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INDIRECT INVESTOR PROTECTION:
THE INVESTMENT ECOSYSTEM AND ITS LEGAL UNDERPINNINGS

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This paper argues that the key mechanisms protecting retail investors' financial stake in their portfolio investments are indirect: they do not rely on actions of the investors themselves, or of their agents including fund managers, or of any other private actor directly charged with looking after the investors' interests. Rather, investors' main protections are provided by the ecosystem that they (are legally forced to) inhabit. These protections arise as a byproduct of the self-interested, legally constrained behavior of sophisticated third parties that are in competition with one another, particularly hedge funds, traders generally, and plaintiff lawyers. While existing law consciously supports some of these indirect mechanisms, others remain hidden from view and are at risk from contractual innovations and their own success. The analysis provides a more convincing rationale for mandatory corporate and securities law, cautions against the SEC's recent push to open private markets to smaller investors, and identifies a new challenge from the rise of large index funds.

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INTRODUCTION

The system of retail investment in corporations in the United States and increasingly elsewhere performs something of a miracle. Millions of uninformed, uninterested, and disengaged savers saving for retirement through 401(k) plans and other self-directed investment—tax-advantaged or not—entrust trillions of dollars to corporations and their managers for decades – and at the end of it get not only their money back but a sizeable return.[1] In fact, the large and rapidly growing group of retail investors who buy-and-hold broad-market index funds (mutual or exchange-traded)—the paragon investors in this paper—do considerably better than professionally managed endowments and public defined benefit pension plans, and even average mutual fund investors may do better than these institutional investors.[2] What mechanisms ensure that the retail savers' money is not squandered on bad investments, or, once invested, diverted into the pockets of those closer to the ground? Legal prohibitions, public agencies, and gatekeepers can and must prevent naked theft and perhaps excessive fees, but they cannot prevent the selection of bad assets, and the failure to manage those assets properly, including diversion through excessive executive compensation and corporate finance transactions favoring savvy parties.[3] Who or what fulfills this central role?

The standard answer is that investors are protected by the information and governance rights that companies provide them, and by the investment professionals—particularly mutual fund managers—that they may employ to digest this information and exercise their rights.[4] For example, the SEC's website for retail investors claims that "the SEC requires public companies to provide

[1] As of year-end 2019, retirement market assets in the United States surpassed USD 32 trillion, with self-directed investment accounts representing USD 22 trillion of the total. *2020 Investment Company Fact Book*, INV. CO. INST., 2020, at 165. Regarding the returns on such assets, between 1998 and 2017, private defined contribution pension plans with more than 100 participants generated a mean annual return of 5.8%. U.S. DEP'T OF LABOR, PRIVATE PENSION PLAN BULLETIN HISTORICAL TABLES AND GRAPHS 1975–2017, 28 (Sept. 2019), https://www.dol.gov/sites/dolgov/files/EBSA/researchers/statistics/retirement-bulletins/private-pension-plan-bulletin-historical-tables-and-graphs.pdf.

[2] *Cf.* Sandeep Dahiya & David Yermack, *Investment Returns and Distribution Policies of Non-Profit Endowment Funds* (ECGI, Finance Working Paper No. 582/2017, March 2020) (non-profit endowments underperformed the market by 1% annually over their sample period of 2009–2017, with larger endowments doing worse); Aleksandar Andonov, Rob M. M. J. Bauer & K. J. Martijn Cremers, *Pension Fund Asset Allocation and Liability Discount Rates*, 30 REV. OF FIN. STUD. 2555, 2558 (2017) (public defined benefit pension plans in the United States underperformed their benchmarks by 0.51% annually and underperform other pension funds by 0.36–0.61% annually, but European and Canadian public defined benefit plans do not significantly underperform other types of pension funds); *2020 Investment Company Fact Book*, INV. CO. INST., 2020, *supra* note 1, at 119 (asset-weighted average mutual fund expense ratios in 2019 were 0.52% for equity funds and 0.48% for bond funds) and 127 (asset-weighted average expense ratios for both equity and bond index funds were 0.07% in 2019). Endowments and public defined benefit pension plans could thus do better than the average mutual fund investor only if their benchmark outperformed the markets in which the mutual funds invested. For the most part, however, that is impossible because the main benchmarks for the institutional investors are the very markets and indices in which the mutual funds invest. On the growth of index funds, see *infra* note 13 and accompanying text. *But see* PRIVATE PENSION PLAN BULLETIN, *supra* note 1 (between 1975 and 2017, *private* defined benefit plans generated mean annual returns of 6.6%, compared to the 5.8% mean annual return generated by private defined contribution plans).

[3] Simple but crucially important rules for the prevention of theft include the threat of criminal prosecution and mandates of custody arrangements for client assets. On fees, see *infra* section 2.3.

[4] *Cf.* Bernard S. Black, *The Legal and Institutional Preconditions for Strong Securities Markets*, 48 UCLA L. REV. 781 (2001) (stressing information rights for—undifferentiated—investors and the prevention of diversion through—undifferentiated—private plaintiffs, as well as public enforcement, while not mentioning any of the "bounty hunters" at the center of the present paper; that said, Black (798-801) also emphasizes the importance of the press and culture, which are other important elements of the investment ecosystem, and in this sense is complementary to the present paper).

financial and other information to the public, which investors can use to judge *for themselves* whether to buy, sell, or hold a particular security."[5] Similarly, the recent push for "stewardship" by institutional investors is predicated on the idea that end-investors' agents should watch their investments for them.[6] However, retail investors cannot possibly digest the necessary information themselves.[7] As to mutual fund managers, there are very good theoretical and empirical reasons to expect them to be at most partially effective protectors of their retail investors' money. Passive

[5] *Research Before You Invest,* SEC. & EXCH. COMM'N, https://www.investor.gov/research-before-you-invest (last visited Aug. 7, 2020) (emphasis added).

[6] *See* Jeff Sommer, *Challenging Management (But Not the Market)*, N.Y. TIMES, Mar. 17, 2013, at 43 (quoting David Booth, Chairman of Dimensional Fund Advisors: "[As large shareholders,] we realized we had a responsibility to pay attention to [voting/governance] questions."); Mike Scott, *Passive investment, active ownership*, FIN. TIMES, April 6, 2014, https://www.ft.com/content/7c5f8d60-ba91-11e3-b391-00144feabdc0 (quoting head of corporate governance for State Street Global Advisors, discussing State Street's engagement to "ensure[] [its] views and client interests are given due consideration."); Mara Lemos Stein, *The Morning Risk Report: U.S. Investors Embracing Stewardship*, WALL ST. J., June 22, 2017, https://blogs.wsj.com/riskandcompliance/2017/06/22/the-morning-risk-report-u-s-investors-embracing-stewardship/ (discussing Investor Stewardship Group – composed of institutional investors – and adoption of framework for U.S. Stewardship and Governance); *Passive Fund Providers Take an Active Approach to Investment Stewardship*, MORNINGSTAR (Dec. 2017), https://www.morningstar.com/lp/passive-providers-active-approach ("[Index fund] managers have a fiduciary duty to their investors to push for changes that will increase shareholder value."); Larry Fink, Chairman & C.E.O., BlackRock, Inc., A Sense of Purpose ¶ 6 (2018), https://www.blackrock.com/corporate/investor-relations/2018-larry-fink-ceo-letter (last visited Aug. 12, 2020) ("We must be active, engaged agents on behalf of the clients invested with BlackRock, who are the true owners of your company."); John Authers, *Passive investors are good corporate stewards*, FIN. TIMES, Jan. 19, 2019, https://www.ft.com/content/c4e7a4f6-be8a-11e5-846f-79b0e3d20eaf ("[W]hen investors entrust their money to passive fund managers, their interests are indeed being represented aggressively with company managements."); Jennifer Thompson, *Pension funds raise concern over index manager stewardship,* FIN. TIMES, June 23, 2019, https://www.ft.com/content/f75459e3-3a6d-383e-843b-6c7141e8442e ("[P]ension funds surveyed said they used a managers' records on stewardship to a 'large extent' in manager selection"); Simon Constable, *Index-Fund Firms Gain Power, but Fall Short In Stewardship, Research Shows*, WALL ST. J., July 8, 2019, https://www.wsj.com/articles/index-fund-firms-gain-power-but-fall-short-in-stewardship-research-shows-11562637900 (reporting on debate on whether passive investment firms are effective stewards, including quotes by firms' executives acknowledging a responsibility to be so); Saker Nusseibech, *Stewardship must force companies to be on the side of 'angels'*, FIN. TIMES, Oct. 28, 2019, https://www.ft.com/content/abb48ccb-baa6-4ac5-9523-a875dab059ff ("Asset owners entrust us with their capital to create wealth sustainably and too often investors are asleep at the wheel once investment decisions are made."); BLACKROCK, BLACKROCK INVESTMENT STEWARDSHIP 3 (Jan. 2020), https://www.blackrock.com/corporate/literature/fact-sheet/blk-responsible-investment-engprinciples-global.pdf ("We believe BlackRock has a responsibility in relation to monitoring and providing feedback to companies, sometimes known as 'stewardship.'"); *Principles and policies*, VANGUARD, https://about.vanguard.com/investment-stewardship/principles-policies/ (last visited Aug. 12, 2020) ("Vanguard's Investment Stewardship program serves as a voice for our investors to promote long-term value creation at the companies in which our funds invest."); FIDELITY, STEWARDSHIP PRINCIPLES AND PROXY VOTING 1 https://www.fidelity.com/bin-public/060_www_fidelity_com/documents/about-fidelity/fidelity-stewardship-and-proxy-principles.pdf (last visited Aug. 12, 2020) ("Investors ... must hold companies and boards to standards designed to help those companies flourish ... As stewards for our customers … [describes approach to proxy voting]."); THE STEWARDSHIP PRINCIPLES, INVESTMENT STEWARDSHIP GROUP 2, https://staging.isgframework.org/wp-content/uploads/2020/07/ISG_Stewardship_Principles.pdf (last visited Aug. 12, 2020) ("Asset managers are responsible to their clients, whose money they manage …Institutional investors should ensure that they or their managers, as the case may be, oversee client … assets in a responsible manner."); *Investment Stewardship*, J.P. MORGAN ASSET MANAGEMENT, https://am.jpmorgan.com/us/en/asset-management/gim/adv/investment-stewardship (last visited Aug. 10, 2020) ("As stewards of our clients' assets … [w]e recognise our responsibility to engage with the companies in which we invest, to ensure our clients' interests are represented and protected."). *See also* Lucian A. Bebcuk, Alma Cohen & Scott Hirst, *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSPS. 89 (2017) (discussing asset manager stewardship/engagement under assumption it is a desirable behavior for investment managers).

[7] On this and the remainder of this paragraph, see *infra* section 1.

(index) funds eschew selection of investments by definition, and, competing on costs, have low incentives, if any, to exercise governance rights in their portfolio companies. Actively managed funds have better but, barred from charging performance fees, still weak incentives, and in any event have historically not been active in governance and notoriously underperformed the market, at least net of fees. To the extent these *direct* mechanisms of investor protection are not working, which do?

My contention is that the central mechanisms of investor protection for retail investment in publicly traded securities beyond theft and fees are *indirect*: they do not rely on the investors themselves, or their agents, or any other private party directly charged with looking after the investors' interests. Little would be lost if retail investors and their mutual fund managers picked their portfolios randomly and never exercised their control rights except for minimally informed voting by fund managers.[8] This is because investors' main protections are provided as a *byproduct* of the self-interested but legally constrained behavior of sophisticated *third parties* without a mandate to help the investors, particularly hedge funds, traders generally, and plaintiff lawyers. Chief among these protections is the securities market: competition between savvy traders ensures that market prices for stocks and other liquid securities are at least roughly equal to their fundamental value, obviating the need for careful selection of assets by investors and their agents. Moreover, once investors' money is invested in a portfolio company, plaintiff lawyers police diversion, and activist hedge funds and private equity (PE) funds (through takeovers) police mismanagement. None of these "bounty hunters"—traders, plaintiff lawyers, activist hedge funds, PE funds—is motivated by a concern for other investors. But under the rules in place, they cannot make money without helping others—or at least, that is how it should be. Contrast this with the private markets where, in the absence of established market prices and liquidity, unsophisticated investors could lose their shirt by buying overpriced or selling underpriced securities, activists cannot operate, and plaintiff lawyers could be blocked by arbitration clauses – this would not be a safe world for "dumb" retail investors to invest.[9]

For the avoidance of doubt, my brief for indirect investor protection is not a brief against public regulation and public enforcement. The difference between indirect and direct investor protection is not that one is supported by regulation and enforcement and the other is not. Rather, the difference is which private actors fulfill which important roles, and hence *which* public regulation and enforcement is important. In fact, the indirect investor protection view furnishes better arguments for public mandatory regulation than the direct investor protection view, as explained below.

The first major payoff of clearly articulating the mechanisms and importance of indirect investor protection is thus to provide a yardstick to assess the desirability of individual rules.[10] Specifically, the rules must ensure that the "bounty hunters" gain if and only if other investors gain, and they must steer retail investors into markets where the forces of indirect investor protection are active. This unifies the evaluation of well-known questions such as rewards for plaintiff lawyers and 13D disclosure rules, but it also casts entirely new light on rules that are otherwise puzzling, such as the securities laws' implicit restriction of (open-end) mutual funds to liquid assets: illiquid assets would earn higher returns if well selected (due to their liquidity premium), but mutual funds probably won't select them well because they come without the protection of a market price.

Most importantly, the indirect protection frame shows why certain rules must be mandatory, a

[8] What would be lost is some resilience, i.e., back-up protection for investors even if the other mechanisms break down. *Cf. infra* sections I and IV.B.

[9] *See infra* section 5.

[10] *See infra* section 3.

question that has hitherto lacked a convincing answer.[11] In the standard, direct investor protection frame, mandatory rules, especially for corporate governance, are paradoxical: if investors cannot be trusted to assess and negotiate standardized governance terms, then they surely cannot be trusted to assess and choose the much more idiosyncratic and hence complicated businesses they invest in, which they are, however, entirely free to do. Attempts to resolve this paradox within the direct investor protection frame by appeal to externalities on other firms or contracting failures, briefly reviewed in section 4.1 below, have been unsuccessful. By contrast, the paradox dissolves in the indirect investor protection frame: while unsophisticated investors do not need to understand the business of their portfolio companies because the smart money does the work for them, they cannot rely on the smart money's scrutiny of the investment terms to the extent those terms could be written precisely to allow the smart money to abuse the dumb money.

Finally, the analysis identifies stress points of the system. To a considerable extent, the system of indirect investor protection relies on *freeriding*: index funds and other buy-and-hold investors freeride on the work of traders and activist hedge funds. The work of these bounty hunters is "subsidized" by active traders who take the wrong side of the trade with the smart money.[12] In other words, index fund investors do well because certain others lose money, whether those "others" are day traders, investors in actively managed mutual funds, or inefficient institutional investors like public pension plans or endowments. This is an interesting fact in and of itself, but it also raises the question if the system is in equilibrium: after all, why would people accept losing money forever (relative to investing in index funds)? The extremely rapid growth of index funds from less than 5% of mutual funds' assets under management in 1995 to more than 35% in 2017, and from less than 4% of the U.S. stock market capitalization in 2000 to 15% in 2019, suggests that the system is not in equilibrium, and that more and more investors are learning that they have better alternatives.[13] The more assets are held by passive investors, however, the less trading there will be, and hence the less subsidies will be provided to the governance and price discovery work of hedge funds.[14] This may require the search for new solutions to compensate socially valuable activity.

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[11] *See infra* section 4.

[12] For the case of security price formation, *see* John H. Cochrane, *Finance: Function Matters, Not Size*, 27 J. ECON. PERSPS. 29, 44 (2013); Vladyslav Sushko & Grant Turner, *The Implications of Passive Investing for Securities Markets*, BIS Q. REV., Mar. 2018, at 119. For the case of activist investors, *see* Rui Albuquerque, Vyacheslav Fos & Enrique J. Schroth, Value Creation in Shareholder Activism: A Structural Approach, ECGI Finance Working Paper 685/2020. For more explanation and details, see *infra* section VI.A and VI.B.

[13] The AUM numbers are from Kenechukwu Anadu, Mathias Kruttli, Patrick McCabe & Emilio Osambela, *The Shift from Active to Passive Investing: Potential Risks to Financial Stability?* 2–3 (Federal Reserve Bank of Boston, Working Paper No. RPA 18-04, May 2020), https://www.federalreserve.gov/econres/feds/the-shift-from-active-to-passive-investing-potential-risks-to-financial-stability.htm. The stock market numbers are from *2020 Investment Company Fact Book*, *supra* note 1, at 40 and *2018 Investment Company Fact Book*, INV. CO. INST., 2018, at 43. These numbers understate the phenomenon of indexing because they count neither pension plans and others passively tracking indices outside a mutual fund structure nor "closet indexing" by nominally active mutual funds, *See* John C. Coates, *The Future of Corporate Governance Part I: The Problem of Twelve* 10–11 (Harvard Public Law, Working Paper No. 19-07, Mar. 2019), https://ssrn.com/abstract=3247337.

[14] Index mutual funds can net most investor purchases and redemptions internally and hence do not trade, or only very little. This is basically true for ETFs as well. In ETFs, "redemptions" (sales) inevitably generate a trade of the ETF share but not of the ETF's component shares. The latter is triggered only by and to the extent of imbalances between investors' supply and demand of ETF shares, just like net index fund flows are triggered (only) by such imbalances.

Inchoately, indirect investor protection is already part of corporate and securities law discourse. Proponents of hedge fund activism stress its beneficial effect on the value of shares held by other investors.[15] Courts awarding fees to plaintiff lawyers emphasize the importance of their enforcement efforts for shareholders generally.[16] The debate on takeovers has always featured the idea that they deter and correct bad management, and generate premia for target shareholders.[17] The appeal of index funds is often linked to the idea of market efficiency[18], which in turn has long been recognized to rely not on universal rationality but a relatively small number of professionally informed traders.[19] Finally, small investors' inability to protect themselves and their fund managers' lacking incentives to do it for them has been recognized for a long time. Putting these ingredients together seems inevitably to lead to this paper's view (and inversely, questioning this paper's view requires undermining one of these ingredients). And yet, the literature has not recognized the common theme.

In particular, the literature has not recognized the theme's crucial implications for mandatory rules and for the long-run viability of the current system.[20] For example, the current debate on the growth of index funds is concerned about index funds' excessive power, or at most their missing incentives to use that power, i.e., mechanisms of *direct* investor protection, rather than on index funds undermining the *indirect* protective mechanisms analyzed in this paper.[21] More generally,

[15] *See* Marcel Kahan & Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. PA. L. REV. 1021 (2007); Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights*, 113 COLUM. L. REV. 863, 896-902 (2013); Lucian A. Bebchuk, Alon Brav & Wei Jiang, *The Long-Term Effects of Hedge Fund Activism*, 115 COLUM. L. REV. 1085 (2015). *See also* Marcel Kahan & Edward B. Rock, *Hedge Fund Activism in the Enforcement of Bondholder Rights*, 103 NW. U. L. REV. 281 (2009) (focusing on hedge funds' positive impact on bondholder, rather than shareholder, rights).

[16] Americas Mining Corp. v. Theriault, 51 A. 3d 1213, 1252–62 (Del. 2012); Sugarland Indus., Inc. v. Thomas, 420 A.2d 142, 147–48 (Del. 1980).

[17] *See* Michael C. Jensen, *Takeovers: Their Causes and Consequences*, 2 J. ECON. PERSPS. 21 (1988).

[18] *See, e.g.*, Burton G. Malkiel, *The Efficient Market Hypothesis and Its Critics*, 17 J. ECON. PERSPS. 59, 76–77 (2003) ("[T]he most direct and convincing tests of market efficiency are … the [in]ability of professional fund managers to outperform the market as a whole [index funds]"); Sommer *supra* note 6 (framing Dimensional Fund Advisors' index-like strategy as an implication of Efficient Market Hypothesis); Burton G. Malkiel, *Index Funds Still Beat 'Active' Portfolio Management*, WALL ST. J., June 5, 2017, https://www.wsj.com/articles/index-funds-still-beat-active-portfolio-management-1496701157?st=y64plc9w520nxjr ("Even in less efficient emerging markets, index funds outperformed 90% of active funds."); Paul Woolley, *As the efficient markets hypothesis turns 50, it is time to bin it*, FIN. TIMES, Dec. 31, 2019, https://on.ft.com/2YNTSkB ("[T]reating indices as the neutral default choice [for benchmarking active performance] makes sense only if pricing is efficient."). The connection is, however, not accurate, or at least not as simple as often described. In particular, even in an inefficient market, the index fund will by mathematical necessity (an accounting identity) do as well as the average non-index investor, *cf. infra* note 139 and preceding text, which makes the index fund appealing for all those who do not think they can do better than the average, regardless of whether one theoretically could do better than the average (i.e., whether the market is inefficient).

[19] The classic article in law expositing the importance of professional traders for market efficiency is Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549 (1984).

[20] For example, Gilson & Kraakman recognize that centralized, mandated disclosure by the issuer improves the information environment and hence price efficiency, Gilson & Kraakman, *supra* note 19, at 569, but do not discuss why such disclosure would need to be mandated by *statute*, rather than contract writ large (including charters, stock exchanges rules, etc.). *See generally id* and *infra* section IV.A. Nor do Gilson & Kraakman consider the threat to market efficiency from the rise of passive investing, which they could not anticipate at the time. *See generally id.*

[21] *Cf.* John C. Bogle, *Bogle Sounds a Warning on Index Funds*, WALL ST. J., Nov. 29, 2018, https://www.wsj.com/articles/bogle-sounds-a-warning-on-index-funds-1543504551 (wondering if index funds have become too big for their own good because they amass too much power); Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267 (2016); Edward B. Rock & Daniel L. Rubinfeld, *Defusing the Antitrust Threat to Institutional*

most legislative and regulatory debates as well as much scholarship around shareholder rights still center on the idea of investors fending for their own rights.[22] In fact, many participants in these debates vilify the actors that I claim provide indirect investor protection.[23] The minimum payoff of my analysis is thus to show that such vilification is wrong-headed and dangerous. Moreover, it is my hope that clearly articulating the idea of indirect investor protection will bring into focus hitherto underappreciated rules and institutions, beyond the usual suspects mentioned above. For example, my analysis implies that we should view with suspicion the expansion of the private market and retail participation therein, even when intermediated by mutual funds.[24] It renders unsurprising mutual funds' losses from "unicorn" investments in large private firms.[25]

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Before I continue, four clarifications to avoid misunderstanding. First, I do not assume that small investors are completely naïve and can be exploited indefinitely. Over the long run, small investors will learn, but slowly and imprecisely. In particular, small investors will "learn" to avoid

Investor Involvement in Corporate Governance 2–5 (N.Y.U. L. & Econ. Rsch. Paper No. 17-05, 2017), https://ssrn.com/abstract=2925855 (critiquing economic evidence of common ownership's anticompetitive effects); Eric A. Posner, Fiona M. Scott Morton & E. Glen Weyl, *A Proposal to Limit the Anti-Competitive Power of Institutional Investors,* ANTITRUST L. J. (forthcoming) (Nov. 2017), https://ssrn.com/abstract=2872754 (proposing to use antitrust law to limit the anticompetitive power of large institutional investors); Jose Azar, Martin C. Schmalz & Isabel Tecu, *Anticompetitive Effects of Common Ownership, 73* J. FIN. 1513 (2018); Coates, *supra* note 13 (arguing that the growth of large index funds will concentrate a worrisomely large amount of power in the hands of only a few individuals managing those funds); Lucian A. Bebchuk & Scott Hirst, *Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy*, 119 COLUM. L. REV. 2029 (2019) (raising concern about power of "Big Three" index funds and their (lack of) incentives to engage with management of portfolio companies); C. Scott Hemphill & Marcel Kahan, *The Strategies of Anticompetitive Common Ownership*, 129 YALE L.J. 1392, 1440–45 (Mar. 2020) (examining empirical evidence of anticompetitive behavior by institutional investors).

[22] *Cf., e.g.*, Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 836, 883–84 (2004) ("This Article questions the basic allocation of power between boards and shareholders under U.S. corporate law. I present the case for allowing shareholders to initiate and vote to adopt changes in the company's basic corporate governance arrangements") (failing to differentiate between different shareholders, except in dismissing the idea that "shareholders" would vote for proposals put forward by special interests or those with short-term horizons); *What We Do*, SEC. & EXCH. COMM'N, https://www.sec.gov/Article/whatwedo.html (last visited Aug. 12, 2020) ("[Requiring disclosure] provides a common pool of knowledge for all investors to use to judge for themselves whether to buy, sell, or hold a particular security"); Management's Discussion and Analysis, Selected Financial Data, and Supplementary Financial Information, 85 Fed. Reg. 12068, 7 (proposed Feb. 28, 2020) (to be codified at 17 C.F.R. §§ 210, 229, 239, 240, 249) ("…the Commission solicited comment on whether these requirements provide the material information that investors need…").

[23] *See, e.g.*, Martin Lipton, *Takeover Bids in the Target's Boardroom*, 35 BUS. LAW. 101, 104 (1979) (characterizing activist investors as "speculators interested not in the vitality … of the business enterprise … but only in a quick profit"); Paul K. Rowe, Theodore N. Mirvis & William Savitt, *Bebchuk's "Case for Increasing Shareholder Power": An Opposition*, 120 HARV. L. REV. F. 43, 51 (2007) ("[S]hareholders with short-term investment horizons (such as hedge funds) will support corporate policies that tend to inflate current share prices at the expense of long-term value"); Leo E. Strine, Jr., *Who Bleeds When the Wolves Bite?: A Flesh-and-Blood Perspective on Hedge Fund Activism and Our Strange Corporate Governance System*, 126 Yale L.J. 1870 (2017) (arguing that hedge fund activism and rapid corporate stockholder turnover have harmed workers and the economy); Andrew Ross Sorkin, *Do Activist Investors Target Female C.E.O.s?*, N.Y. TIMES: DEALBOOK, Feb. 9, 2015, https://dealbook.nytimes.com/2015/02/09/the-women-of-the-s-p-500-and-investor-activism.

[24] *See infra* section 5.

[25] *See* Jean Eaglesham & Coulter Jones, *Mutual Funds' Embrace of High-Profile Unicorns Backfires*, WALL ST. J. (Oct. 11, 2019), https://www.wsj.com/articles/mutual-funds-embrace-of-high-profile-unicorns-backfires-11570786202?st=0ca6xdy4zp8f254.

particular types of investments if enough of them get burned long enough, frequently enough, badly enough, and/or visibly enough. For this reason, we should not expect small investors to keep pouring money into a stock market even after several decades of population-wide losses.[26] In this sense, even naïve small investors react to incentives and reach an equilibrium of sorts. But this sort of naïve learning is notoriously imprecise, leading to return-chasing behavior that has been much studied and scorned in the behavioral finance literature.[27] To the extent uninformed investors do reach a stable, rational equilibrium, it will be one in which high raw expected returns must compensate them for predictable exploitation eating into those returns. But since investors' expected return is firms' cost of capital, this would be a world in which firms' cost of capital would be high, i.e., an undesirable world.

Second, I repeat a qualification above for the sake of clarity: A prerequisite for any functioning system of saving is the prevention of naked stealing and embezzlement, i.e., the straightforwardly illegal diversion of funds. Similarly, retail investors are at great risk from fees they pay to their funds and investment advisers, be it as a pro-rata management fee or as fees for transactions that "advisers" steer their clients into.[28] Finally, retail investors can assume excessive idiosyncratic risk to the extent they do not understand the value of diversification, for example because they are being led on by an employer encouraging investment in the employer's stock.[29] Direct investor protection has an important role to play here, particularly through custody rules, criminal law enforcement, nudging towards diversified low-cost investments, and—a controversial and underdeveloped measure—the restriction of fees, including of recommendations of high-fee products. The investor protection I am concerned with in this article, however, is what goes beyond this: ensuring that the money is not only not stolen but invested well, and not diverted slowly and (de facto) legally into others' pockets through executive compensation or other hard-to-catch means. I briefly return to the issue of fees and related "consumer protection" topics in section 2.3.

Third, the analysis focuses on the public equity market only to facilitate exposition of the main idea, not because the idea is irrelevant in other markets, in particular debt. To be sure, indirect investor protection is less pronounced in debt markets. But the reason for this is that it is usually less important. Outside of distress, debt is less information sensitive and less governance intensive than equity, reducing both the opportunity and the need for smart money intervention.[30] When debt becomes distressed, distressed funds and distressed debt trading fulfill very similar functions

[26] *Cf.* Ulrike Malmendier & Stefan Nagel, *Depression Babies: Do Macroeconomic Experiences Affect Risk-Taking?*, 126 Q. J. ECON. 373 (2011) (reporting that investors who lived through periods of low stock market returns invest less in the stock market).

[27] *See, e.g.*, James J. Choi, David Laibson & Brigitte C. Madrian, *Why Does the Law of One Price Fail? An Experiment in Mutual Funds*, 23 REV. FIN. STUD. 1406 (2010) (finding experimental evidence of return-chasing behavior); Shlomo Benartzi & Richard Thaler, *Heuristics and Biases in Retirement Savings Behavior*, 21 J. ECON. PERSPS. 81, 92–94 (2007) (describing observed return-chasing behaviors); Rui Albuquerque, Gregory H. Bauer & Martin Schneider, *Global private information in international equity markets*, 94 J. FIN. ECON. 18, 18 (2009) (finding return-chasing by U.S. investors in entering foreign equity markets).

[28] A modern version of high-fee funds is the creation of "index funds" tracking captive bespoke indices. *Cf.* Adriana Z. Robertson, *Passive in Name Only: Delegated Management and "Index" Investing*, 36 YALE J. ON REG. 795 (2019).

[29] *See generally*, *e.g.*, Howell E. Jackson, *To What Extent Should Individual Investors Rely on the Mechanisms of Market Efficiency: A Preliminary Investigation of Dispersion in Investor Returns*, 28 J. CORP. L. 671 (2003).

[30] Stewart C. Myers & Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have*, 13 J. FIN. ECON. 187, 207–10, 219 (1984); Paolo Fulghieri & Dmitry Lukin, *Information production, dilution costs, and optimal security design*, 61 J. FIN. ECON. 3 (2001); Bengt Holmstrom, *Understanding the role of debt in the financial system* 9–12 (BIS Working Paper No. 479, Jan. 22, 2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2552018.

to long/short equity and activist hedge funds in equity markets.[31]

Fourth and finally, for the most part, my analysis in this paper takes many of the existing institutions as given; I do not purport to derive conclusions that would be true in any imaginable system of investment. In particular, my focus is the U.S.; I do not explicitly consider the rest of the world, where plaintiff attorneys are virtually absent and hedge fund activism is underdeveloped. One reason to do so is that the U.S. financial market dwarfs all others and tends to serve as a global model.[32] This makes the U.S. interesting in and of itself. It also suggests that there may be something about U.S. investor protection that allows U.S. markets to be so much larger than others. In any event, I make no claim that investment could not possibly be supported by alternative mechanisms. The U.K. may have figured out a better way to coax the U.K. equivalent of mutual funds into stewardship, or perhaps China has discovered the secret to successful government guidance of investment – or perhaps not.[33] I merely aim to identify the mechanisms—and the rules that support them—that bear the load in the contemporary U.S. system, given choices that retail investors make or gravitate towards today. The last caveat is important because, for reasons that will become obvious, indirect investor protection would largely fail if retail investors were to shift their money to closed-end investment companies investing in private, illiquid assets, as would be allowed under current rules. I conjecture and hope that a political reaction would close this hole if retail investors were to squeeze into it, but I do not pursue this matter. The final section merely entertains some thoughts on how the existing system might need to be modified if the current system's reliance on free-riding is unsustainable in the long run, as I conjecture based on a simple accounting identity. While it would surely be desirable to design the optimal system if one could, such a top down approach seems too ambitious epistemically and politically.

I. THE IMPLAUSIBILITY OF DIRECT INVESTOR PROTECTION

The official justification of much investor protection legislation and regulation, such as disclo-

[31] Distressed funds invest in (debt) securities that are trading at very low prices (because they are either in default or have a high risk of default) with the aim of reselling at a higher price, either due to short-term mispricing or following a restructuring process. *See An Introduction to Distressed Debt and Credit Investing*, CAIA, https://www.caisgroup.com/editorial-intro-distressed-debt-credit-investing (last visited Aug. 10, 2020); *Distressed Debt*, OAKTREE, https://www.oaktreecapital.com/strategies/credit/distressed-debt (last visited Aug. 10, 2020). For discussion of the impact of distressed debt funds on the bankruptcy process, *see* Edith S. Hotchkiss & Robert M. Mooradian, *Vulture investors and the market for control of distressed firms*, 43 J. FIN. ECON. 401 (1997), esp. at 402 (discussing role of vulture investors in prepackaged bankruptcies); Douglas G. Baird & Robert K. Rasmussen, *Antibankruptcy*, 119 YALE L.J. 648 (2010), esp. at 659–70 (discussing claims trading); Edward I. Altman, *The Role of Distressed Debt Markets, Hedge Funds, and Recent Trends in Bankruptcy on the Outcomes of Chapter 11 Reorganizations*, 22 AM. BANKR. INST. L. Rev. 75 (2014).

[32] *See Capital Markets Fact Book 2019*, SIFMA, 2019, at 30–42.

[33] Bernard S. Black, *Agents Watching Agents: The Promise of Institutional Investor Voice,* 39 UCLA L. REV. 811, 813-814 (1992) argues that U.S. money managers' passivity is partially the result of restrictive legal rules. On U.K. stewardship, *cf.* FIN. REPORTING COUNCIL, THE UK STEWARDSHIP CODE 2020 (2020), https://www.frc.org.uk/investors/uk-stewardship-code. The U.K. is also, of course, much more open to hostile takeovers, *see* Lucian Ayre Bebchuk & Allen Ferrel, *A New Approach to Takeover Law and Regulatory Competition*, 87 VA. L. REV. 111, 129–30 (2001), which is a form of indirect investor protection considered in this article. The U.K. appears to be the most critical comparison because the U.K. has one of the world's largest financial markets, and has had it for a long time. In other cases, success is more recent and it remains to be seen if it is sustainable. In the 1980s, a voluminous literature analyzed the reasons why the Japanese keiretsu system was superior to the U.S. system – until it was not.

sure rules, is to "empower investors," by which it seems the SEC and others mean individual investors and their agents.[34] For example, on its "What We Do" page, the SEC claims that disclosure "provides a common pool of knowledge for all investors to use to judge for themselves whether to buy, sell, or hold a particular security" and the SEC's website for *retail* investors explains, inter alia, how to read corporate disclosures, how to vote a corporation's shares, and how to select an investment advisor.[35] And many participants in policy debates, including judges, admonish investors—or rather those who manage their assets—to exercise their power, arguing that this will reclaim corporate governance for investors' benefit, leading to the recent wave of "stewardship codes."[36]

This view is naïve.[37]

A. Individual Investors

It is inconceivable that individual (retail) investors will make good use of their powers as

[34] *See, e.g.*, Allison Herren Lee, Commissioner, Sec. & Exch. Comm'n, Remarks before the Investment Adviser Association Compliance Conference 2020: Getting Back to Basics: Protecting, Serving, and Empowering Investors (Mar. 5, 2020) ("the SEC is wise to focus its resources on its core mission—to protect, serve, and empower investors."); Press Release, Sec. & Exch. Comm'n, Are You Prepared for Your Financial Future? Use the SEC's Investor Preparedness Checklist to Find Out (Apr. 1, 2019) (describing new tool created to "empower" investors); Press Release, Sec. & Exch. Comm'n, New SEC Campaign Educates Investors on Where and How to Get Answers (Apr. 8, 2019) (describing new campaign to "empower investors"); Press Release, Sec. & Exch. Comm'n, SEC to Focus on Empowering Main Street Investors for 2018 World Investor Week (Oct. 1, 2018). For a review of the SEC's position through history, see 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 (1999).

[35] For quoted material, *see What We Do*, SEC. & EXCH. COMM'N, https://www.sec.gov/Article/whatwedo.html (last visited Aug. 12, 2020). For information on how to read corporate disclosures, *see Researching Investments,* SEC. & EXC. COMM'N., https://www.investor.gov/research-before-you-invest/research/researching-investments (last visited Aug. 12, 2020). For information on voting, *see Shareholder Voting*, SEC. & EXCH. COMM'N, https://www.investor.gov/shareholder-voting (last visited Aug. 12, 2020). For information on selecting an investment adviser, *see Working with an Investment Professional*, SEC. & EXCH. COMM'N, https://www.investor.gov/introduction-investing/getting-started/working-investment-professional (last visited Aug. 12, 2020). Until 2019, the lead slogan on the SEC's homepage claimed that "[t]he SEC … shares information about companies and investment professionals to help investors make informed decisions and invest with confidence." SEC, SEC. & EXCH. COMM'N, https://www.sec.gov/ (last visited under previous format April 21, 2019, last visited under current format Aug. 12, 2020).

[36] For an example of such an admonishment (by former Chief Justice of the Delaware Supreme Court Leo E. Strine, Jr.), *see* Gillian Tett, Andrew Edgecliffe-Johnson, Patrick Temple-West & Billy Nauman, *Moral Money special: Leo Strine's new deal for corporate America*, FIN. TIMES, Oct. 1, 2019, https://www.ft.com/content/1d2f1348-e3de-11e9-9743-db5a370481bc ("I have encouraged the index-fund complexes to step up … They need to hold themselves accountable … make sure that their index funds … vote on everything in accordance with their objectives … create a more patient approach to voting that is more thoughtful."). *See also* Leo E. Strine, Jr., *Can We Do Better By Ordinary Investors? A Pragmatic Reaction to the Dueling Ideological Mythologies of Corporate Law*, 114 COLUM. L. REV. 449, 476 (2014) ("humans controlling others' money should be accountable for faithfully using that power … fiduciaries who wield direct voting power over productive corporations do so in a manner faithful to the best interests of those whose money they control"). On the recent wave of stewardship codes, *see Stewardship*, ECGI, https://ecgi.global/content/stewardship (last visited Aug. 12, 2020) ("Shareholder Stewardship Codes reflect the growing influence of institutional investors. The codes, which first appeared in the aftermath of the 2007–2009 global financial crisis, represented a response to concern that institutional investors had been too passive in providing oversight during the crisis. These codes encouraged shareholders to exercise their legal rights and increase their level of engagement in corporate governance as a constraint on managerial power and excessive risk-taking.").

[37] *Cf.* Zohar Goshen & Gideon Parchomovsky, *The Essential Role of Securities Regulation*, 55 DUKE L.J. 711, 713 (2006) ("Any serious examination of the role and function of securities regulation must sidestep the widespread, yet misguided, belief that securities regulation aims at protecting the common investor. Securities regulation is not a consumer protection law.").

shareholders, and it is not much more likely that *their* asset managers will. I am putting aside the question whether the ultimate individual investors might be better placed to make the value judgments involved in environmental and social questions that have increasingly caught the attention of corporate governance debates (and that are the closest parallel to choices voters make in political elections).[38] Rather, I focus on corporate governance's bread and butter: business decisions. In corporate governance, virtually all elections are referenda on business decisions, not value judgments. The same is true for the other decisions that shareholders are asked to make, in particular approving large transactions.

To fix ideas, think of an investor, call her Sam, saving for retirement in a world where she needs to fend for herself. You can imagine that Sam is a neurosurgeon or a store clerk, but ultimately little would differ even if she were a finance professional. Every month, Sam puts aside some of her salary. The first question Sam will confront is where to put her money. She could keep her money in the bank and earn more or less zero interest, or buy government securities with a slightly higher but still low return. If she wants to enjoy higher expected returns, she needs to invest in securities issued by private businesses. But which? To learn about any given security, she could start by reading whatever information the company makes available. For a debt security—a bond—, this would include the bond indenture, which usually runs in the hundreds of small-print pages of legalese. For equity, the legal documents are generally shorter—for example, Facebook's certificate of incorporation runs only 13 pages—but assessing the business's prospects are all the more important.[39] Here Sam could start with the company's latest annual report, which in Facebook's case runs 120 pages, including 35 pages of financial statements.[40] Of course, things change, so Sam should also consult Facebook's press releases, quarterly earnings, and other news since its latest annual report. In fact, Sam should also check on Facebook's competitors, proposed legislation and regulation affecting Facebook, and other relevant world developments. Professional analysts start there and then supplement with various personal inquiries, all with the purpose of assessing whether the price offered is high or low given the expected profitability of the company and, ultimately and more to the point, the expected payoffs to owners of the particular security considered.

Individual investors are utterly unable to comprehend and judge these business questions.[41]

[38] On this question, *see* Scott Hirst, *Social Responsibility Resolutions*, 43 J. CORP. L. 217 (2018).

[39] For Facebook's certificate of incorporation, *see* Facebook, Inc. (Del. Div. of Corps. File No. 3835815), https://s21.q4cdn.com/399680738/files/doc_downloads/governance_documents/FB_CertificateOfIncorporation.pdf (last visited Aug. 12, 2020).

[40] *See* Facebook, Inc., Annual Report (Form 10-K) (Jan. 29, 2020), http://d18rn0p25nwr6d.cloudfront.net/CIK-0001326801/45290cc0-656d-4a88-a2f3-147c8de86506.pdf (last visited Aug. 12, 2020).

[41] *See, e.g.,* William O. Douglas, *Protecting the Investor*, 23 (n.s.) YALE REV. 522, 523-524 (1934), https://www.sec.gov/news/speech/1934/030034douglas.pdf (last visited Aug. 12, 2020) ("those needing investment guidance will receive small comfort from the balance sheets, contracts, or compilations of other data revealed … They either lack the training or intelligence to assimilate them and find them useful, or are so concerned with a speculative profit as to consider them irrelevant."); Homer Kripke, *The Myth of the Informed Layman*, 28 BUS. LAW. 631, 632 (1973) ("the Commission has misconceived its market…the theory that the prospectus can be and is used by the lay investor is a myth. It is largely responsible for the fact that the securities prospectus is fairly close to worthless."). William O. Douglas joined the SEC shortly after publication of this article and was SEC Chairman from 1937 to 1939 before becoming Associate Justice of the U.S. Supreme Court. Speaking after the quoted passage, Douglas acknowledges that where there is a broad market, there will be individuals who can and will "assimilate the mass of information in the registration statement," and that "[t]he judgment of those experts will be reflected in the market price." Douglas, *Protecting the Investor*, at 524. However, from the next sentence it seems apparent that he had in mind experts advising investors ("Through them investors who seek advice will be able to obtain it."), rather than experts themselves investing, and thus revealing their information only through the market price. *See id.*

The reason is that such judgments require a high degree of business and financial skills, as well as dedicated time. Individual investors would lack all three even if they needed it for only one firm. But individual investors should invest, and do invest, in diversified portfolios comprising at least dozens and usually hundreds or even thousands of firms. Moreover, investors like Sam would need to redo these calculations every time they invest a part of their paycheck for their retirement. And once invested, they would need to spend more time managing their ongoing investment, for example by voting their stock at the annual meeting of each company in their stock portfolio.

B. Individuals Investors' Fund Managers

In all likelihood, no sane and even moderately informed observer thinks that individual investors will read the hundred or more pages of even a single corporation's annual proxy statement. Every knowledgeable person expects, and would advise, Sam to hire a money manager, which for the vast majority of investors simply means investing in a mutual fund.[42] (And today most would suggest an *index* mutual fund.[43]) It is likely that the SEC equivocates in public statements only to placate those outside the field who would take issue with anything that smacks of aiding big financial firms. The true target of the hopes and admonitions of commentators are the mutual fund managers who administer individual investors' shareholdings.[44] What can we expect of those?

Little. As a matter of fact, mutual fund managers, especially those of index funds, rarely engage their portfolio companies.[45] As a matter of law and economics, their incentives to do so are very

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[42] *See*, *e.g.*, Douglas, *supra* note 41, at 524.

[43] *Cf.*, *e.g.*, Cochrane, *supra* note 12 (marveling why not every retail investor invests in index mutual funds).

[44] *Cf.* SEC. & EXCH. COMM'N, DISCLOSURES TO INVESTORS – A REAPPRAISAL OF FEDERAL ADMINISTRATIVE POLICIES UNDER THE '33 AND '34 ACTS 51–52 (Mar. 27, 1969), http://www.sechistorical.org/museum/galleries/tbi/gogo_d.php ("The Wheat Report") (acknowledging that "the detailed financial information required by the schedules to the Form 10-K [annual] report could be intended only for the skillful analyst.").

[45] McCahery, Sautner & Starks offer survey evidence showing low levels of engagement among institutional investors, including mutual funds. *See* Joseph A. McCahery, Zacharias Sautner & Laura T. Starks, *Behind The Scenes: The Corporate Governance Preferences of Institutional Investors*, 71 J. FIN. 2905, 2912 (2016) (finding, *inter alia*, that in the five years prior to the survey, nearly 40% of institutional investors surveyed had not engaged in discussions with top management of their portfolio companies, nearly 50% had not voted against management, 65% had not proposed specific action to management, and more than 80% had not submitted a shareholder proposal). *See also* Lucian Bebchuk & Scott Hirst, *Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy*, 119 COLUM. L. REV. 2029 (2019) (analyzing "Big Three" index funds' stewardship activities, finding that they underinvest in stewardship and defer excessively to firm management).

Perhaps the most telling evidence on mutual funds' reluctance to engage is that they often vote in favor of shareholder proposals, yet virtually never introduce them, such that the vast majority of shareholder-initiated changes is driven haphazardly by "gadflies," i.e., individuals with few shares and little money at stake, *see* James R. Copland, *Frequent Filers: Shareholder Activism by Corporate Gadflies* (2014), https://perma.cc/YFK7-C7NQ, or, recently, a law school clinic, Harvard's Shareholder Rights Project, which initiated a wave of "destaggering" of corporate boards, *see Shareholder Rights Project*, HARV. L. SCH. (2019), http://www.srp.law.harvard.edu/index.shtml (last visited Aug. 12, 2020), even though commentators estimated that hundreds of billions of dollars in shareholder money were at stake (with different commentators disagreeing whether the billions would be gained or lost). For example, Bebchuk & Cohen find that charter-based staggered boards depress Tobin's Q by approximately 0.16 on average. Lucian A. Bebchuk & Alma Cohen, *The costs of entrenched boards*, 78 J. FIN. ECON. 409, 423 (2005). In contrast, Cremers et al. find that adopting a staggered board increases Q by approximately 0.05 (when controlling for endogeneity). K.J. Martijin Cremers, Lubomir P. Litov & Simone M. Sepe, *Staggered boards and long-term firm value, revisited*, 126 J. FIN. ECON. 422, 435 (2017). Neither Bebchuk & Cohen nor Cremers et al. purport that staggered boards have any impact on firm book value. Thus, as Q = (market cap)/(book value), a back-of-the-envelope calculation tells us that Bebchuk & Cohen's estimate would imply an increase in total U.S. market capitalization of $17 trillion×0.6×0.16 =

weak.[46] Relatedly, it is individual investors who choose the fund managers, and individual investors' choices are notoriously bad.

To begin with the last point, it is well documented that U.S. investors were for the longest time holding most of their assets through actively managed mutual funds that *lost* their investors' money relative to simply investing in the market, i.e., a broad-market index fund.[47] The reason these active funds have underperformed is a combination of high fees and poor investment performance. Experiments have shown that even MBA students choosing between funds with the exact same investment strategy (S&P 500 index funds) were blinded by irrelevant information such as different past fund returns (due to differences in the time the funds had been in existence).[48] In short, individual investors cannot be trusted to make informed choices even when confronted with the comparatively simple question which fund they should choose in a setting where the right answer is very simple (the cheapest one). This means that even if funds competed for investor money on the quality of their governance activities, the outcome of that competition would be determined not by the objective quality of their activities but by individual investors' perceptions of such quality, which are presumably highly warped. It is thus probably for the better that funds do not advertise their governance activities to investors. As a matter of fact, there is little competition for client funds on the basis of governance, and the little there is, is crude to say the least.[49]

$1.6 trillion from destaggering all U.S. boards in 2005, while Cremers et al. would imply an increase of $17 trillion×0.4×0.05 = $340 billion from staggering all U.S. boards. (This estimate uses the 2005 U.S. equity market cap of $17 trillion, *Market capitalization of listed domestic companies (current US$) - United States*, WORLD BANK, https://data.worldbank.org/indicator/CM.MKT.LCAP.CD?locations=US (last visited Aug. 12, 2020), and assumes 60% of firms had staggered boards, the approximate level in 2005, prior to the wave of destaggering, *see* Cremers, Litov & Sepe, *Staggered boards and long-term value,* revisited, at 428. *See* also Bebchuk & Cohen, *The Cost of Entrenched Boards*, at 419.) Whether staggered boards actually had any significant value impact is a separate question. *See* Emiliano M. Catan & Michael Klausner, *Board Declassification and Firm Value: Have Shareholders and Boards Really Destroyed Billions in Value?* (N.Y.U. L. & Econ. Rsch. Paper No. 17-39, Sept. 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2994559.

[46] *See, e.g.,* Edward B. Rock, *The Logic and (Uncertain) Significance of Institutional Shareholder Activism,* 79 GEO. L.J. 445, 473 (1991); more recently, Gilson & Gordon, *supra* note 15, at 889-895; Lucian A. Bebchuk, Alma Cohen & Scott Hirst, *The Agency Problems of Institutional Investors,* 31 J. ECON. PERSPS. 89, 96–104 (2017). *See also* Black, *supra* note 33, at 879 (arguing that U.S. money managers do not have sufficient incentives and levers to monitor corporate behavior, but could have them if the rules were amended appropriately). *But see* Jill Fisch, Assaf Hamdani & Steven Davidoff Solomon, *The New Titans of Wall Street: A Theoretical Framework for Passive Investors*, 168 U. PA. L. REV. 17 (2019) (arguing that passive funds have incentives to engage from competition for their own investors, notwithstanding the argument—set forth in the current paper's main text and elsewhere—that this competition is in fact inoperative or even perverse because the competitor's investors reap the benefits without paying the costs).

[47] The qualifier "broad-market" is technically necessary because more and more funds follow more limited indices, including bespoke and often captive indices created only for one particular fund, see Robertson, *supra* note 28. I will not repeat this qualifier every time I use the term "index fund," which is often understood to be broad-market by definition.

The near-universal view that actively managed funds lost their investors' money relative to passive investing has recently come under theoretical and empirical attack. *See* Jonathan B. Berk & Jules H. van Binsbergen, *Measuring Skill in the Mutual Fund Industry*, 118 J. FIN. ECON. 1 (2015); id., *Mutual Funds in Equilibrium*, 9 ANN. REV. FIN. ECON. 147 (2017). Even Berk & van Binsbergen, however, ultimately estimate a negative "alpha" (i.e., difference in investment returns) for investors in actively managed funds relative to those in passive (Vanguard) funds on a value-weighted basis (i.e., the basis relevant for average investor returns); they merely find that the negative alpha is not statistically significant. *See* Berk & van Binsbergen, *Measuring Skill in the Mutual Fund Industry*, at 4.

[48] Choi et al., *supra* note 27, at 1421, 1430.

[49] For example, the press release announcing the "Eighth Active Ownership annual report" of Legal & General, an asset manager with over £1 trillion in assets, was entitled "LGIM votes against record number of companies in

Mutual fund managers have very weak incentives to engage in portfolio governance absent investor attention. As a matter of law, mutual funds must be diversified and cannot charge performance fees.[50] The prohibition of performance fees means that a fund manager will earn only a very small fraction of any value created for the fund—historically, annual management fees for actively managed funds have been on the order of 1% of assets under management, and management fees for the increasingly dominant index funds are in single digit basis points or even literally zero. Moreover, the diversification requirement means that even the *fund* will only capture a small fraction of the value created by the fund manager's governance engagement with a portfolio firm. The reason is that a diversified fund can only have a small fraction of its money invested in any given portfolio firm and thus will usually only hold a small fraction of that firm's securities. Most of the value created by a governance intervention will go to the portfolio firm's *other* investors, including the fund's competitors, who get the full benefit of the fund's intervention without having to bear any costs. The underlying problem is that firm governance is a public good among firm investors. This would be a problem even absent regulatory constraints. Unless one fund were to own 100% of a firm—which would be a problem for other, partly political reasons—there will inevitably be a freerider problem among firm investors, exacerbated by the agency conflict between fund manager and fund investors.

The problem is especially acute for index funds. The reason is that index funds by definition all own the same portfolio companies and hence compete only on cost.[51] The more monitoring a fund performs, however, the higher its cost will be—while every competitor fund free-rides on the

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2018"—as if merely voting "against a company" is a sign of good governance engagement. *See LGIM votes against record number of companies in 2018*, LEGAL & GEN. ASSURANCE SOC'Y LTD. (April 4, 2019), https://www.legalandgeneralgroup.com/media/6754/16042019-eighth-active-ownership-annual-report-released-highlights-continued-quality-of-engagement.pdf (last visited Aug. 12, 2020). *See also About Us*, LEGAL & GEN. ASSURANCE SOC'Y LTD. https://www.legalandgeneral.com/about-us (last visited Aug. 12, 2020) (providing information about assets under management). There is arguably more competition on governance activities relating to environmental and social concerns ("ESG"), which I bracket in this article. *See* Michal Barzuza, Quinn Curtis & David H. Webber, *Shareholder Value(s): Index Fund ESG Activism and the New Millennial Corporate Governance*, 93 S. CAL. L. REV. (forthcoming 2020), https://ssrn.com/abstract=3439516. Whether investors are able to assess the quality of ESG governance initiatives and hence whether the competition will lead to good ESG governance is a separate question. As to why this competition exists, while competition on business governance does not, the reason is presumably that (some) investors have expressive or altruistic preferences with respect to non-investor stakeholders but not towards investors, although both good business management and corporate governance are also public goods, at least at the shareholder level (and perhaps beyond).

[50] Investment Advisers Act §205(a)(1), 15 U.S.C. § 80b-5(a)(1) (2018). The empirical evidence on performance fees is mixed. Hamdani et al. find positive effects on performance without additional risk-taking in Israel. Assaf Hamdani, Eugene Kandel, Yevgeny Mugerman & Yishay Yafeh, *Incentive Fees and Competition in Pension Funds: Evidence from a Regulatory Experiment*, 2 J.L. FIN. ACC. 49 (2017). By contrast, Servaes & Sigurdsson find negative effects on performance and higher overall fees in Europe (they also provide references to other empirical studies). Henri Servaes & Kari Sigurdsson, *The Costs and Benefits of Performance Fees in Mutual Funds* (ECGI Fin. Working Paper 588/2018, May 2020), https://ssrn.com/abstract=3250315. One possible explanation for the discrepancy, alluded to by Servaes & Sigurdsson, *id.* at 5 (discussing concentrated underperformance by funds without a stochastic benchmark or with an easy-to beat benchmark), is that in Europe, retail investors choose whether to invest in a fund with performance fees, such that a positive primary effect of performance fees can be blurred by its potential for obfuscation.

[51] The "godfather" of index funds, John C. Bogle, identifies price competition as a defining feature of the index fund landscape and emphasizes its extreme nature pointing to Fidelity's zero-cost index fund. *See* Bogle, *supra* note 21. *See also* JOHN C. BOGLE, STAY THE COURSE: THE STORY OF VANGUARD AND THE INDEX REVOLUTION 246 (2019) (noting that "the indexing field attracts few entrants…because their prices (expense ratios) have been driven to commodity-like levels.").

benefit created.[52] It is thus not surprising that, e.g., Vanguard until recently employed only 15 people to vote the stock in its over 10,000 portfolio companies (by comparison, a hedge fund might have 15 people working full time on a single portfolio company).[53]

This is not to say that mutual funds, including index funds, contribute nothing to corporate governance. While their incentives for engagement are weak, they are not zero. Both their interest and their expertise compare favorably to individual investors. In particular, even index funds gain from improvements in the value of their portfolio firms and thus their assets under management (AUM) because their management fee is calculated as a percentage of the AUM. For example, Kahan & Rock calculate that Vanguard's $13 billion investment in Procter & Gamble (P&G) gave it as much a stake in the 2017 P&G/Trian proxy fight as an individual with an $83 million investment. But, Kahan & Rock point out, Vanguard's $13 billion holding gave it a much higher chance of influencing the outcome than the individual $83 million investor, multiplying Vanguard's incentive to become informed about the vote.[54] It would be folly to take away Vanguard's and other passive investor's voting rights, as one author has advocated, as this would shift voting power to even less informed individual shareholders, conflicted insiders, and, at worst, informed outsiders who might push for transactions that harm the passive investors (cf. infra section 4.2).[55]

That said, the P&G/Trian proxy fight also illustrates why mutual funds in general and index funds in particular cannot be the main driver for corporate governance interventions. Trian spent at least $25 million in the fight.[56] To make this expense worthwhile for an $83 million stockholder, assuming (generously) a 50/50 chance of success, this stockholder would have to be aiming for at least a 2×$25m/$83m = 60% increase in the value of P&G. In other words, only massive failings could be corrected if we were to rely on the likes of Vanguard to take active steps to improve individual corporation's management. By contrast, Trian—an activist hedge fund—held $3.5 billion of P&G stock when announcing its proxy fight. Even taking into account that Trian was mostly investing other people's (i.e., Trian's fund investors') money, the 20% performance fee it could charge on that money meant that Trian had at least the incentives of a 20% × $3.5 billion = $700 million investor in P&G – 8.5 times as much as Vanguard! Thus, it is not surprising that Trian, not Vanguard, mounted the proxy fight.

In general, hedge fund managers' incentives will be orders of magnitudes larger than index fund managers'. This is overwhelmingly clear for every dollar of fund money invested in a portfolio firm. Assuming a hedge fund manager charges the standard 20% performance and 2% management fee and taking Vanguard's current 4 basis points expense ratio as the benchmark, the hedge fund manager's instantaneous (one-year) bump in compensation from improving portfolio company value is (20%+2%)/0.04%=550 times as large for every dollar invested than an index fund manager's.[57] To the extent fund managers earn most of their compensation not by current

[52] To a lesser extent, this logic also applies to actively managed funds because they tend to track an index relatively closely.

[53] *See* Bebchuk, Cohen & Hirst, *supra* note 6, at 100

[54] Marcel Kahan & Edward B. Rock, *Index Funds and Corporate Governance: Let Shareholders be Shareholders* (N.Y.U. L. & Econ. Rsch. Paper No. 18-39, 2019), https://ssrn.com/abstract=3295098.

[55] The article advocating taking away passive investors' voting rights is Dorothy S. Lund, *The Case Against Passive Shareholder Voting*, 43 J. CORP. L. 493 (2018). *Cf.* Dorothy S. Lund, *Nonvoting Shares and Efficient Corporate Governance*, 71 STAN. L. REV. 687 (2019) (arguing that non-voting stock in dual-class companies implements this idea).

[56] Chris Isidore & David Goldman, *Procter & Gamble Declares Victory in Expensive Proxy Fight,* CNN MONEY, Oct. 10, 2017, https://money.cnn.com/2017/10/10/news/companies/procter-gamble-proxy-fight/index.html.

[57] *See* AIMA, In Harmony: How hedge funds and investors continue to strike the right note in aligning their interest, 2019, at 5 https://www.aima.org/educate/aima-research/in-harmony.html (referring to "2 and 20" structure as

performance or management fees but by attracting future investment, the hedge fund manager's incentive is 2%/0.04%=50 times as large as the index fund manager's for every dollar attracted into the fund in the future. To be sure, index funds are much larger and can expect much larger dollar flows for a given track record. But of course index funds also have much less opportunity to set themselves off from the rest – namely zero opportunity (for the reasons already mentioned). Index funds also have much larger current portfolios and hence tend to have larger stakes in their portfolio companies than any hedge fund's average stake in all companies. But what matters is the investment in the one portfolio company where a fund manager might get involved, and here hedge funds may assemble stakes of a similar size or even larger than index funds because they do not need to be diversified, at least not nearly to the same extent. In sum, hedge funds have much better incentives to get involved in portfolio companies' governance. Index funds can cast intelligent votes in their portfolio companies, but they do not initiate change themselves, nor can we expect them to. For anything to happen, we must thus rely on hedge funds and other catalysts – in other words, indirect investor protection.

II. THE INVESTMENT ECOSYSTEM: MECHANISMS OF INDIRECT INVESTOR PROTECTION

Let us now look at the mechanisms of indirect investor protection. Those who make these mechanisms work do not do it for the purpose of benefitting investors, and are certainly not hired by investors to protect their interests. Rather, the main protagonists are strongly—and, presumably, solely—selfishly motivated: they care about their money, and their money only. If given the chance, they would presumably appropriate every penny of investor money. But laws and competition constrain these protagonists and force them to do good for investors as a byproduct of their selfish pursuit of profit. It is the financial market analogue to Adam Smith's baker.[58]

A. Efficient Market Prices

Probably the most important investor protection of all is an efficient market price, i.e., a market price that equals fundamental value.

1. Roles

The most important role of efficient market prices is that to the extent the market price is efficient, a completely uninformed investor can buy an asset without overpaying, and sell it without getting shortchanged. In essence, that is why I can send money to my Vanguard index fund every month without any diligence nor worrying that I will overpay (Vanguard itself does not do any selection; they just buy the market index). By contrast, if investors were pouring their money into assets without efficient prices, they might lose all their money as soon as they make their initial

"traditional" fee structure, but noting that hedge funds are increasingly moving away from it). The Vanguard expense ratio number is for its flagship Vanguard 500 Index Fund Admiral Shares. *See Vanguard 500 Index Fund Admiral Shares (VFIAX)*, VANGUARD, https://investor.vanguard.com/mutual-funds/profile/overview/vfiax (last visited Aug. 12, 2020).

[58] ADAM SMITH, THE WEALTH OF NATIONS 16 (ΜεταLibri, 2007) (1776) ("It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."). An important difference between the baker and the present protagonists is that the latter do not contract with those for whom they generate the benefit, which is the reason why laws must be in place to secure this benefit and why there is no inherent guarantee that this benefit will be provided, as discussed in the last part of this article. Smith also omits the important role of competition, without which especially the baker could exploit customers' hunger to charge extortionary prices.

investment: there is no limit to how much one can overpay—and hence lose—if one misunderstands the value of an asset. Similarly, investors could lose virtually all of their money at the moment of exiting their investment if there were no efficient market for the asset.

It is hard to overemphasize the importance of this feature, but easy to overlook it while one's eyes are focused on asset classes—mostly stocks—where this desirable feature is taken for granted. But imagine that uninformed investors were limited to investing in private businesses without a market price. Uninformed investors could easily overpay several times over in an individually negotiated transaction, reducing the value of their money to a small fraction of the initial amount. Similarly, uninformed investors might be forced to sell far below value if there were no market for the asset when they want to liquidate – or not even notice that they are getting too little. And if this is where investor money went, there would be a gold rush for charlatans setting up worthless businesses to attract this money (which could then be paid out as salaries etc. to the charlatans).

Importantly, the protection through market prices largely subsumes all other protections discussed below or otherwise available, provided that the savvy traders who "set" the market price cannot expect to get payouts from the asset that simple investors do not get (more on this important caveat in section 4 below). The reason is that under this condition, the market price will reflect any effects of governance on naïve investors' payoffs: naïve investors will pay only for what they get. If governance is bad, future payouts will be low, but so will current prices, and hence investors will pay only for what they get and not lose from bad governance. In other words, if market prices are efficient, bad governance affects prices but not returns.[59] In that sense, the other mechanisms discussed below are merely a "back-up."

Nevertheless, market efficiency also helps investors in between buying and selling the asset, i.e., between entry and exit. To the extent market prices reflect naïve investors' future payouts, managers have an incentive to guarantee high payouts not for the sake of existing shareholders but (a) to increase the value of their own equity (the main component of most executive pay packages), (b) to increase their ability to use the company's stock as currency for acquisitions, paying employees, or direct fund-raising, and (c) to preempt interventions by bounty hunters that pounce on firms with low stock prices (*infra* B). Market efficiency also ensures that certain bounties are only paid to those who actually improve corporate outcomes (*infra* C).

2. Provision

Efficient prices arise as a byproduct of highly incentivized, selfish trading by savvy market participants, particularly hedge funds, some mutual funds, and—less now than before Dodd-Frank—investment banks. These savvy market participants would all prefer to sell to naïve investors above fundamental value, or to buy from naïve investors below fundamental value. But *competition* between themselves prevents the savvy participants from doing this: they outbid each other until the savvy participants trade with anyone at (almost) fundamental value.

Market efficiency is not perfect, nor could it be.[60] Theoretically, market efficiency relies on

[59] The only caveat here is that if prices are depressed across the economy due to bad governance, this means that there are few investable assets (measured by value), which in turn means that there will either be little saving or low returns on investment in the economy. But one should not expect such a state to persist because individual entrepreneurs and financiers would have very strong incentives to draft better governance terms that overcome this problem.

[60] In this connection, also note that, for the purpose of my argument, it is not necessary that the market is fully efficient in the sense of accurately pricing every single security, or even accurately setting the overall price level of a class of securities, such as stocks, relative to some alternative, such as bonds, real estate, or present consumption. As long as individual securities are correctly priced *on average*, an investor in the total market index receives the benefit

informed traders who are in it for the money that they can only earn if the market is not fully efficient, so some residual inefficiency must always remain—this is the well-known Grossman-Stiglitz limit to market efficiency.[61] Empirically, a round-trip trade loses at least the bid-ask spread and the brokerage fee, and small investors have frequently piled into investments that appear to have been overvalued, partly because small investors are known to "chase returns." But in the big scheme of things, those are negligible. These days, bid-ask spreads and brokerage fees are typically measured in single digit basis points, and stories of small investors buying overvalued assets, like in the dot-come bubble, are famous precisely because they are stories that deviate from the norm.

B. Bounty Hunters

In between buying into an asset and selling it (ideally) decades later, small investors do nothing, and the managers of their assets (mutual fund managers) do little, as discussed in section 1. Into the breach step bounty hunters that protect small investors' investments not because they want to or are directly paid to do so, but because they can profit handsomely from performing actions that also help small investors: activist hedge funds, takeover buyers, and plaintiff law firms.

1. Activist Hedge Funds

An activist hedge fund profits by buying a stake in a company, engaging with the company to increase its value, and then selling its stake at the concomitantly increased price. This helps small investors because the value of their shares goes up as well.[62] But the small investors make no payments to the activist, nor is the activist in any other way mandated to help the small investors. The activist helps the small investors if and because the only way for the activist to make money is to increase the stock price, which perforce helps the small investors as well. The activist might find it easier to accept a bribe from the management ("greenmail"), but we do not see such payments in the data—presumably at least in part because such payments would be viewed skeptically by courts these days, who would be brought into play by another bounty hunter, plaintiff law firms.[63]

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of this accurate average, even if a savvy investor could do better by going the long the underpriced and short the overpriced assets (while some other investors do the opposite). Systematic overvaluation (at the time of investment) or undervaluation (at the time of liquidating the investment) would be a problem in an abstract sense, but it is not clear what, if anything, could be done about it (direct investor protection would certainly be useless as well).

[61] Sanford J. Grossman & Joseph E. Stiglitz, *On the Impossibility of Informationally Efficient Markets,* 70 AM. ECON. REV. 393, 405 (1980).

[62] This benign view of activism is contested but supported by theory and data. *See infra* note 72 and accompanying text.

[63] Greenmail was prominent in the 1980s and considered legal, *see* Polk v. Good, 507 A.2d 531, 537 (Del. 1986). But today, it is doubtful that a payment of greenmail would pass scrutiny under the duty of loyalty. In any event, contemporary settlements with activists, which companies must disclose on form 8-K, do not reveal evidence of greenmail. They do sometimes include "hushmail", whereby the company purchases the activist's stake *at or below* market price, *see* Thomas A. Cole, Jack B. Jacobs & William G. Blakely, *Buying Out Activists: A New Twist on an Old Practice*, SIDLEY PERSPECTIVES ON M&A AND CORPORATE GOVERNANCE (Sidley Austin LLP, Chicago, Ill.), February 2018, https://www.sidley.com/-/media/update-pdfs/2018/02/20180206-sidley-perspectives-newsletter.pdf. Since the activist does not get anything that others shareholders do not, hushmail does not present the same problem as greenmail.

2. Plaintiff Law Firms

Plaintiff law firms drive most corporate and securities law litigation.[64] They nominally represent a named shareholder, but in reality act as a private attorney general motivated by a fee award if they are successful. Under the common fund and common benefit doctrines, courts consciously award 10-30% of any recovery to plaintiff lawyers.[65] (A few years ago, Delaware courts awarded $300 million to a plaintiff law firm that had won a $2 billion judgment for shareholders.[66]) As with activists, there is a risk that plaintiff law firms may collude with management, which is why courts have long taken control of the settlement process, and have recently taken their oversight quite seriously.[67]

3. Competitive Takeovers and Private Equity

In a takeover, the buyer will pay some premium over the current stock price – so the takeover creates a gain for small investors in the target. To be sure, anti-takeover provisions, particularly the poison pill, make it very hard to take over a U.S. corporation against the will of its current board (so-called "hostile takeover"). But this only blunts the power of takeovers, it does not eliminate it. In particular, if the offer is good enough, target boards generally fold, either because they too stand to gain from selling their shares, or because they find it hard to defend their position against public opinion or at the next shareholder meeting (where small investors' mutual fund managers might have a role to play in helping the takeover along—cf. supra section 1).

A crucial mechanism benefitting small shareholders is competition. The buyer in a takeover would prefer to pay a low price and hence share little with the small shareholder-sellers. But the takeover market is populated by many potential bidders. In particular, there is now a specialized class of private funds, PE, whose business model is to take over public firms, revamp them, and resell them.[68] This competition forces takeover buyers to leave most of the gain to the sellers.[69]

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Competition is also important for activism and shareholder lawsuits, if less so: individual activists and plaintiff law firms would prefer to focus their energies only on the worst firms and violations, but competition between activists and between law firms forces them to intervene earlier and more often.

Bounty hunting is not perfect. Activism and takeovers can never fully eliminate mismanagement, and shareholder litigation cannot eliminate all value diversion. The reason is a generalized

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[64] Whereas corporate law litigation is directed at problems of diversion, most securities law litigation is directed at disclosure violations that "only" matter for stock price efficiency. There is also considerable debate about the value of securities law litigation for investors. Nevertheless, I include securities law litigation here because stock price efficiency does matter for indirect investor protection, as discussed above, and for present purposes of expositing the general idea of indirect investor protection, it seems sufficient that securities law litigation is supposed to, and may, help investors.

[65] The foundational case is Trusts. v. Greenough, 105 U.S. 527, 532–36 (1881). For a contemporary exposition of the doctrine, *see*, *e.g.*, Dover Hist. Soc., Inc. v. Dover Plan. Comm'n, 902 A.2d 1084, 1089–92 (Del. 2006).

[66] Americas Mining Corp. v. Theriault, 51 A. 3d 1213, 1252–63 (Del. 2012).

[67] *Cf.* Fed. R. Civ. P. 23(e); Fed. R. Civ. P. 23.1(c); *In re* Trulia, Inc. S'holder Litig., 129 A.3d 884, 891–99 (Del. Ch. 2016); *In re* Riverbed Tech., Inc. S'holders Litig., 2015 WL 5458041 (Del. Ch. 2015); House v. Akorn, Inc., 385 F.Supp.3d 616, 618, 621 (N.D. Ill. 2019).

[68] On private equity, *see generally*, *e.g.*, Steven N. Kaplan & Per Strömberg, *Leveraged Buyouts and Private Equity*, 23 J. ECON. PERSPS. 121 (2009).

[69] If the buyer is a public firm, small investors stand on both sides of the transaction. But the point here is that the market for takeovers facilitates efficient management, as firms with better management can pay higher prices and hence tend to take control of worse managed firms.

version of the Grossman-Stiglitz limit to market efficiency (*supra* section 2.1): activists, buyers, and plaintiff law firms have to cover their costs of running a campaign or bringing a lawsuit, which means they can profitably intervene only if the improvement they can bring—concomitantly, the initial problem they can fix—is large enough.[70] Moreover, even a successful lawsuit costs shareholders money because plaintiff lawyers' fees are paid out of shareholders' recovery, not by the defendant. But in the big scheme of things, even losses of a few percentage points would be small relative to the potential losses if firms were left entirely unsupervised.

C. Complementarities

There are important complementarities between these mechanisms of indirect investor protection.

The benign view of activism and takeovers hinges in part on policing by plaintiff attorneys and rival funds. If activist hedge funds and takeover buyers were allowed to, they could profitably collude with the target's management to obtain greenmail or, in the case of a buyer, a sweetheart deal, in each case at the expense of the other shareholders. The threat of fiduciary duty litigation largely prevents this.

Activism's social utility also hinges on market efficiency. Critics allege that activists make money through a form of pump-and-dump: push up stock prices temporarily, sell out before the price crashes back down, and leave long-term investors with not more or even less value in the end.[71] This scheme does not work, however, if the market is efficient (provided the activist cannot trade on inside information, as ensured by Regulation FD and insider trading law): if the activist's intervention reduces firm value, the stock price will decline and the activist will lose. Activists might still get it wrong and inadvertently destroy target firm value, but they could not do so as a viable strategy. This is borne out by the data: the stock prices of firms targeted by activists tend to go up and stay up.[72]

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[70] This threshold is one that applies to each actionable violation etc., i.e., the "bounty" in any given case—and concomitantly, the underlying inefficiency—must be large enough to cover the variable cost of the bounty-hunter. There must also be a sufficiently high overall number of violations for the bounty hunter to cover their fixed cost. But since the deterrence effect of a bounty hunter can be leveraged over many more firms than the bounty hunter actually attacks, this seems a less important threshold.

[71] *See*, *e.g.*, Andrew Ross Sorkin, *'Shareholder Democracy' Can Mask Abuses*, N.Y. TIMES: DEALBOOK, Feb. 26, 2013, https://dealbook.nytimes.com/2013/02/25/shareholder-democracy-can-mask-abuses/ ("It increasingly appears that the rise of `shareholder democracy' is leading, in some cases, to a perverse game in which so-called activist investors take to the media to pump or dump stocks in hopes of creating a fleeting rise or fall in a company's stock price.").

[72] For data discussion, *see* Alon Brav, Wei Jiang, Frank Partnoy & Randall Thomas, *Hedge Fund Activism, Corporate Governance, and Firm Performance*, 63 J. FIN. 1729 (2008); Bebchuk, Brav & Jiang, *supra* note 15. The "short-termism" argument is incompatible with market efficiency if and because the activist hedge fund does not have material information about the company that "the market" (i.e., other traders) do not have. Under Regulation Fair Disclosure ("Reg FD"), the company would not be allowed to share such information with the activist hedge fund without simultaneously sharing it with the world at large or obtaining an undertaking from the hedge fund not to trade. Regulation Fair Disclosure, 17 C.F.R. § 243.100 (2020). If the hedge fund traded in breach of this agreement, the hedge fund would commit criminal insider trading. Consequently, the market should have any material information as soon as the activist has it, and prices would be adjusted accordingly, leaving no trading gain for the activist. In fact, even if the market is not fundamentally efficient, the activist still needs to be able to better judge short- to mid-term price movements than "the market." Of course, some information may not be legally considered "material," yet be so for a savvy trader (in principle, the two concepts should coincide exactly, but in legal application they may diverge). *See* Eugene F. Soltes, *What Can Managers Privately Disclose to Investors?*, YALE J. ON REG. BULL. (Nov 10, 2019), https://www.yalejreg.com/bulletin/regulatory-takings-without-confiscatory-returns-3/. Still, exploiting this grey zone

Market efficiency itself is partially underpinned by plaintiff litigation. I need not take a position here whether private securities litigation does much to help standard market efficiency, or whether it is mostly public enforcement actions that do that job. But plaintiff attorneys can play an important role in preventing the separation of value available to the price-setting savvy parties on the one side and other investors on the other (*infra* section IV.B).

D. Potential Gaps

Beyond the aforementioned, inevitable generalized Grossman-Stiglitz limit, there are two potential gaps to indirect investor protection. One, fees, concerns the flow of money between retail investors and their money managers, which is outside the frame of this article; it will thus be mentioned only briefly, and only in this section. The other, leakage of money flowing between the portfolio company and the money manager, is one of the central concerns of this article: how can the forces of indirect investor protection be employed to fix leakage rather than create it.

1. Fees

First and, at the moment, probably most importantly, the mechanisms of indirect investor protection do not address fees paid by small investors, or at least do not do so well. Over time, naïve investors can lose virtually their entire investment (on an ex ante, discounted value basis) to fees. They can lose in three ways. (1) They can personally trade frequently, losing potentially unlimited amounts to brokerage fees, bid-ask spreads, and load fees. (2) They can invest in a fund that trades frequently or otherwise generates high costs for its investors. (3) They can pay a high fee for the "advise" of an investment advisor, be it a personal investment advisor or the investment advisor to their mutual fund. Importantly, financial intermediaries have an incentive to steer naïve investors precisely into these investment strategies: brokers and institutions affiliated with brokers have an incentive to steer investors into trading in order to earn brokerage fees, and mutual fund complexes have an incentive to steer investors into expensive funds.[73] Empirically, small investors do lose considerable amounts of money to trading costs, and until recently at least had most of their assets in high cost funds.[74] Indirect investor protection is no help here because savvy third parties

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would be very risky for an activist fund.

[73] On financial intermediaries, *see* Susan E. K. Christoffersen, Richard Evans & David K. Musto, *What Do Consumers' Fund Flows Maximize? Evidence from Their Brokers' Incentives*, 68 J. FIN. 201 (2013) (finding that flows through broker-mediated accounts to mutual funds are correlated with payments to brokers by those funds, and load-sharing arrangements predict poor client portfolio performance); Jason Zweig, *Have I Got A Fund For You! Why Brokers Push Some Investments*, WALL ST. J., Jan. 4, 2019, https://www.wsj.com/articles/have-i-got-a-fund-for-you-why-brokers-push-some-investments-11546618879 (on revenue-sharing arrangements between funds and financial advisers, brokers). *See also* Juhani T. Linnainmaa, Brian T. Melzer & Alessandro Previtero, *The Misguided Beliefs of Financial Advisors*, J. FINANCE (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3101426 (finding that investment advisers invest personally in a similar (loss-generating) manner as they advise their clients). Mutual fund complexes' incentives to push clients into higher fee products arises from the fact that managers want to maximize their income from (management and other) fees, which come from investors, who want to maximize their cost-adjusted returns. *See* Paul G. Mahoney, *Manager-Investor Conflicts in Mutual Funds*, 18 J. ECON. PERSPS. 161, 164 (2004). *See also* Jason Zweig & Anne Tergesen, *Advisers At Leading Discount Brokers Win Bonuses to Push Higher-Priced Products*, WALL ST. J., Jan. 10, 2018, https://www.wsj.com/articles/advisers-at-leading-discount-brokers-win-bonuses-to-push-higher-priced-products-1515604130 (describing incentive structures for brokers and advisers to promote higher priced products and those of their own complex).

[74] On the costs of trading borne by small investors, *see* Brad M. Barber & Terrence Odean, *Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors*, 55 J. FIN. 773 (2000) (finding large costs to households from trading in brokerage accounts); Kenneth R. French, *Presidential Address: The Cost of Active Investing*, 63 J. FIN. 1537 (2008) (finding the average investor would increase their annual returns by 0.67% by

cannot profit from intervening on small investors' behalf. It is not that such intervention is theoretically impossible. Consumer class actions could challenge the marketing or fee practices of financial intermediaries. But no such challenges have emerged, partly because of the restrictive statutory and jurisprudential hurdles against fee challenges under section 36(b) of the Investment Company Act.[75] Fortunately, over the last two decades, average fees have declined significantly, mostly as a result of the shift towards index investing (as I said in the beginning, even retail investors learn *eventually*).

2. Leakage

A potential gap very much at the heart of this article is the perpetual risk of "leakage," i.e., the risk that self-interested third parties will be allowed to profit not in parallel with small investors, but at their expense. At the limit, leakage could entirely undermine indirect investor protection if savvy players found it easier to divert money from small investors than engage in the socially beneficial activities described above. Leakage needs to be addressed by mandatory legislation, as explained in section 4.

I already discussed several examples of potential leakage and how they are held in check: "green mail" and "pump-and-dump" by activists, collusion with management by takeover buyers, and collusive settlements by plaintiff attorneys. These were all examples of leakage "midstream," i.e., while investors are invested in the stock.

Leakage could also occur at entry/exit into a stock, specifically any time investors transact in an inefficient market and systematically tend to be on the wrong side of the trade. Index funds do not trade much, but the fact that they must make potentially large trades around index reconstitutions and when they have non-zero net investor flows means that there may be moments when their aggregate trading activity overwhelms the mechanisms of market efficiency and they systematically find themselves on the one side of the trade. To the extent index inclusion and weights can be manipulated, one could imagine a modern version of a pump-and-dump scheme.[76] This would seem to be easier for the many index funds that are built around a specialized index rather than the total market index.[77]

Take the example of dual class stock, e.g., the non-voting shares available in the Snap IPO. (Index) fund managers have voiced concerns about being "forced" to buy such stock simply because it hits certain valuation thresholds and thus makes it into an index.[78] They have voiced those

switching to a passive market portfolio, due to the costs of trading). *But see* Brigitte C. Madrian & Dennis F. Shea, *The Power of Suggestion: Inertia In 401(k) Participation and Savings Behavior*, 116 Q.J. ECON. 377 (2001) (finding inertia in 401(k) asset allocation changes). Regarding small investors' only recent moving into lower cost products, note that asset-weighted average mutual fund expense ratios have been gradually declining over the past two decades, as investors have slowly shifted their assets into lower cost products. *Investment Company Fact Book 2020*, INV. CO. INST., 2020, [*supra* note 1] 118–37.

[75] Under section 36(b), mutual funds' investment advisers owe a "fiduciary duty with respect to the receipt of compensation for services." Investment Company Act, § 36(b), 15 U.S.C. § 80a-3(b) (2018). However, the courts have interpreted this provision quite restrictively. *Cf.* Jones v. Harris Assocs. L.P., 559 U.S. 335, 345 (2010) (holding a mutual fund fee excessive in violation of fiduciary duty only when it "is so disproportionately large that it bears no reasonable relationship to the services rendered and could not have been the product of arm's-length bargaining." (quoting Gartenberg v. Merrill Lynch Asset Mgmt., Inc., 694 F.2d 923, 928 (2d Cir. 1982))).

[76] *See* François Derrien, *IPO Pricing in "Hot" Market Conditions: Who Leaves Money on the Table?*, 60 J. FIN. 487 (2005); David Chambers & Elroy Dimson, *IPO Underpricing over the Very Long Run*, 64 J. FIN. 1407 (2009).

[77] *Cf. generally* Robertson, *supra* note 28.

[78] *See*, *e.g.*, Letters from Ken Bertsch, Exec. Dir. of Council of Institutional Investors, and Jeff Mahoney, Gen. Council of Council of Institutional Investors, to the Council Chair of the Corp. Law Section of the Del. State Bar Ass'n and to the Chair of the Am. Bar Ass'n Corp. Laws Comm. (Sept. 13, 2019), available at

concerns in terms of "governance," not price, but of course the only thing that should matter to an investor is the price relative to the governance terms being offered (even the worst governed firm is a good investment if its price is zero). Is it imaginable that the price of a stock like Snap is pushed up by savvy traders only because they know that once a certain minimum price is hit, index funds will be forced to buy and will thus drive the price even higher? Is such "pump and dump" on a grand scale conceivable? My read of the available information is that we do not know. What we do know is that stock prices jump upon index inclusion, particularly in the S&P 500 (around 9%), drop when the firm drops out of the index, and move with other index firms in the interim.[79] We also have good reason to believe that pricing mechanisms that might otherwise generate efficient prices are vulnerable to be overwhelmed by the massive movement of funds brought about by the mechanical trading of index funds.

One notorious case of suspected pricing inefficiency are IPOs. But at least thus far, observed IPO prices and volumes are such that they are probably not a major case of leakage. First, IPOs have traditionally been underpriced, which would make participation safe. Second, companies—and particularly their founders and pre-IPO investors—usually sell only a small part of their stock in the IPO itself, such that most stock is sold in the efficient post-IPO market.[80] (This is highly relevant for whether IPO sponsors have incentives to offer efficient charter terms.)

III. THE LEGAL UNDERPINNINGS OF INDIRECT INVESTOR PROTECTION

Many legal rules support the mechanisms of indirect investor protection, and some hinder them. Some are well known, while others are underappreciated and some completely ignored. The lens of indirect investor protection can elucidate why some rules exist that would otherwise remain puzzling, or even seem nonsensical.

A. Prices

In view of the importance of efficient prices espoused above (section 2.1), the most important legal rules protecting investors may be those that foster efficient market prices: chiefly disclosure rules, including accounting and audit, augmented by rules against market manipulation. It is of course a truism to say that these rules protect investors: that is their avowed goal. However, viewing them through the lens of *indirect* rather than direct investor protection is an important shift in perspective that leads to a very different view of the function of those rules, of their desirable details, and why they need to be mandatory. It also reveals otherwise nonsensical rules to be necessary flanking measures.

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https://www.cii.org/files/issues_and_advocacy/correspondence/2019/September%2013%202019%20Final%20DGCL%20letter.pdf and https://www.cii.org/files/issues_and_advocacy/correspondence/2019/September%2013%202019%20Final%20MBCA%20letter.pdf, respectively.

[79] *See* Jeffrey A. Wurgler, *On the Economic Consequences of Index-Linked Investing*, *in* CHALLENGES TO BUSINESS IN THE TWENTY-FIRST CENTURY: THE WAY FORWARD (W.T. Allen, R. Khurana, J. Lorsch, G. Rosenfeld eds., 2010). *But see* Benjamin Bennett, René M. Stulz & Zexi Wang, *Does Joining the S&P 500 Index Hurt Firms?*, (Nat'l Bureau of Econ. Research, Working Paper No. 27593, July 2020) (finding that the inclusion effect has disappeared in recent years).

[80] On IPO statistics, *cf.* table 1a in Jay R. Ritter, Initial Public Offerings: Updated Statistics, available at https://site.warrington.ufl.edu/ritter/files/IPOs2019Statistics.pdf (last accessed 10/4/2020) (showing aggregate valuations implying that stock sold in the IPO is only about 20% of the company's total post-issue stock).

1. Creating Markets with Efficient Prices

The direct investor protection perspective on these rules would be that all investors, including small ones, need disclosure so they or their agents (fund managers) can make informed investment decisions. By contrast, the indirect investor protection perspective values these rules because they create the conditions for highly competitive trading by savvy investors, leading to efficient markets in which unsophisticated small investors can safely be allowed to invest.[81] From the former perspective, it is problematic if disclosures are too complex for small investors to understand, or if the information is only available in formats or at times that put small investors at a disadvantage. From the latter perspective, these issues are irrelevant. All that matters is that information is available to the savvy market players who convert it into efficient prices because it is through the price that the small investors will be protected.

The indirect protection perspective also leads to a reconceptualization of disclosure rules' purpose and, ultimately, a different explanation of why they must be mandatory (an issue I take up in more detail in section 4). The function is not information provision per se. Rather, the function is to foster competition between savvy investors by reducing information barriers to entry into the trading of individual securities. Rules that force public availability of information in a standardized format enable savvy investors to make informed investment decisions even in firms that they have not heavily invested to research. The more information is available as a matter of law, the less additional work the savvy investors will have to do to price the securities, and the more efficient prices are therefore likely to be (this follows from the Grossman & Stiglitz argument, and is by and large borne out by the data).[82] By the same token, rents for savvy investors are bound to be low in securities for which much public information is available. Savvy players are therefore not likely to advocate for disclosure and other competition-enhancing rules, while the unsophisticated players by definition lack the sophistication to ask for them. Section 4 below explores this novel rationale for mandatory corporate and securities law in more detail.

2. Channeling "Dumb Money" Into Those Markets

Of course, it is not enough to have markets with efficient prices. It is also necessary to ensure that unsophisticated investors invest (only) in those markets. Two different bodies of rules steer small investors into those investments that have efficient prices: one body of rules for direct investments, and another for investments through mutual funds.

The former—rules for direct investment—is almost trivial: by explicit design, the disclosure etc. obligations just discussed are triggered precisely by a public offering of securities, i.e., by offering the securities to investors at large, including small investors. But, to repeat, the shift in perspective that I advocate is that the ultimate rationale for the onerous disclosure etc. obligations

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[81] *Cf.* Goshen & Parchomovsky, *supra* note 37, at 714 ("the role of securities regulation is to create and promote a competitive market for information traders"). Goshen & Parchomovsky, however, do not draw the same connection to the protection of retail investors, even claiming (at 715) "indifference of liquidity traders to accurate pricing," which is true only if the liquidity traders are equally likely to get high or low prices, as Goshen & Parchomovsky indeed assume (at 727) but which is questionable, *see infra* section 4.2.

[82] *See* Marilyn Magee Greenstein & Heibatollah Sami, *The Impact of the SEC's Segment Disclosure Requirement on Bid-Ask Spreads,* 69 ACCT. REV. 179, 197–98 (1994); Renhui Fu, Arthur Kraft & Huai Zhang, *Financial Reporting Frequency, Information Asymmetry, and The Cost of Equity,* 54 J. ACCT. & ECON 132, 143, 146 (2012) (finding that more frequent financial disclosure is associated with lower bid-ask spread and price impact based on SEC data from 1951 to 1973). *See also* Michael Greenstone, Paul Oyer & Annette Vissing-Jorgensen, *Mandated Disclosure, Stock Returns, and the 1964 Securities Acts Amendments,* 2006 Q. J. ECON 399, 446–47 (finding abnormal excess returns for firms most affected by the 1964 Securities Act Amendments, suggesting that mandatory disclosures are value-enhancing).

is not to inform the public investors, but to foster competition between savvy investors (to whom securities could be sold without the disclosures!) and thus ultimately efficient prices. In other words, the purpose of disclosure rules is not to empower "dumb money," but to steer it into an environment where power (i.e., information and the ability to digest it) does not matter.

The second body of rules is less well known, less complete, and arguably impossible to understand other than from the perspective of indirect investor protection. These are rules that more or less force mutual funds to invest in assets with efficient prices. To be sure, no rule forces mutual funds to invest only in publicly traded securities. However, the Investment Company Act forces (open-end) mutual funds to offer daily redemption to their investors.[83] This means that any mutual fund that invests in illiquid assets is in danger of a run.[84] Perhaps that is the reason why mutual funds always invested almost exclusively in listed assets (with the recent exception of investments in unicorns). In any event, since 2016, rule 22e-4 under the Investment Company Act explicitly limits open-end mutual funds to hold no more than 15% of their portfolio in assets that do not have a readily available market quotation. To be sure, 15% is not zero, and not every readily available market quotation is an efficient price. But the rule certainly limits the risk that a mutual fund will buy overpriced assets or sell underpriced assets.

Only indirect investor protection can explain this set of rules for mutual funds. The rules on redemption and liquidity for open-end mutual fund make no sense from the perspective of direct investor protection, which must put its trust in the ability of fund managers to make their own investment decisions. If mutual fund managers were able to assess the value of investments, they *should* invest in illiquid assets. The reason is that illiquid assets earn a liquidity premium, and mutual fund investors are (or should be) long-term investors that do not need liquidity even at considerably longer horizons, such as weeks.[85] In particular, an employee saving for retirement does not need liquidity for years or even decades into the future. Should a saver desire (partial) early liquidation for purposes of getting a child through college or repairing a house, this can easily be planned months or even years in advance. Even emergency expenses such as medical cost would rarely if ever require liquidation within days (and even then could be dealt with through a bridge loan). Forcing small investors into liquid investments thus deprives them of a higher return from illiquid investments for no good reason – unless, that is, one distrusts the ability of mutual fund managers to price illiquid investments, and understands their restriction to liquid investments as a means to harness the *indirect* investor protection of efficient prices.

An important caveat is that retail investors theoretically have a way around the aforementioned rules requiring open-end investment companies a/k/a mutual funds to invest in liquid and hence fool-proof securities. Retail investors have the option to invest in closed-end funds, who may invest in illiquid assets. At the moment, closed-end funds are a fringe phenomenon, administering less than 1.5% of all assets held by investment companies.[86] In this respect, my analysis is contingent on investor choices, as I hinted in the introduction. If these choices were to change and more

[83] *Cf.* sections 2(a)(32) and 22(e) of the Investment Company Act.

[84] From a rational actor perspective, unlike in a bank, the run risk is zero *if* the fund values its assets correctly because, unlike bank depositors, investors are entitled only to their share of net asset value, which takes into account any losses from selling off assets. But a delay in price impact or its accounting would create a run incentive even in a fund with only rational investors. Besides, small fund investors are unlikely to obey the rational actor model.

[85] Even if it were deemed undesirable to force all mutual fund investors to be long term investors, the option should be available. In fact, for the reasons in the main text, it should be the default.

[86] According to the 2020 Investment Company Fact Book, *supra* note 1, at 31, total assets in U.S. mutual funds were $21.3 trillion, of which only $278 billion were invested in closed-end funds. On the role of closed-end funds generally and particularly the question whether they are efficiently priced, see Martin Cherkes, *Closed-End Funds: A*

investment flowed into closed-end funds, indirect investor protection through prices would no longer work. Still, the analysis here helps recognize this potential problem and would hopefully accelerate a political response.

B. Bounties

1. Takeovers

On the bounty side, there is a longstanding political and scholarly discussion of takeovers and the rules that promote or hinder them, mostly fought in the 1980s.[87] I will not repeat this debate here. I only note that proponents of takeovers have long argued against anti-takeover provisions in statutes, regulations, and corporate charters on the basis that takeovers exert a disciplining function, very much in the spirit of indirect investor protection I describe here.[88] Today this debate has largely shifted to a discussion of dual-class structures that impede both takeovers and shareholder activism.

2. Shareholder Activism

A similar if less developed, more recent discussion surrounds shareholder activism. Like takeovers, activism does not require particular legislative support: activists simply purchase stock and then employ the levers of corporate law to pressure management (provided that such levers exist, which is currently a given in most firms but not true in dual-class firms).[89] However, also like takeovers, activists can be blocked by special rules designed or at least deployed for that purpose. The same law firm that developed the poison pill against takeovers pushed their use against shareholder activists.[90] Some jurisdictions have adopted tenure voting (i.e., greater voting rights for long-term holders of the stock) with the explicit goal of weakening the influence of activists, which are necessarily short-term holders.[91] Most importantly, there has been a strong push to tighten the 13D disclosure regime, which currently allows activists to accumulate 5% plus 10 days' purchases before they disclose their position.[92] Such tightening has the potential to greatly harm activists because the activists' business model relies on buying the stock before the (anticipated) beneficial

Survey, 4 ANN. REV. FIN. ECON. 431 (2012).

[87] For an overview of the 1980s takeover debate, see KNIGHTS, RAIDERS, AND TARGETS: THE IMPACT OF THE HOSTILE TAKEOVER (John C. Coffee, Jr., Louis Lowenstein & Susan Rose-Ackerman eds., 1988). For a recent position on the effect of takeover laws, see Matthew D. Cain, Stephen B. McKeon & Steven Davidoff Solomon, *Do Takeover Laws Matter? Evidence from Five Decades of Hostile Takeovers,* 124 J. FIN. ECON. 464 (2017).

[88] *See* Coffee et al., *supra* note 87, at 3.

[89] *See supra* section 2.2 for general description of activism. *See also* Kobi Kastiel, *Against All Odds: Hedge Fund Activism in Controlled Companies,* 2016 COLUM. BUS. L. REV. 60, 130–32 (2016) (finding that dual-class companies are not immune from activist interventions, particularly where minority protections and board representation are present).

[90] Martin Lipton, a founding partner of Wachtell, Lipton, Rosen & Katz, developed the poison pill in the 1980s. *See* Chase deKay Wilson, *Marty Lipton's Poison Pill,* 3 INT'L L. REV. 10 (1984). Wachtell has recently deployed the poison pill in response to hedge fund activists, including a two-tiered rights plan for Sotheby's in 2013. *See Third Point Ltd. Liab. Co. v. Ruprecht,* Nos. 9469-VCP, 9497-VCP, 9508-VCP, 2014 Del. Ch. LEXIS 64, at *30–33 (Del. Ch. May 2, 2014). For an analysis of the anti-activist pill, see Marcel Kahan & Edward Rock, *Anti-Activist Poison Pills,* 99 B.U. L. REV. 915 (2019).

[91] In France, the 2014 Florange Act granted double voting rights to shares held for at least two years unless firms opt out. Italy, Belgium, and the Netherlands also allow some form of tenure voting that companies use. *See* Chiara Mosca, *Should Shareholders Be Rewarded for Loyalty? European Experiments on the Wedge Between Tenured Voting and Takeover Law,* 8 MICH. BUS. & ENTREPRENEURIAL L. REV. 245, 252–54 (2019).

[92] *See Petition for Rulemaking Under Section 13 of the Securities Exchange Act of 1934,* WACHTELL, LIPTON, ROSEN & KATZ (Mar. 7, 2011), https://www.sec.gov/rules/petitions/2011/petn4-624.pdf.

effect of its intervention becomes known. The 13D question is particularly interesting because it pits indirect investor protection against direct investor protection. From the perspective of direct investor protection, the disclosure window should be short and the threshold low, for otherwise many investors will part with their stock below value. By contrast, from the perspective of *indirect* investor protection, the window needs to be sufficiently long and/or the threshold sufficiently high to allow the activist to make a good profit.[93] (Of course, even in this perspective, the optimal disclosure window—i.e., the one that maximizes returns to the *other* shareholders—is finite.)

3. Plaintiff Litigation

Unlike takeovers and activism, bounty-hunting by plaintiff law firms requires active encouragement by the legal system in the sense of special rules designed for this purpose. Courts provide this encouragement through the common fund doctrine.[94] But the viability of the plaintiff bar also depends on a host of other rules: the American rule for costs, and extensive discovery coupled with notice pleading or something close to it.[95] It is interesting to note that both federal and state regulators have recently stepped in when corporations tried to undermine the plaintiff bar's viability. In 2015, the Delaware legislature passed section 102(f) and amended section 109(b) of the Delaware General Corporation Law to prohibit fee shifting (i.e., the English rule for costs), which some corporations had recently adopted in their charters or bylaws. It also prohibited forum selection provisions (section 115) that might have moved litigation outside of Delaware and hence outside of Delaware's control. In 2012, the SEC blocked Carlyle's novel attempt to avoid shareholder litigation through an arbitration provision in its IPO charter, and SEC staff recently granted a no-action letter blessing the exclusion of a mandatory arbitration bylaw under rule 14a-8.[96] Such mandatory rules are unusual, and hard to explain from the viewpoint of direct investor protection: after all, investors who are able to pass judgment on the much trickier questions of business valuation should be allowed to pick their charter provisions. But the next section (4.) will explain the need for mandatory rules by the indirect investor protection view.

IV. A RATIONALE FOR MANDATORY CORPORATE LAW

Perhaps the most important contribution of the indirect investor protection perspective is to provide a convincing rationale for why some corporate law rules need to be mandatory – and if so, which.[97] In essence, the indirect investor protection perspective achieves this by conceptualizing

[93] *Cf.* Lucian A. Bebchuk & Robert J. Jackson, *The Law and Economics of Blockholder Disclosure,* 2 HARV. BUS. L. REV. 39, 50 (2012).

[94] *See* Ams. Mining Corp. v. Theriault, 51 A.3d 1213, 1252 (Del. 2012) (quoting Chancery Court that common fund award "creates a healthy incentive for plaintiff's lawyers to actually seek real achievement for the companies that they represent in derivative actions and the classes that they represent in class actions").

[95] On the question what happens in jurisdictions without these rules, see *supra* note **Error! Bookmark not defined.**.

[96] Carlyle Group garnered public attention in 2012 when it attempted to impose mandatory arbitration and class action waivers via its IPO filing. After receiving negative publicity and indirect pressure from the SEC, Carlyle Group amended its registration statement to withdraw the proposed arbitration provision. *See* Kevin Roose, *Carlyle Drops Arbitration Clause from I.P.O. Plans,* N.Y. TIMES: DEALBOOK, Feb. 3, 2012, https://dealbook.nytimes.com/2012/02/03/carlyle-drops-arbitration-clause-from-i-p-o-plans. On the latter, *cf.* Jay Clayton, *Statement on Shareholder Proposals Seeking to Require Mandatory Arbitration Bylaw Provisions*, SEC, Feb. 11, 2019, https://www.sec.gov/news/public-statement/clayton-statement-mandatory-arbitration-bylaw-provisions.

[97] In the United States, most corporate law is *not* mandatory. *Cf.* Delaware General Corporation Law §102(b): "the certificate of incorporation may also contain … (1) Any provision for the management of the business and for the conduct of the affairs of the corporation, and any provision creating, defining, limiting and regulating the powers

the corporate investment and governance system as an interplay between sophisticated and unsophisticated actors, which avoids either of the extreme conclusions that focusing only on one or the other group would lead to. The (only) rules that must be mandatory are those that are necessary to protect the unsophisticated from exploitation by the sophisticated. More to the point, the indirect investor protection perspective recognizes that the protection of the unsophisticated need not be provided by them or their agents, but that it can be provided by mobilizing the sophisticated parties themselves to hold each other in check. However, the rules that ensure the existence of indirect investor protection must be mandatory. That is, mandatory rules must channel sophisticated investors into activities that help, not hurt, unsophisticated investors.

A. Background: The Contractarian Debate

A central and perennial debate in corporate law is whether there is any reason to have any mandatory corporate law rules.[98] The question is not whether rules are necessary for the success of firms, in particular for soliciting upfront investment. They are. Rather, the question is why such rules would need to be provided by statute or other *mandatory* law (default rules can't hurt and can possibly reduce transaction costs). After all, the contractarian argument goes, picking the optimal rules is already in the self-interest of those who combine to form the corporate enterprise: optimal rules maximize the corporate pie, such that every participant can get a bigger slice. "Contract" here is not limited to contracts in the technical, legal sense, but includes all the rules that can be privately chosen, in particular corporate charters, state corporate law (by choosing where to incorporate), and exchange listing rules (by choosing where to list the stock).[99] It does not matter that some participants in the corporate enterprise are not present when the rules are drafted, because the price they will pay (or the wages they will accept, etc.) will reflect the quality of the rules. The drafters thus internalize any harm imposed on subsequent investors and other participants, and have the incentive to choose the optimal package for all involved. A benevolent regulator could at most match but not beat the quality of the freely chosen rules, unless one thought that the regulator was better informed than the key players involved in launching a public corporation (VCs, founders, investment banks, and big investors)—an unlikely proposition.

To be sure, the contractarian argument has long been the object of critique. One critique attacks the contractarian argument's foundation in the rational actor assumption, pointing out that people

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of the corporation, the directors, and the stockholders, or any class of the stockholders, or the governing body, members, or any class or group of members of a nonstock corporation; if such provisions are not contrary to the laws of this State." and Bernard Black, *Is Corporate Law Trivial?*, 84 NW. U. L. REV. 542 (1990). However, there are mandatory rules, important examples of which will be given in the text. In particular, securities law—which is chiefly concerned with disclosure—is generally mandatory.

[98] The contractarian paradigm was perhaps first clearly articulated by Jensen & Meckling in 1976 and most completely expounded by Easterbrook & Fischell in 1991. *See* Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure,* 3 J. FIN. ECON. 305 (1976); FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW (1991). Some important contributions include those published in the symposium on Contractual Freedom in Corporate Law in 89(7) COLUM. L. REV. (1989) and those cited in the subsequent notes, as well as Lucian Arye Bebchuk, *Limiting Contractual Freedom in Corporate Law: The Desirable Constraints on Charter Amendments*, 102 HARV. L. REV. 1820 (1989); Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L.J. 2359 (1998); Gillian Hadfield & Eric Talley, *On Public versus Private Provision of Corporate Law*, 22 J. L. ECON. ORG'N 414 (2006); Nittai K. Bergman & Daniel Nicolaievsky, *Investor Protection and the Coasian View*, 84 J. FIN. ECON. 738 (2007). The most lucid, recent review is Michael Klausner, *The Corporate Contract Today*, *in* THE OXFORD HANDBOOK OF CORPORATE LAW AND GOVERNANCE (Jeffrey Gordon & Wolf-Georg Ringe eds., May 2016).

[99] *See*, *e.g.*, Romano and Hadfield & Talley, *supra* note 98.

in general and investors in particular often do behave irrationally.[100] The basic point of irrationality is well taken and indeed the subject of much research.[101] The problem with this critique, however, is that without more, investor irrationality would require much more than mandatory corporate law.[102] If investors are truly unsophisticated, corporate law rules are the least of their problems: a much bigger problem will be their inability to judge the quality of the *businesses* they invest in, a much more complex task than assessing the quality of the charter terms they are being offered. A concern that investors are unsophisticated should therefore imply regulatory review of the business merits of their investments (as used to be the case in the past under blue sky laws[103]) or, if that is infeasible, perhaps prohibiting investors from investing at all.[104] This *reductio ad absurdum* shows that lack of sophistication, by itself, cannot explain mandatory corporate law: the argument lacks a stopping point. (Of course, someone might take the position that unsophisticated investors should be prohibited from investment altogether – I will leave that point to the side.)

Other arguments against the contractarian view maintain the rational actor assumption but point to various contracting failures as grounds for regulatory intervention. Even supporters of the contractarian view have always recognized that concerns about competition, environment, and more generally non-contracting third parties need to be addressed by mandatory law. That much is obvious and not the topic of this paper; for the most part, it is also not the type of concern addressed by corporate and securities law.[105] A more subtle argument for mandatory rules in the important area of takeovers is that those who write corporate charters impose externalities on later third party bidders to the extent the charter affects the split of deal surplus between the original owners and the (as yet undetermined) third party.[106] Similarly, corporate disclosure has positive externalities on competitors and their investors, providing a rationale for mandatory disclosure.[107] Finally, contracting even between the firm's founders and their own investors can be afflicted by inefficiencies due to bargaining breakdown or signaling.[108] Any of these three arguments could be

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[100] For a general critique of contractarianism and its conception of rational, self-interested actors, see Margaret M. Blair & Lynn A. Stout, *Trust, Trustworthiness, and the Behavioral Foundations of Corporate Law*, 149 U. PA. L. REV. 1735, 1737–38 (2001).

[101] *See* Malcom Baker & Jeffrey Wurgler, *Chapter 5 – Behavioral Corporate Finance: An Updated Survey*, *in* HANDBOOK OF THE ECONOMICS OF FINANCE (George M. Constantinides, Milton Harris & Rene M. Stulz eds., 2013).

[102] *Cf.*, *e.g.*, Stephen Choi, *Regulating Investors Not Issuers: A Market-Based Proposal*, 88 CAL. L. REV. 279, 285-302 (2000) (advocating the replacement of current regulation aimed at issuers and intermediaries with complete contractual freedom for sophisticated investors and restrictions to index fund investing for unsophisticated investors; Barbara Black, *Behavioral Economics and Investor Protection: Reasonable Investors, Efficient Markets*, 44 LOY. U. CHI. L.J. 1493 (2013) at 1507–08 ("Behavioral economics thus supports the need for (at least some) paternalistic responses to cognitive biases. Disclosure is not the panacea that drafters of federal securities laws may have thought it to be.").

[103] *See* Jonathan R. Macey & Geoffrey P. Miller, *Origin of the Blue Sky Laws,* 70 TEX. L. REV. 347, 377–80 (1991).

[104] The best argument *for* regulatory review of the terms of investment but not the object of investment would be regulator competence: the regulator may be reasonably good at assessing the terms of an investment but not the object. As far as I can tell, nobody has fleshed out this argument.

[105] In the U.S., the caveat concerns primarily disclosure rules such as those concerning conflict diamonds or the CEO-to-median-employee pay ratio (Dodd-Frank Act §1502 and §953(b), respectively) that have been inserted in the securities laws and regulations for reasons arguably other than investor protection. *See generally* Ann M. Lipton, *Not Everything Is About Investors: The Case for Mandatory Stakeholder Disclosure*, 37 YALE J. REG. 499 (2020).

[106] *See* David Scharfstein, *The Disciplinary Role of Takeovers,* 55 REV. ECON. STUD. 185, 185–86 (1988).

[107] *See* Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice is Not Investor Empowerment*, 85 VA. L. REV. 1335, 1345 (1999).

[108] *See generally* Philippe Aghion & Benjamin Hermalin, *Legal Restrictions on Private Contracts Can Enhance Efficiency*, 6 J. L. ECON. ORG'N 381 (1990).

the rationale for mandatory regulation. In addition, it is possible that older companies are stuck in a regime drafted in different circumstances, or that companies as a group are stuck in a suboptimal equilibrium of a coordination game where they would be collectively better off adopting different regimes, but any individual company switching alone would only be worse off, for example because of uncertainty about how courts would interpret a novel term.[109] This concern would warrant switching firms to a different regime (but with the option to return to the prior status quo at least after a while).[110]

That said, it is unclear if these rationales truly support existing regulation. As a matter of fact, these rationales are not those cited as official justification for the regulation, and even the rationales' authors do not invoke them in other academic articles advocating particular mandatory rules.[111] As a matter of theory, the rationales do not cover many of the mandatory rules that we do have, or would also seem to call for other rules that not even the authors advocate. For example, positive externalities from disclosure would seem to imply an argument for mandatory disclosure by any firm above a certain size, not just firms with publicly traded securities. Similarly, an argument against takeover protections or dual class from contracting frictions would also argue for mandatory "put in play" of other large assets.[112] No rational actor rationale seems to support the SEC's block of corporate arbitration clauses. In sum, arguments against the contractarian view from within the rational actor paradigm are less than fully convincing.

Pure rationality or irrationality both fail to provide convincing rationales for anything resembling contemporary regulation.

B. Mandatory Rules to Protect Indirect Investor Protection

By contrast, the view of investor relationships I have sketched here is one where rational and irrational (better: sophisticated and unsophisticated) investors interact. This view holds the potential for uncovering many more externalities on *other investors (shareholders)* that would require intervention through mandatory corporate law, more particularly the type of indirect investor protection described above. The basic mechanism that warrants intervention is simple: savvy market participants who initially put together the corporation or later buy into it do not care about losses imposed on unsophisticated market participants. In particular, savvy market participants will *gain* from rules that allow redistribution from unsophisticated market participants to sophisticated market participants, even if the redistribution is partially offset by an efficiency loss. Rules that allow such redistribution will thus not depress the stock price even if the market is efficient, and may even increase it (on an understanding of market efficiency that equates fundamental value with the

[109] For arguments to this effect, see, e.g., Bebchuk, *supra* note 22, at 865–866, 890; Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757, 774–815 (1995); id., *The Contractarian Theory of Corporate Law: A Generation Later*, 2006 J. CORP. L. 779, 793–96 (2006).

[110] *Cf.* Scott Hirst, *The Case for Investor Ordering*, 8 HARV. BUS. L. REV. 227, 231 (2018) ("To ensure that corporations initiate value-enhancing switches, the SEC should [merely] set default arrangements to encourage managers to initiate switching").

[111] For example, arguably the most sophisticated and most comprehensive argument against contractual freedom in corporate law from (mostly) the rational actor perspective that incorporates all of the above arguments is Lucian Arye Bebchuk, *Why Do Firms Adopt Antitakeover Arrangements*, 152 U. PA. L. REV. 713 (2003). Yet Bebchuk's policy pieces advocating for mandatory rules do not mention these arguments, nor even cite this piece. *Cf.*, *e.g.*, Lucian A. Bebchuk & Kobi Kastiel, *The Untenable Case for Perpetual Dual-Class Stock*, 103 VA. L. REV. 585, 623 (2017).

[112] *Cf. generally* Eric A. Posner, E. Glen Weyl, *Property Is Only Another Name for Monopoly*, 9 J. LEGAL ANALYSIS 51 (2017); ERIC A. POSNER & GLEN WEYL, RADICAL MARKETS: UPROOTING CAPITALISM AND DEMOCRACY FOR A JUST SOCIETY (2019).

value available to *sophisticated* parties).[113]

Concretely, unsophisticated investors can lose any time their behavior differs systematically from sophisticated investors. First, the unsophisticated investors may trade more, less, or simply at different times or in opposite direction as the sophisticated investors. Second, the unsophisticated investors may not avail themselves of rights that are in principle available to all shareholders, such as tender into an offer or exercise appraisal rights. Third, unsophisticated investors may be excluded from distributions only available to certain investors, such as large blockholders. These three problems in turn suggest a generic type of mandatory intervention: limit possibilities for unequal treatment of investors—except to the extent necessary to provide indirect investor protection in the first place (particularly the trading gains necessary to induce activism). As always, indirect investor protection recognizes that such intervention need not be enforced by a public regulator or by the protected parties (retail investors) themselves but can and usually is provided by "bounty hunters" essentially checking each other. To the extent this is done, another useful intervention is to help make market prices as efficient as possible to limit sophisticated investors' ability to gain from trading with unsophisticated investors.

I am, of course, not the first to point out that investors are heterogeneous, and that some are (much) more sophisticated than others. In particular, even Easterbrook and Fischel's (1991) classic exposition of the contractarian argument acknowledged that many investors are not sophisticated.[114] But Easterbrook and Fischel did not think this was important because they thought that unsophisticated investors would be protected by "the market" – without considering how that market functioned and what rules sustained it, and without attending to the possibility that (contractual etc.) rules would be set up precisely with the purpose of exploiting unsophisticated parties when their behavior differs from sophisticated investors.[115]

Examples of sophisticated investors profiting at the expense of unsophisticated investors are not hard to come by. I already mentioned greenmail and disclosure-only settlements above—the latter having been shut down—partially at least—by the courts, and the former by a combination of market practice and, one suspects, a change of attitude by the courts.[116] Appraisal is another example: until very recently, it was common for sophisticated shareholders in mergers to get a "bonus" not shared with other shareholders in an appraisal action.[117] The Delaware Supreme Court's recent string of cases undermining this strategy has "plugged this hole."[118]

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[113] In this pure form, this is true in the short run and for individual firms. In the long run, naïve investors may realize that the market is "rigged" and leave, thus depressing prices market-wide. Savvy market participants might organize a better market with less redistribution to re-attract naïve investors, but in an attenuated form, the argument will still hold: the savvy organizers will write rules to cater to issues that are salient in naïve investors'minds, not rules that minimize the amount of redistribution.

[114] *See* EASTERBROOK & FISCHEL, *supra* note 98.

[115] *See id.* at 297–98 (refuting argument that unsophisticated investors are exploited because it "disregards the role of markets in impounding information in prices").

[116] *See supra* notes 63 and 67 and accompanying text. The courts' intervention against disclosure only settlements was only partially successful, however, because not all courts agreed and plaintiffs predictably took the litigation where courts still allow them, see Matthew D. Cain, Jill Fisch, Steven Davidoff Solomon & Randall S. Thomas, *The Shifting Tides of Merger Litigation*, 71 VAND. L. REV. 603 (2018).

[117] *See* Gaurav Jetley & Xinyu Ji, *Appraisal Arbitrage: Is There a Delaware Advantage?*, 71 BUS. LAW. 427 (2016).

[118] The Delaware Supreme Court recently issued three cases that reshape appraisal jurisprudence: *DFC, Dell,* and *Aruba Networks.* In each case, the Delaware Supreme Court deemphasized alternative appraisal valuation methods, finding that the lower court failed to give sufficient weight to deal price. *See* DFC Glob. Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346, 349 (Del. 2017) ("economic principles suggest that the best evidence of fair value was the deal price, as it resulted from an open process, informed by robust public information, and easy access to deeper,

Indirect investor protection also elucidates the rationale for the mandatory (in fact, criminal) prohibition of insider trading. There is a longstanding debate about the desirability of insider trading. The argument for insider trading is that it brings reliable information to the market and hence contributes to price efficiency.[119] The sophisticated counter-argument is that insider trading may crowd out other informed trading and, since insiders are fewer and hence less competitive, ultimately generate *less* informed prices.[120] In addition, and more importantly, if insider trading were legal, the ability to trade would create perverse incentives for the insiders' management of the company because one can easily gain more by trading on bad news than by generating good news.[121] Neither of these arguments, however, explain why the prohibition of insider trading needs to be mandatory: if the arguments are accurate, it would be in the interest of companies themselves, or rather of their founders and sponsors, to prohibit insider trading (in the corporate charter or the like) because the price they could get for their shares would reflect the quality of the rules they create. This is just the usual contractarian argument.[122] Once again, the indirect investor protection perspective may explain why this contractarian argument fails. The contractarian argument relies on all buyers of the shares understanding the detrimental effects of insider trading and to discount the shares accordingly. If this is not the case, then the insiders—founders and sponsors—do not bear the "cost" of the bad rule that benefits them, and thus gain from including it. Unsophisticated investors might thus unwittingly participate in a "rigged game"—which happens to be the justification often given by courts and other policy makers for prohibiting insider trading.[123]

non-public information . . ."); Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd., 177 A.3d 1, 35 (Del. 2017) (given "evidence of market efficiency, fair play, . . . [the court's] failure to give the resulting price heavy weight" was an abuse of discretion); Verition Partners Master Fund, Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 130 (Del. 2019) (lower court's decision to use stock price instead of deal price minus synergies "was rooted in an erroneous factual finding that lacked record support"). The Delaware Chancery Court also recently delivered an appraisal of 18% less than the merger price, leading practitioners to warn appraisal petitioners of the new legal landscape. *See In re* Appraisal of Jarden Corp., 2019 Del. Ch. LEXIS 271 (Del. Ch. July 19, 2019); *Delaware Court of Chancery Bases Appraisal Value on Unaffected Market Price,* PAUL WEISS (July 25, 2019), https://www.paulweiss.com/media/3978794/25jul19-jarden.pdf.

[119] *See* HENRY G. MANNE, INSIDER TRADING AND THE STOCK MARKET (1966). *Cf.* Hayne E. Leland, *Insider Trading: Should It Be Prohibited?*, 100 J. POL. ECON. 859 (1992) (analyzing conditions when this effect will dominate losses to outsiders in a welfare analysis).

[120] Michael J. Fishman & Kathleen M. Hagerty, *Insider Trading and the Efficiency of Stock Prices*, 23 RAND J. ECON. 106 (1992).

[121] *Cf.* Frank H. Easterbrook, *Insider Trading as an Agency Problem*, *in* PRINCIPLES AND AGENTS: THE STRUCTURE OF BUSINESS 81, 84 (John Pratt and Richard Zeckhauser, eds., 1991) ("Sometimes business success is the result of chance rather than effort and skill, and insider trading payoffs occur whenever the stock rises or falls, not when dedicated and skillful services are rendered. The insider gains from volatility, which can follow good or bad events.").

[122] Enforcement may require the tools of criminal or at least administrative procedure, but enforcement is an orthogonal question: a public enforcement regime might be provided on an opt-in or opt-out basis.

[123] Robert Jackson, then-Commissioner of the SEC, and Preet Bharara, former U.S. Attorney for the Southern District of New York, described the unfairness of insider trading for unsophisticated investors: "Insider trading cases are . . . a manifestation of America's basic bargain: that the well-connected should not have unfair advantages over the everyday citizen . . . Fighting insider trading is a refusal to accept a rigged system." *See* Preet Bharara & Robert J. Jackson, Jr., *Insider Trading Laws Haven't Kept Up With the Crooks,* N.Y. TIMES, Oct. 9, 2018, https://www.nytimes.com/2018/10/09/opinion/sec-insider-trading-united-states.html. *See also Foremost-McKesson, Inc. v. Provident Sec. Co.,* 423 U.S. 232, 243 (1976) (stating that in creating § 16 (b) of the Securities Exchange Act of 1934, "Congress recognized that insiders may have access to information about their corporations not available to the rest of the investing public. By trading on this information, these persons could reap profits at the expense of less well informed investors."); *Insider Trading*, SEC. & EXCH. COMM'N, https://www.investor.gov/introduction-investing/investing-basics/glossary/insider-trading (last visited Aug. 10, 2020) (arguing that insider trading "undermines investor confidence in the fairness and integrity of the securities markets").

In general, sophisticated parties might devise various schemes yet unknown to divert money from the corporation into their own pockets. Flexible courts may detect and thwart such schemes. Arbitration clauses undermine this protection. To be sure, this undermining should be priced in to the extent it affects sophisticated investors. But if the scheme does not hurt all investors equally but rather redistributes value from unsophisticated investors to sophisticated investors, it will not be priced. A concern with this possibility would justify the SEC's blocking of arbitration clauses in corporate charters.[124]

The last example illustrates a broader principle of good regulatory design: redundancy (in the engineering sense). As repeatedly emphasized, efficient market prices provide a sort of "umbrella insurance" to investors in that any "downstream" deficiencies in the governance arrangements are priced in and thus investors still get an appropriate return (*supra* II.A). One might argue, therefore, that the *only* thing that regulators should police is the pricing mechanism. But reliance on a single critical component would be bad engineering. It would leave investors without a backup protection to the extent market efficiency fails. Regulators are right to insist on "second lines of defenses" as long as they can be built at reasonable cost.

V. INVESTMENT IN PRIVATE COMPANIES

The discussion thus far explicitly focused on public companies, i.e., companies with registered securities traded on an exchange. Indeed, the existence of a liquid market for the securities, as facilitated by the disclosure rules applicable to public companies, was identified as a key mechanism of indirect investor protection. This in turn provided a rationale for mandatory securities regulation subtly different from the traditional rationale: mandating information provision is not necessary to protect those who actually use the information (that would have been the traditional rationale), but to protect those who do not use it but who benefit indirectly through the activities of the former group (*supra* sections 3.1.1 and 4.2).

To round out the discussion, this section turns to private companies. First, are there any investor protection mechanisms in private companies that partake of the idea of indirect investor protection? Second, what does this article's analysis imply for the SEC's recent push to open up private companies to investment by retail investors, directly or through mutual funds?[125]

A. Indirect Investor Protection Without Public Securities Markets?

Of the three main mechanisms of indirect investor protection identified in section 3, one—efficient market prices—is not available in private companies by definition: there is no public market and thus no liquid market for their shares. The absence of a liquid market also largely eliminates two other mechanisms: activism and takeovers are theoretically conceivable—an activist or acquirer could buy up shares from private investors—but practically this is generally not possible, in part because of transfer restrictions on private companies' shares. Only plaintiff lawyers are operative in private companies, but even their activities are hampered by the lack of public

[124] On the SEC position, *see supra* note 96 and accompanying text.

[125] In June 2019, the SEC issued a concept release and sought public comments on amending the accredited investor definition. The SEC voted in December 2019 to propose amendments to this definition, hoping to expand both institutional and individual investors' access to private capital markets. *See SEC Proposes to Update Accredited Investor Definition to Increase Access to Investments,* SEC. & EXCH. COMM'N, Dec. 18, 2019, https://www.sec.gov/news/press-release/2019-265; Amending the "Accredited Investor" Definition, 85 Fed. Reg. 2574 (proposed Jan. 15, 2020).

disclosures that they can mine for leads to profitable cases.[126]

There are echoes of indirect investor protection, however, in various contractual equal treatment rights often available to investors in private companies. Such rights include tag-along rights (the right to sell to an outsider on the same terms) and preemptive rights (the right to acquire new shares on the same terms). These rights echo indirect investor protection in as much as they allow investors to obtain the full return on their investment even without any expertise or time investment of their own. Another echo is that this is achieved by enlisting the help of a party—here the controlling shareholder or other sophisticated party initiating the transaction—who would rather not provide this protection and is not paid explicit compensation for it (although obviously the price outside investors pay for the shares etc. should be higher to reflect the protection). However, unlike the indirect investor protection discussed thus far, contractual equal protection clauses do not enlist a *third* party – they merely help one party by ensuring the other party cannot get more. Moreover, the devil is in the detail. Merely having the right to participate in a transaction is not enough: the unsophisticated and/or uninformed party also needs to know whether participating is a good idea, and for that purpose needs to know if the sophisticated insiders are participating, which preemptive rights by themselves do not provide.[127] Similarly, equal rights on one dimension—e.g., the cash sale price in tag-along right—are not enough if the insider can also get benefits on another dimension—e.g., a generous executive compensation package.

One might also mention auditors, whistleblowers, and perhaps lawyers and other gatekeepers in this connection, and in fact one might already have mentioned them in the connection of public firms.[128] They are also third parties protecting investors (although most whistleblowing concerns issues other than investor protection). However, they are explicitly mandated to do so, so there is little analytical insight to pointing this out. Moreover, auditor information would be of little help to a genuinely unsophisticated investor without the support of plaintiff law firms or other able help in acting on the information, and whistleblowing seems limited to extreme cases of criminal or at least regulatory wrongdoing (as opposed to, notably, fiduciary duty violations). Similarly, lawyers and other gatekeepers may screen out clear cases of fraud but not more subtle forms of taking advantage of investors.[129]

B. Should Retail Investor (Funds) be Allowed to Invest in Private Markets?

In parallel to the growth in index funds, there has been a considerable shift from public to private equity in the United States over the last quarter century.[130] One element of this is that

[126] For an example of a plaintiff lawyer's suit against a private company, *see* Uber Shareholder Sues Company, Ex-CEO Over Alleged Fraud, WALL ST. J., SEPT. 26, 2017, https://www.wsj.com/articles/uber-shareholder-sues-company-ex-ceo-over-alleged-fraud-1506438040.

[127] *See* Jesse Fried & Holger Spamann, *Cheap-Stock Tunneling Around Preemptive Rights*, 137 J. FIN. ECON. 353 (2020).

[128] *See* Reinier H. Kraakman, *Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy,* 2 J. L. ECON. & ORG. 53 (1986).

[129] *See* Sandy Mavrommati, *The Dynamics of Gatekeepers, Corporate Culture and Whistle Blowers,* 1 CORP. GOVERNANCE L. REV. 385, 396 (2005) ("one of the most important lessons of the Enron collapse is that every link in the audit chain failed to discover its weak financial status and to act to correct this condition- including the audit committee of the board, the board itself, the presumably independent auditor, . . . the SEC, the business journalists, and finally the presumably reliable gatekeepers."); *see also* John C. Coffee, Jr., *Understanding Enron: "It's About The Gatekeepers, Stupid,"* 57 BUS. LAW. 1403, 1404–05 (2002).

[130] *See*, *e.g.*, Michael J. Mauboussin & Dan Callahan, *Public to Private Equity in the United States: A Long-Term Look,* MORGAN STANLEY INV. MGMT, August 4, 2020, https://www.morganstanley.com/im/publication/insights/arti-

successful startups have tended to stay private longer even after growing to considerable size (so-called "unicorns").[131] The other element is the growth in private equity already alluded to above, and the resulting larger number of firms "taken private" by PE funds.[132] The seemingly high returns for investors in such private companies and funds have prompted calls to open the private markets to retail investors, or at least to the mutual funds that they invest in.[133]

However, mutual funds' foray in this direction backfired. Several mutual funds invested in unicorns only to lose considerable amounts of money.[134] To be sure, this does not prove that the investment was a bad idea ex ante, or that future investments in private companies might not be very profitable. Returns are to a large extent random, so a single episode does not prove much. Still, the losses ought to be a warning.

Theoretically, this article has described powerful reasons why investments in private markets by unsophisticated parties are a bad idea (for the unsophisticated, that is). This article has also reviewed arguments why reliance on mutual fund managers to screen private investments may be misplaced given their incentives, not only on the margin but also as to which manager will work at a mutual fund in the first place, as opposed to a hedge fund or PE fund. Even if existing investors in private markets collectively earned higher returns than those in public markets—an empirically unclear proposition—, we cannot simply assume that the less sophisticated investors currently shut out of private markets would be able to earn the same high returns.[135]

VI. "Freerider Governance" and Sustainability

Finally, a key upshot of the indirect investor protection view is that the current system of investor protection centrally relies on freeriding. Beyond its analytical interest, this point brings into relief certain distributional consequences that might be deemed undesirable, and raises the question whether the system might be vulnerable to desertion by those who involuntarily pay for the

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cles/articles_publictoprivateequityintheusalongtermlook_us.pdf?1596549853128; Elisabeth de Fontenay, *The Deregulation of Private Capital and the Decline of the Public Company*, 68 HASTINGS L.J. 445, 452–61 (2017).

[131] A "unicorn" is a private company valued at a billion dollars or more. Until very recently, unicorns were rare. The term was first coined in 2013, when only 39 companies qualified. *See* Aileen Lee, *Welcome to the Unicorn Club: Learning from Billion-Dollar Startups,* TECHCRUNCH, Nov. 2, 2013, https://techcrunch.com/2013/11/02/welcome-to-the-unicorn-club/. Just seven years later, there are 487 unicorns with a total cumulative valuation of $1,522 billion. *See The Global Unicorn Club,* CB INSIGHTS, Aug. 2020, https://www.cbinsights.com/research-unicorn-companies.

[132] *See* de Fontenay, *supra* note 130, at 472 ("deregulation, technology, and a global glut in investment capital have combined to provide U.S. private companies with many of the traditional benefits of going public (such as access to capital and *some* liquidity for insiders and investors) without their having to bear any of the burdens (compliance with mandatory disclosure and other regulatory requirements, securities litigation, hedge fund activism, and so forth)"). According to de Fontenay, fewer firms are publically traded due to acquisitions, going private transactions, and delistings. *Id.* at 462.

[133] *See* SEC, *supra* note 125. According to Chairman Jay Clayton, the SEC is proposing "additional means for individuals to qualify to participate in our private capital markets based on established, clear measures of financial sophistication." *Id.*

[134] *See* Jean Eaglesham & Coulter Jones, *Mutual Funds' Embrace of High-Profile Unicorns Backfires*, WALL ST. J., Oct. 11, 2019, https://www.wsj.com/articles/mutual-funds-embrace-of-high-profile-unicorns-backfires-11570786202.

[135] *Cf.* Matt Levine, *Private Markets Could Be More Public,* BLOOMBERG OPINION: MONEY STUFF, June 19, 2019, https://www.bloomberg.com/opinion/articles/2019-06-19/private-markets-could-be-more-public (noting that "I am just not sure that the private markets that middle-class people would get to invest in would be quite the *same* private markets as the ones where rich sophisticated investors are getting all that growth" but also rightly questioning the ability of the current "accredited investor" standard to discern sophistication).

indirect protection services in the current system and thus the collapse of the current investor ecosystem.[136]

A. Freeriding

The current system relies on freeriding because the traders that bring security prices (close) to fundamental value and the activists that intervene in the corporation's governance do not get compensated by the buy-and-hold investors whom they benefit. Of the mechanisms studied above, only plaintiff lawyers get directly compensated by the investors they benefit. By contrast, activists and traders profit from buying at a low price from (or, in the case of traders, also selling at a high price to) other investors who trade at what turns out to be unfavorable prices for these others, i.e., trades that generate "negative alpha" for the other trading investors. This means that it is impossible to have a system consisting only of long-term buy-and-hold investors who never trade on the one side, and on the other side smart traders keeping prices efficient and smart activists fixing up firms: this system wouldn't generate any money for the traders and activists, so they would not do what they do.[137] This in turn suggests that the move to index funds, who rarely trade, will have profound ripple effects through the system.

The point is easiest to see in the extreme case where index funds *never* trade and the composition of shares in the index is *fixed*.[138] (For simplicity, one may think of the index as comprising all publicly traded stocks, i.e., the total market, but the point would hold for any index.) By definition, an index fund earns the average gross return of all (size-weighted) investments in index stocks when the supply of such shares is fixed and the fund does not trade. By extension, and given positive trading costs, the index fund earns a higher than average net return if some of the other investors do trade. Some of the trading investors may do better than the index funds, but by accounting identity, it is necessarily the case that some do worse. Those that do worse than index funds should rationally switch to index investing. Thus, the co-existence of active traders and index funds cannot be a rational equilibrium if the composition of shares in the index is fixed and index funds never trade. (The next section will relax these two extreme assumptions.)

Up to now, these issues have been theoretical because enough day traders and (investors in) actively managed funds have not understood the point and systematically lose money relative to owning index funds. As the leading finance economist John Cochrane puts it:

> "we could each avoid being the negative-alpha part of price discovery by only buying index funds. It's a bit of a puzzle that we don't. It's also a good thing we don't, or there would be no traders making prices efficient."[139]

One question to ask is whether it is really "a good thing" from a distributional perspective if certain investors subsidize the system by their trading losses. Perhaps arrogant day traders deserve

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[136] With a different tone and target, a related view was expressed in the notorious 2016 note "The Silent Road to Serfdom: Why Passive Investing Is Worse Than Marxism" by Inigo Fraser-Jenkins of Sanford C. Bernstein & Co., LLC (an active fund manager). Fraser-Jenkins argued that passive investment by itself would not merely replace private capital allocation with public capital allocation as in Marxism, it would replace it with *no* conscious capital allocation, leading to massive inefficiencies in capital allocation. *See* Luka Kawa, *Bernstein: Passive Investing Is Worse for Society Than Marxism*, BLOOMBERG, Aug. 23, 2016, https://www.bloomberg.com/news/articles/2016-08-23/bernstein-passive-investing-is-worse-for-society-than-marxism.

[137] This point is a generalization of the Grossman & Stiglitz argument about the impossibility of efficient stock prices. *See* Grossman & Stiglitz, *supra* note 61.

[138] That is, no shares are added or removed through issuances or buybacks by firms in the index, and no firms enter or exit the index.

[139] Cochrane, *supra* note 12, at 44.

their losses, but how about retirement savers who were steered into actively managed mutual funds, or perhaps public pension plans who mistakenly believe that the hedge fund they are investing in generates positive alpha? One thing is for sure: "we" isn't really "we" – I don't have my money in actively managed mutual funds, and I am sure neither does Cochrane.

In any event, investors at large increasingly do "avoid being the negative-alpha part" of the current system. That is what the shift to index investing is all about. Index investing is now only 15% of the equity market, but the growth has been so steep that many expect index funds to occupy a large majority of the market very soon. At the rate of growth between 2000 and 2019, when index funds went from 3% to 15% of the U.S. equity market, index funds would constitute 100% of the U.S. equity market in 30 years.[140] Index funds, however, rarely trade (see next subsection).

B. Imagining an Ecosystem Dominated by Index Funds

What would the world look like if all or most of the dumb money were in index funds (if they could then still be called this)?

A critical initial observation is that while index funds rarely trade, they do trade. They need to trade when the index composition changes or for liquidity purposes when they have net fund inflows or outflows, which inevitably happens daily. It is also likely that some level of day trading would remain simply because day traders enjoy trading and are willing to pay for it with lower investment returns, just as casino gamblers are willing to lose at the casino (on average). Other "negative alpha" investors may stick around because of hubris, inertia, or governance problems. Thus, a world dominated by index funds will not be a world without trading.

Still, trading levels would be much reduced in a world dominated by index funds. Currently, the ratio of shares traded annually to outstanding shares on the U.S. stock market as a whole is well above 120%.[141] That is, the average U.S. share is traded more than once per year. By contrast, the annual turnover rate of the very large Vanguard 500 Index Fund is only 3.8%.[142] If index funds held most of the shares in circulation, trading volume would thus likely drop by one to two orders of magnitude unless the remaining investors were to increase trading between themselves concomitantly – an unlikely proposition.

In thinking about the consequences of this dramatic reduction in trading volume, one needs to distinguish the impact on market efficiency per se, which may be dramatic, from the impact on indirect investor protection, which will differ by the specific mechanism considered.

Market efficiency could deteriorate considerably. As repeatedly mentioned, information gatherers earn money by trading, so a reduction in trading will mean a reduction in money-earning opportunities and thus a reduction in information gathering. Moreover, the fewer non-informed investors trade, the higher the likelihood in any given trade of facing an informed trader and thus of adverse selection, which would trigger an increase in bid-ask spreads.[143] In fact, actual transaction prices might often be non-existent because no trades occur. The market would resemble an

[140] *See supra* note 13 for index fund statistics and accompanying text.

[141] *See* Fed. Res. Bank of St. Louis, *Stock Market Turnover Ratio,* FRED, https://fred.stlouisfed.org/series/DDEM01USA156NWDB (last updated Sept. 21, 2018). This is down from a peak of 292% in 2008.

[142] *See S&P 500 ETF,* VANGUARD, https://advisors.vanguard.com/investments/products/voo/vanguard-sp-500-etf (last visited Aug. 12, 2020). The rate for equity mutual funds in 2019 was 28%, which has itself trended steadily downwards since 2000 (*see* 2020 Investment Company Fact Book, *supra* note 1, at 65), as passive investment increased in popularity.

[143] *See* Lawrence R. Glosten & Paul R. Milgrom, *Bid, Ask and Transaction Prices in a Specialist Market With Heterogeneously Informed Traders,* 14 J. FIN. ECON. 71, 72 (1985) ("The core idea is that the specialist faces an adverse selection problem, since a customer agreeing to trade at the specialist's ask or bid price may be trading because

OTC market. However, there are countervailing forces to consider as well.[144] First, the less "dumb money" is in the market, the less the risk for the "smart money" that the price will be driven in the wrong direction—away from where the "smart money" is betting the price will go—by uninformed trading.[145] Second, index funds are the main provider of stock lending, which is required for short sales; index funds thus contribute to market efficiency by facilitating short sales.[146] Third, traders interact in complicated ways (e.g., some cannibalize others), such that the effect of reducing trading volume is likely to be highly non-linear.[147]

Even if there is deterioration in market efficiency in the sense of larger bid-ask spreads and longer divergence of price from fundamentals, it will likely *not* hurt retail investors as a group, even though it will remove a subsidy paid by the "negative-alpha part of price discovery" to index fund investors. The reason is that in the world we now imagine, retail investors will also trade much less, so that the product of (trade frequency) × (amount lost per trade) = (total amount lost) may well be constant. In fact, that is what one would expect in a simple first approximation. Smart traders will gather information as long as (price of information gathering) ≤ (time until information priced in) × (trades per time unit) × (gain per trade), and more traders will enter the market until the relationship holds with strict equality. Since the left hand side (price of information) is unaffected by the shift to index funds, the right hand side will remain constant as well. But the right hand side is simply the "smart money's" gain from trading, which is the mirror image of the "dumb money's" loss from trading, which thus also remains constant. Specifically, in a world populated by index funds, (trades per time unit) will go down precipitously, offsetting the increase in (time until information priced in) and/or (gain per trade).

This may seem counterintuitive because market efficiency was singled out as perhaps the most important aspect of indirect investor protection in section 2.1. The resolution of this apparent contradiction is twofold. First, even in the world now considered, the market inefficiency and hence the trading loss is limited by competition between "smart money" – this is not a world with arbitrary prices. Recall that market efficiency is by logical necessity a relative concept.[148] Second, there is a considerable change for the worse here for current index investors, who *will* lose more in trading than before. Specifically, they lose the subsidy previously provided by other "dumb money," which is now also in index funds.

The effect is likely to be much more dramatic on shareholder activism. When there is much less trading, there is much less opportunity for an activist to build up a position in secret at low prices—before staging an intervention and selling for more. Simple accounting identities like the one two paragraphs above might suggest that the activist might simply take more time to build a position, offsetting reduced trading volume per time unit by taking more units of time. This identity

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he knows something that the specialist does not. In effect, then, the specialist must recoup the losses suffered in trades with the well informed by gains in trades with liquidity traders. These gains are achieved by setting a spread.").

[144] *Cf. generally* Jack Hirshleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, 61 AM. ECON. REV. 561 (1971) (pointing out that the private and social incentives for trading diverge, such that the economic welfare theorems do not hold and the current level of trading activity may be highly suboptimal).

[145] *Cf.* J. Bradford De Long, Andrei Shleifer, Lawrence H. Summers & Robert J. Waldmann, *Noise Trader Risk in Financial Markets*, 98 J. POL. ECON. 703 (1990).

[146] *See* Darrell Duffie, Nicolae Garleanu & Lasse Heje Pedersen, *Securities Lending, Shorting, and Pricing,* 66 J. FIN. ECON. 307, 310 (2002) ("Natural lenders include institutional investors such as insurance companies, index funds, and pension funds, who tend to have large and long-duration buy-and-hold investments.").

[147] Empirically, there may not be any correlation between market efficiency and trading volume. *See* Jessada Sukpitak & Varagorn Hengpunya, *The Influence of Trading Volume on Market Efficiency: The DCCA Approach*, 458 PHYSICA A 259 (2016).

[148] *See supra* note 61 and accompanying text.

would be misleading, however, because the activist does not control how much time it can take before the information of its pending intervention leaks. In fact, with less trading overall, it is likely that an activist building a stake will be easier to detect by other "smart money" that can then run up the price in anticipation of the activist's value creation. Reduced trading volume is thus likely a fatal blow to the current model of shareholder activism.

Fortunately, the effect of activism's likely demise on investors at large will be dampened by another mechanism of indirect investor protection: PE. The more governance problems go unaddressed by shareholder activism, the lower the value of affected companies will be, and the more attractive they will become as targets for PE buyouts.[149] There is thus a limit to the degradation suffered by the knocking out of one mechanism of indirect investor protection. Still, it will necessarily be the case that the inefficiencies will need to grow larger before PE can profitably address them – or else they would do so already.

C. Beyond Freeriding

In general, it may be worth thinking about whether the current system of indirect investor protection could be organized more efficiently. The relevant actors and strategies may have evolved to a form that is efficient given the (legal) system's boundaries set on their behavior. But that does not mean that the boundaries could not be redrawn to improve the system. In particular, the current system's reliance on trading gains (and associated free-riding of non-trading investors) may be a path-dependent artefact rather than a logical necessity. Perhaps it could be usefully replaced or augmented with an explicit reward system.[150] One of the mechanisms of indirect investor protection, the plaintiff bar, already operates with such explicit rewards. Under the common fund doctrine, the legal system offers rewards to plaintiff attorneys who defend investors' interests, and courts try to calibrate these rewards to the benefits created (how well they do so is another matter). One could imagine similar explicit rewards for activist interventions.[151] Any reward system will have its difficulties, but so will any other system of corporate governance. Agency and collective action problems are inherent in corporate governance; they can merely be managed better or worse.[152]

CONCLUSION

Biological ecosystems function through the interaction of many different species. Any given species can thrive only because of conditions created by others. Interactions are complex. Some inputs to an ecosystem appear benign but turn out to be fatal. Nutrient inflow into a body of water at first increases the growth of algae and other organisms down the food chain but can reach a

[149] *Cf.* Elisabeth de Fontenay, *Private Equity's Governance Advantage: A Requiem*, 99 B.U. L. REV. 1095, 1106–09 (2019) (describing the phenomenon in the opposite direction, i.e., how the emergence of activist hedge funds reduced the opportunities available for private equity funds).

[150] *Cf.* Adi Libson & Gideon Parchomovsky, *Reversing the Fortunes of Active Funds* (U. Penn. Inst. for Law & Econ., Working Paper No. 20-04, Jan. 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3517849 (proposing a tax subsidy). Since the benefits are mostly private, a reward system should probably be privately financed—i.e., paid for by investors—as well.

[151] *See supra* section 3.2.

[152] *See* Jensen & Meckling, *supra* note 98, at 308–09; Bengt Holmstrom, *Moral Hazard in Teams*, 13 BELL J. ECON. 324 (1982); HOLGER SPAMANN, CORPORATIONS (2d ed. 2018) at 32 ("Agency problems can be reduced. They can never be eliminated.").

tipping point beyond which the entire body of water turns into a dead zone.[153]

Hopefully, the algae-growth analogy is not a good one for the growth of index funds in the investment eco-system. Nevertheless, the broader point of this paper is that financial actors need to be seen as part of an interdependent investment ecosystem. Bad regulation ignores the interdependencies, good regulation harnesses them. This systemic view reveals that some of the most important investor protection is indirect investor protection.

[153] *See*, *e.g.*, https://en.wikipedia.org/wiki/Dead_zone_(ecology) (visited 8/15/2020).