra note 183, at 584, 608.

[185] See Tamara C. Belinfanti, The Proxy Advisory and Corporate Governance Industry: The Case for Increased Oversight and Control, 14 Stan. J.L. Bus. & Fin. 384, 394, 398 (2009); Stephen J. Choi, Jill E. Fisch & Marcel Kahan, Director Elections and the Role of Proxy Advisors, 82 S. Cal. L. Rev. 649, 657 (2009); James Woolery, Boards Should Minimize the Role of Proxy Advisors, Harv. L. Sch. F. on Corp. Governance & Fin. Reg. (Oct. 31, 2013), https://corpgov.law.harvard.edu/2013/10/31/boards-should-minimize-the-role-of-proxy-advisors/ [https://perma.cc/RE85-XHUN].

[186] See John C. Coffee, Jr. & Hillary A. Sale, Redesigning the SEC: Does Treasury Have a Better Idea?, 95 Va. L. Rev. 707, 711–12 (2009); Davidoff & Hill, supra note 116, at 601 n.6 (noting that some sophisticated investors simply followed their peers and the herd without paying adequate attention to disclosures).

[187] See Davidoff & Hill, supra note 116, at 608–26 (describing examples of sophisticated investors failing to heed warnings contained in disclosures).

[188] See id. at 601 n.6 (noting that many institutional investors read and understood disclosure, but many others did not).

The notion that retail investors can rely on other investors also appears to be based on the assumption that institutional investors' interests are suitably aligned with the interests of retail investors. This too is a contestable proposition. Shareholders are different. Shareholders have distinct interests and goals, including varying investment time horizons.[189] This fact undermines the presumption that the interests and goals of investors will always be aligned, and therefore undermines the notion that retail investors can predictably rely on institutional investors. Available evidence suggests that institutional investors diverge sharply from many retail investors on a host of critical issues.[190] By contrast, the "free rider" claim suggests that retail investors and institutional investors would resolve disclosed information in the same manner.

The presumption that we can rely on financial intermediaries to cure the financial literacy concern is also flawed. The flaw stems not only from the fact that we may have overestimated the financial sophistication of those intermediaries,[191] but also from the fact that such intermediaries may have conflicts of interests as well as misaligned incentives that undermine the extent to which they act in the best interests of investors.[192] Similar to sophisticated investors, anecdotal evidence reveals that intermediaries and market analysts do not perform their function in the manner we presumed, often merely repeating information instead of evaluating it.[193]

Then too, retail investors may not be able to rely upon intermediaries or even sophisticated investors to fill the gap in their disclosure needs

[189] See Iman Anabtawi & Lynn Stout, Fiduciary Duties for Activist Shareholders, 60 Stan. L. Rev. 1255, 1283–92 (2008); Iman Anabtawi, Some Skepticism About Increasing Shareholder Power, 53 UCLA L. Rev. 561, 579–93 (2006) [hereinafter Anabtawi, Some Skepticism].

[190] See Anabtawi, Some Skepticism, supra note 189, at 579–93; see also Fisch, supra note 154, at 15; Gretchen Morgenson, Small Investors Support the Boards. But Few of Them Vote, N.Y. Times (Oct. 6, 2017), https://www.nytimes.com/2017/10/06/business/small-investors.html.

[191] See sources collected at supra note 151.

[192] Brown, supra note 8, § 15.02 (Role of Analysts); John C. Coffee, Jr., The Political Economy of Dodd-Frank: Why Financial Reform Tends to be Frustrated and Systemic Risk Perpetuated, 97 Cornell L. Rev. 1019, 1032 (2012); Davidoff & Hill, supra note 116, at 622 (discussing conflicts and misaligned incentives of intermediaries); Gerding, supra note 149, at 1179; Judge, supra note 176, at 595; Thompson, supra note 174, at 342 (pinpointing incentives that may distort the function of intermediaries).

[193] See Brown, supra note 8, § 15.02 (Role of Analysts); Davidoff & Hill, supra note 116, at 607 n.26 (noting that "people who the securities laws rely on reading and understanding the disclosure did not do so").

for the simple reason that retail investors may engage in markets or securities transactions that are not closely followed by intermediaries. Technology has made it easier for retail investors to invest without interacting with financial intermediaries. Moreover, retail investors may invest in smaller companies or investment products not on the radar of intermediaries. Retail investors may also invest in private placements where robust public information is not available, and again where financial intermediaries may not be able to play a signaling role. Finally, when retail investors find themselves drawn into unsuitable or fraudulent schemes, it is often the case that they engage with unregulated entities or those who have managed to escape scrutiny from intermediaries and gatekeepers. In these cases, retail investors may be at their most vulnerable, and hence any literacy concerns may be especially worrisome. Yet such cases are situations in which retail investors do not have the ability to depend on intermediaries to substitute for their gaps in understanding.

Finally, even if we presume that sophisticated investors and intermediaries can appropriately perform their signaling function, there is still reason to be concerned about the literacy levels of any investor relying on that function. This is because financial literacy experts agree that a baseline level of financial literacy is necessary in order to appropriately interpret signals from institutions and intermediaries.[194] As literacy experts have argued, signaling from third parties is most effective when those receiving the signals can understand, analyze, and determine how best to adapt those signals to their own individual circumstances.[195] From this perspective, intermediaries and other more sophisticated investors may be important sources of support, but their effectiveness will be limited so long as investors do not have their own capacity to understand investment decisions.[196]

Importantly, it is clear that securities regulators—who fully appreciate the prevalence and role of intermediaries and other market participants—do not believe that such participants obviate the need for retail investors to be financially literate. Indeed, regulators have remained committed to enhancing investor education among retail investors based on their belief that such investors need to have some

[194] See Lusardi et al., A New Measure, supra note 1, at 20.

[195] See id. (noting the importance of proactive participation in order for advising to be meaningful).

[196] See id.

capacity on their own. Regulators also strenuously cling to the belief that disclosures can and should be geared to all investors, including retail investors, and that retail investors' financial literacy is central to ensuring that we meet the goals of our disclosure-based securities regime.[197] Taken together, these observations regarding retail investors undermine any claims that financial literacy associated with retail investors is relatively insignificant or not worthy of serious concern.

2. *The Individual as Indirect Investor*

The fact that individuals invest indirectly in the market through institutions exacerbates the issues of financial literacy. Indirect investors comprise a significant component of the market. Empirical evidence reveals that once we take into account individuals' indirect holdings (in the form of holdings in mutual funds, pension funds and insurance policies), individuals' effective ownership in the market is closer to 80%.[198]

Both the nature of the disclosures that indirect investors receive, and the decisions that they are called upon to make, are different from retail investors. However, indirect investors are no less important to the securities market. To be sure, indirect investors are not required to act upon more traditional disclosure documents. However, they make investment decisions, and thus we rely upon them to digest disclosures related to those decisions. Moreover, there is no serious dispute about the fact that we expect indirect investors to have sufficient capacity to understand disclosed information and to make critical investment decisions.[199] Indeed, similar to the manner in which the securities regime relies upon disclosure to those who invest in the traditional company, our federal securities regime relies upon disclosure provided to the indirect investor for purposes of investor protection, market efficiency, and fraud detection and prevention in those markets.[200] In other words,

[197] See Firtel, supra note 116, at 851, 864.

[198] See Sam Ro, Here's Who Owns the Stock Market, Business Insider (March 13, 2013), http://www.businessinsider.com/chart-stock-market-ownership-2013-3 [https://perma.cc/3RMG-XCPL].

[199] See Angrisani et al., supra note 1, at 18; Lusardi et al., A New Measure, supra note 1, at 19.

[200] See Angrisani et al., supra note 1, at 25; Lusardi et al., A New Measure, supra note 1, at 19 (noting that individuals' ability to navigate decisions related to investment products is linked to financial literacy).

such disclosure is aimed at ensuring that the indirect investor is able to protect herself when making decisions regarding which mutual fund or other entity in which to invest, that the indirect investor can appropriately choose among investment products so that the market for funds and other institutional investment vehicles is efficient, and that the indirect investor can help detect and deter fraud. If the indirect investor cannot adequately perform these tasks, it poses a problem for the securities regime and the market for these products.

Importantly, unlike with retail investors, no one disputes that the information provided to indirect investors is meant to be digested by them, rather than some other market participant. To be sure, indirect investors have the ability to, and often do, engage with brokers, dealers, and other investment professionals when making their investment decisions. However, unlike the retail investors, there is no expectation that indirect investors should be able to "free ride." At best, these market professionals serve in an advisory capacity. Consequently, there is no serious contention that indirect investors do not need to understand information being disclosed to them, either directly or indirectly through an intermediary.

There is also no serious debate about the notion that indirect investors struggle to make investment decisions. In fact, studies suggest that these investment decisions (how and to what extent to invest in products being offered by institutions) pose one of the greatest challenges for investors.[201] Studies also reveal that indirect investors are increasingly being asked to make these decisions without the benefit of advice, which further undermines their ability to make sound investment choices.[202] Indirect investors also are being asked to make more decisions, and to make more complicated decisions. Moreover, to the extent indirect investors receive information orally, experts suggest that oral disclosures lead to decreased understanding.[203]

While the disclosure problems may be different in the context of indirect investors, they are no less acute. Moreover, indirect investors account for a sizeable number of investors, and thus pose a widespread problem for the securities regime. Indirect investors' inability to effectively make investment decisions not only increases their

[201] See Lusardi et al., A New Measure, supra note 1, at 19.

[202] See Angrisani et al., supra note 1, at 18; Lusardi et al., A New Measure, supra note 1, at 19.

[203] See Ben-Shahar & Schneider, supra note 148, at 714.

susceptibility to fraud, but also decreases the likelihood that they will choose suitable investment products or otherwise ensure a more efficient market for the indirect investment community. When viewed through the lens of the indirect investors, it is clear that the financial literacy problem is severe.

3. The Institution and "Sophisticated" as Investor

Our securities regime presumes—and in many respects depends upon the presumption—that institutions and some population of investors are in fact sophisticated. The presumption is not based on any strenuous criteria or empirical evidence. Federal securities law categorizes certain institutions and individuals as sophisticated based on financial status or the amount of assets an institution manages.[204] In other words, sophistication does not turn on any effort to test the financial literacy or sophistication of any particular individual.[205] This fact begs the question of how we can be sure that institutions or individuals are in fact sophisticated or financially literate.

In the context of institutions, we know that there are many different institutional investors.[206] Empirical evidence reveals that these institutions have varying financial capacities and capabilities, again suggesting that the presumption of institutional investor sophistication is debatable.[207]

And there are factors that belie the presumption of institutional investor sophistication. First, there is significant anecdotal evidence to suggest that while some institutions may be deemed sophisticated, many others may not.[208] Second, experts have highlighted many instances in which institutional investors did not make informed investment

---

[204] While the federal securities laws do not define the term "sophisticated," those laws use the term "accredited investor" as a proxy for sophistication. See Martin, supra note 170, at 67–68. An accredited investor is determined based on status or financial net worth. See id; see also 17 C.F.R. § 230.501(a)(1)-(8) (categorizing various institutions as accredited investors); 17 C.F.R. § 230.501(a)(5)-(6) (describing accredited investor as applied to a natural person as an individual with net worth, or joint net worth with the spouse, at the time of purchase exceeds $1,000,000, or with individual income exceeding $200,000 or joint income exceeding $300,000).

[205] See Martin, supra note 170, at 68.

[206] See id. at 69–75, 77–80 (discussing institutions such as mutual funds, hedge funds, endowments and pension plans).

[207] See id.

[208] See Schwarcz, supra note 149, at 13–15 (noting institutional shareholders' difficulty in processing complex information in the structured transactions context).

decisions.[209] This anecdotal evidence is bolstered by the data discussed below related to institutional investor behavior. On the one hand, many institutions rely on advisory firms.[210] While that reliance stems from many factors, evidence suggests that at least one of those factors relates to institutional investors' lack of capacity to fully understand disclosures.[211] On the other hand, the financial literacy data further undermines the presumption of institutional investor sophistication (at least as a universal proposition). Importantly, an institution is only as sophisticated as the individual or individuals within the institution making decisions on behalf of the institution. Consequently, to the extent the available evidence suggests that many people we believed to be sophisticated are not,[212] it also suggests that not all of the institutions for which such people have responsibility can be deemed sophisticated.

Along these same lines, there is reason to believe that our presumptions about sophisticated investors may be flawed. Indeed, while the available empirical data reveals that some investors are more financially literate than others, it also reveals that many investors would not get a passing grade on literacy surveys, particularly on issues germane to making appropriate investment choices.[213] The data also suggest that while there are some investors with a high level of financial literacy, those investors represent just a fraction of the total population—according to one study, at most 16%.[214] In this regard, the best available data suggest that there is a distinct possibility that at least

[209] See Jennifer S. Taub, The Sophisticated Investor and the Global Financial Crisis, *in* Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis 188, 188–92 (James P. Hawley et al. eds. 2011); Martin, supra note 170, at 51–53; Randolph Thompson, Mortgage Backed Securities, Wall Street, and the Making of a Global Financial Crisis, 5 Bus. L. Brief 51, 57 (2008) (noting that institutional investors made collectively poor decisions); id. at 54 (appearing to question the suggestion that institutional investors had the financial capacity and literacy to understand certain risks); see also Davidoff & Hill, supra note 116, at 601 n.6; John E. Girouard, The Sophisticated Investor Farce, Forbes (March 24, 2009), https://www.forbes.com/2009/03/24/accredited-investor-sec-personal-finance-financial-advisor-network-net-worth.html#57508024184b [https://perma.cc/U4CZ-E3A7] (noting that the way we define sophistication is a farce).

[210] See Belinfanti, supra note 185, at 385; Choi et al., supra note 185, at 657; Woolery, supra note 185, at 1.

[211] See Choi et al., supra note 185, at 655 (noting that institutional investors may rely on proxy advisory services because they lack the staff or expertise to research voting issues directly).

[212] See Angrisani et al., supra note 1, at 41–42.

[213] Id.

[214] See Lusardi et al., A New Measure, supra note 1, at 3.

some of the institutions and investors we believe to be sophisticated are not.

This possibility is disturbing, given that "The assumption that sophisticated investors read and understand disclosure is a critical one for the overall capital markets regulatory scheme."[215] The securities regime is clearly prepared to accept the possibility that retail investors and even indirect investors may not all be financially literate.[216] The same cannot be said for sophisticated investors,[217] as "[o]ur system is built on taking seriously that sophisticated investors are, well, sophisticated—disclosure directed to them hits its mark."[218] The fact that the financial literacy data raise the possibility of financial illiteracy within the ranks of the sophisticated and institutional investor is thus very concerning. Again, this Article acknowledges that many investors, including institutional investors, may in fact be sophisticated. However, it also acknowledges that some may not be sophisticated and, perhaps more importantly, we do not have adequate mechanisms for distinguishing between those who may be sophisticated and those who may not. Instead, we presume a universal sophistication, and then rely on that presumption to counter concerns about the understandability of disclosure.

4. The Prospective Investor and Literacy Beyond the Securities Market

Even if all participants in the securities market are financially literate, the securities regime must be concerned with financial literacy trends outside of the markets. The financial crisis demonstrated that the financial and economic decisions people make outside of the market influence the securities market and its efficiency and efficacy.[219] Thus, markets must be concerned with financial literacy rates of noninvestors.

We also should be concerned broadly that the literacy rates may be precluding many people from participating in the securities markets. This lack of participation has important financial consequences for the

[215] Davidoff & Hill, supra note 116, at 601 n.6.
[216] See id. at 627–28.
[217] See id.
[218] Id.
[219] Rosen, supra note 174, at 631 (quoting Fin. Crisis Inquiry Comm'n, The Financial Crisis Inquiry Report: The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States xvi (2011) (noting that a collapse in the housing market sparked the financial crisis)).

individuals who do not participate. Empirical evidence suggests that individuals excluded from the market are likely to incur significant costs accessing capital, managing debt, and engaging in everyday financial transactions.[220] In this regard, exclusion from the market translates into unfavorable financial conditions for the excluded individuals.[221] On a micro level, this exclusion is troubling for what it means for people's ability to tap into a more efficient and cheaper form of capital and savings. On a macro level, this exclusion has repercussions for the securities market. The financial literacy trends could mean that the number of consumers of the financial market will decrease over time, causing the markets to contract. Healthy and robust markets need participants. Financial literacy rates may leave that need unfulfilled. Can a securities market thrive in the midst of a society where significant segments of the population are not equipped to participate?

The securities regime should also be concerned with the demographic patterns associated with financial literacy. Those patterns reveal that financial literary rates are particularly low for women and particular ethnic and racial groups.[222] As the overall demographic trends change, these patterns have serious repercussions for the securities market. Indeed, as experts contend, the economic importance of particular racial and ethnic groups will grow along with their growth in population.[223] Can we sustain a market that does not include groups that comprise an increasingly large portion of the U.S. population? Can we encourage such inclusion without addressing the literacy concerns that may be hindering inclusion? More broadly, empirical evidence reveals a clear income and wealth gap based on race and gender.[224] Many contend that

[220] See Angrisani et al., supra note 1, at 26.

[221] See id. at 29.

[222] Elan, supra note 1, at 1.

[223] See Hasler et al., supra note 83, at 1, 15.

[224] See generally Josh Hoxie, Blacks and Latinos Will be Broke in a Few Decades, Fortune (Sept. 19, 2017), http://fortune.com/2017/09/19/racial-inequality-wealth-gap-america/ [https://perma.cc/Y97F-F24W] (comparing the divide in median family wealth between white, black, and Hispanic families); Tracy Jan, White Families Have Nearly 10 Times the Net Worth of Black Families. And the Gap is Growing, Wash. Post (Sept. 28, 2017), https://www.washingtonpost.com/news/wonk/wp/2017/09/28/black-and-hispanic-families-are-making-more-money-but-they-still-lag-far-behind-whites/ (noting that the median net worth of white families is ten times the size of black families); Niall McCarthy, Racial Wealth Inequality in the U.S. Is Rampant, Forbes (Sept. 14, 2017), https://www.forbes.com/sites/niallmccarthy/2017/09/14/racial-wealth-inequality-in-the-u-s-is-rampant-infographic/#64a7830034e8 [https://perma.cc/9FCM-3WCW] (providing an infographic showing the

the gap is due, at least in part, to lack of participation in the securities market, which in turn is due to reduced financial literacy and financial capacity among women and certain groups.[225] It is not surprising, therefore, that available data reveals that whites are by far the most dominant participants in the market, both as retail investors and as indirect investors.[226] A more concerted effort to address the financial literacy problem could make the securities regime a critical part of the solution to the wealth and income gap, and its related consequences.

This section contends we may have underestimated the scope of the financial literacy problem by shying away from the fact that the problem sweeps more broadly than the retail investor. Individual investors' indirect ownership patterns, coupled with the inability of investors to rely on institutions and intermediaries and the interconnectedness of our economic behaviors, mean that financial literacy has broad implications for the securities law regime.

D. Education and its Limits

Current reform efforts further underscore the gravity of the financial literacy problem, by highlighting both the long-term nature of the

scale of America's racial wealth divide); Laura Shin, The Racial Wealth Gap: Why A Typical White Household Has 16 Times the Wealth of a Black One, Forbes (Mar. 16, 2015), https://www.forbes.com/sites/laurashin/2015/03/26/the-racial-wealth-gap-why-a-typical-white-household-has-16-times-the-wealth-of-a-black-one/#17888cef1f45 [https://perma.cc/EX84-M66C] (discussing how wealth and income divides occur on racial and ethnic lines); Mariko Chang, Asset Funders Network, Women and Wealth: Insights for Grantmakers 5–6 (2015), https://www.mariko-chang.com/AFN_Women_and_Wealth_Brief_2015.pdf [https://perma.cc/Z9GX-AZQY]; Nikki Graf, Anna Brown & Eileen Patten, The Narrowing, but Persistent Gender Gap in Pay, Pew Research Center (Apr. 9, 2018), http://www.pewresearch.org/fact-tank/2018/04/09/gender-pay-gap-facts/ [https://perma.cc/46LT-5SDB].

[225] See Chang, supra note 224, at 10 (stating that women are less likely than men to own stocks); Jan, supra note 224 (stating that African American families are less likely to own stocks than white families, and that this difference may have widened the wealth gap between the two in recent decades); Lusardi & Mitchell, supra note 111, at 22 (noting several studies that found that financially literate individuals are more likely to invest in stocks); Newell, supra note 112 (advocating that financial literacy may help narrow wealth gaps).

[226] See Tracy Jan, 1 in 7 White Families Are Now Millionaires. For Black Families, It's 1 in 50., Wash. Post (Oct. 3, 2017), https://www.washingtonpost.com/news/wonk/wp/2017/10/03/white-families-are-twice-as-likely-to-be-millionaires-as-a-generation-ago/; Allison Schrager, What the Stock Market Had to Do with Racial Inequality, Bloomberg (Jan. 9, 2015), https://www.bloomberg.com/news/articles/2015-01-09/what-the-stock-market-has-to-do-with-racial-inequality-iiborp1v.

problem and the significant difficulties associated with addressing the problem. Regulators not only have acknowledged the problem of financial literacy, but also have zeroed in on what they believe to be the primary means of addressing the problem—investor education.[227] As early as 2004, the GAO proclaimed that financial illiteracy had broad public policy implications, and launched a forum aimed at gathering information on how best to address such illiteracy.[228] The GAO specifically emphasized the importance of a financially literate consumer base to our securities markets. "The financial markets work best when consumers understand how financial services providers and products work and know how to choose among them."[229] Regulators also launched a plethora of educational programs and policies aimed at addressing the problem. For example, in 2003, Congress passed the Fair and Accurate Credit Transactions Act, known as the Financial Literacy and Education Improvement Act,[230] which created the Financial Literacy and Education Commission charged with coordinating federal efforts and developing a national strategy for promoting financial literacy.[231] As of 2003, some twenty different federal agencies had launched thirty different programs or initiatives aimed at tackling the problem of financial illiteracy.[232] Such agencies often partner with private entities or local and state governments.[233]

Most researchers and financial literacy experts believe that investor education is the most important tool for combating financial illiteracy.[234] Consistent with this belief, studies find that education levels are linked to financial literacy. For example, one study found that financial decision making improves with more education. As a result, those with a high school education or less experience more trouble making appropriate financial decisions than those with at least a college

[227] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 3.
[228] Id. at 1.
[229] Id.
[230] Pub. L. No. 108-159, title V, 117 Stat. 2003 (codified at 20 U.S.C. §§ 9701-08).
[231] See id.
[232] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 3.
[233] See id.
[234] See Lusardi et al., A New Measure, supra note 1, at 20 (citing research showing that other strategies that do not involve investor education are at best complements to such education and cannot serve as substitutes). But see Willis, supra note 29, at 201 (noting that the widespread belief in the effectiveness of financial education lacks empirical support and is implausible).

degree.[235] Studies find a clear difference in financial literacy rates based on educational levels, with people who have attained higher levels of education having greater financial literacy.[236] Another study found that people with a college degree answered 62% of literacy questions correctly, while those with less than a high school degree only answered 30% of the questions correctly.[237] Moreover, participation in financial education classes or programs enhances financial literacy. Thus, people who have some exposure to financial education answer 55% of literacy questions correctly compared with 47% for those with no exposure to financial education.[238] Then too, individuals who have been exposed to financial education are less likely to indicate that they do not know the answers to important financial questions.[239] With this backdrop in mind, researchers contend that investor education is critical to tackling the financial literacy problem, and regulators have focused almost all of their reform efforts on investor education programs.[240]

However, reliance on investor education as a cure for the financial literacy problem is rife with challenges. Indeed, the best evidence suggests that improving financial literacy requires a change to the K-12 education system, whereby K-12 students are exposed to financial concepts.[241] However, transforming the K-12 curriculum to include effective financial literacy education is a daunting proposition. It would first require consensus around the need to include financial education in the K-12 curriculum—a challenge as it could require trade-offs in the curriculum that educators and others may be unwilling to make.[242] It then would require the development of a curriculum tailored to meet the needs of students at varying levels of their educational development.[243]

[235] See Angrisani et al., supra note 1, at 16 (revealing that "the fraction of individuals experiencing difficulty covering their expenses is 66%, among those with high school or less, and is reduced to 39% (a 40% reduction) among those with at least a college degree").

[236] See Hasler et al., supra note 83, at 8.

[237] See Lusardi et al., A New Measure, supra note 1, at 13.

[238] See id.

[239] See id. at 15.

[240] See Willis, supra note 29, at 199, 201.

[241] See GAO Forum, supra note 4, at "Highlights," 13 (noting that participants in the study "emphasized the importance . . . of including financial education in school curriculums"); Lusardi et al., A New Measure, supra note 1, at 20.

[242] See GAO Forum, supra note 4, at 13 (noting that many states do not teach financial education because of limited resources and other priorities in the curriculum).

[243] See Elan, supra note 1, at 17 (noting the need to customize financial literacy education programs); Lusardi, Financial Literacy, supra note 1, at 20.

Finally, it would require the political will, resolve, and ability to get such a curriculum adopted in all of the educational jurisdictions in the United States. Once such a feat is accomplished, it would require effective training of educators, as well as appropriate tools to test the effectiveness of the curriculum and modify it when necessary.[244] At best, such a project seems long-term. Even if all of these hurdles were overcome, researchers agree that it would take some time before the changed K-12 curriculum would translate into significant changes in financial literacy levels.[245]

Investor education outside of the K-12 system poses its own set of challenges. Regulators have developed a host of different educational programs aimed at reaching the adult population, ranging from informational sessions to delivery of self-study materials and interactive games on the Internet.[246] Regulators also have emphasized the importance of public-private partnerships aimed at targeting different investor populations.[247] Along these lines, regulators have insisted on the importance of using a variety of methods to reach different audiences and customizing the information based on those audiences.[248] However, it has proven very difficult to successfully reach the investor community for purposes of investor education. As researchers note, "many federal, nonprofit, and financial industry organizations create high-quality financial education materials that reach relatively few people."[249]

Importantly, studies reveal that investors do not seek out financial advice when they should. There is an inverse relationship with respect to seeking financial advice, such that those with the lowest levels of financial literacy are the least likely to seek financial advice.[250] However, even for those with high levels of financial knowledge, seeking professional advice is the exception rather than the rule.[251] Then too, studies reveal that people do not seek out or take advantage of

[244] See GAO Forum, supra note 4, at 14 (noting that program evaluation is essential, but that relatively little had been done to assess literacy programs); Willis, supra note 29, at 204–11 (noting the existing flaws in the mechanism used to test the effectiveness of financial literacy education).

[245] See Lusardi, Financial Literacy, supra note 1, at 15–16.

[246] See Willis, supra note 29, at 202–203.

[247] See GAO Forum, supra note 4, at 6–7.

[248] See id. at 12; Elan, supra note 1, at 17.

[249] GAO Forum, supra note 4, at 12.

[250] See Angrisani et al., supra note 1, at 40.

[251] See id. (noting that "[s]eeking professional financial advice is not very common among American adults").

investor education programs, even when those programs are easily accessible, such as when employers periodically offer such programs to their employees.[252]

Part of the reason for this behavior may stem from the fact that investors overestimate their financial knowledge and their ability to make financial decisions.[253] The data suggest that there is a difference between an individual's self-perception of their financial literacy and the reality, with most Americans giving themselves very high scores with respect to their knowledge of financial matters. For example, 60% of American adults think they are good with financial matters and at math.[254] Moreover, 72% of American adults rate themselves above average on their financial knowledge.[255] While there is some correlation between self-perception and the number of correct responses on literacy questions, there is a "certain degree of disconnect between perceived and actual financial knowledge."[256] This disconnect is concerning, because it may suggest that investors may not understand that they are not equipped to make appropriate investment choices. This disconnect also may explain why many people do not reach out for help when they should.[257]

Another challenge that investor education confronts is the need for such education to be continuous. Appropriate investor education requires a baseline exposure and understanding of core financial concepts, as well as ongoing education on new products and innovations.[258] This is particularly true as the financial and investor landscape becomes more dynamic and complex, and that landscape

[252] See Financial Capability in the United States 2016, supra note 20, at 32 (finding that less than a third of respondents reported being offered financial education, 21% of respondents were offered and participated, and 10% of respondents were offered and did not participate); see also Angrisani et al., supra note 1, at 40.

[253] See Angrisani et al., supra note 1, at 41 (noting that a "large fraction [of Americans] know less about financial matters than they think").

[254] See id. at 34.

[255] See id. (noting that 80% of people who manage their household finances believe they have a firm grasp of financial matters, while 53% of those who do not manage the finances have such a belief, and that among those who did and did not receive financial education at school, 65% and 80%, respectively, believe they had a good level of financial knowledge).

[256] Id. at 35.

[257] See Willis, supra note 29, at 226–53 (emphasizing the prevalence of many different biases in financial decision making that undermine the ability of investor education to be effective).

[258] See id. at 212–19.

becomes inundated with an increasing variety of products and choices.[259] In this environment, it is not only difficult for the investing public to keep abreast of changes in market products and services, but it is also difficult for regulators to design educational programs that keep abreast of those innovations.[260] The result is that "financial-literacy education is chasing a moving target it will never reach."[261]

Perhaps most telling, the focus on enhancing financial literacy through investor education is more than a decade old,[262] and yet there has been no meaningful change in literacy rates.[263] This fact highlights the difficulties with combating financial illiteracy through such a vehicle.

As this Part revealed, disclosure is critical to the federal securities law system and thus the inability of investors to understand disclosure is critical. While some may seek to minimize the financial literacy problem, this Part argues that those efforts are based on faulty or debatable presumptions. Instead, this Article highlights the significant problems financial illiteracy poses to the securities law system and its disclosure-based mandate. While this Article does not advocate that we abandon that mandate, it does argue that we need to carefully and more appropriately consider how best to respond to these problems. Part III offers some initial thoughts on the path forward.

III. SECURITIES LAW IMPLICATIONS II: THE SEARCH FOR SOLUTIONS

A. Scholarly Attention

To date, there has been very little scholarly attention paid to the issue of financial literacy. My search uncovered a handful of scholarly articles directly related to the issue of financial literacy and the securities markets, many of which are almost ten years old. We would benefit from increased scholarly attention to the issue of financial illiteracy, particularly to the extent such attention can expand the discourse on viable solutions.

[259] See id.
[260] See id. at 218–19.
[261] See id. at 219.
[262] See Letter from David M. Walker, *in* GAO Forum, supra note 4, at 3.
[263] See infra Section I.B.

B. Education Revisited

At least one commentator has argued that we should abandon the effort at investor education because that effort cannot yield appropriate results. In her article, *Against Financial-Literacy Education*, Professor Lauren Willis argues that the "belief in the effectiveness of financial-literacy education lacks empirical support."[264] Professor Willis then documents many methodological flaws and other weaknesses in the studies that suggest a positive correlation between investor education and enhanced financial literacy.[265] Professor Willis also maintains that the belief in investor education as an antidote for financial illiteracy is "implausible, given the velocity of change in the financial marketplace, the gulf between current consumer skills and those needed to understand today's complex nonstandardized financial products, the persistence of biases in financial decisionmaking, and the disparity between educators and financial-services firms in resources with which to reach consumers."[266]

This Article agrees that the investor education solution involves challenges, but does not contend that it should be abandoned. Indeed, financial literacy experts insist that investor education is the most important solution to the financial literacy problem, and that other reforms are at best a substitute or support for investor education, particularly for a securities regime that will continue to rely on investor self-help and literacy. In light of their expertise on this issue, we should give some weight to this insistence. Importantly, while there may be flaws in the empirical evidence related to the connection between investor education and enhanced financial literacy, even Professor Willis concedes that the evidence does not indicate that investor education cannot be effective under the appropriate circumstances.[267] This means that there is still reason to support investor education. Finally, this Article insists that it is inadvisable to focus only on one solution. Investor education should not be the sole focus of our reform efforts. But neither should any other measure. Given the nature and extent of the

[264] See Willis, supra note 29, at 197.
[265] See id. at 205–10.
[266] See id. at 197.
[267] See id. at 210–11 (noting that the verdict is still out on the effectiveness of financial literacy programs).

financial literacy problem, it is clear we need a multitude of solutions to tackle it.

However, we do need to refocus investor education efforts beyond the K-12 level to change the nature and manner in which such education is provided. For example, studies indicate that investor education should make efforts to more appropriately take into account individual circumstances and better incorporate one-on-one counseling.[268] Also, investor education must be specifically targeted towards investor circumstances, and such education must be customized to address the needs of particular groups.[269] We also should consider finding ways to incentivize investors to obtain investor education, or otherwise mandate investor education to better ensure that investors are obtaining education when they need it.

C. Disclosure Revisited

From one perspective, the financial literacy problem may suggest the inadvisability of a regime that is heavily dependent on disclosure and hence investor literacy. However, it is not realistic or feasible to completely dismantle or abandon our disclosure-based federal securities system. Moreover, there are benefits and drawbacks in any securities law regime, and hence eschewing disclosure in favor of other models not only may not ameliorate financial literacy concerns, but also may create unintended consequences. Hence, this Article does not advocate for a wholesale rejection of disclosure.

This Article does insist that we must reevaluate disclosure in light of the financial literacy reality. To be sure, many others have acknowledged and highlighted the defects and limitations of disclosure.[270] For example, some have raised concerns about appropriate access to information and related concerns of informational asymmetries that challenge a disclosure-based regime.[271] There also has been

[268] See Hasler et al., supra note 83, at 15; Lusardi & Mitchell, supra note 42, at 43; Lusardi, Financial Literacy, supra note 1, at 20.

[269] See Elan, supra note 1, at 17.

[270] See Zohar Goshen & Gideon Parchomovsky, The Essential Role of Securities Regulation, 55 Duke L.J. 711, 755 (2006).

[271] See Ben-Shahar & Schneider, supra note 148, at 651; Paula J. Dalley, The Use and Misuse of Disclosure as a Regulatory System, 34 Fla. St. U. L. Rev. 1089, 1103, 1115 (2007); Davidoff & Hill, supra note 116, at 603; Susanna Kim Ripken, The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation, 58 Baylor L. Rev. 139, 147–48 (2006).

significant discourse around conflicts of interest, regulatory capture, and misaligned incentives that undermine effective evaluation of information or otherwise impede effective and full dissemination of information by investors and financial intermediaries.[272] While this discourse around the limitations of disclosure is important, it falls short of sufficiently grappling with how best to ensure that investors understand information once it is disclosed to them. This is because such discourse focuses on the problems associated with information flows, bias, and incentives rather than how best to increase understanding of basic financial concepts.

Of greater relevance to the financial literacy problem has been the discourse about the extent to which investors and intermediaries sufficiently understand corporate disclosures. For example, many scholarly commentators noted that the financial crisis revealed that intermediaries did an "astonishingly poor job" of interpreting disclosures.[273] By highlighting the fact that many so-called sophisticated investors and intermediaries failed to understand information being provided to them, the financial crisis also highlighted the financial literacy problem and its repercussions.[274] Many reforms and proposed reforms focused on raising awareness of the financial literacy problem and improving financial literacy.[275] The ultimate response focuses broadly on improving financial literacy among consumers (and thus does not have a specific focus on investors and the securities market),[276] and has resulted in important support for financial education

[272] See Macey, supra note 10, at 340–41, 349–50 (pinpointing issues of regulatory capture and access as well as conflict of interest concerns that undermine the ability of intermediaries to process and deliver appropriate information and highlighting the need for a system that reflects true objectivity among outside monitors).

[273] See id. at 331.

[274] Gary O. Cohen, Disclosure Developments Affecting Life Insurance Company Products, Separate Accounts and Underlying Funds, ST006 ALI-ABA 137, 141–42 (2011); M. Todd Henderson, Self-Regulation for the Mortgage Industry, 2013 U. Chi. Legal F. 229, 239–40 (2013).

[275] See Jeffrey T. Dinwoodie, Ignorance is Not Bliss: Financial Illiteracy, the Mortgage Market Collapse, and the Global Economic Crisis, 18 U. Miami Bus. L. Rev. 181, 203–205 (2010).

[276] See Christine Daleiden, Financial Reform for Consumers: An Overview of the Dodd-Frank Act and the Consumer Protection Bureau, 15-APR Haw. B.J. 4, 5–7 (2011).

programs.[277] However, our ongoing literacy problem reveals that considerably more work must be done in this area.

The SEC's "plain English" reform similarly recognized that investors were having difficulty understanding disclosures.[278] In 1998, the SEC adopted the "plain English" rule in an effort to make disclosure more understandable, particularly to the ordinary investor.[279] For example, the rule focuses on removing "legal jargon or highly technical business terms" and reducing the length and density of sentences and paragraphs.[280] However, even that discourse misses the mark because it does not delve deep enough into the problem. The issue is not demystifying jargon and complex terms, but rather ensuring an understanding of basic terms and financial concepts. Therefore, to date, there has not been enough significant discourse around the fact that investors and at least some of their advisors may not have the capacity to process information because they lack basic financial literacy. We must engage in this discourse if we want disclosure to truly be effective.

D. The Focus on Advisors

The financial literacy problem indicates that we must give significant attention to the role and duties of financial advisors. Like disclosure, scholarly attention has focused on concerns regarding advisors and investor interaction with advisors.[281] Such attention has been particularly focused on the role of advisors who engage with indirect investors when

[277] See Kelly Thompson Cochran, The CFPB at Five Years: Beyond the Numbers, 21 N.C. Banking Inst. 55, 70–71 (2017).

[278] See J. Scott Colesanti, Demanding Substance or Form? The SEC's Plain English Handbook as a Basis for Securities Violations, 18 Fordham J. Corp. & Fin. L. 95, 95 (2012); Firtel, supra note 116, at 880.

[279] See Firtel, supra note 116, at 879–80.

[280] See id. at 879–81.

[281] See Will Bunting, The Trouble with Investment Banking: Cluelessness, Not Greed, 48 San Diego L. Rev. 993, 995–97 (2011); see also Regulation Best Interest, 83 Fed. Reg. 21574 (proposed Apr. 18, 2018) (to be codified at 17 C.F.R. pt. 240); Mark Schoeff, Jr., SEC Advice Rule Raises Bar for Brokers by Putting 'Best Interest' on Table, InvestmentNews (Apr. 19, 2018), http://www.investmentnews.com/article/20180419/FREE/180419899/sec-advice-rule-raises-bar-for-brokers-by-putting-best-interest-on [https://perma.cc/3F7E-5ASY]; John A. Turner, et. al., Pension Policy Center, Financial Illiteracy Meets Conflicted Advice: The Case of Thrift Savings Plan Rollovers 1–2 (May 2015), http://www.pensionrights.org/sites/default/files/docs/150501_financial_illiteracy_meets_conflicted_advice.pdf [https://perma.cc/H8R3-HWHQ].

they are choosing among investment products.[282] The financial literacy data reveals that these areas are critical not only because the lack of financial literacy among investors suggests an increased need for appropriate financial intermediaries, but also because investors encounter particular difficulties with making decisions about appropriate and suitable investment products.[283] Hence, this Article supports efforts at reforms focused on advisors.

In addition, this Article contends that our focus on advisors should delve into several specific areas. First, special attention must be given to the access and availability of advisors.[284] Financial illiteracy means that investors need the help of advisors. Thus, reforms must be developed to enhance availability, while any existing rules, regulations, or reforms must be evaluated to ensure that they do not unduly burden investors' access to advisors. Second, advising must be free from conflicts of interests.[285] We must pay special attention to ensuring that investor advice is independent and unbiased.

Third, we must evaluate how best to grapple with investors' inevitable overreliance on advisors. Studies reveal that investors rely on their financial advisors more than any other source.[286] Studies also reveal that investors rely on their financial advisors even in circumstances when they likely should not, such as when there are serious concerns around conflicts of interest.[287] Studies further reveal that investors rely on individuals who engage with them in the process of selecting investments even when those individuals do not take on the responsibility for advising them.[288] Finally, studies reveal that some

[282] See Turner, et al., supra note 281, at 1–2.

[283] See Elan, supra note 1, at 5, 25.

[284] See Ben-Shahar & Schneider, supra note 148, at 747–48.

[285] See id. at 747.

[286] Elan, supra note 1, at 22.

[287] See Chrissy Celaya, Conflicts of Interest Can be Buried Deep in Your Investing Choices, Betterment (June 19, 2017), https://www.betterment.com/resources/conflicts-of-interest-investing/ [https://perma.cc/7J8L-5U4R]; Daniel Solin, Investors Should Look Out for Conflicts of Interest, U.S. News (May 5, 2014), https://money.usnews.com/money/blogs/the-smarter-mutual-fund-investor/2014/05/05/investors-should-look-out-for-conflicts-of-interest. Although investors express high satisfaction with their financial advisors, they are confused and uncertain about fees and fee structure. See Angela A. Hung et al., RAND Inst. for Civil Justice, Investor and Industry Perspective on Investment Advisers and Broker-Dealers xix (2008), https://www .sec.gov/news/press/2008/2008-1_randiabdreport.pdf [https://perma.cc/6GT7-YMT2]. As other studies suggest, fees reflect a potential conflict of interest.

[288] See Hung at al., supra note 287, at 113.

investors do not investigate their advisor's background or credentials.[289] Viewed together, these studies indicate that financial illiteracy may create undue reliance on financial professionals. That reliance is particularly problematic in light of the current environment surrounding financial and securities professionals. Investors engage with financial professionals who have different roles and responsibilities towards investors.[290] Research suggests that investors do not sufficiently understand those differences.[291] Current reform measures, including reforms aimed at imposing a uniform fiduciary duty rule for investors,[292] seek to ensure that investors understand the difference between the professionals on whom they can rely for advice and professionals who have other roles in the process and thus do not have responsibility for providing investment advice.[293] The financial literacy data suggests that this may not be sufficient. Instead, we may have to assume that investors will rely on all professionals precisely because they do not have the capacity to make decisions on their own, and then design reform efforts aimed at addressing this inevitable reliance. The concerns surrounding financial literacy suggest that reform efforts related to the fiduciary duty of financial professionals must not only focus on reducing confusion about the role of financial professionals, but also must appropriately acknowledge the reality of investor reliance as it applies to all financial professionals.[294] Thus, whether or not we embrace a uniform fiduciary standard, we must think carefully about appropriate mechanisms for acknowledging the reality of overreliance that appears to be the inevitable byproduct of financial illiteracy.

Fourth, we should grapple with how best to deal with the concern regarding investors' failure to seek out advice. The evidence reveals that investors are not likely to believe that they need advice or otherwise to

[289] See Elan, supra note 1, at 22.

[290] See Ryan K. Bakhtiari, Katrina Boice & Jeffrey S. Majors, The Time for a Uniform Fiduciary Duty Is Now, 87 St. John's L. Rev. 313, 315–16 (2013); Art Gharibian, Applying a Uniform Fiduciary Standard for Financial Professionals, L.A. Law., Feb. 2013, at 8; William Nelson, Broker-Dealer: A Fiduciary by Any Other Name?, 20 Fordham J. Corp. & Fin. L. 637, 648 (2015).

[291] See Bunting, supra note 281, at 1063; Hung at al., supra note 287, at xix, 18, 20, 87.

[292] See Gharibian, supra note 290, at 8; Nelson, supra note 290, at 689–90.

[293] See Gharibian, supra note 290, at 8; Nelson, supra note 290, at 689–90.

[294] See Bakhtiari et al., supra note 290, at 324–25; Gharibian, supra note 290, at 8 (noting that the uniform fiduciary duty standard likely provides a rebuttable presumption of reliance); Nelson, supra note 290, at 689.

seek out that advice.[295] Indeed, even when investors are offered financial information or financial advice from their employers, investors routinely fail to take advantage of such offerings. This means we must develop and advance solutions that seek to proactively bring the advice to the investors.

Finally, we must pay particular attention to advice around certain types of decisions. Importantly, the financial literacy literature reveals that financial education and advising are best when delivered at "teachable" moments, when the information is applicable to a particular decision.[296] This means that effective investor education and effective delivery of investment advice requires that such education be delivered at the point when investors are making a relevant investment decision. Thus, we must devise measures to intervene at these important decision making points.

Advising is not a cure-all. As Lusardi and her colleagues note, advising cannot do all of the work associated with responding to financial literacy concerns.[297] Indeed, they observe that "receiving advice and nudges on every financial decision that individuals face is simply not realistic."[298] Moreover, even if it were realistic, or we could enhance advice around certain key decisional moments, such actions would not fully address financial literacy concerns. This is because individuals need to be proactive participants in their advice sessions in order to get the best benefit and most suitable advice.[299] Professional financial advice is most effective when investors have the capacity to understand it and tailor it for their specific needs and circumstances.[300] Investors' active participation is also important because we cannot ensure that all advice is unbiased and objective. Lusardi and her colleagues contend that additional guidance from professional advisors is best viewed as a complement to improved investor education in this

[295] Financial Capability in the United States 2016, supra note 20, at 31–32; Angrisani et al., supra note 1, at 40.

[296] See GAO Forum, supra note 4, at 10.

[297] See Lusardi et al., A New Measure, supra note 1, at 20.

[298] See id.

[299] See id.; see also J. Michael Collins, Financial Advice: A Substitute for Financial Literacy?, 21 Fin. Servs. Rev. 307, 307 (2012).

[300] See Lusardi et al., A New Measure, supra note 1, at 20; Lusardi & Mitchell, supra note 42, at 43.

area.[301] However, in light of the limitations of investor education, advising is clearly an area that merits special attention.

E. Literacy and the Exercise of Shareholder Power

On the one hand, the financial literacy problem suggests that we should reduce the areas in which investors must make critical investment decisions. Such a conclusion may not bode well for those investors who have advocated for increased shareholder power and influence over corporate affairs. Indeed, in the last decade investors have pushed for, and been granted, considerably more influence over corporate affairs on issues ranging from executive compensation decisions to the nomination and election of directors.[302] There has been considerable debate over the benefits of such an increase.[303] Financial illiteracy may provide support for opponents of such an increase by suggesting that investors do not have the capacity to responsibly exercise their influence.

However, it is not clear that financial illiteracy dictates a reduction in shareholder influence, at least as it has currently evolved. To be sure, in order to responsibly exercise their increased power and authority, investors clearly need to be well informed about a range of issues, including financial matters. But there may be reasons why financial illiteracy is not as concerning in the context of the current shareholder activism environment. Indeed, the very fact that shareholders have vociferously advocated for increased power around particular issues may mean that shareholders are especially motivated and incentivized to seek advice and gain understanding of the issues around which they have gained more authority. Indeed, evidence suggests that shareholders have both the expertise and the incentive to make informed decisions about the particular issues around which they must exercise enhanced authority.[304] Of note, the financial literacy literature does not suggest that investors experience difficulty making decisions on all matters

[301] See Lusardi et al., A New Measure, supra note 1, at 20; Collins, supra note 299, at 307.
[302] See Fairfax, supra note 167, at 4.
[303] See id. at 35–43.
[304] See Craig Guillot, More Boards are Consulting Shareholders about Executive Compensation, Chief Executive (Aug. 5, 2018), https://chiefexecutive.net/more-boards-are-consulting-shareholders-about-executive-compensation/ [https://perma.cc/XD95-EW7J]; see also Shareholders vs. Management: Split Decision, KelloggInsight (Feb. 2, 2011), https://insight.kellogg.northwestern.edu/article/shareholders_vs_management_split_decision (noting that shareholders can make valuable decisions even when they may have less knowledge than management) [https://perma.cc/3MY8-SMW2].

impacting the corporation or the market. Thus, the literature may have particular relevance for decisions implicating financial concerns, but does not speak to decisions about other issues. Many of the areas around which shareholders have greater influence do not directly involve financial matters, or otherwise implicate decisions around which shareholders have experienced the most difficulty as a result of their lack of financial literacy.[305] Hence, the financial literacy problem does not necessarily undermine the movement towards increased shareholder power.

Of course, there are a host of other issues implicated by financial illiteracy. This Article is just a starting point in considering how such illiteracy may impact our understanding of issues pertinent to the securities law regime. More work needs to be done to ensure that we better understand, acknowledge, and grapple with the securities law implications of financial illiteracy.

IV. CONCLUSION

Studies conclusively and consistently reveal that Americans lack basic understanding of financial concepts and how to effectively apply those concepts in financial decision making. Those studies also reveal that the American investor is no exception. This Article seeks to sound the alarm about the clear and consistent findings surrounding financial illiteracy in the United States.

Financial illiteracy poses challenges to our securities system, because our system is premised almost entirely on the ability of investors to understand disclosures and make investment decisions based on those disclosures. While those challenges have not gone unnoticed, we may have inappropriately minimized the extent and nature of those challenges. However, this Article reveals the flaws associated with the effort to minimize the financial literacy problem. Financial literacy should not be thought of as an issue impacting solely retail investors, nor should it be viewed as insignificant based on the presumption that retail investors can rely on more sophisticated institutions and financial intermediaries. Perhaps more importantly, this Article demonstrates that the financial literacy problem cannot be sufficiently ameliorated based

[305] See Lisa M. Fairfax, Making the Corporation Safe for Shareholder Democracy, 69 Ohio St. L.J. 53, 61–78 (2008) (describing increased shareholder influence over corporate governance issues such as director elections, staggered boards, and majority voting).

on presumptions about the sophistication of financial institutions and intermediaries. Collectively, therefore, this Article undermines the presumptions that have caused us to inappropriately minimize the significance of the financial literacy problem in the context of the federal securities regime. As a result, this Article reveals the importance of financial illiteracy to the overall health of the federal securities regime, as well as the need to seriously enhance the attention paid to the issue of financial literacy and its impact on that regime.

This Article also asserts that we may have zeroed in on a solution—financial education—that has not, and in the near-term and as currently constructed likely cannot, produce appreciable changes to financial literacy rates. To be sure, this Article supports the financial education effort, but acknowledges its limitations. Moreover, this Article argues that we must address the financial literacy problem with multiple solutions, rather than zeroing in on one. This Article therefore insists that we grapple with the financial literacy issue from a different perspective so that we can make more realistic and meaningful adjustments to our securities law regime. Americans are financially illiterate. It is past time that we seriously consider how our disclosure-based securities regime should account for that fact.