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Passive Investors

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Introduction

Passive investors are the new power brokers of modern capital markets.[1] An increasing number of retail investors are investing through indexed mutual funds and exchange traded funds (ETFs) (collectively index funds or passive funds), driven by the lower costs of these products as well as the literature reporting that even savvy money managers cannot consistently beat the market.[2] This shift has concentrated a growing portion of the public capital markets in the hands of the sponsors that operate these index funds, particularly the so-called big three of Blackrock, Vanguard and State Street.[3] Although the extent to which index funds will continue to grow remains unclear, some estimates predict that by 2024 they will hold over 50% of the market.[4]

A number of commentators have expressed concern, even alarm, over the growth of passive investors and its implications for capital market efficiency and corporate governance.[5]

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[1] Although a variety of rules-based investment strategies might be termed "passive", such as algorithmic trading, we focus in this article on traditional passive investors - index funds or ETFs. *See, e.g.*, Andrew W. Lo, *What is an Index*, (Oct. 12, 2015), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2672755 (describing the breadth of investment strategies that could be termed index investing and arguing that the critical characteristics of an index are that it be transparent, investible and systematic).

[2] The popular press makes a broad claim that actively-managed funds systematically underperform index funds and their market benchmarks. *See, e.g.*, Mark Hulbert, *This is how many fund managers actually beat index funds*, MARKETWATCH, (reporting that "Over the last 15 years, 92.2% of large-cap funds lagged a simple S&P 500 index fund."), available at https://www.marketwatch.com/story/why-way-fewer-actively-managed-funds-beat-the-sp-than-we-thought-2017-04-24. The story in the finance literature is more complex. *See infra* notes __ through __ and accompanying text.

[3] *See, e.g.*, Jan Fichtner, Eelke M. Heemskerk & Javier Garcia-Bernardo, *Hidden Power of the Big Three? Passive Index Funds, Re-concentration of Corporate Ownership, and New Financial Risk*, 19 BUS. & POL. 238, 304 (2017) (explaining that BlackRock, Vanguard and State Street dominate the passive fund industry and terming them the "big three").

[4] *See* Trevor Hunnicutt, *Index funds to surpass active fund assets in U.S. by 2024: Moody's*, REUTERS, Feb. 2, 2017, available at https://www.reuters.com/article/us-funds-passive/index-funds-to-surpass-active-fund-assets-in-u-s-by-2024-moodys-idUSKBN15H1PN.

[5] *See, e.g.*, Dorothy Lund Shapiro, *The Case Against Passive Shareholder Voting*, __ J. CORP. L. __ (forthcoming 2018) (arguing that passive investors lack adequate incentives to become informed and should therefore not be able to vote their shares); Lucian A. Bebchuk, Alma Cohen and Scott Hirst, *The Agency Problems of Institutional*

The literature to date, however, ignores the institutional structure of passive funds and the market context in which they operate. As a result, it fails accurately to reflect the incentives of passive investors. Moreover, the literature has failed to assess the overall implications of the rise of passive investment for corporate law and governance.

We respond to that deficit. In this Article, we explore the role that index funds play against the structure of the mutual fund market. We then provide the first theoretical framework for passive investment and its implications for capital markets and corporate governance.

Prior criticism of passive investors has focused on two key points. First, passive investors, by virtue of their investment strategy, are locked into the portfolio companies they hold. They cannot increase their investment in underpriced companies or follow the Wall Street rule and exit from underperforming companies the way traditional shareholders can.[6] The lack of investment discretion has the potential to reduce the effectiveness of capital market discipline.[7] Second, passive funds compete against other passive funds primarily on cost.[8] As a result, passive investors will be unwilling to incur the costs of firm-specific research and monitoring of their portfolio companies.

We challenge this portrayal of the passive investor business model as incomplete and offer a more nuanced approach. As we explain, although index funds are locked into their investments, the shareholders who invest in these funds are not. Like all mutual fund shareholders, investors in index funds can exit at any time by selling their shares and, when they do so, they receive the net asset value of their ownership interest.[9] Moreover, there is no reason to believe that index funds compete for investors only against other index funds tracking the same index. Rather, index funds compete, on an ongoing basis, both with other passive (i.e. index) funds and with actively-managed funds.[10] Moreover, this competition is not based solely on cost. The market for mutual funds demonstrates that mutual fund inflows are based on fund

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Investors, 31 J. ECON. PERS. 89, 90 (2017) (arguing that "index funds have especially poor incentives to engage in stewardship activities that could improve governance and increase value."). *See also* Eric A. Posner, Fiona M. Scott Morton & E. Glen Weyl, *A Proposal to Limit the Anti-Competitive Power of Institutional Investors*, ANTITRU□T L. J. (forthcoming 2017) (arguing that ownership concentration by the largest passive investors will undermine product market competition); Fiona Scott Morton & Herbert Hovenkamp, *Horizontal Shareholding and Antitrust Policy*, __ YALE L.J. __ (forthcoming 2018), https://ssrn.com/abstract=3046203 (same).

[6] *See* Anat R. Admati & Paul Pfleiderer, *The "Wall Street Walk" and Shareholder Activism: Exit as a Form of Voice*, 22 REV. FIN. STUD. 2445 (2009) (explaining how shareholders can respond to poor performance through exit).

[7] *See, e.g.*, Shawn Langlois, *Robert Shiller: Passive investing is a 'pseudoscience' and it's bad for markets*, MARKETWATCH, Nov. 15, 2017, available at https://www.marketwatch.com/story/robert-shiller-passive-investing-is-a-pseudoscience-and-its-bad-for-markets-2017-11-14 (citing interview in which Nobel prize-winning economist Robert Shiller describes indexing as a "'chaotic system'" that's taking a toll on the business landscape across the United States.").

[8] The literature notes that passive funds also compete on tracking quality. *See, e.g.*, Ari Weinberg, *Watch an Index Fund's 'Tracking Error'*, WALL ST. J., Jul. 9, 2012 (explaining tracking error and how it can vary among index funds).

[9] *See, e.g.*, John Morley & Quinn Curtis, *Taking Exit Rights Seriously: Why Governance and Fee Litigation Don't Work in Mutual Funds*, 120 YALE L.J. 84, 89 (2010) (explaining the mutual fund shareholders can exit at net asset value, which is not affected by expected returns).

[10] For evidence that active funds compete with passive ones, *see generally* Martijn Cremers et al., *Indexing and Active Fund Management: International Evidence*, 120 J. FIN. ECON. 539 (2016).

performance meaning that passive investors risk losing assets if their performance lags that of actively-managed fund on a fee-adjusted basis.[11]

Moreover, the existing literature analyzes the behavior and incentives of passive investors at the level of the individual mutual fund. This approach is misguided. A mutual fund is simply a pool of assets.[12] The decisions of the mutual fund are made by third parties that contract with the fund – the fund's sponsor and investment adviser.[13] The incentives of those third parties drive fund behavior. We use the term passive investors to describe the third parties who make these decisions on behalf of index funds, rather than the index funds themselves. Most significantly, the business model of the fund sponsor involves maximizing the revenue from the menu of funds it offers, and that revenue, in turn, is a product of both assets under management and fund fees.

Understanding the business model of passive investors leads to a comprehensive theory of their incentives and behavior, a theory that we set forth in Part I. We show that, because of the competition between active and passive funds, if there is a substantial gap between the market return and the return available through active management, fund investors will exit index funds in favor of actively-managed alternatives. To avoid this exit, passive investors need to monitor their portfolio companies and to exercise their governance rights, in an informed manner, to promote firm value. Passive investors must do this by relying on voice, rather than exit.[14]

Our work further suggests that it may be misleading to describe index funds as having a long-term or perpetual orientation. Even if index fund investors are in the market for the long term, through retirement accounts, for example, asset flight from index funds to active funds can take place at any time.[15] The time horizon of index funds therefore depends on the time horizon that their own investors use to assess their performance. As a result, it may be more accurate to consider the time horizon of the index fund as indeterminate a matter we take up later in this Article.

This theory is borne out in reality. In Part II, we document the emerging influence of passive funds with respect to individual and general firm governance. We show that passive investors have responded to the incentive to minimize underperforming companies and have

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[11] *See, e.g.*, Susan E.K. Christoffersen, David K. Musto & Russ Wermers, *Investor Flows to Asset Managers: Causes and Consequences*, 6 ANN. REV. FIN. ECON. 289 (2014) (reviewing empirical literature on the factors that influence the flow of funds into and out of mutual funds).

[12] *See* Jill E. Fisch, *Rethinking the Regulation of Securities Intermediaries*, 158 U. PA. L. REV. 1961, 1968 (2010).

[13] *Id.*

[14] Institutional investors are well aware of this limitation and note it frequently in communications with investors and firms. *See, e.g.*, Lawrence D. Fink, Larry Fink's Annual Letter to CEO's A Sense of Purpose, https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter ("In managing our index funds, however, BlackRock cannot express its disapproval by selling the company's securities as long as that company remains in the relevant index. As a result, our responsibility to engage and vote is more important than ever.")

[15] There is not only the possibility of asset flight to more active funds, but both within index fund classes and other index fund classes. *See, e.g.,* Ali Hortacsu & Chad Syverson, *Product Differentiation, Search Costs, and Competition in the Mutual Fund Industry: A Case Study of S&P 500 Index Funds,* 119(2) THE Q. J. o□ ECON. 403 (2004) (documenting the heterogeneity of index funds tracking the S&P 500).

done so by using their power of voice and vote. We document how passive investors are expending substantial resources in governance as well as coordinating with shareholder activists. And we cite the evidence, from a number of empirical studies that the effect of these efforts has been to improve both firm governance and performance.[16]

In Part III, we consider the implications of our theory for firm governance and capital markets regulation. Specifically, we show that, although proposals to disenfranchise or limit passive investors due to antitrust or governance concerns appear to be misguided, the rise of passive investors raises other potential concerns. We highlight those concerns and the potential regulatory issues they raise.

Before we begin, a caveat. We are not arguing that passive investment is superior to active managers or other types of ownership.[17] What we are arguing is that, based on our theoretical conclusions, prior criticisms of passive investors appear unfounded and passive investors have stewardship incentives that are as strong or arguably superior to those of active funds.[18] The evidence to date suggests that passive investors provide economic value on the whole, and our framework provides institutional and theoretical support for these conclusions. Our results are therefore best viewed as foundational, paving the way for further research in this area as well as guiding early policy makers.

I. A Theory of Passive Investor Incentives

In this Part, we offer a comprehensive theory of the incentives of passive investors, informed by the institutional context in which they operate. In Section A, we provide critical background on the institutional context, a context that has been largely ignored by existing academic research. In Section B, we explain that, as a result of this context, passive funds compete for investors both against other passive funds and against active funds and that this

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[16] *See, e.g.,* Ian Appel, Todd A. Gormley & Donald B. Keim, *Standing on the Shoulders of Giants: The Effect of Passive Investors on Activism* (Feb. 2, 2018), available at SSRN: https://ssrn.com/abstract=2693145 (finding that higher passive ownership is associated with more vigorous hedge fund activism in seeking director positions, proxy fights, settlements and the sale of the firm); Ian Appel, Todd A. Gormley & Donald B. Keim, *Passive investors, not passive owners*, 121 J. FIN. ECON. 111 (2016) (finding that the presence of increased ownership by passive investors results in more independent directors, removal of takeover defenses, and more equal voting rights as well as better long-term performance); Andrew Bird and Stephen Karolyi, *Do institutional investors demand public disclosure?*, 29 REV. O FIN. STUD. 3245 (2016) (finding that increased ownership by passive investors "significantly increases the information content of 8-K filings"); Audra Boone and Joshua T. White, *The effect of institutional ownership on firm transparency and information production*, 117 J. FIN. ECON. 508 (2015) (finding that increased passive ownership is associated with "greater management disclosure, analyst following, and liquidity, resulting in lower information asymmetry").

[17] We further note that the line between active and passive funds is not clear in that many funds that claim to be actively-managed closely resemble less expensive index funds. See, e.g., Owen Walker, *Closet tracker funds face tougher regulatory scrutiny*, FIN. TIMES, Apr. 8, 2018 (reporting "a global crackdown on so-called closet trackers"). For a methodology of evaluating the extent to which a mutual fund is actively managed, see K. J. Martijn Cremers & Antti Petajisto, *How Active Is Your Fund Manager? A New Measure That Predicts Performance*, 22 REV. FIN. STUD. 3329 (2009) (developing "Active Share" a measure of active fund management).

[18] We are aware of arguments that active funds do not engage in substantial stewardship or oversight, but we think that this argument is inapposite in this context as our argument is a comparative one.

competition is not based exclusively on an effort to minimize fees. In Section C, we show that competition among funds incentivizes passive investors to take measures to improve the performance of under-performing companies in their portfolio. In Section D, we analyze how these incentives lead passive investors to invest in governance and stewardship. In Section E, we consider the effects of this competition on price efficiency and capital market discipline.

Importantly, our analysis is a comparative one. We do not argue that passive investors have perfect incentives to engage in stewardship. The rise of passive investment has caused commentators to focus on the specific question of whether the stewardship incentives of active fund managers are superior to those of passive fund managers.[19] Thus, we focus on the incentives of passive investors relative to the imperfect incentives of active mutual funds. We do not traverse the well-trod general topic of the participation of institutional investors in corporate governance.[20]

A. The Institutional Context of Passive Funds

A mutual fund or ETF[21] is simply a pool of liquid assets – assets that may include, stocks, bonds, cash and other types of investments.[22] The value of the mutual fund, commonly described as net asset value or NAV, is the value of the assets owned by the fund.[23] Mutual funds themselves have no independent operations or employees, and the operational decisions of the fund are made by external service providers.[24] Funds themselves do not make money – the fees that they collect go, in part, to pay for services such as investment advice and administrative support, with the remainder going to the fund sponsor.[25] The mutual fund sponsor is the

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[19] *See* Lund, *supra* note **Error! Bookmark not defined.**~~6~~ (arguing that active funds have better incentives to monitor and that, as a result, passive funds should not be allowed to vote the shares of their portfolio companies).

[20] In particular, we do not address the generic concern that mutual funds, as a whole, prefer to free-ride off the actions of other investors, such as activists. *See, e.g.,* Marcel Kahan & Edward Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. PENN. L. REV. 1021 (2007) (observing that gains from a fund's effort to improve a company's performance will be shared by all the company's shareholders). Nor do we consider the relative incentives of mutual funds versus activists to influence corporate decision-making in ways that maximize firm value.

[21] Technically, both mutual funds and ETFs are investment companies. *See* Eric D. Roiter, *Disentangling Mutual Fund Governance from Corporate Governance*, 6 HARV. BUS. L. REV. 1, 12 (2016) (explaining that "The term 'mutual fund' is a market term" as is the term 'ETF.'").

[22] *See* Fisch, *supra* note 12~~13~~, at 1968.

[23] *See* Jill Fisch & Eric Roiter, *A Floating NAV for Money Market Funds: Fix or Fantasy?*, 2012 U. ILL. L. REV. 1003, 1008 (explaining the calculation of NAV).

[24] *See* Fisch, *supra* note 12~~13~~, at 1968.

[25] Shares in the mutual fund are offered by fund sponsors, which offer investors a menu of different types of funds. *See generally* SEC, *Mutual Funds*, Dec. 14, 2010, available at https://www.sec.gov/fast-answers/answersmutfundhtm.html (explaining that shares in a mutual fund are offered by fund sponsors, which offer investors a menu of different types of funds. *See also* John P. Freeman, Stewart L. Brown & Steve Pomerantz, *Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Test*, 61 OKLA. L. REV. 83, 84-85 (2008) (explaining that "While fund advisers or their affiliates typically derive revenue from distributing the fund's shares or performing other administrative services (such as serving as the fund's transfer agent), advisory income from portfolio management is the fund adviser's profit center.").

company, typically a financial services company,[26] that establishes and sells mutual fund shares. It is important to distinguish the interests from the fund itself from those of the fund sponsor.[27] Sponsors, with the exception of Vanguard, [28] are typically public companies such as BlackRock[29] or private companies, such as Fidelity.[30] In either case, the net fees generated by funds generate a profit for the sponsor's shareholders. The goal of the sponsor is to maximize this profit.

Funds charge their investors an annual fee or expense ratio which is calculated as a percentage of the assets that a particular fund manages – assets under management.[31] Expense ratios vary substantially within the industry and even within a single mutual fund sponsor. As a result, a small fund that charges a higher fee may be more profitable to a sponsor than a fund with a very low fee and more assets under management. The offerings of fund sponsors differ substantially but typically include a mixture of passive and active funds.[32] Some sponsors such

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[26] Most fund sponsors are independent fund advisers, but mutual funds are also sold by banks, insurance companies and brokerage firms. *See* Investment Company Institute, 2016 ICI FactBook at 15.

[27] *See, e.g.*, John Morley, *Too Big to be Activist*, working paper (2018) (noting that it is "easy to conflate Fidelity with its various clients, but we must nevertheless keep them conceptually distinct").

[28] Vanguard is a special case. The Vanguard Group, the fund sponsor, is owned by its mutual funds, and the sponsor therefore provides services to the funds at cost. *See* Vanguard, *Why Ownership Matters*, available at https://about.vanguard.com/what-sets-vanguard-apart/why-ownership-matters/ (describing Vanguard's ownership structure).

[29] *See* BlackRock, *Our History*, available at https://www.blackrock.com/corporate/about-us/blackrock-history (explaining that BlackRock became a public company in 1999 and that its shares are listed on the New York Stock Exchange).

[30] *See* Tim McLaughlin, *How the owners of Fidelity get richer at everyday investors' expense*, Reuters, Oct. 5, 2016, https://www.reuters.com/investigates/special-report/usa-fidelity-family/ (explaining that "Fidelity Investments is owned by privately held FMR LLC, which is controlled by the Johnson family.").

[31] Some funds also charge other types of fees such as loads and 12b-1 fees. *See* Fisch, *supra* note 12~~13~~ at 1961 (discussing loads and 12b-1 fees). This article focuses on the expense ratio which reflects the ongoing cost to investors and the ongoing revenue to fund sponsors.

[32] Sponsors vary tremendously. Some sponsors limit their business to mutual funds, some engage in a broader range of asset management activities, and others engage in other activities that may include banking, investment banking and more. For example, both Goldman Sachs and Deutsche Bank offer ETFs. *See* Asjylyn Loder, *Goldman's $3 Billion Drop in the ETF Bucket*, Wall St. J., Mar. 2, 2017, https://www.wsj.com/articles/goldmans-3-billion-drop-in-the-etf-bucket-1488483434; Asjylyn Loder, *ETFs Provide Some Good News at Deutsche Bank*, Wall St. J., Feb. 27, 2017, https://www.wsj.com/articles/etfs-provide-some-good-news-at-deutsche-bank-1488191402. *See also* Morley, *supra* note 27~~28~~(observing that some fund sponsors generate substantial revenue from offering hedge funds, providing running separately managed accounts, and administering 401(k) plans).

as Vanguard specialize in passively-managed funds; [33] others, such as Fidelity[34] and T. Rowe Price, focus more on active management.[35]

Consequently, the role and economic significance of passive funds within a sponsor's overall business model varies. Vanguard's business model is driven by an effort to be the low-cost leader overall, and Vanguard advertises the fact that its average fund expense ratio is well below the industry average.[36] In contrast, fund sponsors that charge higher fees can generate substantial revenues even if they attract a far smaller volume of assets. To understand a fund sponsor's incentives, it is critical to understand the relative role of passive funds and active funds in generating revenues for any particular fund sponsor. BlackRock, which is currently the largest global asset manager with almost $6 trillion in assets under management, for example, manages three quarters of that money in passive funds.[37] Yet the fees generated by BlackRock's actively-managed products are roughly equivalent to those generated by its much larger passive funds.[38] In addition, a sponsor may adjust the mixture of funds that it offers in response to business conditions or market developments. For example, State Street, which is known for its indexing, recently announced that current market conditions may favor shifting assets to actively-managed funds.[39] For a given family then, the business model involves both navigating the potential loss of assets to other fund families and maximizing the potential revenue from existing customers.[40]

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[33] Even Vanguard, which is typically considered a pure passive investor, offers a mix of active and passive funds. For example, as of March 2018, Vanguard offered 129 mutual funds, of which, according to its website, 67 were actively-managed funds. *See Vanguard Mutual Funds,* https://investor.vanguard.com/mutual-funds/list#/mutual-funds/asset-class/month-end-returns. Active assets account for approximately 30% of Vanguard's total assets under management, with a dollar value of more than $1 trillion. *See* Vanguard, *Vanguard believes in active management*, https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article/InvComActiveMgmtInfographic

[34] Fidelity offers investors over 200 mutual funds of which 22 are index funds. Fidelity, *Why Fidelity Funds?*, available at https://www.fidelity.com/mutual-funds/why-fidelity-funds. Fidelity's index funds include domestic and international equity funds, bond funds, and a real estate fund. *Id.* Fidelity customers are shifting an increasing percentage of their assets to the index funds. Tirthankar Chakraborty, *Vanguard vs Fidelity: Fee War Heats Up*, NASDAQ, Aug. 25, 2017, https://www.nasdaq.com/article/vanguard-vs-fidelity-fee-war-heats-up-cm837199

[35] *See* T. Rowe Price, *Time-tested and disciplined. The T. Rowe Price approach to active management*, available at https://corporate.troweprice.com/ccw/jsp/pages/active-management/investment-approach.jsp (describing T. Rowe Price's "commitment to active management"). Even T. Rowe Price, however, offers several index funds. *See, e.g.*, T. Rowe Price, *Mutual Fund Research Tool*, available at https://www3.troweprice.com/fb2/mfpathways/pathways.otc?facets=domesticStock,intStock (describing T. Rowe Price Equity Index 500 Fund).

[36] *See* Vanguard, *Why Ownership Matters*, available at https://about.vanguard.com/what-sets-vanguard-apart/why-ownership-matters/ (noting that Vanguard's average asset-weighted expense ratio in 2016 was .12% and that the industry average was .62%). *See also* Owen Walker, *Vanguard's Campaign to Drive Down Fees Runs Out of Road*, FIN. TIMES, March17, 2018 (noting that Vanguard "has led the way in cutting fees over the past decade").

[37] Chris Flood, *BlackRock's rivers of gold from active management*, FIN. TIMES, Oct. 14, 2017, https://www.ft.com/content/f62ed0c2-ada1-11e7-beba-5521c713abf4

[38] *See id.* (reporting that BlackRock's active funds generated $1.32 billion in the third quarter of 2017 and that its passive funds generated $1.33 billion).

[39] *See* Bailey McCann, *Surprising Cry From an Index Firm: 'Go Active,'* WALL ST. J., Apr. 8, 2018.

[40] For some fund complexes, a cheap index fund can be a loss leader designed to get investors to bring their entire portfolio to the fund family with the goal of attracting investment in the complex's other more-costly fund options. *See, e.g.*, Ben Johnson, *Penny-Pinching Index Fund Investors May Pay a Price, Morningstar*, Apr. 14, 2017,

These business decisions are made in the context of a highly competitive market.[41] As of the end of 2016, there were approximately 850 fund sponsors.[42] These sponsors compete to offer over 9,500 different mutual funds to investors.[43] The asset class of passive funds itself demonstrates substantial variation.[44] Although the term passive fund typically evokes an S&P 500 index fund, the universe of market indexes has exploded to the point where there are now more indexes than publicly-traded U.S. stocks.[45] The new indexes often provide a way of converting what has traditionally been active investment strategy into a rule-based approach, using custom criteria such as high dividends or low volatility.[46] These strategies have been termed "smart beta" strategies.[47] Although the costs of smart beta and other more sophisticated passive funds are lower than those of traditional active funds, they are substantially higher than S&P 500 index funds.[48] The proliferation of indexes and index-based investment strategies has led some commentators to argue that there is, in fact, "no such thing as passive investing."[49]

B. Passive Fund Competition

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http://www.morningstar.com/articles/802512/pennypinching-index-fund-investors-may-pay-a-price.html ("In many settings, these low-cost building blocks are simply loss leaders, a cheap gallon of milk meant to entice consumers into the store in hopes that they'll grab some Cheetos and a pack of gum before they get to the counter.").

[41] *See generally* John C. Coates IV & R. Glenn Hubbard, *Competition in the Mutual Fund Industry: Evidence and Implications for Policy*, 33 IOWA J. CORP. L. 151, 153 (2007) ("review[ing] the structure, performance and dynamics of the mutual fund industry, and show[ing that] they are consistent with competition")

[42] *Id.* at 16.

[43] At the end of 2016, there were 9511 mutual funds in the U.S. *See Number of mutual funds in the United States from 1997 to 2016*, Statista, https://www.statista.com/statistics/255590/number-of-mutual-fund-companies-in-the-united-states/

[44] Recently, for example, the NYSE listed for trading the NYSE Pickens Oil Response ETF, an ETF that "reflects the investment philosophy of legendary oilman and energy investor T. Boone Pickens," but is nonetheless classified as an index fund. *See, e.g.*, Tom DiChristopher, *Legendary oilman T. Boone Pickens inspires new ETF with the 'BOON' fund*, CNBC, Feb. 28, 2018, available at https://www.cnbc.com/2018/02/28/legendary-oilman-t-boone-pickens-inspires-new-etf-with-the-boon-fund.html.

[45] *See, e.g.*, *There Are Now More Indexes Than Stocks*, BLOOMBERG NEWS, May 12, 2017 https://www.bloomberg.com/news/articles/2017-05-12/there-are-now-more-indexes-than-stocks (documenting that, as of May 2017, there were almost 5000 stock indexes).

[46] *See, e.g*. Jason Stoneberg & Bradley Smith, *Getting smart about beta*, Invesco white paper, https://www.invesco.com/static/us/financial-professional/contentdetail?contentId=634ff6163339f410VgnVCM100000c2f1bf0aRCRD (describing smart beta strategies and evidence suggesting they outperform traditional indexing).

[47] *See There are Now More Indexes*, *supra* note 43.

[48] *Id.*

[49] Dani Burger, *Investing in Index Funds Is No Longer Passive*, BLOOMBERG, Feb. 27, 2018, https://www.bloomberg.com/news/articles/2018-02-27/passive-becomes-the-new-active-as-indexing-rules-everything.

Although two funds that track the same index compete with each other based on cost[50] and tracking error,[51] passive funds, and more accurately the sponsors that offer these funds, also compete with each other and with active funds for existing assets based on performance. This form of competition, we argue, provides passive investors with the incentive to use their governance rights to target underperforming companies in their portfolio.

The competition among passive funds, as well as the competition between active and passive funds is based on the relationship between the market rate of return (what the passive funds offer) and the return that actively managed funds can offer their investors on a cost-adjusted basis.[52] The finance literature has shown that mutual fund assets flows respond to past performance.[53] If the passive fund cannot offer a better rate of return than the active fund, investors will flee to active funds.[54] Mutual fund investors have an ongoing option to exit the fund at fair value or NAV, and a fund's NAV is unaffected by investors' expectations about the fund's future fees or performance.[55]

As a result of this competition, investors have a broad range of options. If a particular index product is not producing an attractive return, investors can migrate to an alternative index product or to an actively-managed fund. Even within employer-sponsored retirement plans, investors typically have a substantial number of investment options.[56] The fact that this competition between active and passive funds persists, even with the dramatic inflows into passive funds is evidenced by the fact that some actively-managed funds with strong

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[50] *See, e.g.*, Tirthankar Chakraborty, *Vanguard vs Fidelity: Fee War Heats Up*, Nasdaq, Aug. 25, 2017, available at https://www.nasdaq.com/article/vanguard-vs-fidelity-fee-war-heats-up-cm837199 (describing competitive cost-cutting between Fidelity and Vanguard's S&P 500 index funds).

[51] *See, e.g.*, Weinberg, *supra* note 8~~9~~ (observing that returns of two otherwise identical index funds can differ due to tracking error).

[52] *See, e.g.*, Martin Cremers & A. Petajisto, *How active is your fund manager? A new measure that predicts Performance*, 22 REV. FIN. STUD. 3329 (2009) (demonstrating that mutual funds whose holdings differ most from their benchmark tend to outperform that benchmark net of fees).

[53] *See, e.g.*, Jonathan Berk & Jules H. van Binsbergen, *Mutual Funds in Equilibrium* (Feb. 9, 2017), https://ssrn.com/abstract=2914669 ("fund flows into mutual funds are known to be highly predictable based on past performance"); C. Wei Liy, Ashish Tiwariz & Lin Tong, *Investment Decisions under Ambiguity: Evidence from Mutual Fund Investor Behavior*, 63 MGMT. SCI. 2509 (2016) (describing the "the well-documented phenomenon of performance-chasing by fund investors").

[54] The finance literature provides reasons to believe performance-chasing by mutual fund investors is rational. *See, e.g.*, Jonathan B. Berk and Richard C. Green, *Mutual Fund Flows and Performance in Rational Markets*, 112 J. POLIT. ECON. 1269 (2004) (providing rational explanation for investors to chase past performance by mutual funds). Indeed, sscholars have documented that assets flow into a successful fund but that, because the fund adviser's ideas are finite, eventually investors will no longer receive an excess return. *See* Berk & van Binsbergen, *supra* note 53 (explaining that, for mutual funds, "this equilibrium is reached by increasing the size of the fund."). The growth in the size of a successful fund enables the fund managers to receive a return on the skill that they invest, even as the returns of the fund revert to the mean. *See* Hyunglae Jeon, Jangkoo Kang & Changjun Lee, *Precision about manager skill, mutual fund flows, and performance persistence*, 40 N. AM. J. ECON. & FIN. 222 (2017).

[55] *See, e.g.*, Morley & Curtis, *supra* note 9~~10~~ at 89 (explaining that a mutual fund's "NAV is unaffected by expectations about future fees or portfolio changes").

[56] *See, e.g. The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans*, 2014, at 32 (Dec. 2016), available at https://www.ici.org/pdf/ppr_16_dcplan_profile_401k.pdf (reporting that, in 2014 the average 401(k) plan offered investors 21 investment options (counting target date funds as a single investment option)).

performance continue to attract substantial new assets and are also able to charge fees that are considerably higher than those charged by index funds.[57]

The conventional view, which focuses on the competition between passive funds tracking the same index, holds that passive investors are largely indifferent to the performance of companies in their portfolio.[58] Our analysis, in contrast, suggests that passive funds are in competition not only with other passive funds and but also with active funds.[59] This competition provides them with incentives to keep performance at a certain rate of return and engage in corporate governance and other firm influencing activities. More specifically, for reasons we explain in the next Section, passive investors have incentives to improve the bottom of their component index -- the underperforming companies. By improving on the bottom, a passive index fund attempts to prevent flight to active funds and other indexes.

The insight that passive funds constantly compete for fund investors also provides reasons to question the traditional story about the time horizons of passive and active funds. The conventional wisdom is that passive investors invest for the very long term, since they hold stock for an eternal time horizon and because of the high percentage of their assets that represent retirement savings.[60] Indeed, passive fund sponsors have consistently highlighted their nearly perpetual time horizon.[61]

In contrast active funds are sometimes accused of being short-termist. Given their fee structure,[62] mutual funds have an incentive to increase assets under management. To the extent that investors assess fund performance based on short-term past returns, active funds have an incentive to focus on short-term gains to beat the returns of their benchmark on quarterly or yearly basis, as well as the returns of their competitors.[63] Passive investors do not evaluate firm

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[57] *See, e.g.*, Lee Conrad & Andrew Shilling, *Fund flows: Who's the big winner YTD?*, FINANCIAL PLANNING, Dec. 13, 2017, available at https://www.financial-planning.com/slideshow/mutual-funds-and-etfs-with-the-biggest-net-flows-ytd#slide-1 (documenting funds with substantial inflows in 2017). For example, Oakmark International Investor, an actively-managed fund with an expense ratio of almost 1%, attracted $9.7 billion in new investments in 2017 and, in early 2018, closed to new investors). *See* Greg Carlson, *Oakmark International Announces Soft Close*, MORNINGSTAR, Jan. 30, 2018, http://www.morningstar.com/articles/845771/oakmark-international-announces-soft-close.html (reporting fund's announcement that it was closing to new investors).

[58] An increase in company value has a direct effect on passive (and active) fund fees, as it increases assets under management. This direct effect, however, does not provide mutual funds with powerful stewardship incentives given collective action problems and the fact that sponsor fees are not based on investment returns. *See* Kahan & Rock, *supra* note 15.

[59] And to a degree, with other passive funds.

[60] *See, e.g.*, Leo E. Strine, Jr., *Can We Do Better by Ordinary Investors? A Pragmatic Reaction to the Dueling Ideological Mythologists of Corporate Law*, 114 COLUM. L. REV. 449, 477 (2014) (arguing that "the bulk of the stockholder vote is wielded by mainstream mutual funds, most of whose investors are retirement savers").

[61] *See, e.g.*, letter sent by F. William McNabb III, *Vanguard's Chairman and CEO, to the independent leaders of the boards of directors of the Vanguard funds' largest portfolio holdings*, dated Feb. 27, 2015, available at https://about.vanguard.com/investment-stewardship/CEO_Letter_03_02_ext.pdf ("More than half of the money that we manage is in index equity funds and represents essentially permanent investments in our portfolio companies."); Fink, *supra* note 14 ("index investors are the ultimate long-term investors – providing patient capital for companies to grow and prosper.")

[62] And the compensation structure of mutual fund portfolio managers.

[63] *See, e.g.*, Erik Sirri & Peter Tufano, *Costly Search and Mutual Fund Flows*, 53 J. FIN. 1589 (1996).

value over a specific short or long time-frame. Rather, because of the threat of investor flight, passive funds must "mind the gap" between the value of the market portfolio and that offered by an active fund over an indefinite time frame.

Our theory, however, leads to a more nuanced account of the time horizon of passive investors. Passive funds cannot take advantage of trading opportunities and, as a result, they do not raise the same concerns about shareholder agency costs that other investors, like hedge funds, might. Yet, although the money invested in passive funds is largely invested for the long term, the time horizon of passive investors is more indeterminate. If our theory is correct that passive investors worry about flight from their index products, then passive funds' managers might have incentives to produce short-term returns. The consequence is that these funds have mixed time horizons, an issue that we will explore in more detail in Part III.

C. The Focus on Underperforming Companies

The comparative advantage of active funds is that they exercise discretion in making investment decisions. They conduct research in the form of investigating and picking stocks. Moreover, because active funds have discretion, they can overweight good companies and underweight bad ones. In a world where at least some poorly performing companies tend to underperform consistently, an active fund can avoid these companies even in a semi-efficient capital market. In contrast, an index fund does not have a choice over the companies it holds or their relative weight in its portfolio. Put differently, it must invest in the bad companies along with the good ones. As a result, passive investors can only maintain an investment edge against active funds if they take measures to neutralize the comparative advantage enjoyed by active funds through their ability to exit.

Because passive funds lack the exit remedy available to active funds, they have an incentive to strengthen the performance of the "bad" companies in their portfolio.[64] Moreover, because of their business model, passive funds are likely to focus on underperforming firms - bringing up the bottom. Passive funds cannot expect to win the competition against active funds by producing stars, that is companies which outperform the index because they cannot overweight their portfolio with those companies and gain an advantage relative to their competitors. In addition, because they hold a relatively large number of companies, passive investors cannot easily identify the firm-specific qualities that would enable them to prompt companies to outperform. Instead, passive investors will focus on bad firms, attempting to improve their performance through broad-based strategies that rely on common principles such as improving transparency, risk management and governance. In addition to improving the return of the passive funds, this strategy reduces the advantage that active funds enjoy through exit.[65]

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[64] *See* ALBERT O. HIRSHMAN, EXIT, VOICE AND LOYALTY: RESPONSES TO DECLINE IN FIRMS, ORGANIZATION AND STATES 46 (1972) (explaining that investors will employ exit rather than voice if exit is an option).

[65] This attention to outliers might bias the focus of passive funds in terms of voice.

To understand this focus on underperformers, imagine if a fund's business model were premised on obtaining higher returns from the better performing stocks in its portfolio. To increase this performance, the fund would have to engage in active monitoring and expend substantial sums to understand the business and operations of a single firm. The fund would then have to use those resources to improve an already high-performing firm. Specifically, the fund would have to be able to identify operational changes that the existing high performing managers failed to identify. As scholars have observed, although activist hedge funds may be able to perform this task, mutual funds lack both the economic incentives and the mechanisms to do so.[66]

In contrast, with poorly performing firms, passive funds need not generate an improved business strategy. Funds can use low-cost corporate governance initiatives to address chronic underperformance or strengthen market discipline. These initiatives might involve increasing board independence to limit managerial agency costs, calling for increased pay-performance sensitivity to improve the incentive-compatibility of executive compensation, or seeking changes in a corporation's disclosures to facilitate risk management. Passive funds may also support structural changes that facilitate firm-specific interventions by activist shareholders. For example, passive funds might support governance changes like majority voting or proxy access that make it easier to change corporate leadership following poor performance. That leadership change might be a replacement of existing directors or the CEO. Commonly the identification and production of these leaders comes not from the passive funds but from through activist shareholders who work with these funds and who, through their concentrated ownership stake in the company, can obtain an above-market return from their activism.

The focus on underperforming firms is also a consequence of the limitations of passive funds. Good governance, by itself, does not produce visionary leaders who outperform the market. But the passive funds' goal is not outperformance; instead, the goal is for the fund to earn a sufficient return to prevent capital flight to active funds or alternatively composed competing indexes. This focus on governance is particularly acute since passive funds cannot overweight winners.

D. Passive Investors and Governance

Since they cannot sell underperforming companies, passive investors' only avenue for improving performance is employing voice. More specifically, passive funds act through engagement and voting. Our analysis, therefore, has at least two implications. First, passive funds have an incentive to use their voice to improve the performance of underperforming companies in their portfolio. Because governance is the passive funds' only outlet to improve

[66] *See, e.g.*, Jill E Fisch, *Relationship Investing: Will It Happen? Will It Work?*, 55 Ohio St. L.J. 1009, 1024 (1994) (arguing that, because its competitors are able to free-ride on an institutional investor's monitoring, that monitoring "diminishes the institutional investor's returns relative to the market as a whole."); Bernard S. Black, *Shareholder Passivity Reexamined*, 89 Mich. L. Rev. 520, 523 (1990) (arguing that "institutional shareholders are hobbled by a complex web of legal rules that make it difficult, expensive, and legally risky to own large percentage stakes").

underperforming firms, it becomes passive funds' comparative advantage. In turn this leads passive investors to dedicate greater resources to governance, including the evaluation of corporate governance measures, the informed exercise of their voting rights, and meeting directly with corporate insiders. Second, the growth in passive funds is likely to transform the governance landscape. Since passive funds cannot exit their investment in underperforming companies, they have an incentive to ensure that companies in their portfolio are more responsive to shareholder demands, and their growing size gives them the voting power to demand that responsiveness.

In this Section, we identify several features that make passive investors more likely to engage in governance effectively. First, the business model of passive investors, with its emphasis on larger size and lower costs supports economies of scale.[67] Due to economies of scale, large funds can charge lower fees,[68] thereby becoming more attractive for investors. The three largest asset managers today are the big three – BlackRock, Vanguard and State Street -- and the majority of the assets that they manage are invested in passive funds.[69] Because of their substantial size, these large fund sponsors own substantial stakes in their portfolio companies and are less likely than active ones to suffer from collective action problems of smaller shareholders.[70] Even though the overall expense ratios at the passive funds are low, because of their large size, they nonetheless generate substantial fees for their sponsors, enabling them to devote substantial resources to governance.[71]

Passive investors own the entire market and therefore also enjoy economies of scale in evaluating governance provisions, because the same governance provisions are likely to be in play at multiple companies within the passive fund's portfolio. Thus passive investors are particularly well-placed to evaluate provisions such as proxy access, forum-selection bylaws, or staggered boards and to determine whether these provisions are likely, as a general matter, to

[67] *See, e.g.*, Stewart L. Brown, *Mutual Fund Advisory Fee Litigation: Some Analytical Clarity*, 16 J. BUS. & SEC. L. 329, 351 (2016) ("Economies of scale exist and are substantial in the portfolio management process.").

[68] *See* ICI 2017 Factbook at 94.

[69] *See* Mutual Fund Directory.Org, http://mutualfunddirectory.org/ (reporting that, as of 3/12/18, the largest three mutual fund companies were BlackRock, Vanguard and State Street.). Notably, the next three, in terms of size, Fidelity, JP Morgan and BNY Mellon, rely more heavily on active management.

[70] *Cf.* Elliott J. Weiss & John S. Beckerman, *Let the Money Do the Monitoring: How Institutional Investors Can Reduce Agency Costs in Securities Class Actions*, 104 YALE L.J. 2053, 2111-12 (1995) (explaining, analogously, that institutional investors' large stakes make it rational for them to participate actively in shareholder litigation).

[71] We detail passive investors investments in engagement and governance in Part II below. *See* notes __ through __ *infra* and accompanying text.

increase or decrease firm value at the majority of portfolio companies.[72] Moreover, they are more likely to internalize any spillover effects that may arise from governance provisions.[73]

The ability of passive investors to exercise influence through voting is facilitated by the increasing importance of shareholder voting rights.[74] Dodd-Frank implemented a requirement that issuers allow shareholders the opportunity to vote on executive compensation.[75] Shareholder proposals have broadened in scope, putting a wide range of topics before the shareholders.[76] Modifications to the process of electing directors, such as proxy access and majority voting, have made shareholder votes on director elections more significant.[77] And changes to state corporate law have increased the legal significance of shareholder voting with respect to a range of issues, including approval of mergers and the structure of director compensation plans.[78] Voting on all these issues offers passive investors a powerful tool to pressure issuers for change and enables institutional investors to signal their dissatisfaction with specific issuer policies and, more generally, with the issuer's economic performance. [79]

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[72] We explicitly recognize that governance provisions may have differential effects at different companies, and that passive investors may be poorly-positioned to identify firm-specific factors that might cause a governance provision to have a distinctive effect. *See* Matthew D. Cain, Jill E. Fisch, Sean J. Griffith & Steven Davidoff Solomon, *How Corporate Governance is Made: The Case of the Golden Leash*, 164 U. PENN. L. REV. 649, 697-98 (2016) (presenting evidence that "governance provisions have heterogeneous effects depending upon firm-specific characteristics and investor perception of those characteristics). This limitation has led to the criticism that passive investors take a "one-size-fits-all" approach to corporate governance.

[73] *See, e.g.*, Andrea Pawliczek & A. Nicole Skinner, *Common Ownership and Voluntary Disclosure* (Jan. 22, 2018) available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3002075; Jie He, Jiekun, & Shan Zhao, *Internalizing Governance Externalities: The Role of Institutional Cross-Ownership* (May 12, 2017) available at SSRN: https://ssrn.com/abstract=2940227 or http://dx.doi.org/10.2139/ssrn.2940227

[74] *See, e.g.*, Jill E. Fisch, *Standing Voting Instructions: Empowering the Excluded Retail Investor*, 102 MINN. L. REV. 11, 14 (2017) (observing that "Recent regulatory changes and the rise of shareholder activism have made shareholder voting power increasingly important.").

[75] *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 951, 124 Stat. 1376 (2010) (codified at 15 U.S.C. § 78n-1).

[76] *See, e.g.*, Trinity Wall St. v. Wal-Mart Stores, Inc., 792 F.3d 323 (3d Cir. 2015) (evaluating obligation of issuer to include shareholder proposal seeking to have issuer develop standards regarding the sale of firearms); Deere & Company, 2015 SEC No-Act. LEXIS 481 (Dec. 3, 2015) (considering shareholder proposal requesting an annual report to the shareholders on the corporation's political activity); Exxon shareholders approve measure on climate-change report, CNBC, May 31, 2017, http://www.cnbc.com/2017/05/31/exxon-steps-up-efforts-to-sway-shareholders-on-climate-report-vote.html (reporting on shareholder proposal requesting that the company report on "the impact on its business of compliance with global climate change guidelines.").

[77] *See, e.g.,* Stephen Choi, Jill Fisch, Marcel Kahan & Edward Rock, *Does Majority Voting Improve Board Accountability?*, 83 U. Chi. L. Rev. 1119 2016) (describing shift from plurality to majority voting).

[78] *See, e.g.*, Corwin v. KKR Financial Holdings, 125 A.3d 304, 306 (Del. 2015) (limiting litigation exposure for merger approved by fully-informed shareholder vote); Cambridge Ret. Sys. v. Bosnjak, 2014 Del. Ch. LEXIS 107 (Del. Ch. 2014) (applying waste standard of review to dismiss challenges to outside directors' equity awards where awards had been approved by shareholder vote).

[79] *See, e.g.*, Jill Fisch, Darius Palia and Steven Davidoff Solomon, *Is Say on Pay All About Pay? The Impact of Firm Performance*, HARV. BUS. L. REV. (forthcoming 2018) (documenting responsiveness of say on pay voting to both characteristics of compensation plans and issuers' overall economic performance).

In addition, passive investors are more likely to be pivotal. Their substantial holdings give them, in many cases, the power to swing the vote.[80] A fund's status as a pivotal investor not only increases its voting leverage but also reduces the cost of monitoring its investment because, as substantial shareholders, they are more likely to find corporate managers responsive to their requests for information. Similarly, because passive investors are pivotal voters in activist campaigns, activists are likely to approach them voluntarily in order to share their ideas and enlist their support. A well-documented highway of information runs between activist shareholders and the big three, as each trades information about underperforming firms.[81]

Indeed, because of their voting power, passive investors are able to serve as gatekeepers for hedge fund activism. As Ron Gilson and Jeff Gordon have observed, hedge funds typically purchase less than 10% of an issuer's shares and, as a result, cannot wage a successful campaign unless they have the support of passive funds.[82] Hedge funds, unlike passive funds, expend substantial resources identifying opportunities to improve the return of portfolio companies. Notably, studies have demonstrated that "hedge funds have aggressively intervened in corporate governance at firms seen as undervalued," precisely those firms for which it is rational for passive funds to support their efforts.[83] Index funds can mediate activist efforts by supporting them if and only if they believe the activist's strategy is likely to be successful.

Finally, passive funds do not engage in governance efforts in a vacuum. In most fund complexes, governance initiatives for active and passive funds, including engagement and voting decisions are undertaken by a centralized governance or stewardship committee.[84] It is rare for active funds to vote differently from passive funds in the same mutual fund complex for reasons that we discuss below. The fact that most mutual fund companies offer a combination of active and passive funds therefore provides the opportunity for efficient cross-subsidization due to the differing expertise between active and passive funds. Active funds benefit from the governance expertise of passive funds, while passive funds benefit from the firm-specific information generated by active investors in connection with stock-picking.

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[80] *See* Alon Brav, Wei Jiang and Tao Li, *Picking Friends Before Picking (Proxy) Fights: How Mutual Fund Voting Shapes Proxy Contests* (December 8, 2017), Columbia Business School Research Paper No. 18-16, available at SSRN: https://ssrn.com/abstract=3101473 or http://dx.doi.org/10.2139/ssrn.3101473.

[81] *See* David R. Beatty, How activist investors are transforming the role of public-company boards, McKinsey Client Alert (Sept. 2017) ("Collaboration between activists and traditional asset managers is changing the boardroom") available at https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-activist-investors-are-transforming-the-role-of-public-company-boards. *See also* Simi Kedia, Laura Starks & Xianjue Wang, *Institutional Investors and Hedge Fund Activism* (Sept. 2017), available at file:///C:/Users/steven/Downloads/InstitutionalInvestorsAndHedgeFundA_preview.pdf (finding that shareholder activism is more pervasive at firms with higher ownership by institutional investors).

[82] 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, 865 (2013).

[83] Paul H. Edelman, Randall S. Thomas & Robert B. Thompson, *Shareholder Voting in an age of Intermediary Capitalism*, 87 S. Cal. L. Rev. 1359, 1361 (2014). *See also* Alon Brav, Wei Jiang, Frank Partnoy & Randall Thomas *Hedge Fund Activism, Corporate Governance, and Firm Performance*, 63 J. Fin. 1729, 1730 (2008) (explaining that "Hedge fund activists tend to target companies that are typically 'value' firms").

[84] By itself, the fact that active funds generally separate the governance from investment function suggests that even active funds do not rely much on firm-specific research in making most voting decisions.

These institutional features cause passive investors to be more likely to invest in stewardship, and especially in governance. Moreover, these features also make passive investors more likely to engage in *market-wide* initiatives to improve governance. The existing literature has failed to recognize that action at the firm level is not the only option for passive investors. Index funds can push for governance policies that are reflected in ISS voting recommendations or private standard-setters' principles of good governance. In turn, these governance policies enable passive funds, together with their activist partners to respond more easily to under-performance. As our theory suggests, passive investors are more likely than active ones to expend resources on such governance initiatives.

In addition, passive funds can bring their governance focus to bear on listing rules or the composition of the indexes themselves. Recently certain major equity index funds successfully persuaded the S&P Dow Jones and the FTSE Russell to exclude shares of certain dual class companies from their indexes, including the prominent S&P 500 index.[85] This change was at the behest of some index funds and their investors who viewed dual class stock as an undesirable governance structure.[86] Because the index funds could not refuse to buy dual class companies, exclusion from the index was the only way to impose market discipline in opposition to the dual class structure. Mutual fund complexes can also offer alternative index funds which exclude certain classes of companies. Fidelity offers two sustainability index funds, and a shift by investors of substantial assets into these funds would create an incentive for issuers to adopt more sustainable business practices.[87] Similarly, in response to the recent controversy about the sale and manufacture of firearms following the Parkland shooting, BlackRock has suggested the development of "index-based portfolios that specifically exclude firearms manufacturers and retailers."[88] Although the creation, selection and modification of the indexes themselves enables passive investor to exert some degree of market discipline, shareholder voting is the primary vehicle by which passive investors attempt to influence underperforming companies.

E. Passive Investors and the Market

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[85] *See, e.g.*, CamberView Partners, *S&P and FTSE Russell on Exclusion of Companies with Multi-Class Shares*, Harv. L. Sch. For. On Corp. Gov. & Fin. Reg., Aug. 5, 2017, https://corpgov.law.harvard.edu/2017/08/05/sp-and-ftse-russell-on-exclusion-of-companies-with-multi-class-shares/ (reporting on the decision of the index providers to exclude the inclusion of new issuers with dual class structures "after substantive consultation with index users and other stakeholders").

[86] *See* Council of Institutional Investors, *Letter to MSCI Equity Index Committee*, Aug. 3, 2017 ("CII's membership includes strong supporters of passive index strategies, and we believe that major index providers have a critical role to play in preventing non-voting and multi-class equity structures from gaining unstoppable momentum"); Joann S. Lublin, *Big Investor Group to Push for End to Dual-Class Shares,* WALL ST. J., Jan. 31, 2017 (a group that includes BlackRock, State Street and Vanguard will push for a ban on dual class shares). As we explain in the last Part, BlackRock pushed for a ban on dual-class shares but objected to excluding such shares from stock indexes. This nuanced approach is explained by our thesis about passive funds compete with active ones for investors.

[87] *See* Fidelity, *Fidelity Launches First Two Sustainability-Focused Index Funds,* May 15, 2017, https://www.fidelity.com/about-fidelity/institutional-investment-management/first-two-sustainability-focused-index-funds (announcing the launch of the two ESG funds).

[88] Peter Smith, *BlackRock offers Clients ways to Opt out of US gun stocks*, REUTERS, Mar. 2, 2018.

Corporate law and governance rely on the informational efficiency of stock prices. The premise that stock prices reflect firm value drives the market for corporate control and guides courts and independent directors.[89] An important mechanism underlying market efficiency is trading. Informed investors sell overpriced stock, thereby pushing its price down to reflect its fundamental value (and vice versa).[90] Passive investors, however, have no discretion over the shares that they buy – they are required to buy the stock of all of the companies included in the applicable index.[91] Similarly, even if they believe some shares in their portfolio to be overpriced, passive investors cannot sell them. With passive investors comprising an increasingly large fraction of the market, the concern is that there will not remain enough investors to engage in information and price discovery and that market prices will become less efficient.[92]

Research has shown that index inclusion can lead to stock price changes that do not necessarily reflect fundamentals,[93] and that the prices of stock included in an index exhibit co-movement, as passive funds buy and sell all the stock comprising an index in response to fund inflows and outflows.[94] There is scant evidence, however, on the direct effect of passive investors on the informational efficiency of stock prices. One study, for example, found that an increase in holding by exchange traded funds is associated with less firm-level price efficiency.[95]

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[89] *See* Jeffrey N. Gordon, *The Rise of Independent Directors in the United States, 1950-2005: Of Shareholder Value and Stock Market Prices*, 59 STAN. L. REV. 1465 (2007) (independent directors look to stock prices as a signal of company value); Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 2018 WL 922139 (Del. Ch. Feb. 15, 2018) (holding, in an appraisal case, that the target's unaffected stock price could serve as a proxy for its fair value). *See also* Philip Bond, Alex Edmans, Itay Goldstein, *The Real Effects of Financial Markets*, 4 ANN. REV. FIN. ECON. 339 (2012).

[90] Trading by institutional investors is associated with informational efficiency of stock prices. *See* Ekkehart Boehmer & Eric K. Kelley, *Institutional Investors and the Informational Efficiency of Prices*, 22 REV. FIN. STUD. 3563 (2009); Alex Edmans, *Blockholder Trading, Market Efficiency, and Managerial Myopia*, 64 J. FIN. 2481 (2010) (blockholders' informed exit can lead share price to reflect firm value). *See also* Joseph A. Mccahery,Zacharias Sautner, and Laura T. Starks, *Behind the Scenes: The Corporate Governance Preferences of Institutional Investors*, 71 J. FIN. 2905, 2913 (2016) (survey findings suggest that selling shares because of dissatisfaction with performance or governance is quite prevalent. 49% of respondents sold because of the former and 39% the latter).

[91] A fund must also determine the weight to be given to each fund. Generally, index funds are either equal weighted or weighted by the market capitalization of the issuers in the index. *See, e.g.*, Rick Ferri, *No Free Lunch From Equal Weight S&P 50*0, FORBES, Apr. 29, 2013, https://www.forbes.com/sites/rickferri/2013/04/29/no-free-lunch-from-equal-weight-sp-500/#4452a6c73356 (explaining the difference between equal-weighted and cap-weighted funds).

[92] See, e.g. Steven D. Bleiberg, William W. Priest & David N. Pearl, *The Impact of Passive Investing on Market Efficiency*, white paper dated May 2017, http://www.nylinvestments.com/polos/MSEP38ll-051768130.pdf (reporting results of three studies claiming that the increase in passive investing is reducing the efficiency of market prices).

[93] *See, e.g.*, Stijn Claessens & Yishay Yafeh, *Comovement of Newly Added Stocks with National Market Indices: Evidence from Around the World*, 17 REV. FIN. 203 (2012); Eric Belasco, Michael Finke & David Nanigian, *The Impact of Passive Investing on Corporate Valuations*, 38 MANAGERIAL FIN. 1067 (2012) (flows into S&P 500 index funds affect valuations of companies within this index).

[94] *See* Vladyslav Sushko & Grant Turner, *The Implications of Passive Investing for Securities Markets*, BIS QUARTERLY REV. 113, 119 (March 2018).

[95] *See* Doron Israeli, Charles M. C. Lee & Suhas A. Sridharan, *Is There a Dark Side to Exchange Traded Funds? An Information Perspective*, 22 REV. ACCT. STUD. 1048 (2017) (finding that an increase in ETF is associated with increased trading costs and reduced firm-level pricing efficiency).

Another study arrived at more positive findings: that passive investors lead to better incorporation of systematic earning information.[96]

At this time, however, the case that passive investors undermine the informational efficiency of stock prices has not been made. To be sure, as existing research has shown, passive investment can produce some temporary pricing distortions.[97] Yet, empirical and theoretical research have shown that price discovery and efficiency only require a small number of active traders.[98] Even if passive investing comprised 60% or 70% of the market there would still be sufficient trading for price discovery.[99]

In addition, consistent with our theory, as a substantial percentage of the market becomes indexed, the gains from having an informational advantage increase.[100] Actively-traded mutual funds and hedge fund can exploit these gains[101] and, as a result, increase the fees that they charge relative to the fees charged by passive funds.[102] These potential gains increase the incentive of active funds to acquire information that will give them a trading advantage over index funds, and further increase the competition between active and passive funds.[103]

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[96] *See* Lawrence R, Glosten, Suresh Nallareddy & Yuan Zou, *ETF Activity and Informational Efficiency of Underlying Securities* (Jan. 5, 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2846157 (ETF activity increases informational efficiency as a result of timely incorporation of systematic earnings information).

[97] *See, e.g.*, Jeffrey L. Coles, Davidson Heath & Matthew C. Ringgenberg, *On Index Investing* (Oct. 19, 2017), available at https://papers.ssrn.com/abstract=3055324 (finding that index investing introduces noise into stock prices, but does not impact long-term price efficiency or trading by arbitrageurs).

[98] *See* Jonathan Berk & Jules H. van Binsbergen, Jules H., *Mutual Funds in Equilibrium* (February 9, 2017), available at https://ssrn.com/abstract=2914669; Bradford Cornell, *Passive investing and Market Efficiency*, J. o□ INVE□TING 7 (2017)

[99] *Cf.* Jason Zweig, *Are Index Funds Eating the World?,* WALL ST. J. BLOG, Aug. 26, 2016, http://jasonzweig.com/are-index-funds-eating-the-world/ (claiming that, because active funds trade so frequently, they will still set market prices even if the levels of passive ownership continue to rise).

[100] *See id.* ("in a market in which everyone has equal information, it must pay off for someone to make the extra effort to obtain superior information. So active management is unlikely ever to disappear").

[101] *See* Vladyslav Sushko & Grant Turner, *The Implications of Passive Investing for Securities Markets*, BIS QUARTERLY REV. 113, 120 (March 2018) ("greater anomalies in individual security prices would be expected to increase the gains from informed analysis and active trading, and thus spur more active investment strategies."). *See also* Sanford J. Grossman & Joseph E. Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70 Am. Econ. Rev. 393 (1980) (a model showing that market efficiency depends on the availability of gains from acquiring information).

[102] Several studies document the ability of some fund managers to outperform the market consistently. *See, e.g.*, Robert Kosowski et al., *Can Mutual Fund "Stars" Really Pick Stocks? New Evidence from a Bootstrap Analysis*, 61 J. FIN. 2551, 2553 (2006) (finding that a sizeable minority of mutual fund managers pick stocks well enough to cover their costs); Malcolm Baker Lubomir Litov, Jessica A. Wachter & Jeffrey Wurgler, *Can Mutual Fund Managers Pick Stocks? Evidence from Their Trades Prior to Earnings Announcements*, 45 J. FIN & QUANT. ANAL. 1111 (2010) (finding evidence that mutual fund managers can trade profitably due to their ability to forecast earnings-related fundamentals). Importantly, the finance literature finds that talented fund managers are able to capture the value of their skill through the fees they charge. See, e.g., Berk & van Binsbergen, supra note __ at 11.

[103] As one study observes, competition among similar funds reduces the ability of mutual fund managers to generate consistent outperformance. *See* Gerard Hoberg, Nitin Kumar & Nagpurnanand Pabhala, *Mutual Fund Competition, Managerial Skill, and Alpha Persistence*, REV. FIN. STUD. (forthcoming 2018). As a result, to the extent that active managers face less competition in a world in which a substantial percentage of assets are indexed, they should be able to outperform and to charge higher fees. *See id.*

II. The Passive Investor in Reality

The preceding Part set out our theory of passive investors. In this Part we document the institutional context and demonstrate how the behavior of passive investors is consistent with our theory.

A. How Governance works at a Mutual Fund Complex

Contemporaneous with the growth of passive investors has been their increasing involvement in corporate governance. Institutional investor participation in corporate governance began with the engagement of several large public pension funds – most visibly CalPERS.[104] Mutual funds, both passive and active, did not join in the initial efforts, and commentators offered a variety of reasons why mutual funds lacked the incentives to participate in efforts to improve the corporate governance of their portfolio companies.[105]

The SEC's 2003 adoption of a rule requiring mutual funds to disclose the voting of their portfolio company shares changed the situation.[106] Although the rule technically does not require mutual funds to vote on every issue that is submitted to the shareholders, as a practical matter, mutual funds now vote virtually all of their shares.[107] Blackrock for example states that it aims to vote 100% of its shares in 17,000 firms across 90 markets.[108] These votes and any policies underlying the voting are filed publicly with the SEC and tracked by others in the market, allowing mutual funds not only to express their voice at the firm level but to the entire market.[109]

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[104] *See* Stephen J. Choi & Jill E. Fisch, *On Beyond CalPERS: Survey Evidence on the Developing Role of Public Pension Funds in Corporate Governance*, 61 VAND. L. REV. 315 (2008) (describing CalPERS' leadership role and empirical research studying its effectiveness).

[105] *See, e.g.*, James Cotter, Alan Palmiter, & Randall Thomas, *ISS Recommendations and Mutual Fund Voting on Proxy Proposals*, 55 VILL. L. REV. 1, 8-10 (2010) (describing and offering reasons for traditional mutual fund passivity).

[106] *Disclosure of Proxy Voting Policies and Proxy Voting Records by Registered Management Investment Companies*, Securities Act Release No. 8188, Exchange Act Release No. 47,304, Investment Company Act Release No. 25,922 (Jan. 31, 2003)

[107] *See* Proxy Pulse 2017 Proxy Season Review (reporting that institutional investors voted 91% of their shares in the 2017 proxy season).

[108] *See* Blackrock, *Proxy Voting and Shareholder Engagement Q&A*, available at https://www.blackrock.com/corporate/literature/fact-sheet/blk-responsible-investment-faq-global.pdf ("We aim to vote at 100% of meetings where our clients have given us authority to vote their shares – thus we vote at approximately 17,000 shareholder meetings across more than 90 markets each year.").

[109] *See* Final Rule: Disclosure of Proxy Voting Policies and Proxy Voting Records by Registered Management Investment Companies, 17 CFR Parts 239, 249, 270, and 274 Release Nos. 33-8188, 34-47304, IC-25922; File No. S7-36-02 (2003). *See generally* Martijn Cremers & Romano, Roberta, *Institutional Investors and Proxy Voting: The Impact of the 2003 Mutual Fund Voting Disclosure Regulation* (August 23, 2007). Yale ICF Working Paper No. 07-10; Yale Law & Economics Research Paper No. 349; ECGI - Law Working Paper No. 83/2007. Available at SSRN: https://ssrn.com/abstract=982493

Mutual fund sponsors can exercise their voting authority in different ways.[110] Many large fund complexes centralize voting decisions through the use of a voting or governance staff that makes voting decisions on behalf of the entire fund complex.[111] For example, each Vanguard mutual fund delegates voting authority to its Investment Stewardship Oversight Committee.[112] Blackrock also centralizes its voting decisions.[113] An alternative is for funds to allocate voting authority to individual portfolio managers or to have some central recommendation method. T. Rowe Price for example has a proxy committee that recommends how funds vote.[114] The ultimate discretion is with the fund manager but because the fund manager must document their reasons from deviation there is little divergence from the central recommendation.[115] Invesco uses an innovative voting platform to allow its individual fund managers to debate upcoming votes at their portfolio companies and to reach consensus.[116] Even funds that centralize voting decisions in general may give voting authority to fund managers with respect to particular issues such as mergers or election contests where firm-specific information is important, Finally, a fund may outsource its voting decisions. A number of small fund complexes appear to delegate voting decisions to a proxy advisor such as Institutional Shareholder Services (ISS).[117]

Both active and passive funds at a mutual fund complex vote simultaneously, even when the complex gives portfolio managers the discretion to make voting decisions for their funds. As a result, sponsors are able to leverage their resources across all funds to make voting decisions. Active funds benefit from the governance expertise of passive funds, and passive funds, in turn, rely on the company-specific knowledge of active managers.[118] Notably, fund

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[110] *See generally* Bonnie Saynay & Henning Stein, *Proxy Voting: The Hallmark of Active Ownership*, Invesco Whitepaper at 6, https://apinstitutional.invesco.com/ap-public/dam/jcr:c15b0254-7307-4602-acb4-b8543bd21470/Macro_20170718_ESG%20Proxy%20Voting-the%20hallmark%20of%20active%20ownership-July2017.pdf (describing voting strategies as "absolve, resolve or devolve").

[111] *See, e.g*., Leo E. Strine, Jr., *Can We Do Better by Ordinary Investors? A Pragmatic Reaction to the Dueling Ideological Mythologists of Corporate Law*, 114 COLUM. L. REV. 449, 478 n. 85 (2014) (citing sources documenting centralization of voting authority at BlackRock, Fidelity and Vanguard); *but see* Stephen Choi, Jill Fisch & Marcel Kahan, *Who Calls the Shots? How Mutual Funds Vote on Director Elections*, 3 HARV. BUS. L. REV. 35, 47-48 (2013) (reporting varying degrees of centralization among mutual fund families).

[112] Vanguard, *Vanguard's proxy voting guidelines*, https://about.vanguard.com/investment-stewardship/policies-and-guidelines/

[113] *See* Blackrock, *Proxy Voting and Shareholder Engagement*, supra note 40 (outlining how Blackrock votes shares through its Investor Stewardship Committee);

[114] *See* T. Rowe Price, *Proxy Voting Guidelines*, available at https://www3.troweprice.com/usis/content/trowecorp/en/utility/policies/_jcr_content/maincontent/polices_row_1/para-mid/thiscontent/pdf_link/pdffile (stating that proxy vote recommendations are made by the Proxy Committee and that fund managers ultimately have the discretion to vote).

[115] *Id.*

[116] Saynay & Stein, *supra* note 110, at 8.

[117] *See* Choi et al., *supra* note, __ at 53, 55 (reporting that mutual fund voting that is most closely aligned with ISS recommendations accounts for a relatively small proportion of mutual fund assets).

[118] Some mutual fund companies explicitly rely on their active managers to determine the voting policies of their passive funds. *See, e.g*., Saynay, *supra* note 110, at 6 (explaining that Invesco's passive funds engage in echo-voting to "leverage active equity expertise").

voting involves ongoing interaction between the governance groups and between passive and active fund managers.[119]

The impact of mutual fund voting is substantial. A variety of studies, both empirical and anecdotal, have documented the effect of mutual fund voting on corporate governance and operational decisions.[120] Critically, because of the number of shares they hold, passive funds have the power to swing the vote, and the exercise of their votes has been pivotal on issues ranging from individual proxy contests to shareholder proposals regarding sustainability disclosures.[121] For example, according to media reports, a vote by any of the big three voted in favor of activist Nelson Peltz would have changed the result of the proxy contest at DuPont and given Peltz a victory.[122] In post-mortems on the vote, Du Pont's advisors cited engagement with passive investors as a factor in Du Pont's win.[123] Because of their known influence, passive investors have been documented to attract activist interventions and governance changes.[124] These investors thus have substantial power to affect governance, a matter we take up in the next subsection.

B. Affecting Governance Through Voice

Passive funds use multiple mechanisms to make their voting power more effective. The most important is through proxy advisory firms such as ISS and Glass Lewis. These advisory firms reduce information costs with respect to governance - which is critical for cost-conscious passive investors with large portfolios. Advisory firms also set aggregate governance policies and viewpoints on market wide issues both by setting policy and acting as an information intermediary to collect viewpoints from the fund complexes.[125] Specifically, ISS in particular relies heavily on the viewpoints of its institutional customers in developing its voting

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[119] See, e.g., *id.* at 7 (explaining how Invesco's proxy voting platform "encourages an internal debate on any vote, enabling managers who might have deeper insights and more up-to-date information to share their knowledge among colleagues.").

[120] *See, e.g.*, Cain, et al., *supra* note 72~~71~~.

[121] Steven Mufson, *Financial firms lead shareholder rebellion against ExxonMobil climate change policies*, WASH. POST, May 31, 2017, https://www.washingtonpost.com/news/energy-environment/wp/2017/05/31/exxonmobil-is-trying-to-fend-off-a-shareholder-rebellion-over-climate-change/?utm_term=.9579fd3049f6 (reporting that BlackRock and Vanguard owned 13% of ExxonMobil and that their votes were pivotal in the passage of a shareholder proposal seeking improved disclosure about the effects of climate change).

[122] Stephen Gandel, *DuPont nearly lost its war with activist Nelson Peltz*, FORTUNE, Jun. 4, 2015, http://fortune.com/2015/06/04/dupont-nelson-peltz-vote/

[123] Andrew R. Brownstein, *Winning a Proxy Fight—Lessons from the DuPont-Trian Vote*, Harvard Corp. Gov. Blog., dated May 18, 2015, available at https://corpgov.law.harvard.edu/2015/05/18/winning-a-proxy-fight-lessons-from-the-dupont-trian-vote/.

[124] *See supra* note [].

[125] *See, e.g.*, David F. Larcker, Allan L. McCall & Brian Tayan, *And Then A Miracle Happens!: How Do Proxy Advisory Firms Develop Their Voting Recommendations?*, Stanford Closer Look Series, Feb. 25, 2013, https://www.gsb.stanford.edu/sites/gsb/files/publication-pdf/cgri-closer-look-31-proxy-firms-voting-recommendations.pdf (summarizing and criticizing policy formulation procedures of ISS and Glass Lewis).

guidelines.[126] This allows investors to aggregate preferences and overcome collective action problems. Advisory firms exploit the commonalities across passive funds' market portfolios, giving one view on securities held in multiple fund complexes. Importantly and evidential of the independent and active voice of many mutual funds, while ISS and Glass Lewis inform mutual fund voting they do not dictate it. Instead, studies have found that mutual funds increasingly engage in independent analysis of voting decisions.[127]

A second mechanism is engagement. Because of the size of passive investors' holdings, corporate insiders are responsive to their requests for engagement. By bringing investors' concerns to issuers, engagement often has the effect of persuading issuers to change their policies voluntarily.[128] At the same time, passive investors wield a powerful tool if, as a result of their engagement, they are not satisfied with management's response - the exercise of their voting rights. Studies show that issuers are responsive to the interests of large investors and will modify their policies rather than putting issues to a vote that they expect to lose.[129]

In recent years, mutual funds have increasingly made direct contact, by letter, phone, electronic communication and, increasingly direct meetings, with the officers and directors of their portfolio companies.[130] This so-called "shareholder engagement," takes a variety of forms.[131] One recent survey reports that 63 percent of large institutional investors engaged in direct discussions with management over the past five years, and 45 percent had private

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[126] *See* Institutional Shareholder Services, Policy Formulation Process, available at https://www.issgovernance.com/policy-gateway/policy-formulation-application/ (describing process by which ISS formulates its voting policies).

[127] *See* P. Iliev and M. Lowry, M., *Are mutual funds active voters?*, 28 THE REV. FIN. STUD. 446 (2015) (finding that "[e]ngaged mutual funds frequently disagree with ISS recommendations on contentious votes: a one standard deviation increase in a fund's predicted net benefits of voting is associated with a 12 to 17% increase in the tendency to disagree with ISS").

[128] *See, e.g.*, Matthew J. Mallow & Jasmin Sethi, *Engagement: The Missing Middle Approach in the Bebchuk-Strine Debate*, 12 N.Y.U. J. L. & BUS. 385, 395 (2016) (observing that "Among the S&P 500 companies that disclosed engagement, almost half (forty-six percent) disclosed changes in practices or disclosure as a result of such engagement in 2015").

[129] *See, e.g.*, Rob Bauer, Frank Moers & Michael Viehs, *Who Withdraws Shareholder Proposals and Does it Matter? An Analysis of Sponsor Identity and Pay Practices*, 23 CORP. GOV. AN INT'L REV. 472 (2015) (documenting that managers proactively settle with large shareholders by changing corporate practices rather than putting proposals to a vote and losing).

[130] Engagement is, of course, not limited to passive investors, but also utilized by actively-managed mutual funds and hedge funds. *See, e.g.*, Mallow & Sethi, *supra* note 128 at 395 (reporting that T. Rowe Price "holds hundreds of short, direct conversations with companies owned in portfolios it manages throughout the year on issues that fall beyond the normal due diligence meetings with the companies").

[131] *See, e.g.*, Sarah Krouse, *At BlackRock, Vanguard and State Street, 'Engagement' Has Different Meanings*, WALL ST. J., Jan. 20, 2018, https://www.wsj.com/articles/at-blackrock-vanguard-and-state-street-engagement-has-different-meanings-1516449600 (noting that engagement takes different forms for different passive investors); State Street Global Advisors, *Proxy Voting and Engagement Guidelines United States March 2017*, https://www.ssga.com/investment-topics/environmental-social-governance/2017/Proxy-Voting-and-Engagement-Guidelines-US-20170320.pdf (reporting that "SSGA engages with companies to provide insight on the principles and practices that drive our voting decisions. We also conduct proactive engagements to address significant shareholder concerns and environmental, social and governance ("ESG") issues in a manner consistent with maximizing shareholder value. ").

discussions with a company's board outside of management presence.[132] Similarly, the percentage of S&P 500 companies reporting investor engagement rose from six percent in 2010 to 72 percent as of June 2017.[133]

The engagement of the large passive investors has particularly increased. During 2017, BlackRock had over 1600 engagements with its portfolio companies, Vanguard participated in more than 800 engagements and State Street participated in more than 600.[134] In addition to in-person engagements, State Street reported sending hundreds of letters to its portfolio companies.[135] BlackRock, Vanguard and State Street all have dedicated corporate governance teams that are responsible for engagement with their portfolio companies.[136] BlackRock explains, for example, that its governance specialists engage "in thousands of conversations with companies each year," conversations that build on the new amount and access to information that investors have gained in recent years "to glean investment insights."[137] Vanguard explained that, in 2016, its engagements represented nearly $1 trillion in fund assets and reflected an increase in engagement volume of 67% over the prior three years.[138]

Despite these activities, some commentators have criticized passive investors for the limited size of their governance staffs.[139] We have three responses. First, as their level of engagement increases, passive investors are similar increasing the size of the governance staffs.[140] We view the number of people who are working on governance issues full time as reflecting a substantial commitment by passive investors to developing governance expertise. Second, given the fact that passive funds do not focus on individual firm-specific characteristics, the size of their governance staffs offers substantial manpower to analyze governance issues. By way of comparison, the total number of employees at many hedge funds, which engage in significantly greater firm-specific research, is not dramatically higher than full-time governance

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[132] Joseph McCahery, Zacharias Sautner & Laura Starks, *Behind the Scenes: The Corporate Governance Preferences of Institutional Investors*, 71 J. FIN. 2905, 2906 (2016).
[133] Ernst & Young, *2017 Proxy Season Review*, available at http://www.ey.com/Publication/vwLUAssets/ey-2017-proxy-season-review/$File/ey-2017-proxy-season-review.pdf (last visited Oct. 9, 2017).
[134] Krouse, *supra* note 131.
[135] *Id.*
[136] *See, e.g.*, Madison Marriage, *BlackRock, Vanguard and State Street bulk up governance staff*, FIN. TIMES, Jan. 28, 2017, https://www.ft.com/content/657b243c-e492-11e6-9645-c9357a75844a (observing that, as of Jan. 2017, BlackRock had increased the size of its governance staff to 31 persons, Vanguard had 20 governance employees, and State Street had 11); Krouse, *supra* note 131 (reporting that BlackRock expects to expand its governance team to 60 people in the next three years).
[137] Blackrock - Viewpoint, *Exploring ESG: A Practitioner's Perspective* 2 (Jun. 2016), https://www.blackrock.com/corporate/en-gb/literature/whitepaper/viewpoint-exploring-esg-a-practitionersperspective-june-2016.pdf (last visited Oct. 12, 2017)
[138] Vanguard, *Our engagement efforts and proxy voting: An update For the 12 months ended June 30, 2016*, https://about.vanguard.com/investment-stewardship/update-on-voting/
[139] *See, e.g.*, Lund, supra note **Error! Bookmark not defined.**~~6~~ at __ ("Vanguard employs fifteen people devoted to engagement and voting at about 13,000 companies based around the world, BlackRock employs about twenty people who work on governance issues at some 14,000 companies, and State Street employs fewer than ten people devoted to governance issues at around 9,000 companies").
[140] *See supra* note 136 (reporting increased size of governance staffs).

staff at the major passive investors.[141] Finally, these critiques ignore the shareholder ecosystem today where individual fund complexes interact and rely upon not only proxy advisory firms but shareholder activist hedge funds to supplement their voice, monitoring and information gathering processes. These mechanisms substantially lower informational gathering and assessment costs for both passive and active funds.

Issuers and shareholders are also developing private initiatives to promote board-shareholder engagement. Again, passive investors have been at the forefront of these efforts. For example, in 2014, major U.S. issuers collaborated with several big institutional investors, including BlackRock and Vanguard, to create the "Shareholder-Director Exchange Program."[142] Similarly, in 2016, representatives of major U.S. corporations and major investors, including again BlackRock, State Street and Vanguard, signed an accord supporting a set of commonsense principles of corporate governance and calling for an ongoing constructive dialogue among issuers and shareholders.[143] The "Investor Stewardship Group," (ISG), a collective of 16 large asset managers including Vanguard and BlackRock, was formed "to establish a framework of basic standards of investment stewardship and corporate governance for U.S. institutional investor and boardroom conduct."[144]

C. The Role of Policy

Passive investors increasingly have a role in politics and regulation regarding the extent of shareholder influence.[145] They actively engage in policy discussions and generally push for greater voice for investors. They also engage with policymakers with respect to a variety of issues beyond corporate governance. As such, they can bring their knowledge of policy considerations to issuers and can bring the interests of their portfolio companies to policymakers.

Passive investors have worked in a variety of ways to ensure that the power of their voice can be expressed. Passive investors regularly comment upon and call for change to the rules adopted by SEC under the federal securities laws. This practice has a long history. In April 1991 for example Institutional Investor published a report calling for a number of proxy reforms to allow for increased cooperation among mutual funds.[146] These changes were subsequently

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[141] *See, e.g.*, Svea Herbst-Bayliss, *Ackman cuts staff, shuns limelight as he seeks to turn around fund*, REUTERS, Jan. 22, 2018, https://www.reuters.com/article/us-hedgefunds-ackman-exclusive/exclusive-ackman-cuts-staff-shuns-limelight-as-he-seeks-to-turn-around-fund-idUSKBN1FB32Y (reporting Pershing Square's decision to reduce its total number of employees to 46).

[142] James Woolery, *Introduction to the SDX Protocol*, Harv. L. Sch. F. On Corp. Governance & Fin. Reg. (Feb. 5, 2014), https://corpgov.law.harvard.edu/2014/02/05/introduction-to-the-sdx-protocol/; see also SDX Protocol, About SDX, http://www.sdxprotocol.com/about-sdx/ (last visited Oct. 14, 2017).

[143] Tim Armour et al., *Commonsense Corporate Governance Principles*, available at http://www.governanceprinciples.org.

[144] David A. Katz & Laura A. MacIntosh, *Common-Sense Capitalism*, Harv. L. Sch. Forum on Corp. Gov. & Fin. Reg., July 28, 2017, https://corpgov.law.harvard.edu/2017/07/28/common-sense-capitalism/.

[145] *See* Asaf Eckstein, *The Upside of Common Ownership in Corporate Law*, working paper (2018).

[146] *See* Alicia McElhaney, *Fight for Your Right to Proxy*, INSTIT. INV., Nov. 10, 2017, available at https://www.institutionalinvestor.com/article/b15kfxz7qzdrpy/fight-for-your-right-to-proxy.

enacted by the SEC in 1992 and also provided more requirements for executive compensation disclosure and greater proxy access. Institutional investors have been active in a variety of other SEC reforms to enhance voting. Most recently institutional investors have been active in shaping and attempting to forestall regulation of proxy advisor services currently pending before Congress.[147]

The scope of passive investor activity in the policy sphere has been expanding. As Asaf Eckstein documents, passive investors spend substantial sums on lobbying, provide comments on agency rule-making and participate in roundtables and other policy discussions as well as private meetings with lawmakers.[148] Asaf Eckstein notes that some executives at some passive investors have testified before Congress.[149] Institutional investors now regularly file amicus briefs and take policy positions on legislation.[150] Institutional investors were active in the negotiation and passage of the Dodd-Frank Act and subsequent legislative efforts.[151] Recently institutional investors have been active in the fight against climate change.[152]

This policy work includes both broad-based policy initiatives and firm-specific efforts. The big mutual fund complexes regularly issue out policy letters and missives, and several have begun using an annual letter to issuers to highlight their policy concerns. For example, Blackrock's chairman Larry Fink recently issued a letter to the CEOs of all of the public companies in which the fund complex invests in calling for more sustainable business practices.[153] Similarly, a number of institutional investors have issued announcements calling for more gender diversity on corporate boards.[154]

D. Documentation of Passive Investor Influence

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[147] *See* Letter sent by the Council of Institutional Investors to the United States Senate Committee on Banking, Housing, and Urban Affairs, regarding the legislation of H.R. 5311, the Corporate Governance Reform and Transparency Act of 2016, available at https://corpgov.law.harvard.edu/2016/09/26/the-regulation-of-proxy-advisory-firms/

[148] *See* Eckstein, *supra* note 145, at 44-45.

[149] *Id.*

[150] *See, e.g.*, Zach Wener-Fligner, *Every US company arguing for the Supreme Court to legalize same-sex marriage*, QUARTZ, Mar. 10, 2015, https://qz.com/359424/every-us-company-arguing-for-the-supreme-court-to-legalize-same-sex-marriage/ (reporting that BlackRock signed an amicus brief to the U.S. Supreme Court arguing for marriage equality for same sex couples).

[151] *See, e.g.*, Council of Institutional Investors, *Dodd-Frank Act*, available at https://www.cii.org/dodd_frank_act (explaining that the Council of Institutional Investors "as a leading voice for long-term, patient capital, advocated vigorously for many elements of the Dodd-Frank Act,").

[152] *See, e.g.*, Ken Silverstein, *More Institutional Investors Throw Weight Into Fight Against Climate Change*, FORBES, Dec. 12, 2017, https://www.forbes.com/sites/kensilverstein/2017/12/12/is-the-financial-and-political-heft-behind-the-climate-fight-enough-to-make-a-difference/#41639a621551

[153] Fink, *supra* note 14.

[154] *See, e.g.*, Brianna Castro, *Raising the Stakes on Board Gender Diversity*, Harv. L. Sch. Forum on Corp. Gov. & Fin. Reg., Jan. 8, 2018, https://corpgov.law.harvard.edu/2018/01/08/raising-the-stakes-on-board-gender-diversity/ (reporting announcements by State Street, BlackRock and Vanguard).

Existing evidence suggests that investors--and especially institutional investors--use their engagement and their voting power to effect changes at underperforming companies.[155] Although an extensive body of empirical research has examined the role of institutional investors in corporate governance and the effects of their engagement on firm performance, by and large, the literature does not distinguish between passive and active investors. Two recent papers focus specifically on passive investors, however. Appel, Gormley and Kim study the effect of passive ownership through a discontinuity analysis using stock assignments in the Russell 1000 and 2000 indexes.[156] They examine three types of governance measures and conclude that passive ownership influences the governance of the firm. Increased passive ownership is associated with an increased number of independent directors, decreased takeover defenses and an increase in one-share, one-vote ownership rights. In addition, the paper demonstrates that passive ownership is associated with not just observed governance differences, but improved performance as measured by return on assets and Tobin's Q.[157]

There is also evidence that greater passive ownership is associated with a greater likelihood of the firm being targeted by activist shareholders.[158] A second study authored by Appel, Gormley and Kim finds that higher passive investor ownership is associated with greater activism and increased proxy fights.[159] This study also finds that activists are more successful in these circumstances and activists are more likely to obtain board representation or effect a sale of the company.[160] These findings run contrary to anecdotal evidence suggesting that passive investors are unwilling to support activists.[161]

These two studies are the first of what are likely to be many and rely heavily on discontinuity analysis of the Russell 2000/1000 to tease out the role of passive investors from the effects of institutional investors more generally.[162] They offer preliminary support for our views both that passive investors have an impact on governance and with the theory that one component of this impact is the reliance by activists on institutional investors and the votes they convey.[163]

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155 Note that existing empirical studies do not always distinguish between passive and other institutional investors.

156 See Appel, et al., *supra* note 16~~17~~.

157 *But see* Cornelius Schmidt & Rudiger Fahlenberg, *Do exogenous changes in passive institutional ownership affect corporate governance and firm value?,* 124 J. FIN. ECON. 285 (2017).

158 *Id.*

159 See Appel, et al., *supra* note 16~~17~~.

160 *Id. See also* Schmidt & Fahlenberg, *supra* note 157.

161 *See* Lund, *supra* note **Error! Bookmark not defined.**~~6~~.

162 The use of the Russell 2000/1000 as an IV method has been ubiquitous and has now been used in at least six different studies. Ian Appel, Todd Gormley & Donald B. Keim, *Identification using Russell 1000/2000 index assignments: A discussion of methodologies* (March 29, 2016), available at https://ssrn.com/abstract=2641548. It is unclear to us whether this IV is a correct one or is merely picking up changes in companies that are destined to either enter or exit the index as index recalibration is predictable from year to year and is reflected in firm performance. Nonetheless, they do give some preliminary evidence of passive investor influence, evidence which is buttressed by extensive anecdotal evidence.

163 Alon Brav, et al., supra note __; Michael Bradley, Alon Brav, Itay Goldstein & Wei Jiang, *Activist arbitrage: A study of open-ending attempts of closed-end funds,* 95 J FIN. ECON. 1 (2010).

Other research lends further support to our analysis. One of the first institutional investors to engage extensively in corporate governance was the California Public Employees Retirement System (CalPERS).[164] CalPERS' was heavily indexed, its strategy focused on targeting underperforming companies, and several studies reported that firms targeted by CalPERS' interventions experienced improved performance.[165] Along the same lines, a recent paper by Fisch, Palia and Solomon empirically examines the factors that drive low shareholder support for executive compensation in say on pay votes.[166] The paper reports that firm economic performance is a key driver of a low say on pay vote. Critically, the paper explains that even problematic pay packages do not generate substantial shareholder dissent in the absence of poor economic performance. The findings are thus consistent with our theory that the efforts of passive investors are targeted to improving underperformers.

III. The Implications of the Theory

In this Part we consider the implications of our theory for corporate law and governance. We emphasize that the substantial and growing level of passive ownership is a new development. Accordingly, while our theory draws on institutional realities and current studies of institutional investors and their conduct thus far, experience may require further analysis of the institutional effects of passive ownership and their implications for corporate law and governance.[167]

A. Passive Investors and Stewardship

Our theory sheds a new light on passive investors' engagement in stewardship and oversight of firms in their portfolio. First, the competitive environment in which passive investors operate provides them with stewardship incentives. Given the competition with active funds and among index funds themselves, passive investors are unlikely to engage in uniformed voting or to vote uniformly in support of management, because doing so would increase the likelihood of firm-specific misconduct and poor economic performance at companies that such investors must keep in their portfolio. The need to monitor the poorly-performing companies in the market to preserve passive fund performance provides a significant incentive to passive investors to exercise their voice.

Second, our analysis shows that passive investors have several advantages that significantly reduce their costs of acquiring firm-specific information. They can draw upon the knowledge and firm-specific expertise of their entire fund complex, including the knowledge that active fund managers use to select stocks. They can also use proxy advisory firms to provide firm-specific information and to coordinate their voting. Moreover, by virtue of their size alone

[164] *See, e.g.*, Choi & Fisch, supra note __, at 315-16 (describing CalPERS' leadership in institutional activism).
[165] *Id.*
[166] Fisch, et al., *supra* note 72~~70~~.
[167] In particular, we intend to write a follow-up article further exploring the legal implications of the rise of passive ownership.

passive investors have the power to access management and directors at poorly performing issuers and to engage with them in dialogue. Initial studies have documented, at least on a preliminary basis, that this voice has influence and can increase value.[168] The consequence is that as we have documented, there is both a theoretical and institutional reality of meaningful passive fund stewardship.

Our analysis also sheds light on the interaction of passive investors with activists and how stewardship is implemented. Activists make a significant investment in specific companies and normally devote substantial resources to firm-specific analysis, allowing them to identify potential sources of operational improvements.[169] Yet, in order to succeed in their campaign, activists need to gain the support of passive investors. Again, Trian's proxy contest at DuPont offers a recent illustration.[170] Had Trian been able to win the support of any of the large passive fund complexes, its proxy contest would have been successful.[171]

At the same time, passive investors may benefit from activists' effort to improve corporate performance. Passive investors further benefit from the firm-specific information that they acquire through their contacts with activists. We observe that passive funds have a critical role in screening activism because they have asymmetric incentives that differ from those of the activists. In particular, passive investors share in company-wide gains from valuable activism, but they lose if the activist is able to implement changes that produce short term gains but destroy the company for the long term, because passive investors, unlike active investors, cannot exit before that happens. These incentives are likely to make passive investors less willing than actively-managed funds to support some activists.[172] Indeed, passive investors are significantly more reliant on activist hedge funds because this is often a primary means for them to express dissatisfaction with a company in contrast to an activist fund's simple ability to exit the investment. These conclusions also suggest that passive investors will be able to develop reputational sanctions to constrain destructive hedge fund activism.[173]

The role of passive funds in activist campaigns raise interesting and, as yet unanswered, questions about the actual investment timeframe of passive investors. If passive investors were truly focused on the long term, their votes would serve as a valuable counterweight to claims that activist are unduly short-termist.[174] If, however, as we suggest, the time frame of a passive fund

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168 *See infra* notes __ through __ and accompanying text.

169 *See, e.g.*, Alon Brav, et. al., *How Does Hedge Fund Activism Reshape Corporate Innovation?*, J. FIN. ECON. (forthcoming) (documenting activists influence in reshaping companies towards more innovation).

170 *See infra* notes __ through __ and accompanying text.

171 *Id.*

172 Factset Sharkrepellent reports that in 2016 and 2017, activists hedge funds had a 55% and 53% success rate, respectively in dissident proxy contests. For a specific example in the recent case of Marcato's proxy contest with Deckers Outdoor Corp., BlackRock and Vanguard which were two of the five biggest shareholders in the company voted with management. Glass Lewis sided with management while ISS sided with the activist. *See* Svea Herbst-Bayliss, *Deckers wins proxy contest against hedge fund Marcato*, REUTERS, Dec. 14, 2017.

173 *See* Reshma Kapadia, *Passive Investors are the New Shareholder Activists*, BARRON'S, Jul. 8, 2017.

174 *See, e.g.*, Leo E. Strine, Jr., *The Dangers of Denial: The Need for a Clear-Eyed Understanding*

is more indeterminate, then its incentives with respect to a particular activist campaign are more complex. On the one hand, it will suffer if active funds operating as a wolf pack over-weight an activist's target and enjoy a short-term gain. On the other hand, it will suffer more if, in the long run, a target is damaged by activism, because the passive fund will remain invested in that target, even after the activist and its active fund supporters have left.

To be sure, we do not argue that passive investors have perfect incentives to engage in stewardship. Like other institutional investors, passive funds' managers are agents whose interests may not fully align with those of their principals, an issue that we explore in more detail below.[175] Our objective, however, is to compare passive funds not to some notion of ideal shareholders, but to active mutual funds.[176] The rise of passive investment raises the question of whether the stewardship incentives of active fund managers are superior to those of passive fund managers.[177] Our thesis is that this is not necessarily the case.

Our analysis has significant implications for prior criticism of passive funds. Professor Dorothy Lund, for example, argues that passive funds lack firm-specific information that is vital for investors wishing to use their voice in an informed manner.[178] She notes that, while active funds invest in firm-specific research for purposes of making buy-sell decisions, passive funds do not. Based on this difference, she argues that this lack of firm-specific information leads passive funds to adhere to "a low-cost, unthinking approach to governance."[179] She concludes that lawmakers should consider measures to discourage passive fund managers from voting.[180]

Professor Lund's analysis, however, overlooks key features of passive funds as well as their institutional setting. First, as we explained earlier,[181] passive funds' business model means that they are likely to hold relatively large stakes, which makes it more likely that their vote will be pivotal.[182] These features make it easier for passive investors to obtain firm-specific information from both management and active investors about the company's performance and

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of the Power and Accountability Structure Established by the Delaware General Corporation Law, 50 WAKE FOREST L. REV. 761, 772 (2015) (arguing that activist shareholder "pressure may logically lead to strategies that sacrifice long-term performance for short-term shareholder wealth.")

[175] *See infra* note __ and accompanying text.

[176] *See also* David C. Brown & Shaun Williams Davies, *Moral Hazard in Active Asset Management*, 125 J. FIN. ECON. 311 (2017) (arguing that competition from passive funds creates a moral hazard problem and reduces the effort expended by active fund managers).

[177] *See* Lund, *supra* note **Error! Bookmark not defined.**~~6~~ (arguing that active funds have better incentives to monitor and that, as a result, passive funds should not be allowed to vote the shares of their portfolio companies).

[178] *See* Lund, *supra* note **Error! Bookmark not defined.**~~6~~, at 19 ("a passive fund does not monitor the fundamentals of companies in its broad portfolio. The consequence of this passive approach to trading is that a proactive and informed approach to governance requires the passive fund to incur additional expenses associated with identifying underperforming companies, pinpointing the reason for their underperformance, and then determining the most effective way to intervene.")

[179] *Id.* at 20.

[180] *Id.* at 33.

[181] *See supra* Part II.D.

[182] *See* Michelle Lowry & Peter Iliev, *Are Mutual Funds Active Voters*?, 28 REV. FIN. STUD. 446, 458 (2015) (finding that funds that hold a larger fraction of the company's equity are more likely to engage in "active" voting).

strategy or activism ideas.[183] The extensive engagement by passive investors suggests that these dialogues occur on a regular basis. Moreover, because they own the entire market, passive funds also enjoy economies of scale in evaluating firm-specific information against broader industry or market conditions and trends.

Second, as we explained earlier, Professor Lund's analysis ignores the fact that passive funds do not make voting decisions in isolation; they are part of larger mutual fund families in which the fund sponsor or investment adviser determines the funds' voting policies. In addition, most mutual fund families have both active and passive funds. The combination of active and passive funds within the same family allows passive investors to benefit from any firm-specific information that may be essential for making informed voting decisions. Moreover, many mutual fund families rely on centralized, family-level voting and stewardship functions. Professor Lund's analysis does not appear to incorporate these institutional realities.

B. Passive Investor Time Horizons

Our analysis also has implications for those who have argued that institutional investors have time horizons that are too short. As we have noted passive investors both exercise stewardship through engagement and voice and work to mediate the activist efforts of hedge funds. Yet, the time horizon of passive investors is different from both actively-managed mutual funds and activist hedge funds. Actively-managed hedge funds, in particular, tend to trade frequently and to have a short time horizon.[184] Average asset-weighted turnover figures in an active mutual fund were 34% in 2016.[185] Even those funds that do not engage in significant trading are constantly making buy or sell/not to sell decisions on a daily basis. Although the data are mixed, activist hedge funds have been generally shown to have longer time horizons -- the average holding period for an activist fund is approximately 20 months.[186] And while these funds also make daily buy and sell decisions, often their investment is made with a view that they will hold their investment over several years.

In contrast, the time horizons of passive funds are indeterminate. The funds do not sell except to rebalance or to provide liquidity for their investors, so their holdings are theoretically infinite. Yet, passive funds compete with other active funds and index funds. This competition, which is driven by the ability of passive fund shareholders to exit, shortens the time horizons of

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[183] For evidence that larger funds (in terms of assets under management at the fund family level) are more likely to spend resources on voting, *see id*. at 455 (finding that larger fund families are less likely to follow ISS voting recommendations).

[184] *See, e.g*., Jeffrey Busse, Lin Tong & Qing Tong, *Trading frequency and fund performance*, working paper dated Nov. 2016, available at http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=6338&context=lkcsb_research; Bidisha Chakrabarty, Pamela C. Moulton & Charles Trzcinka, 52 J. Fin. & Quant. Anal. 1403 (2017). The Performance of Short-term Institutional Trades (explaining that active funds trade more frequently in response to information and finding that such trading correlates with performance); (identifying the concern that mutual fund managers engage in short term trading to "look active").

[185] *See* 2017 Investment Company Factbook, Chapter 2 available at http://www.icifactbook.org/ch2/17_fb_ch2

[186] *See, e.g.*, Alon Brav, et al., *The Returns to Hedge Fund Activists*, 64 Fin. Analysts J. 45 (Nov. - Dec., 2008).

passive funds. Notably, this observation contrasts with the broader policy and statements by the passive funds that they have perpetual time horizons.

The net effect of these forces is unclear. It is likely that passive funds are subject to a mixture of factors that may influence their decision-making. Over the longer run, we believe these incentives push passive funds towards the medium in terms of investor time horizons. It is also clear that further empirical study would be valuable in teasing out these effects.[187]

C. Passive Investors and Horizontal Shareholdings

Our theory also has implications for the current debate concerning the antitrust implications of wide-spread passive ownership. In two papers, one on the airline industry, and the other in banking, Professors Azar, Schmalz and Tecu document what they find to be an antitrust effect of institutional ownership.[188] These authors theorize that institutional investors will cause players in concentrated industries to lessen competition. The argument is that the cross-ownership of the mutual funds creates an incentive for mutual funds to favor less competition in order to create more aggregate rents for their ownership stakes, and that mutual funds will act on this incentive by influencing the managers of their portfolio companies. The authors support their theory by documenting that the airline and banking industries have experienced increased ownership concentration and, at the same time, reduced competition.

These papers have sparked a heated debate and spawned proposals by Professors Eric Posner, Glenn Wyle and Fiona Morton, among others, to deprive institutional investors of the power to vote their shares.[189] Fiona Morton and Herbert Hovenkamp has separately analyzed how antitrust laws might be applied to limit the power influenced by mutual funds that have "horizontal shareholdings."[190]

Professors Ed Rock and Dan Rubinfeld have questioned this literature from an antitrust perspective arguing that the empirical analysis is incomplete.[191] Professors Rock and Rubinfeld also observe that mutual funds lack a means to effect such a reduction in competition due to their

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[187] This discussion assumes that there is indeed short-termism, a matter of much debate. Theoretically, if markets are efficient no investor will take short term actions which are harmful to shareholders in the long term. However, we recognize that the question of market efficiency in terms of time horizons is heatedly debated and currently the subject of disagreement. *See generally* Lawrence H. Summers, *Is Corporate Short-Termism Really a Problem? The Jury's Still Out*, HARV. BU□. REV.. Feb. 16, 2017; J.B. Heaton, *The "Long Term" in Corporate Law*, 72 BUS. LAW. 353, 355 (2017) ("there is virtually no evidence10 that shareholders ever prefer short-term gains that are smaller than larger (discounted) long-term gains.").

[188] José Azar, Martin C. Schmalz, and Isabel Tecu, *Anti-Competitive Effects of Common Ownership*, J. OF FIN. (Forthcoming); José Azar, Sahil Raina and Martin C. Schmalz, *Ultimate Ownership and Bank Competition*, draft dated Jul. 23, 2016, available at SSRN: https://ssrn.com/abstract=2710252 or http://dx.doi.org/10.2139/ssrn.2710252

[189] Posner, et al., *supra* note **Error! Bookmark not defined.**~~6~~. *See also* Morton and Hovenkamp, *supra* note **Error! Bookmark not defined.**~~6~~; Elhauge, *supra* note **Error! Bookmark not defined.**~~6~~.

[190] Morton and Hovenkamp, *supra* note **Error! Bookmark not defined.**~~6~~.

[191] Edward B. Rock and Daniel L. Rubinfeld, *Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance* (March 1, 2017), NYU Law and Economics Research Paper No. 17-05, available at SSRN: https://ssrn.com/abstract=2925855 or http://dx.doi.org/10.2139/ssrn.2925855.

limited voice and contact with companies. From a securities law perspective, Asar et al.'s hypothesis of collective action by mutual funds is also undercut by regulatory restrictions on the ability of institutional investors to act as a group, such as section 13(d) of the Securities Exchange Act.[192] Moreover, Asar et al.'s results are subject to the challenge that the banking and airline industries are idiosyncratic and that both industries underwent substantial change during the time period of the study.

Our analysis adds further weight to the criticism of the Asar, et. al study. Simply put, these studies and arguments lack an understanding of the institutional details of index funds. First, passive investors' ability to push for business strategy changes is limited. It is implausible to expect passive investors to identify director candidates or business strategies -- they rely on activists who have far greater resources both to identify operational improvements and to support their strategic initiatives. Second, the largest fund complexes centralize their voting and engagement, and those activities are divorced from the buy/sell decision.

Third and perhaps most important, the Asar, et al. research overstates the commonality of passive investors at the fund family level, which is where shareholder voting and engagement take place. There are a variety of passive funds with different investment strategies, and the distribution of assets under management differs among fund families. Although the composition of an S&P index fund is the same across the board, one family may have a larger S&P index fund, another may manage more assets in its Russell 600 value fund. As a result, the interests of passive funds, overall, are not likely to be more closely correlated than the interests of mutual funds generally or other institutional investors.

More directly, our theory explains why antitrust collusion is an example of exactly the type of strategy that passive investors cannot deploy effectively - operational decisions designed to enable specific firms to outperform the market. If passive investors acted to limit competition in an industry, active investors would overweight in that industry, enabling them to outperform the passive funds. In other words, an operational improvement such as reducing competition would disproportionately benefit active funds. The competition between active and passive funds thus weakens any incentives to reduce competition that horizontal shareholding might otherwise produce.

Finally, this theory ignores the role of activist hedge funds and their coordinated strategies with passive investors. If indeed there is an industry that is coordinating activity implicitly or explicitly with institutional investors, theoretically an activist hedge fund would seek these companies out and agitate for change at a specific firm.[193] These activists would then seek out and coordinate with a mutual fund complex, including a passive investor. There is no

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[192] *See, e.g.*, Morley, *supra* note 27 (observing that section 13(d) is one of several reasons why mutual funds cannot engage effectively in activism).

[193] We recognize that there are bank regulations which limit activism in this industry, but none such exist in the airline industry. *See* Steven M. Davidoff, *In Blocking Activists, the Fed Protects Poorly Performing Banks*, The N.Y. Time□, May 8, 2012. Indeed, there are multiple examples of airlines being targeted by activists. *See, e.g.*, Jeffrey Dastin & Michael Flaherty, *United Airlines bows to activists, adds directors*, Reuter□, Apr. 19 2016, available at https://www.reuters.com/article/us-unitedcontinental-board/united-airlines-bows-to-activists-adds-directors-idUSKCN0XH06Q.

record or documentation of an activist who has not had the support of an investor for the antitrust reasons claimed, nor could this legally be accomplished.[194]

D. Potential Concerns

Our critiques of the literature addressing passive investors' stewardship and horizontal shareholdings do not mean there is no reason to be concerned about the rise of passive investors.[195] In this Section, we sketch out several possible issues that warrant further research.

1. *Fund Investors and Fund Sponsors*

The first concern is the increased potential for conflicts of interest between fund investors and fund sponsors created by the growth of passive funds. Like other institutional investors, passive funds are managed by entities and individuals that have their own incentives and interests. The mutual fund sponsors and investment advisors, who make decisions on behalf of passive investors, do not own the assets that they manage. "Investment managers invest other people's money."[196] As a result, the interests of all mutual fund managers are not always aligned with those of their investors.

Although scholars have analyzed the agency costs and moral hazard problems associated with institutional investors generally, passive investors raise several distinctive issues. On the one hand, this misalignment is less troublesome for passive funds, as these funds have no discretion to make investment decisions.[197] On the other hand, the concern is that agency costs could arguably have a substantial effect on passive funds' voting.

Commentators have identified some of the potential conflicts arising from business ties between public companies and fund sponsors.[198] For example, Vanguard and Fidelity provide extensive services to employer-sponsored 401(k) plans. These services create the risk that Vanguard and Fidelity will vote the shares of their funds in favor of management rather than in the best interests of the fund shareholders, in order to curry favor from management and win or retain 401(k) plan business. Because of their large size, passive funds give their sponsors substantial power to influence their portfolio companies. At the same time, passive funds

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[194] More specifically, this would be a clear violation of Section 1 of the Sherman Act and Section 7 of the Clayton Act.
[195] Nor are we making the claim that passive investors engage in stewardship that is socially optimal.
[196] Lucian A. Bebchuk, Alma Cohen, and Scott Hirst, *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSP. 89, 93 (2017)
[197] Fund sponsors and advisors face the potential of conflicts whenever they allocate investment opportunities because of their ability to favor one client or fund over another. *See, e.g.*, Tim McLaughlin, *How the owners of Fidelity get richer at everyday investors' expense*, REUTERS, Oct. 5, 2016, https://www.reuters.com/investigates/special-report/usa-fidelity-family/ (describing as a conflict Fidelity's decision to invest in a variety of pre-IPO companies through its private venture funds, which are owned by the Johnson family, rather than through its mutual funds).
[198] *See, e.g.*, Gerald F. Davis & E. Han Kim, *Business Ties and Proxy Voting by Mutual Funds*, 85 J. FIN. ECON. 552 (2007).

generate much smaller fees than sponsors' other funds or business activities. As a result, there is a greater risk that fund sponsors will exploit the influence of passive funds, not for the benefit of those funds, but for their own benefit or that of other clients.[199]

2. *Fund Investors and Other Shareholders*

Commentators have also identified the potential conflict created by the cross-holdings of mutual funds. In other words, a fund may have the opportunity to vote or otherwise influence the actions of one portfolio company that may affect the value of another company. To the extent that passive funds hold the entire market, the potential for cross-holdings to create a conflict increases, and a passive fund cannot avoid the conflict the way an active fund might by favoring one of its holdings and selling the other company. The rise of passive investment might therefore increase the potential for cross holdings that affect shareholder voting.

In the previous section, we argued that passive investors' horizontal shareholding is unlikely to have anti-competitive effect on their portfolio companies. The potential for harm, however, is increased to the extent that passive funds—as shareholders—have the power to make important business decisions. One example is mergers and takeovers, in which shareholders are required to vote to approve transactions that have a substantial economic impact on their portfolio companies. As some commentators have observed, when both bidder and target are public companies that belong to an index, it is common for mutual funds to hold shares of both.[200] Mutual funds' fiduciary duties require them to vote in a manner that benefits their investors, not each company that they hold in their portfolio.[201] Unpacking the appropriate exercise of voting power in this situation is not easy. On the one hand, a fund with a larger fraction of the *bidder*'s shares might vote its *target* shares in favor of a merger in which the bidder underpays target shareholders. Alternatively, a fund might vote its bidder's shares in favor of a value-decreasing acquisition if it owns shares in the target.[202] On the other hand, a fund might consider the interests of other funds within the fund family, the overall value or surplus created by the merger, or the interests of the funds' shareholders not simply within a single fund but across their overall portfolio.

Evidence on the effect of horizontal shareholding on mergers is mixed. At least one study found that institutional investors' ownership of both bidders and targets affects their voting on

[199] Note that this concern is mitigated to the extent that passive and active funds within the same fund family rely on a centralized voting function.
[200] This situation is common to all mutual funds and is not unique to index funds.
[201] We focus on cross holdings by the same fund. Potential conflicts also can arise when different funds within the same fund family hold different stock. *See generally* Ann M. Lipton, *Family Loyalty: Mutual Fund Voting and Fiduciary Obligation*, 19 TENN. J. BUS. L. 175 (2017).
[202] This example is not hypothetical. In the recent Tesla-Solar City merger, Tesla's top 25 institutional shareholders, which collectively held 45.7% of Tesla's stock, also owned shares in Solar City. In re Tesla Motors, Inc., Stockholder Litig., C.A. No. 12711-VCS, memorandum op. at 32, n.183 (Del. Ch. Mar. 28, 2018). In litigation challenging the merger, the plaintiffs argue that these shareholders were not "disinterested" and that their shares should be excluded from the vote tally for the purposes of considering whether the merger had been approved by a majority of disinterested shareholders. Id.

acquisitions.[203] In contrast, a study focusing on the years 1984-2006 found no effect of such cross holdings on vote outcomes or deal characteristics.[204] If the rise in passive investment continues, however, a significantly larger fraction of shareholders might hold both bidder and target shares in the future.[205] Although it is unclear how mutual funds should vote in the context of horizontal shareholders, the dilemma is exacerbated by the growth in the size of passive funds and the fact that, as a result, the policies that they adopt with respect to these votes are likely to be pivotal in the outcome of merger votes.

3. *Conflicts within Fund Families*

A greater concern is the potential for conflict between the interests of passive funds and the sponsor's other investment management functions. The literature has noted that sponsors might favor some funds over others,[206] but it has not fully explored these conflicts, their effect on passive funds' investors or their potential to influence passive funds' voting and engagement activities.

Consider, for example, sponsors' ability, by virtue of their passive funds, to access firm-specific information. As noted above, passive fund sponsors, because of these funds' substantial holdings, enjoy access to management and to corporate information. Sponsors could, in theory, use that information for the benefit of investors in their other products, such as actively-managed funds or hedge funds. For example, sponsors could use negative information to short or underweight their holdings in particular companies, enabling their active funds to outperform the benchmark.[207]

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[203] *See* Gregor Matvos & Michael Ostrovsky, *Cross-ownership, Returns, and Voting in Mergers,* 89 J. FIN. ECON. 391, 400 (2008) (finding that cross ownership of bidder and target might affect mutual funds' merger votes); Brooks et. al., *Institutional Cross-ownership and Corporate Strategy: The Case of Mergers and Acquisitions,* 48 J. CORP. FIN. 187, 189 (2018) (acquirers with higher institutional cross-ownership pay lower premiums for targets and tend to use more stock as the method of payment). *See also* Andriy Bodnaruk & Marco Rossi, *Dual Ownership, Returns, and Voting in Mergers*, 120 J. FIN. ECON. 58 (2016) (focusing on investors holding shares and bonds).

[204] *See* Jarrad Harford et al., *Institutional Cross-holdings and Their Effect on Acquisition Decisions*, 99 J. FIN. ECON. 27 (2011) (finding that investors with cross-holdings were not influential enough to impact most bids).

[205] *See* Brooks et. al., *Institutional Cross-ownership and Corporate Strategy: The Case of Mergers and Acquisitions,* 48 J. CORP. FIN. 187, 189 (2018) (finding that, in a sample of 2604 mergers between U.S. public firms from 1984 to 2014, on average, 18% of acquirer stocks are held by target institutional owners and 21% of target stocks are held by acquirer institutional owners).

[206] *See, e.g.,* Jose-Miguel Gaspar et al., *Favoritism in Mutual Fund Families? Evidence on Strategic Cross-Fund Subsidization*, 61 J. FIN. 73 (2006)*;* Lipton, *supra* note 201~~202~~.

[207] The extent to which this occurs is unclear. We note, however, that BlackRock received attention in connection with the January 2018 collapse of Carillion in the U.K. *See* Emma Rumney, Ben Martin, & Alasdair Pal, *Carillion collapse hits banks and investors, boosts short sellers*, REUTERS, Jan. 15, 2018, https://uk.reuters.com/article/uk-carillion-restructuring-funds/carillion-collapse-hits-banks-and-investors-boosts-short-sellers-idUKKBN1F424D (describing BlackRock's ownership of Carillion). BlackRock's mutual funds owned a substantial long position in Carillion. According to disclosures made to U.K. regulators, however, BlackRock also held a 1.95% short position, a position that its mutual funds, including its passive funds, could not take. *Id.* It appears that BlackRock's short position was held by its hedge funds. *See, e.g.*, Blackrock, *Custom Hedge Fund Solutions*, https://www.blackrock.com/ca/institutional/en/strategies/alternative-strategies/hedge-fund-

Thus far, we have focused on sponsors' potential gains from passive funds' access to information. The conflict between passive and other funds within the same family, however, may reduce sponsors' incentive to use passive funds' voice to improve the governance or operations of underperforming companies. Because active funds generate higher fees, the reward to the sponsor from this outperformance may outweigh the harm resulting from the poor performance of the market index in which the passive funds are invested.

Similarly, passive fund sponsors may value the access to management afforded by the substantial stakes held by their passive funds, access that provides value to their actively-managed funds. To the extent that sponsors can leverage this access into better-informed stock-picking by active managers, it will enable them to charge higher fees for their actively-managed funds. There is some evidence that fund sponsors tend to favor funds that charge higher fees and are therefore more profitable for them.[208] This favoritism could, in theory, lead a mutual fund family to refrain voting its substantial passive fund holdings against or criticizing management, even when such opposition would be warranted.

4. Concentration of Economic Power

The continuing inflows into passive funds, combined with the economies of scale that characterize passive investors, have had the effect of increasing the quantity of assets under management at the largest mutual fund families-- BlackRock, Vanguard, and State Street. The so-called Big Three are getting pretty big, and the rise of passive investment will undoubtedly contribute to their future growth. As we explained in section A, passive investors' pivotal role in shareholder votes reduces their cost of acquiring firm-specific information and increases their ability to influence at least the structure and governance practices, if not the operational decisions, of their portfolio companies.

This increased ownership concentration will clearly change the nature of corporate governance. Its ultimate effects, however, are difficult to predict at this stage. On the one hand, the rise of institutions with a significant ownership stake may reduce the collective action problems that modern corporations have faced since the 1930s.[209] Berle-Means identified the managerial agency costs that arise in corporations with dispersed public ownership.[210] The reconcentration of ownership in the hands of the major mutual fund families offers the potential

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solutions?nc=true&siteEntryPassthrough=true (describing BlackRock's hedge fund advisory services). *See also* Bloomberg News, *BlackRock's cheap hedge fund doubles its assets in six months*, Aug. 2, 2017, http://www.investmentnews.com/article/20170802/FREE/170809983/blackrocks-cheap-hedge-fund-doubles-its-assets-in-six-months (explaining how BlackRock broke the 1% fee barrier with its "cheap" hedge fund and that the fund has experienced substantial inflows in assets).

208 *See* Jose-Miguel Gaspar et al., *Favoritism in Mutual Fund Families? Evidence on Strategic Cross-Fund Subsidization*, 61 J. FIN. 73 (2006)

209 Berle and Means most notably identified the problem of dispersed small ownership and the resulting empowerment of management. *See* ADOLF A. BERLE & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY (1932).

210 *Id.*

to reduce these agency costs.[211] Moreover, although the investment horizon of passive investors is indeterminate, it is longer than those of active funds and activists. Thus, for those concerned with short-termism that may accompany greater monitoring by active mutual funds and hedge funds, passive investors with a significant ownership stake serve as a valuable antidote.

On the other hand, concentrating ownership of virtually all public companies in the hands of a few complex intermediaries with a range of interests and imperfect incentives could raise potential concerns. For example, those in control of these new power brokers could use their immense influence over to pursue pecuniary or nonpecuniary private benefits of control.[212]

5. Implications for Shareholder Empowerment

Our analysis thus far has identified several concerns about passive investors' use of their considerable influence over public companies. Should these concerns change our view about the role of shareholder voting in corporate governance? A variety of recent legal developments privilege the results of a shareholder vote. Delaware law, in particular, provides shareholders with the right to vote their shares as they see fit and does not impose any obligation on shareholders to vote unselfishly or to further the economic interests of the corporation. The rationale for this approach is that, by and large, shareholders have appropriate incentives to behave in ways that are calculated to maximize firm value.

Our analysis in this section questions whether deference to the voting behavior of passive investors makes sense. The rise of passive investors may offer a reason at least to reexamine this traditional deference and to consider alternatives such as the U.K.'s abuse of the majority principle.[213] However, we do not believe that the rise of passive investors should lead to reallocation of power between shareholders and boards. Rather, the concerns that we identify here should be resolved, if at all, by possible regulation. This could include specific rules (disclosure or disinterested voting) in voting on mergers and other matters.[214]

The case has not yet been made, however, that the more complex incentives of passive owners present a challenge to the existing model of corporate governance. In particular, the most powerful response to the foregoing discussion is the recognition that the incentives of both passive funds and their sponsors are not monolithic but vary substantially depending on the

[211] *See, e.g.*, Alex Edmans, *Blockholders and Corporate Governance*, 6 ANN, REV. FIN. ECON. 23 (2014) (reviewing the literature on the various ways in which large shareholders engage in corporate governance, including voice and exit, and identifying the potential of such shareholders both to improve corporate governance and to obtain private benefits).

[212] *Cf.* Ronald Gilson, *Controlling Shareholders and Corporate Governance: Complicating the Comparative Taxonomy*, 119 HARV. L. REV. 1641 (2006) (discussing controlling shareholders' pursuit of different types of private benefit of control).

[213] See, e.g., Edward Rock, *Corporate Law Doctrine and the Legacy of American Legal Realism,* 163 U. PA. L. REV. 2019, 2046 (2015) (discussing application of abuse of majority principle in U.K. case of Asset Mgmt. S.A. v. Irish Bank Resolution Corp., [2012] EWHC (Ch) 2090, [6] (Eng.).).

[214] See Iman Anabtawi & Lynn Stout, *Fiduciary Duties for Activist Shareholders*. 60 STAN. L. REV. 1255 (2008) (calling for extending fiduciary duties to activists to prevent them from using their influence to pursue their own economic interests at the expense of target companies).

composition of the fund, and the business model and other business activities of the fund's sponsor.[215] As a result, there is little reason to believe that the big three or passive funds more generally will vote or otherwise act as a block.

E. Corporate Governance in the IPO Market

In this article we have examined how passive investors affect corporate governance through voice. However, this is mid-stream activity. The rise of passive investors has the potential to shift corporate governance and private ordering decisions through the IPO market.

As a preliminary matter, we think that the rise of passive investors and their inability to sell may heighten the focus on IPO governance. The conclusion naturally arises since the buy decisions for these index funds are automatic and therefore the funds may focus their voice on IPO governance rather than midstream changes. The rationale is that passive funds may find it more efficient and easier to influence governance and ability to express voice at the IPO stage rather than later. This is particularly true due to the rise of firms with multiple classes of stock which seek to curb passive investor voice by maintaining voting control in the hands of a core set of founders or owners.

Existing law has been deferential to firm governance decisions at the IPO stage.[216] This approach has relied on the premise that governance arrangement that firms adopt at the IPO stage are subject to market discipline. IPO investors can, in theory, price issuers' governance structure or, in the alternative, refuse to invest in issuers that have bad corporate governance.[217]

Commentators have challenged this description of the IPO process as factually inaccurate.[218] Studies suggest that IPO-stage investing is driven primarily by an issuer's cash flow and revenue projections, and that IPO investors might not price governance terms.[219] The growth of passive investors may further reduce IPO-stage market discipline, however. Passive investors cannot avoid purchasing the shares of an issuer that is to become part of their index, whatever the quality of its corporate governance. Passive investors, therefore, are forced buyers. Moreover, because the terms of inclusion in an index are predetermined and public, some companies can predict, at the time they go public, that their shares will become part of a popular

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215 *See, e.g.*, Fichtner, et al, *supra* note 3 at 307 ("These portfolios may have different interests when it comes to shareholder vote.").

216 See debate over dual class, staggered boards, even arbitration bylaws. [TBC]

217 *See, e.g.*, Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 306 (1976) (discussing the founders' incentives to choose efficient corporate governance arrangements at the IPO stage); Frank E. Easterbrook & Daniel Fischel, *The Corporate Contract*, 89 COLUM. L. REV. 1416 (1989).

218 *See, e.g.*, Lucian A. Bebchuk, *Why Firms Adopt Antitakeover Arrangements,* 152 U PA. L. REV. 713 (2003).

219 *See* Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protection in IPOs,* 17 J.L. ECON. & ORG. 83 (2001).

index.[220] These companies can rely on substantial "fixed" demand for their shares regardless of their quality of governance arrangements or other features.[221]

As noted above, several institutional investors have used the concern that passive investors are forced to buy poorly-governed firms in their attempt to seek regulatory limits on IPO governance arrangements. Most recently, these concerns have been raised in connection with the substantial number of technology company IPOs involving dual class stock.[222] Institutional investors first asked the U.S. stock exchanges to prohibit dual class IPOs. The Council of Institutional Investors, for example, noted that its members follow passive investment strategies and therefore cannot simply decline to buy shares of such companies.[223] Using similar arguments, institutional investors later asked leading index providers to exclude dual class companies.[224] In response, several index providers agreed to exclude certain multiple class companies from their major indexes.[225]

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[220] A similar concern arises with respect to passive investment in corporate bonds. A recent study suggests that the rise of passive bond funds induces bond issuers to take on more leverage, as the inclusion in bond indices is based on the market value of outstanding bonds. Thus, issuing more debt may increase the demand for the issuer's bonds. *See* Vladyslav Sushko & Grant Turner, *The Implications of Passive Investing for Securities Markets*, BIS QUARTERLY REV. 113, 121-122 (March 2018).

[221] Passive funds normally do not buy shares at the IPO or immediately thereafter, because issuers typically qualify for index inclusion only several months after their IPO. *See* Ari I. Weinberg, *Why Index Funds Have a Limited Presence in the IPO Market*, WALL ST. J., Sept. 4, 2017; S&P U.S. Indices Methodology 5 (Aug. 2017) (initial public offerings should be traded on an eligible exchange for at least 12 months before being considered for addition to an S&P index). This feature of index funds might lead their investors to lose access to attractively priced IPOs. *See* Steve Johnson, *Index Funds Will Be Higher Priority in Future UK IPOs,* FIN. TIMES, Jan. 4, 2015.

[222] For example, FINRA reports that "between 2013 and late 2015, 98 companies newly listed on U.S. exchanges had dual class IPOs." Finra Staff, *Supervoters, Stocks and Silicon Valley: What Investors Should Know About Dual Class Voting Structures*, Dec. 1, 2015, available at http://www.finra.org/investors/supervoters-stocks-and-silicon-valley-what-investors-should-know-about-dual-class-voting

[223] *See Council of Institutional Investors Letter to NYSE Chief Regulation Officer*, Oct. 2, 2012 ("[T]he importance of one-share, one vote is particularly critical to Council members as heavy users of passive investment strategies. With the average Council member indexing approximately 47 percent of its U.S. stock portfolio and approximately 16 percent of its U.S. bonds, our members can not simply sell their stock in companies with a multi-class stock structure."). In the United Kingdom, investors asked the listing authority to take indexing into account in setting governance standards. *See* Financial Services Authority, *Enhancing the Effectiveness of the Listing Regime and Feedback on CP12/2* (Oct. 2012) ("indexation and its link to the Listing Regime has been seen as integral to the governance debate, particularly in relation to non-UK issuers. This reflects the perception that some investors are 'forced' into buying the securities of these issuers by virtue of these issuers' inclusion in the FTSE indices and the terms of the mandates under which the investments are managed, for example in relation to index-tracking.")

[224] *See Council of Institutional Investors, Letter to MSCI Equity Index Committee*, Aug. 3, 2017 ("CII's membership includes strong supporters of passive index strategies, and we believe that major index providers have a critical role to play in preventing non-voting and multi-class equity structures from gaining unstoppable momentum").

[225] *See, e.g.*, Chris Dieterich, Maureen Farrell & Sarah Krouse *Stock Indexes Push Back Against Dual-Class Listings Stock Indexes Push Back Against Dual-Class Listings*, WALL ST. J., Aug. 2, 2017, https://www.wsj.com/articles/stock-indexes-push-back-against-dual-class-listings-1501612170 (reporting S&P's decision that Snap and other dual class companies would not be eligible for inclusion in the S&P 500 index); Speech of SEC Commissioner Robert Jackson, Perpetual Dual-Class Stock: The Case Against Corporate Royalty, Feb. 15, 2018, https://www.sec.gov/news/speech/perpetual-dual-class-stock-case-against-corporate-royalty (reporting that "three major providers have moved to exclude dual-class companies from significant stock indexes").

Again, it is too early to tell whether the rise of passive investment should make lawmakers rethink the permissive approach to private ordering at the IPO stage. [226] One might argue, for example, that index providers—and not lawmakers or stock exchanges—should take steps to ensure that passive investors are not forced to invest in poorly governed firms.[227] With the rise of passive investment, however, another question is whether lawmakers should exercise oversight over index providers to improve the protection of passive investors. In some jurisdictions, for example, lawmakers have directly intervened in certain indices to protect passive investors.[228]

Finally, we should note that the recent developments concerning the inclusion of dual class companies in leading stock indices lend support to our thesis about the competition between passive and active funds. Not all passive investors supported the effort to pressure index providers to exclude dual class companies. BlackRock, for example, appeared to view the exclusion as disadvantaging its index funds in their competition with actively-managed alternatives.[229] More specifically, Blackrock was concerned that its passive funds would be deprived of investments in high growth technology stocks which its active funds could still purchase. As a solution to this competitive problem, passive owners are now seeking to have the stock exchanges impose limits on issuer use of dual class structures so that they can still invest in these companies on similar terms as active funds.[230]

Ultimately, this leads to the conclusion that the rise in passive investing may result in more attempts to influence IPO governance, but that this is not a foregone conclusion. Instead, other competitive factors which we highlight, such as the need for passive funds to compete with active funds may mitigate any sea-change in this area.

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[226] Note that the problem may be more severe in non-U.S. markets, where it may be easier for companies to get included in major stock indices. In the UK, for example, listings of foreign poorly governed large-cap companies with from Russia and Indonesia led to their inclusion in a leasing FTSE index. This in turns led UK institutional investors to push for new listing rules that would govern premium-listed companies. *See* Richard Wachman, *FTSE Makes Room for more Russians*, THE GUARDIAN (Dec. 6, 2011), https://www.theguardian.com/business/2011/dec/06/ftse-russian-miners-governance-concerns.

[227] The UK Listing Authority, for example, has expressly rejected the claim that decisions over listing standards should be influenced be the need to protect passive investors. *See* Financial Services Authority, *Enhancing the Effectiveness of the Listing Regime and Feedback on CP12/2*, Sec. 1.26 (Oct. 2012) ("while we recognise the importance attached to indexation by both issuers and investors, we do not believe that the Listing Regime should be driven by the needs of issuers seeking indexation or by the needs of investors who have chosen to base their investment decisions on passively tracking an index.").

[228] Israel's Securities Authority, for example, has ordered the Tel Aviv Stock Exchange to exclude from its indices cryptocurrency companies. *See Israel Securities Authority Determines: Cryptocurrency Companies Not to Be Included in TASE Indices* (Mar. 14, 2018), available at http://www.isa.gov.il/sites/ISAEng/1489/1511/Pages/eitiniteng21032018.aspx.

[229] Ning Chiu, *BlackRock Wants Equal Voting Rights but Opposes Exclusion from Indexes*, Davis Polk Briefing: Governance, Oct. 23, 2017, https://www.briefinggovernance.com/2017/10/blackrock-wants-equal-voting-rights-but-opposes-exclusion-from-indexes/ (citing BlackRock's concern that excluding dual class companies from the index would deprive their index-based clients of "opportunities for return.").

[230] *See, e.g.*, Council of Institutional Investors, *Dual Class Stock*, available at https://www.cii.org/dualclass_stock (explaining that "Stock exchanges could address the problem by ensuring their listing standards bar companies with dual-class structures.").

Conclusion

Passive investors are the new king of our capital markets, at least for the time being. This will no doubt change our capital markets and firm governance and is a development which requires further empirical study and research. In this Article, we provide the first theoretical framework for passive investment as a basis for this further study.

We explore prior criticism of passive investors and show that this criticism is incomplete. It has failed to recognize that while index funds are locked into their investments, the shareholders who invest in these funds are not. This creates incentives for passive funds to retain and grow capital and to engage actively with firms and other market participants such as activist hedge funds. Moreover, the existing literature analyzes the behavior and incentives of passive investors at the level of the individual mutual fund but fails to recognize that fund sponsors are the drivers of fund behavior and that they have incentives to maximize revenue across their entire menu of funds.

These critiques provide our fundamental insight that because of the competition between active and passive funds, index funds need to monitor their portfolio companies and to exercise their governance rights in an informed manner to promote firm value. Passive investors thus have incentives to promote firm value in a manner which counteracts prior criticism of these investors. Passive investors must do this by relying on voice, rather than exit.[231]

Our theory leads to several conclusions. While the rise of passive investors may raise concerns, concerns that we explore in this article, critics who have argued that passive investors should be deprived of voice or have incentives to engage in anti-competitive behavior fail to recognize the structure of passive funds and the institutional context in which they operate. While it is too early to resolve the net effect of passive investors on economic outcomes, this Article provides a theoretical framework for analyzing future passive investor conduct and any proposed policies to address their extraordinary rise.

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[231] Institutional investors are well aware of this limitation and note it frequently in communications with investors and firms. *See, e.g.*, Fink, *supra* note 14 ("In managing our index funds, however, BlackRock cannot express its disapproval by selling the company's securities as long as that company remains in the relevant index. As a result, our responsibility to engage and vote is more important than ever.").