NATURAL-PERSON SHAREHOLDER VOTING

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"One-share, one-vote" corporate governance often leads to inefficient negative externalities, even when shareholders care about direct harm to themselves and even if corporations respond to shareholder preferences. Because equity ownership is concentrated, while many externalities are more diffuse, corporate voting underweights externalities. But allocating votes according to the principle of "one person, one vote" creates the opposite problem: inefficiently low corporate profits. This Article presents an intermediate voting rule that limits negative externalities without underweighting corporate profits. The rule allocates bonus votes to beneficial owners who cross a threshold ownership level at which profit entitlements approximate externality exposures. This amplifies the voice of the subset of owners with socially optimal preferences. Information problems could be mitigated through intermediary institutions that would serve as voting proxies. Voluntary adoption of this governance regime could be encouraged through tax or regulatory incentives.

INTRODUCTION 1527
I. THE TRIUMPH OF SHAREHOLDER PRIMACY 1528
II. THE PROBLEM OF NEGATIVE EXTERNALITIES 1536
A. Calls for Corporate Self-Regulation 1539
B. The Importance of Shareholder Voting 1545
III. WHO ARE SHAREHOLDERS AND WHAT DO THEY WANT? 1546
A. Portfolio Returns and Diversification 1546
B. The Preferences of Beneficial Owners as Natural Persons 1549
C. Previous Models of Shareholder-Driven Corporate Externality Reduction 1550
D. Shareholder as Broadly Self-Interested 1551

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E. Shareholders Have Heterogenous Equity Exposures 1552
F. Exposures to Externalities Differ from Exposure to the Return on Equity 1553
1. *Exposure to Health-Related Externalities Decreases as Shareholdings Increase* 1554
2. *Exposure to Property-Related Negative Externalities Increases with Shareholdings* 1555
G. Opposition to Negative Externalities is Often Inversely Related to Shareholdings 1558
IV. A Model of Shareholder Voting Based on Profit Shares and Externality Exposures 1559
A. Divergence Between Social Welfare and Shareholder Welfare 1559
B. Aggregation of Votes Across Shareholder Groups 1560
1. *Three Groups Defined by Population, Externality Exposure, Profits and Votes* 1561
2. *Voting Rules and Conditions to Win* 1562
3. *Measuring the Efficiency of Approved Projects* 1563
4. *Illustration Using the Actual Distribution of Beneficial Ownership* 1564
C. The Joint Distribution of Exposures to Externalities, Beneficial Ownership & Votes 1565
1. *Uniformly Distributed Externalities* 1566
2. *Some Generalizable Insights from the Model* ... 1567
3. *Negative Relation Between Externality Exposures and Shareholdings* 1568
4. *Positive Relation Between Externality Exposures and Shareholdings* 1568
V. Implementation Issues 1569
A. Overcoming Rational Apathy through Voting Intermediaries 1571
1. *Beneficial Ownership and Indirect Voting* 1573
2. *Unbundling Indirect Voting from Investment Management* 1575
B. Private Ordering and Incentives to Adopt Natural Person Shareholder Voting 1577
C. Takeovers and Vote-Padding 1578
D. Competition and ESG-assisted Regulation 1579
Conclusion 1580

INTRODUCTION

The traditional view in corporate governance, shareholder primacy, holds that boards and executives should manage corporations with a single-minded focus on increasing financial returns to shareholders. By contrast, the Environmental, Social and Governance (ESG) and stakeholder movements want corporations to consider the interests of stakeholders such as employees, customers, governments, and communities in which corporations operate. All agree that corporations can increase financial returns to shareholders either productively—through value creation—or unproductively, through "value capture" or redistribution, including the creation of socially inefficient negative externalities.

Ideally, corporations would create more value while externalizing less harm. According to one leading estimate, corporate externalities in the United States cost more than a trillion dollars annually.

Even if shareholders are self-interested, it might not make sense for them to care only about financial returns. Instead, shareholders likely care about both the return on their investment and the direct effect that negative externalities have on themselves. But beneficial ownership of corporate equity and exposures to externalities vary dramatically throughout the population. As a result, some shareholders are willing to tolerate higher levels of externalities than others to increase corporate profits.

This Article contributes to the literature by modeling the connection between the distribution of equity ownership, the distribution of negative externalities, the rule for aggregating shareholder votes, and the extent to which corporations will voluntarily self-police to reduce negative externalities. It assumes that returns on investment are distributed according to individual beneficial ownership. However, negative externalities are initially distributed either: (1) equally throughout the population; (2) in inverse proportion to beneficial ownership; or (3) negative externalities increase with beneficial ownership but at a slower rate than financial returns.

This model and Federal Reserve data on beneficial ownership suggests that even if shareholders care about the direct effect of externalities on themselves, the beneficial owners of a majority of shares will be willing to tolerate more than $8 dollars of additional uniformly distributed negative externalities in return for only $1 in additional corporate profits. The model also helps explain why shareholder-value oriented ESG has

been more focused on limiting negative externalities that adversely affect property, such as the effects of Climate Change, than on externalities that adversely affect health and safety.

The analysis suggests that a novel rule for aggregating shareholder votes could reduce negative externalities without inefficiently reducing corporate profits. The rule is more efficient than either the traditional "one-share, one-vote" rule or the opposite extreme, "one-person, one-vote." This intermediate voting rule would allocate bonus votes to beneficial owners who cross the threshold ownership level at which profit entitlements equal or moderately exceed likely externality exposures.

While smaller beneficial owners may be less informed and less motivated to vote, rational apathy and information problems could be managed through intermediary institutions serving as voting proxies. Governments could encourage voluntary opt-ins to this governance regime via tax incentives.

Part I of this Article discusses the success of the traditional model of corporate governance, shareholder primacy. Part II describes the problem of negative externalities and the case for helping to ameliorate this problem through corporate self-policing. Part III considers the preferences of shareholders and beneficial owners as natural persons. Part IV presents the model and its key implications. Part V discusses implementation issues and possible objections.

I
The Triumph of Shareholder Primacy

"Good" corporate governance is closely associated with shareholder primacy.[1] Under shareholder primacy, boards of directors and managers run corporations with a single-minded focus on shareholder value. The antithesis of good governance—agency costs—refer to the gap between what shareholders want and what managers do.[2] Shareholder primacy unifies diverse investors and focuses the board and management on a singular goal—benefiting shareholders.[3] While

1 Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 Geo. L.J. 439, 440–41, 468 (2001); 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, 1526–36 (2007).

2 Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. Fin. Econ. 305, 308–10 (1976).

3 Milton Friedman, *A Friedman Doctrine: The Social Responsibility of Business Is to Increase Its Profits*, N.Y. Times (Sept. 13, 1970), https://www.nytimes.

individual beneficial owners have many interests, shareholder primacy is often interpreted narrowly as a directive for mangers to increase financial returns.[4] With a simple goal and a clear focus, managers and directors can sidestep "personal or petty concerns" and more easily increase investor wealth.[5] All investors agree that *all else being equal*, they wish to be wealthier rather than poorer.[6]

Shareholder value has an additional advantage of being readily observable, at least for publicly traded firms. Frequent market transactions provide managers and investors with constant updates regarding market perceptions of the value of the firm.[7] Managers and directors are not legally obligated to *agree* with financial markets about what is best for the company.[8] But defying the market immediately reduces the value of managers' equity incentive compensation, and eventually can imperil their job security.[9] Non-pecuniary shareholder

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com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html [https://perma.cc/3RA7-TLCS]. *See generally* Michael C. Jensen, *Value Maximization, Stakeholder Theory, and the Corporate Objective Function*, 12 BUS. ETHICS Q. 238 (2002).

4 Financial returns include both dividends and the market capitalization of equity.

5 CA, Inc. v. AFSCME Emps. Pension Plan, 953 A.2d 227, 240 (Del. 2008).

6 Oliver D. Hart, *On Shareholder Unanimity in Large Stock Market Economies*, 47 ECONOMETRICA 1057, 1057–59 (1979).

7 Or at least its equity. For firms with publicly traded unsecured debt, market values can provide broader information about the overall value of the firm. See *generally* April Klein & Emanuel Zur, *The Impact of Hedge Fund Activism on the Target Firm's Existing Bondholders*, 24 REV. FIN. STUD. 1735 (2011); Michael Simkovic, *Making Fraudulent Transfer Law More Predictable*, *in* RESEARCH HANDBOOK ON CORPORATE BANKRUPTCY LAW 118, 119–21 (Barry E. Adler ed., 2020), http://ssrn.com/abstract=2775920 [https://perma.cc/R2U2-MJR5]. *Cf.* Robert K. Rasmussen & Michael Simkovic, *Bounties for Errors: Market Testing Contracts*, 10 HARV. BUS. L. REV. 117, 124–29 (2020) (describing attempts to manipulate bond valuations).

8 Air Prods. & Chems. Inc. v. Airgas, Inc., 16 A.3d 48, 112 (Del. Ch. 2011) (citing Unitrin, Inc. v. Am. Gen. Corp. (*In re* Unitrin), 651 A.2d 1361, 1376 (Del. 1995) (citing Paramount Commc'ns v. Time Inc., 571 A.2d 1140,1150–53 (Del. 1989) ("[T]he directors of a Delaware corporation have the prerogative to determine that the market undervalues its stock and to protect its stockholders from offers that do not reflect the long-term value of the corporation . . . directors [may] determine that the present stock market price of shares is not representative of true value."))). In the limited context of certain board-initiated sales of the company, market valuation can trump board discretion.

9 Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 TEX. L. REV. 987, 1037–47 (2010). *See generally* Murali Jagannathan & A.C. Pritchard, *Do Delaware CEOs get Fired?*, 74 J. BANKING & FIN. 85 (2017). *Cf.* Lucian Arye Bebchuk & Jesse M. Fried, *Executive Compensation as an Agency Problem*, 17 J. ECON. PERSP. 71, 71–72, 75–76 (2003) (arguing that aspects of compensation continue to reflect managerial power and agency costs).

preferences may be harder to observe in real time and harder to incorporate into incentive compensation.

The most potent legal support for shareholder primacy comes from the power of shareholders to elect and remove directors.[10] Directors can hire and fire senior management, set high-level corporate policy,[11] and facilitate or impede a sale of the company to a new controller.[12] The disciplining effect of the market for corporate control pressures directors and managers to serve shareholder interests.[13] A high equity valuation makes a takeover more costly and less likely. Although contested proxy contests and hostile takeovers are rare, the mere possibility can exert an *in terrorem* effect.

Directors sitting on corporate compensation committees have increasingly tied senior managers' compensation to the corporation's stock returns through stock options and other incentive compensation.[14] The shift toward incentive compensation was initially intended to reduce agency costs and focus managers on improving financial returns to shareholders.[15]

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10 DGCL § 211(b), (c); DGCL § 141(k). In the U.S. and other common law countries, directors who do not prioritize shareholder value are more likely to be removed than those who do. Ugur Lel & Darius Miller, *The Labor Market for Directors and Externalities in Corporate Governance: Evidence from the International Labor Market*, 68 J. Acct. & Econ. 1, 2–3 (2019).

11 DGCL § 141; DGCL § 122; Kahan & Rock, *supra* note 9, at 1030–32.

12 Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 82 (Del. 1986) ("The Revlon board's authorization permitting management to negotiate a merger or buyout with a third party was a recognition that the company was for sale. This significantly altered the board's responsibilities under the *Unocal* standards. . . . The directors' role changed from defenders of the corporate bastion to auctioneers charged with getting the best price for the stockholders at a sale of the company."); *cf.* Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 955 (Del. 1985) ("[Directors'] duty of care extends to protecting the corporation and its owners from perceived harm . . . not . . . primarily . . . a desire to perpetuate themselves in office . . . [but rather] good faith concern for the welfare of the corporations and its stockholders . . . . [C]oncerns may include: inadequacy of the price offered [and also] the impact on 'constituencies' other than shareholders (i.e., creditors, customers, employees, and perhaps even the community generally).").

13 Shareholders' vote on fundamental corporate transactions such as sales of the firm and charter amendments effectively gives them a veto.

14 Brian J. Hall & Jeffrey B. Liebman, *The Taxation of Executive Compensation*, 14 Tax Pol'y & Econ. 1, 1–2 (2000); Edward B. Rock, *Adapting to the New Shareholder-Centric Reality*, 161 U. Pa. L. Rev. 1907, 1910, 1917–19, 1924 (2013); Brian J. Hall & Kevin J. Murphy, *Stock Options for Undiversified Executives*, 33 J. Acct. & Econ. 3, 15 (2002).

15 Jensen & Meckling, *supra* note 2, at 308; Sanjai Bhagat & Roberta Romano, *Reforming Executive Compensation: Focusing and Committing to the Long-Term Essays from the Weil, Gotshal & Manges Roundtable on the Future of Financial Regulation, Yale Law School, February 13, 2009*, 26 Yale J. on Reg. 359, 361, 363

This pro-shareholder shift was reinforced through tax incentives.[16]

Fiduciary duties and related norms may further encourage a shareholder-value orientation,[17] even though the threat of shareholder litigation for failure to maximize equity returns has largely been mitigated through deference to directors under the business judgment rule,[18] exculpation provisions in corporate charters,[19] director and officer indemnification and liability insurance,[20] and deference to special litigation committees.[21] To avoid liability, managers must articulate facially plausible reasons explaining how contested corporate policies eventually will create value for shareholders.[22]

(2009); Sanjai Bhagat, James A. Brickley & Ronald C. Lease, *Incentive Effects of Stock Purchase Plans*, 14 J. Fin. Econ. 195, 206, 208 (1985).

16 *See generally* Myron S. Scholes, *Stock and Compensation*, 46 J. Fin. 803 (1991); James R. Repetti, *The Misuse of Tax Incentives to Align Management-Shareholder Interests*, 19 Cardozo L. Rev. 697, 700 (1997); Gailen L. Hite & Michael S. Long, *Taxes and Executive Stock Options*, 4 J. Acct. & Econ. 3, 3–4 (1982).

17 Doron Levit & Nadya Malenko, *The Labor Market for Directors and Externalities in Corporate Governance*, 71 J. Fin. 775, 2 (2016) (arguing that reputational concerns influence the extent to which directors are shareholder-friendly versus management friendly); Dorothy S. Lund & Elizabeth Pollman, *The Corporate Governance Machine*, 121 Colum. L. Rev. 2563, 2605 (2021) (discussing indoctrination into norms of shareholder value maximization through professional and business education).

18 Stuart R. Cohn, *Demise of the Director's Duty of Care: Judicial Avoidance of Standards and Sanctions through the Business Judgment Rule*, 62 Tex. L. Rev. 591, 591–94 (1983).

19 *See* DGCL § 102(b)(7); Stephen J. Lubben & Alana J. Darnell, *Delaware's Duty of Care*, 31 Del. J. Corp. L. 589, 613 (2006); Elizabeth A. Nowicki, *Director Inattention and Director Protection under Delaware General Corporation Law Section 102(b)(7): A Proposal for Legislative Reform*, 33 Del. J. Corp. L. 695, 709 (2008).

20 *See* DGCL § 145; Joseph W. Bishop, Jr., *Sitting Ducks and Decoy Ducks: New Trends in the Indemnification of Corporate Directors and Officers*, 77 Yale L.J. 1078, 1079–87 (1968); Roberta Romano, *Corporate Governance in the Aftermath of the Insurance Crisis*, 39 Emory L. J. 1155, 1155–56 (1990).

21 Zapata v. Maldonado, 430 A.2d 779, 786–87 (Del. 1981); Spiegel v. Buntrock, 571 A.2d 767, 775 (Del. 1990); John C. Coffee, Jr. & Donald E. Schwartz, *The Survival of the Derivative Suit: An Evaluation and a Proposal for Legislative Reform*, 81 Colum. L. Rev. 261, 268, 272 (1981); James D. Cox, *Searching for the Corporation's Voice in Derivative Suit Litigation: A Critique of Zapata and the ALI Project*, 31 Duke L.J. 959, 964–69 (1982). *See generally* Kenneth B. Davis, Jr., *Structural Bias, Special Litigation Committees, and the Vagaries of Director Independence*, 90 Iowa L. Rev. 1305 (2005). *Cf.* London v. Tyrrell, No. 3321-CC, 2010 WL 877528, at *1, *5–6 (Del. Ch. March 11, 2010) (scrutinizing possible bias in a Special Litigation Committee decision); Minor Myers, *The Decision of the Corporate Special Litigation Committees: An Empirical Investigation*, 84 Ind. L.J. 1309, 1309 (2009) (finding evidence that special litigation committees pursue claims more often that commentators generally assume).

22 *See* eBay Domestic Holdings, Inc. v. Newmark, 16 A.3d 1 (Del. Ch. 2010); David A Wishnick, *Corporate Purposes in a Free Enterprise System: A Comment*

Rationalizations may be legally sufficient, but norms of honesty act as a soft constraint.

Shareholder primacy is reinforced through beneficial owners' rights to high-quality information regarding firm decision-making and firm profitability.[23] Beneficial owners' rights to inspect corporate books and records for a "proper purpose" are among the few mandatory rules in Delaware corporate law.[24] Publicly traded firms are obligated by securities laws to disclose information that would be of interest to investors,

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on eBay v. Newmark, 121 YALE L. J. 2405, 2409–14 (2012). Although the *eBay* court held for plaintiffs, it explained that the Craigslist board could have easily prevailed by providing plausible reasons why their preferred policies would be good for long-term shareholder value. The court expressed frustration that defendants did not even pay lip service to shareholder value. *eBay Domestic Holdings*, 16 A.3d at 33–34 ("Jim and Craig did not make any serious attempt to prove that . . . reject[ing] any attempt to further monetize its services, translates into increased profitability for stockholders. [They could have shown that] by offering free classifieds, craigslist is able to attract such a large community of users that real estate brokers [and] employers . . . happily pay fees to advertise . . . to craigslist users. . . . Jim and Craig . . . prove[d] that they personally believe craigslist should not be about the business of stockholder wealth maximization, now or in the future. . . . I cannot accept as valid for the purposes of implementing the Rights Plan a corporate policy that *specifically, clearly, and admittedly* seeks not to maximize the economic value of a for-profit Delaware corporation for the benefit of its stockholders.") (emphasis added). The *eBay* court acknowledged that in most contexts, even a thinly supported shareholder value justification will be immunized from challenged. *Id.* at 33 ("When director decisions are reviewed under the business judgment rule, this Court will not question rational judgments about how promoting non-stockholder interests—be it through making a charitable contribution, paying employees higher salaries and benefits, or more general norms like promoting a particular corporate culture—ultimately promote stockholder value. Under the Unocal standard, however, the directors must act within the range of reasonableness."). The court was particularly troubled by oppression of a minority shareholder. *Id.* at 31 ("Jim and Craig are not dispersed, disempowered, or vulnerable stockholders. They are the majority."). *But see* Stephen M. Bainbridge, *Making Sense of The Business Roundtable's Reversal on Corporate Purpose*, 46 J. CORP. L. 285, 289 (2021) (arguing that a board of directors' sole obligation is to maximize shareholder value).

[23] George S. Georgiev, *Too Big to Disclose: Firm Size and Materiality Blindspots in Securities Regulation*, 64 UCLA L. REV. 602, 642 (2017). Shareholders can also obtain contact information to facilitate communication with other shareholders.

[24] DGCL § 220; Shaw v. Agri-Mark, Inc., 663 A.2d 464, 467 (Del. 1995). The statute defines a proper purpose as one that is "reasonably related to such person's interest as a stockholder." Subsequent caselaw clarified that proper purposes include: valuing the stock; warning other stockholders of economic risks of business conduct; preparing a stockholder resolution for the next annual meeting; mounting a proxy fight to elect new directors; and initiating shareholder suits and derivative actions for breaches of fiduciary duties. S. Mark Hurd & Lisa Whittaker, *Books and Records Demands and Litigation: Recent Trends and Their Implications for Corporate Governance*, 9 DEL. L. REV. 1, 5 (2006). Improper purposes include influencing the behavior of another corporation, idle curiosity, or harassment.

such as audited financial statements, management discussion and analysis providing context, and a discussion of risks that could affect firm value.[25] Firms or *investors* that disseminate materially misleading information, including by omission, face potential liability.[26] This regulatory regime can generate shockingly honest disclosures:[27] for example, publicly traded firms have acknowledged that they are on the verge of bankruptcy.

Shareholder power over directors has further increased in recent decades with the decline of anti-takeover defenses such as staggered boards, the rise of information intermediaries such as proxy advisors, and more active engagement from institutional investors such as hedge funds and mutual funds.[28]

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[25] Zohar Goshen & Gideon Parchomovsky, *The Essential Role of Securities Regulation*, 55 DUKE L.J. 711, 711–12 (2006) ("[S]ecurities regulation is specifically designed to facilitate and protect the work of information traders. . . . Disclosure duties reduce information . . . costs. . . . Restrictions on fraud and manipulation lower [the cost] of verifying the credibility of information[.]"). *See generally* Holger Spamann, *Indirect Investor Protection: The Investment Ecosystem and its Legal Underpinnings*, 14 J. LEGAL ANALYSIS 16 (2022); Lund & Pollman, *supra* note 17, at 2584; Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 VA. L. REV. 1335, 1338–39, 1341 (1999) (arguing that agency costs would lead managers to under disclose in the absence of mandatory securities laws).

[26] *See, e.g.*, 17 C.F.R. § 240.14a-9 (false or misleading statements); 17 C.F.R. § 240.13b2-2 (representations and conduct in connection with required reports); 17 C.F.R. § 240.14c-6 (false or misleading statements).

[27] *See, e.g.*, Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 714 (1984); Robert Post & Amanda Shanor, *Adam Smith's First Amendment*, 128 HARV. L. REV. F. 165, 172–73 (2015).

[28] Rock, *supra* note 14, at 1922; Kahan & Rock, *supra* note 9, at 1011–13, 1018–21; Lund & Pollman, *supra* note 17, at 2594–97; 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, 886–87 (2013). The effects of these changes remain contested. *Cf.* Lucian Bebchuk, Alma Cohen & Allen Ferrell, *What Matters in Corporate Governance?*, 22 REV. FIN. STUD. 783, 783, 798 (2009) (linking poor stock returns to staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments and documenting an increase in several of these entrenchment devices from the 1990 to the early 2000s, including: staggered boards, poison pills, and golden parachutes). *See generally* Inessa Love, *Corporate Governance and Performance around the World: What We Know and What We Don't*, 26 WORLD BANK RSCH. OBSERVER 42 (2011); Bhagat & Romano, *supra* note 15, at 361–63; Lucian Bebchuk, Scott Hirst & June Rhee, *Towards the Declassification of S&P 500 Boards*, 3 HARV. BUS. L. REV. 157, 158–60 (2013) (documenting successful efforts to destagger boards); Lynn A. Stout, *The Mythical Benefits of Shareholder Control*, 93 VA. L. REV. 789, 808–09 (2007); Yakov Amihud & Stoyan Stoyanov, *Do Staggered Boards Harm Shareholders?*, 123 J. FIN. ECON. 432, 433 (2017) (questioning whether staggered boards really reduce shareholder value for exchange-traded firms).

U.S. corporate governance provides attractive shareholder returns. Stock returns have been extremely high over a prolonged period relative to the returns on other asset classes.[29] These returns are difficult to explain as compensation for risk, given limited equity volatility.[30] Financial economists refer to persistently high returns on equity—above what should theoretically be required to compensate equity holders for risk—as the "equity-risk premium puzzle."[31] Turning to cross-country comparisons, since the 1980s, in the United States and UK—where corporate and political norms strongly support shareholder wealth maximization[32]—stock returns have been above average.[33] Public equities have performed well globally since the shift in emphasis toward shareholder value in the 1980s.[34]

Opportunities to increase efficiency by further reducing agency costs may be limited.[35] Agency costs are assumed to be

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29 *See generally* JEREMY J. SIEGEL, STOCKS FOR THE LONG RUN: THE DEFINITIVE GUIDE TO FINANCIAL MARKET RETURNS & LONG-TERM INVESTMENT STRATEGIES (5th ed. 2013).

30 Rajnish Mehra & Edward C. Prescott, *The Equity Premium: A Puzzle*, 15 J. MONETARY ECON. 145, 145–46 (1985). *See generally* Shlomo Benartzi & Richard H. Thaler, *Myopic Loss Aversion and the Equity Premium Puzzle*, 110 Q. J. ECON. 73 (1995); Jeremy J. Siegel & Richard H. Thaler, *Anomalies: The Equity Premium Puzzle*, 11 J. ECON. PERSPS. 191 (1997); Christian Julliard & Anisha Ghosh, *Can Rare Events Explain the Equity Premium Puzzle?*, 25 REV. FIN. STUD. 3037 (2012); SIEGEL, *supra* note 29. *Cf.* George M. Constantinides, John B. Donaldson & Rajnish Mehra, *Junior Can't Borrow: A New Perspective on the Equity Premium Puzzle*, 117 Q. J. ECON. 269 (2002) (arguing that limits on the ability of young investors to borrow to purchase equities help explain high equity premiums).

31 *See supra* note 30. By contrast, tax scholars and certain corporate law scholars refer more skeptically to these high returns as shareholder "rents", i.e., compensation above and beyond what is necessary to induce investment. Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 283–84, 292, 323 (1999); David M. Schizer, *Between Scylla and Charybdis: Taxing Corporations or Shareholders (or Both) Essay*, 116 COLUM. L. REV. 1849, 1873 (2016); Edward D. Kleinbard, *Business Taxes Reinvented: A Term Sheet*, 156 TAX NOTES 999, 1013 (2017); Stephen R. Bond & Michael P. Devereux, *On the Design of a Neutral Business Tax Under Uncertainty*, 58 J. PUB. ECON. 57, 58 (1995).

32 Lucian Arye Bebchuk & Mark J. Roe, *A Theory of Path Dependence in Corporate Ownership and Governance*, 52 STAN. L. REV. 127, 169 (1999); Mark J. Roe, *Political Preconditions to Separating Ownership from Corporate Control*, 53 STAN. L. REV. 539, 553–54 (2000).

33 Òscar Jordà, Katharina Knoll, Dmitry Kuvshinov, Moritz Schularick & Alan M. Taylor, *The Rate of Return on Everything, 1870–2015*, 134 Q. J. ECON. 1225, Table 7 (2019).

34 *Id.*

35 Rock, *supra* note 14, at 1925–26 ("[M]anagers are incentivized to think like shareholders. . . . [T]he core shareholder-manager agency cost problem now seems largely under control."); William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 677–79 (2010) ("[T]he governance system works dynamically [to minimize] excess agency costs. . . . Even so, a question arises as to the need for greater shareholder empowerment . . . [T]

higher when equity holdings are diffuse and when ownership is separate from control.[36] U.S. public firms rarely have controlling shareholders.[37] Private equity aims to increase returns by reducing agency costs through concentrated ownership and high-powered managerial incentives.[38] Although many studies find that private equity (PE) firms can help improve portfolio company operating performance[39] and often buy targets at relatively low prices,[40] most studies find that PE has not generated higher risk-adjusted returns for its limited partners than comparable public equities.[41] This suggests that agency costs

he move to equity-based management compensation duly encouraged managers to see things the shareholders' way. . . . Stock options and exit compensation provided a carrot, and majority-independent boards held out a stick in the form of a rising rate of CEO dismissals."); Lund & Pollman, *supra* note 17 ("A vast array of institutional players—proxy advisors, stock exchanges, ratings agencies, institutional investors, and associations—enshrine shareholder primacy in public markets.").

36 This is because agency costs may be exacerbated by limited shareholder control and limited oversight of managers.

37 Ronald J. Gilson, *Controlling Shareholders and Corporate Governance: Complicating the Comparative Taxonomy*, 119 HARV. L. REV. 1641, 1645–47 (2006). Controlling shareholders outside the United States frequently have voting or control rights exceeding their percent ownership, and in addition to providing monitoring, may extract some private benefits of control.

38 *See generally* Paul Gompers, Steven N. Kaplan & Vladimir Mukharlyamov, *What do private equity firms say they do?*, 121 J. FIN. ECON. 449 (2016).

39 *See e.g.*, Shourun Guo, Edith S. Hotchkiss & Weihong Song, *Do Buyouts (Still) Create Value*? 66 J. FIN. 479 (2011).

40 Leonce L. Bargeron, Frederik P. Schlingemann, René M. Stulz & Chad J. Zuttera, *Why Do Private Acquirers Pay So Little Compared to Public Acquirers?* 89 J. FIN. ECON. 375 (2008).

41 *See generally* Steven N. Kaplan & Antoinette Schoar, *Private Equity Performance: Returns, Persistence, and Capital Flows*, 60 J. FIN. 1791 (2005) (finding PE gross returns similar to the S&P 500); Ludovic Phalippou & Oliver Gottschalg, *The Performance of Private Equity Funds*, 22 REV. FIN. STUD. 1747 (2009) (finding risk adjusted annual PE returns, net of fees, trail the S&P 500 by 6%); Francesco Franzoni, Eric Nowak & Ludovic Phalippou, *Private Equity Performance and Liquidity Risk*, 67 J. FIN. 2341 (2012) (finding risk-adjusted returns for PE are comparable to public equities); Ludovic Phalippou, *Performance of Buyout Funds Revisited?*, 18 REV. FIN. 189 (2014) (finding that PE underperforms a leveraged portfolio of small-cap value public equities by 3% annually). *Cf.* Robert S. Harris, Tim Jenkinson & Steven N. Kaplan, *Private Equity Performance: What Do We Know?*, 69 J. FIN. 1851 (2014) (finding that private equity funds outperform the S&P 500 by 3% annually net of fees). If the benefits of private equity were fully capitalized into the premiums that private equity firms pay when they purchase publicly traded firms, this would still suggest that public shareholders benefit when the firm is sold. *See generally* Lucian A. Bebchuk, Kobi Kastiel & Roberto Tallarita, *For Whom Corporate Leaders Bargain*, 94 S. CAL. L. REV. 1467 (2021). *Cf.* Rock, *supra* note 14, at 1916–17, 1925 ("[T]here are a variety of explanations for premiums in going-private transactions . . . [including some that are] unrelated to agency costs[.]").

are already low enough that it is difficult and costly to further reduce them.[42]

In sum, shareholder primacy, and in particular the shareholder wealth maximization norm, seems to have succeeded in its objective of making shareholders wealthier.

II
The Problem of Negative Externalities

Shareholder primacy likely makes shareholders wealthier. However, shareholder primacy can cause societal problems when carried to extremes: pursuing only the financial interests of shareholders encourages corporations to engage not only in wealth creation, but also destructive transfers of value from other constituencies to shareholders.[43]

Focusing managers exclusively on shareholder wealth maximization increases externalities and value transfers because transferring value to shareholders is often easier than creating it. Aligning managers' interests with shareholders increases corporate tax avoidance.[44] It may increase risk taking that contributes to financial crises.[45] It may lead to underinvestment in maintenance and safety precautions, thereby contributing to environmental disasters.[46] It may impede healthcare

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42 Real estate, which is often closely held, also has not provided better returns than U.S. equities. Jordà, Knoll, Kuvshinov, Schularick & Taylor, *supra* note 33.

43 Michael Simkovic, *Limited Liability and the Known Unknown*, 68 Duke L.J. 275, 296–98 (2018). *See generally* Lynn Stout, The Shareholder Value Myth: How Putting Shareholders First Harms Investors, Corporations, and the Public (2012); Bratton & Wachter, *supra* note 35; Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy Symposium: Robert Clark's Corporate Law: Twenty Years of Change*, 31 J. Corp. L. 637, 638 (2005).

44 *See generally* Keith J. Crocker & Joel Slemrod, *Corporate Tax Evasion with Agency Costs*, 89 J. Pub. Econ. 1593 (2005); Sonja Olhoft Rego & Ryan Wilson, *Equity Risk Incentives and Corporate Tax Aggressiveness*, 50 J. Acct. Res. 775 (2012); Christopher S. Armstrong, Jennifer L. Blouin & David F. Larcker, *The Incentives for Tax Planning*, 53 J. Acct. & Econ. 391 (2012).

45 Bratton & Wachter, *supra* note 35, at 653–61 ("[M]anage to maximize the market price of the stock . . . is exactly what managers of some critical financial firms did in recent years. . . . For the financial institutions judged too big to fail . . . [t]he economic rescue's net costs amount to an externalization of the risks taken and an uninvited shock to the political economy. . . . [M]anagement's risk aversion . . . holds out advantages. . . . [T]he managers responsible had incentives too closely aligned with those of their shareholders due to equity incentive compensation."). *See generally* Steven L. Schwarcz, *Misalignment: Corporate Risk-Taking and Public Duty*, 92 Notre Dame L. Rev. 1 (2016).

46 Stout, *supra* note 43, at 1–5 (blaming shareholder primacy for the BP Deepwater Horizon oil spill).

systems from improving public health.[47] It may contribute to declining levels of private investment, depressed labor demand, slow wage growth, increased returns on capital, and increased inequality.[48] While some of these specific claims may be incorrect, they highlight the extent of concerns that when the public sector is imperfect, as it often will be, too narrow a focus on shareholder wealth maximization in the corporate sector creates problems.

Even staunch proponents of shareholder wealth maximization, such as Stephen Bainbridge and Edward Rock, acknowledge that it can cause boards of directors to impose large costs on non-shareholders in return for relatively small shareholder benefits.[49]

Shapira and Zingales document concrete evidence of such destructive corporate decision-making. They amass evidence that DuPont chose to pollute, even though DuPont knew that the cost of preventing pollution was much lower than the harm caused by the pollution. They argue that DuPont rationally concluded that the probability of pollution being detected and traced back to DuPont was low and that polluting would likely financially benefit DuPont investors.[50] Environmental pollution and undercompensated injuries are the most famous examples of negative externalities,[51] but there are many others.[52]

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47 *See generally* Barak D. Richman & Steven L. Schwarcz, *Macromedical Regulation*, 82 OHIO ST. L.J. 728 (2021).

48 *See generally* Zohar Goshen & Doron Levit, *Agents of Inequality: Common Ownership and the Decline of the American Worker*, 72 DUKE L.J. 3 (2022).

49 Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547, 584 (2003) ("[Under] shareholder wealth maximization . . . the directors agree not to make Kaldor-Hicks efficient decisions that leave shareholders worse off."). Bainbridge nevertheless favors shareholder wealth maximization to simplify decision-making and because he argues that the political weakness of shareholders, and the political strength of other groups, limits the potential harm. *See also* Rock, *supra* note 14, at 1958 (criticizing the excesses of "equity fetishism").

50 *See generally* Roy Shapira & Luigi Zingales, *Is Pollution Value-Maximizing? The DuPont Case* (Nat'l Bur. Econ. Rsch., Working Paper No. 23866, 2017), https://www.nber.org/papers/w23866 [https://perma.cc/YC2Q-CC7B].

51 *See generally* ARTHUR PIGOU, THE ECONOMICS OF WELFARE (2017).

52 Additional examples of corporate actions that transfer value to shareholders without necessarily creating value for society include: financial restructuring to reduce corporate taxes; leveraging transactions that benefit shareholders at the expense of creditors and employees; monopsonistic or collusive restraints on employee compensation; and monopolistic or oligopolistic pricing that increases profits but may generate deadweight loss. *See generally* Franco Modigliani & Merton H. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*, 48 AM. ECON. REV. 261 (1958); Richard Squire, *Shareholder Opportunism in a World of Risky Debt*, 123 HARV. L. REV. 1151 (2010); Rock, *supra* note 14; Klein &

Negative externalities are economically substantial. According to one well-documented estimate, known negative externalities are equal to five to twenty percent of U.S. GDP.[53] But many externalities are unknown, so the total is likely higher.[54] Since embracing a strong version of shareholder primacy in the late 1970s and early 1980s, the U.S. has seen soaring wealth,[55] but also remarkably poor improvement in the overall life expectancy and health of its population.[56] In the 1960s and 1970s, U.S. residents had among the highest life expectancies in the world.[57] In the ensuing decades, U.S. life expectancy fell years behind other developed economies.[58] After

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Zur, *supra* note 7; Michael Simkovic, *Secret Liens and the Financial Crisis of 2008*, 83 AM. BANKR. L.J. 253 (2009); Roger D. Blair & Jeffrey L. Harrison, *Antitrust Policy and Monopsony*, 76 CORNELL L. REV. 297 (1990); William M. Boal & Michael R. Ransom, *Monopsony in the Labor Market*, 35 J. ECON. LIT. 86 (1997); Sudip Datta, Mai Iskandar-Datta & Vivek Sharma, *Product Market Pricing Power, Industry Concentration and Analysts' Earnings Forecasts*, 35 J. BANKING & FIN. 1352 (2011); E. Han Kim & Vijay Singal, *Mergers and Market Power: Evidence from the Airline Industry*, 83 AM. ECON. REV. 549 (1993); Austan Goolsbee & Chad Syverson, *How Do Incumbents Respond to the Threat of Entry? Evidence from the Major Airlines*, 123 Q. J. ECON. 1611 (2008).

53 Ralph Estes, *The Public Cost of Private Corporations*, in TYRANNY OF THE BOTTOM LINE: WHY CORPORATIONS MAKE GOOD PEOPLE DO BAD THINGS 171, 171–78 (1st ed. 1996).

54 *See generally* Simkovic, *supra* note 43.

55 THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY 311–12 (Arthur Goldhammer tran., 2017).

56 *See generally* Gopal K. Singh & Mohammad Siahpush, *Widening Socioeconomic Inequalities in US Life Expectancy, 1980–2000*, 35 INT'L J. EPIDEMIOLOGY 969 (2006); Margo Wilson & Martin Daly, *Life Expectancy, Economic Inequality, Homicide, and Reproductive Timing in Chicago Neighbourhoods*, 314 BRITISH MED. J. 1271 (1997) (discussing possible links between life expectancy and inequality). *See also* Benjamin I. Page, Larry M. Bartels & Jason Seawright, *Democracy and the Policy Preferences of Wealthy Americans*, 11 PERSPS. ON POL. 51, 56–58, 61 (2013) (finding less support among the very wealthy for anti-poverty and healthcare programs and environmental protection).

57 Data from the World Bank shows many developed and developing countries surpassing the United States on life expectancy and healthy life expectancy starting in the 1980s and 1990s. Life Expectancy at Birth, Total (Years), WORLD BANK GRP. (2022), https://data.worldbank.org/indicator/SP.DYN.LE00.IN [https://perma.cc/P2MF-SCKV].

58 See *Google Public Data Explorer Chart* (based on WorldBank Data), available at https://bit.ly/3nkVImm [https://perma.cc/J9N7-5DSK]. The average U.S. resident now dies two and a half years younger than the average German or British resident, four years younger than the average French or Korean resident, and five years younger than the average Italian or Spanish resident. Slow growth of U.S. life expectancy is not due to immigration, which likely boosted U.S. life expectancy relative to European life expectancy. Immigration into the United States is disproportionately from regions such as Latin America and Asia. *See, e.g.*, Abby Budiman, *Key Findings About U.S. Immigrants*, PEW RSCH. CTR. (Aug. 20, 2020), https://www.pewresearch.org/short-reads/2020/08/20/key-findings-about-u-s-immigrants/ [https://perma.cc/S38X-9WKN]. These regions of origin have

decades of slow progress, U.S. life-expectancy now resembles that of Cuba, Panama, Albania, and Estonia.[59] Public health experts argue that the U.S.'s limited progress is attributable to public policy priorities: low taxes, limited social spending, and deferential regulation.[60] Some of these policies may persist in part because corporate political activity focuses on increasing shareholder returns.[61]

A. Calls for Corporate Self-Regulation

Many corporate governance scholars hoped that the problems of negative externalities could be dealt with outside of

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relatively high life expectancies. In addition, within the United States, Hispanic and Asian populations have higher life expectancies than non-Hispanic Whites. Moreover, immigrants generally have higher life expectancy than those born in the U.S. *See generally* Francesco Acciai, Aggie J. Noah & Glenn Firebaugh, *Pinpointing the Sources of the Asian Mortality Advantage in the United States*, 69 J. EPIDEMIOLOGY & CMTY. HEALTH 1006 (2015); Lauren Medina, Shannon Sabo & Jonathan Vespa, *Living Longer: Historical and Projected Life Expectancy in the United States, 1960 to 2060* (2020), https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1145.pdf [https://perma.cc/Z8QQ-TKYX] (2020). In contrast, European immigration includes a larger fraction of people from regions with lower life expectancy, such as Africa and the Middle East. Migrants to Europe also tend to be less educated than migrants to the United States. *See generally* Phillip Connor, *At Least a Million Sub-Saharan Africans Moved to Europe Since 2010*, PEW RSCH. CTR. (Mar. 22, 2018), https://www.pewresearch.org/global-migration-and-demography/2018/03/22/at-least-a-million-sub-saharan-africans-moved-to-europe-since-2010/#:~:text=In%20the%20case%20of%20Europe,from%20Eurostat%2C%20Europe's%20statistical%20agency [https://perma.cc/U3AJ-TTSB]; Monica Anderson & Phillip Connor, *Sub-Saharan African Immigrants in the U.S. are Often More Educated Than Those in Top European Destinations*, PEW RSCH. CTR. (Apr. 24, 2018), https://assets.pewresearch.org/wp-content/uploads/sites/2/2018/04/24093425/Pew-Research-Center_Sub-Saharan-African-Immigrant-Profile-Report_2018-04-24.pdf [https://perma.cc/8C6G-KSG2].

59 *See generally* Life Expectancy at Birth, Total (Years), THE WORLD BANK (2018), https://bit.ly/2K8cZkd [https://perma.cc/T59G-XG75].

60 *See generally* Jason Beckfield & Clare Bambra, *Shorter Lives in Stingier States: Social Policy Shortcomings Help Explain the US Mortality Disadvantage*, 171 SOC. SCI. & MED. 30 (2016); David Cutler, Angus Deaton & Adriana Lleras-Muney, *The Determinants of Mortality*, 20 J. ECON. PERSPS. 97 (2006); Elisbeta Jaba, Christiana Brigitte Balan & Ioan-Bogdan Robu, *The Relationship Between Life Expectancy at Birth and Health Expenditures Estimated by a Cross-country and Time-series Analysis*, 15 PROCEDIA ECON. & FIN. 108 (2014); Jennifer Karas Montez & Mateo P Farina, *Do Liberal U.S. State Policies Maximize Life Expectancy?*, 31 PUB. POL'Y & AGING REP. 7 (2021).

61 Hansmann & Kraakman, *supra* note 1, at 451–53; Matthew D. Hill, G. Wayne Kelly, G. Brandon Lockhart & Robert A. Van Ness, *Determinants and Effects of Corporate Lobbying*, 42 FIN. MGMT. 931, 932 (2013) ("[S]hareholders value the lobbying activities pursued by management"). *See generally* Jennifer A Heerwig & Joshua Murray, *The Political Strategies and Unity of the American Corporate Inner Circle: Evidence from Political Donations, 1982–2000*, 66 SOC. PROBLEMS 580 (2019).

corporate governance, through political governance, regulation, and contract.[62] If political systems can constrain corporate excesses and align shareholder value with social welfare, then shareholder primacy can remain inviolate, and managers can focus only on serving shareholders.[63]

But there are reasons for skepticism regarding the public sector's ability to restrain or correct for excesses in the corporate sector without assistance from within the corporate sector itself. Relatedly, there are reasons to be skeptical that sufficient private sector assistance can be obtained without changes to corporate governance.

First, information and resource problems can make it more difficult for groups outside of the corporate governance structure to constrain or limit negative externalities as efficiently as groups within the corporation. Those within the corporation will often have better information about the industry, the underlying technology used, and the nature of harm from exposure to negative externalities.[64] Whereas securities regulations protect the accuracy of information communicated to shareholders, few safeguards apply to other forms of public discourse. Greater pay and resources for high-skilled workers in the private sector than in the public sector, and resulting differences in human capital across sectors,[65] also favor

62 *See, e.g.*, Hansmann & Kraakman, *supra* note 1, at 440–41 ("The principal elements of this emerging consensus are that . . . managers of the corporation should be charged with the obligation to manage the corporation in the interests of its shareholders; other corporate constituencies, such as creditors, employees, suppliers, and customers, should have their interests protected by contractual and regulatory means rather than through participation in corporate governance."). *See generally* Edward B. Rock, *For Whom is the Corporation Managed in 2020?: The Debate Over Corporate Purpose*, 76 Bus. Law. 363 (2021).

63 Hansmann & Kraakman, *supra* note 1, at 441 ("All thoughtful people believe that corporate enterprise should be organized and operated to serve the interests of society as a whole, and that the interests of shareholders deserve no greater weight in this social calculus than do the interests of any other members of society. The point is simply that . . . [many believe] that the best means to . . . the pursuit of aggregate social welfare . . . is [shareholder primacy]."); *id.* at 449 ("[P]articipants in the firm other than shareholders can generally be given substantial protection by contract and regulation").

64 Simkovic, *supra* note 43, at 279–80; Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 Yale L.J. 87, 98–100 (1989). *See generally* Shapira & Zingales, *supra* note 50 (finding that regulation, reputation, and liability often fail to prevent destructive corporate pollution because relevant information can be sequestered within the corporation).

65 *See generally* Philip Bond & Vincent Glode, *The Labor Market for Bankers and Regulators*, 27 Rev. Fin. Stud. 253 (2014); Max Schanzenbach, *Explaining the Public-Sector Pay Gap: The Role of Skill and College Major*, 9 J. Hum. Cap. 1 (2015).

ameliorating problems using personnel within corporations. So do cumbersome public administration procedures.[66]

The public sector is generally not tasked with addressing social problems because of its superior organizational capabilities, resources, or efficiency, but rather because democratic public governance ostensibly makes the public sector more responsive to certain harms than the shareholder-oriented private sector. But the same organizational advantages that make corporations highly efficient economic actors can also make them highly effective political actors who can steer public sector priorities.[67] Corporate managers regularly seek to reshape the legal and regulatory environment to increase shareholder financial returns.[68] Corporate political engagement is typically very profitable.[69] Well organized, well-informed, and well-resourced groups tend to excel at influencing policy.[70]

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66 Bainbridge, *supra* note 49, at 567 (discussing the importance of authority and the costs of accountability); Reginald Parker, *The Administrative Procedure Act: A Study in Overestimation*, 60 YALE L. J. 581, 583–84 (1951). *See generally* Richard B. Stewart, *Regulation, Innovation, and Administrative Law: A Conceptual Framework*, 69 CALIF. L. REV. 1256 (1981); Robin Kundis Craig & J.B. Ruhl, *Designing Administrative Law for Adaptive Management*, 67 VAND. L. REV. 1 (2014).

67 Bebchuk & Roe, *supra* note 32, at 127 ("Initial ownership structures . . . can give some parties both incentives and power to impede changes in them. . . . Initial ownership structures can affect . . . the interest group politics that can determine which rules would actually be chosen."); Hansmann & Kraakman, *supra* note 1, at 439, 459-60 ("[C]ontrolling shareholders [] have an incentive to avoid any change in . . . governance or . . . regulation . . . that would force them to share the corporation's earnings more equitably. . . . [T]he wealth and collective political weight of controlling shareholders [may permit] them to block legal reforms that would compromise their disproportionate private returns.").

68 *See generally* Michael E. Porter, *The Five Competitive Forces That Shape Strategy*, HARV. BUS. REV. (2008), https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy [https://perma.cc/EU7N-95KN] (last visited Oct 29, 2020); Hill, Kelly, Lockhart & Van Ness, *supra* notes 61, at 931. *Cf.* Letter from Robert J. Jackson, Jr., SEC Comm'r, to Rep. Carolyn B. Maloney, re: Transparency in Corporate Political Spending (Nov. 18, 2019) (arguing that non-transparent corporate political spending may benefit managers at shareholders' expense).

69 *See generally* Alexander Borisov, Eitan Goldman & Nandini Gupta, *The Corporate Value of (Corrupt) Lobbying*, 29 REV. FIN. STUD. 1039 (2016); Hill, Kelly, Lockhart & Van Ness, supra notes 61, at 944–46; Raquel Alexander, Stephen W. Mazza & Susan Scholz, *Measuring Rates of Return on Lobbying Expenditures: An Empirical Case Study of Tax Breaks for Multinational Corporations*, 25 J.L. & POL. 401, 451 (2009) (finding "a rate of return on lobbying expenditures of 220:1" for corporate lobbying about tax issues). *Cf.* Omer Unsal, M. Kabir Hassan & Duygu Zirek, *Corporate Lobbying, CEO Political Ideology and Firm Performance*, 38 J. CORP. FIN. 126, 146 (2016) (finding evidence that for some firms, lobbying serves the ideological or political preferences of top managers and does not increase shareholder returns).

70 *See generally* George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971); Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J. LAW & ECON. 211 (1976); Gary S. Becker, *A Theory of Competition*

Countervailing forces once thought to constrain corporate political power, such as labor unions,[71] corporate income taxes,[72] and independent investigative journalism,[73] have largely atrophied. The association between resources and influence can generate a self-reinforcing positive feedback loop.[74]

Among Pressure Groups for Political Influence, 98 Q. J. ECON. 371 (1983); Martin Gilens, *Inequality and Democratic Responsiveness*, 69 PUB. OPINION Q. 778 (2005); Martin Gilens & Benjamin I. Page, *Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens*, 12 PERSP. ON POL. 564 (2014); MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS 54–55 (1965).

71 JOHN KENNETH GALBRAITH, AMERICAN CAPITALISM: THE CONCEPT OF COUNTERVAILING POWER 115–16, 126, 139–40 (1993); Hansmann & Kraakman, *supra* note 1, at 445 ("Collective bargaining . . . has been one approach to those problems [of transaction specific investments and asymmetric information]"); Bainbridge, *supra* note 49, at 590 (explaining that an important rationale for the shareholder wealth maximization norm is the belief that "shareholders . . . have no meaningful political voice" in contrast to the "enormous political power wielded by unions" and other non-shareholder constituencies); GERALD MAYER, CONG. RSCH. SERV., RL32553, UNION MEMBERSHIP TRENDS IN THE UNITED STATES (2004) (showing union membership declining from 28.3 percent in 1954 to 11.5 percent in 2003). *See generally* Barry T. Hirsch & David A. Macpherson, *Union Membership and Coverage Database from the Current Population Survey: Note*, 56 INDUS. & LAB. REL. REV. 349 (2003), https://unionstats.com/ [https://perma.cc/4KHM-JEMG] (updated annually) (showing union membership declining to less than eleven percent (less than seven percent in the private sector) by 2018).

72 *See generally* Reuven S. Avi-Yonah, *Corporations, Society, and the State: A Defense of the Corporate Tax*, 90 VA. L. REV. 1193 (2004); Edward D. Kleinbard, *Stateless Income*, 11 FLA. TAX REV. 699 (2011).

73 Marion Just, Rosalind Levine & Kathleen Regan, *Investigative Journalism Despite the Odds: Watchdog Reporting Continues to Decline*, 41 COLUM. JOURNALISM REV. 102, 102–03 (2002) ("[O]nly 2 percent of stories in our local news study this year were labeled by stations themselves as investigative. . . . [J]ust 1 percent, were original station-initiated investigations. . . . [T]he level of original watchdog reporting has steadily declined. . . . Serious investigative work takes resources and time, two things news directors increasingly say are in short supply. . . . Aside from budget-cutting, pressure in newsrooms also comes from sales departments and sponsors. . . . [P]ressure from sponsors is omnipresent, though often unacknowledged."); Fabrizio Germano & Martin Meier, *Concentration and Self-Censorship in Commercial Media*, 97 J. PUB. ECON. 117, 118 (2013); *see* Umit G. Gurun & Alexander W. Butler, *Don't Believe the Hype: Local Media Slant, Local Advertising, and Firm Value*, 67 J. FIN. 561, 562 (2012); *see also* Jaclyn Marisa Dispensa & Robert J. Brulle, *Media's Social Construction of Environmental Issues: Focus on Global Warming—a Comparative Study*, 23 INT'L J. SOCIO. & SOC. POL'Y 74 (2003); Jonathan Reuter & Eric Zitzewitz, *Do Ads Influence Editors? Advertising and Bias in the Financial Media*, 121 Q. J. ECON. 197 (2006); Diego Rinallo & Suman Basuroy, *Does Advertising Spending Influence Media Coverage of the Advertiser?*, 73 J. MKTG. 33 (2009); Catie Snow Bailard, *Corporate Ownership and News Bias Revisited: Newspaper Coverage of the Supreme Court's Citizens United Ruling*, 33 POL. COMM. 583 (2016); Alan M. Jacobs, J. Scott Matthews, Timothy Hicks & Eric Merkley, *Whose News? Class-Biased Economic Reporting in the United States*, 115 AM. POL. SCI. REV. 1016 (2021).

74 Bebchuk & Roe, *supra* note 32, at 131 ("Positional advantages inside firms will be translated into positional advantages in a country's politics."); Hansmann

Where corporate governance leads, public policy follows. Therefore, ameliorating negative externalities may require reforming corporate governance itself.[75]

One proposal is to reduce shareholder influence over boards of directors and managers, i.e., to return to managerialism.[76] Lynn Stout and Margaret Blair argue that aligning boards too closely with shareholders leads to shareholders opportunistically seizing rents generated by corporate team production.[77] This undermines the incentives of other team members to make firm-specific investments, which in turn reduces the social benefits of the corporate enterprise.[78] Their solution is to increase board independence from shareholders so that boards can act as neutral "mediating hierarchs." Martin Lipton has made similar arguments for limiting shareholder control.[79]

However, critics such as Lucian Bebchuk argue that reducing shareholder influence over boards and managers does not lead to directors protecting societal interests or non-shareholder constituents, but rather to managers improving their own position at others' expense.[80]

A second proposal is to increase the power of non-shareholder constituents, for example by legally mandating that a substantial fraction of board seats be selected by employees, as under German co-determination.[81] Critics argue that

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& Kraakman, *supra* note 1, at 463 (arguing that "economic and political influence will shift to . . . [a] shareholder class with growing wealth" as pro-shareholder corporate governance enriches investors).

75 *See, e.g.*, Elizabeth Pollman, *The Supreme Court and the Pro-Business Paradox*, 135 Harv. L. Rev. 220 (2021).

76 Stout, *supra* note 28, at 791; Martin Lipton & Steven A. Rosenblum, *A New System of Corporate Governance: The Quinquennial Election of Directors*, 58 U. Chi. L. Rev. 187, 189 (1991) (criticizing hostile takeovers and arguing for longer director terms); Martin Lipton & William Savitt, *The Many Myths of Lucian Bebchuk*, 93 Va. L. Rev. 733, 733 (2007) (criticizing legal changes that would facilitate proxy contests).

77 Blair & Stout, *supra* note 31, at 283–84, 292.

78 *Id.* Like Hansmann, Blair and Stout argued that the practical limits of contractual protection make residual control an important protection against expropriation. *See generally* Henry Hansmann, The Ownership of Enterprise (2000). But Blair and Stout do not necessarily view shareholders as the most vulnerable group.

79 *See generally* Lipton & Savitt, *supra* note 76.

80 *See generally* Bebchuk, Kastiel & Tallarita, *supra* note 41; Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Stakeholder Governance*, 106 Cornell L. Rev. 91 (2020).

81 *See generally* Marleen A. O'Connor, *The Human Capital ERA: Reconceptualizing Corporate Law to Facilitate Labor-Management Cooperation*, 78 Cornell L. Rev. 899 (1993); Brian Hamer, *Serving Two Masters: Union Representation on Corporate Boards of Directors*, 81 Colum. L. Rev. 639 (1981); Larry Fauver & Michael

while such proposals could ameliorate certain externalities, they might exacerbate others, even as they complicate and reduce the efficiency of corporate decision-making.[82] For example, increasing worker representation at oil & gas or coal companies could make it harder for such firms to curb greenhouse gas emissions if doing so would adversely affect wages or employment.

A third set of proposals entails maintaining or even increasing shareholder influence, but accommodating many shareholders' concerns for broader Environmental, Social, and Governance considerations (ESG).[83] Many corporate managers have publicly endorsed such proposals.[84] Foreshadowing these developments, the *Caremark* decision encouraged corporations to self-police by creating a non-waivable duty of the

E. Fuerst, *Does Good Corporate Governance Include Employee Representation? Evidence from German Corporate Boards*, 82 J. FIN. ECON. 673 (2006); Edith Ginglinger, William Megginson & Timothée Waxin, *Employee Ownership, Board Representation, and Corporate Financial Policies*, 17 J. CORP. FIN. 868 (2011).

82 *See generally* Jens Dammann & Horst Eidenmüller, *Codetermination: A Poor Fit for U.S. Corporations*, 2020 COLUM. BUS. L. REV. 870 (2020); Henry Hansmann, *When Does Worker Ownership Work: ESOPs, Law Firms, Codetermination, and Economic Democracy*, 99 YALE L.J. 1749, 1816 (1990). *See also* Marcel Kahan & Edward Rock, *The Insignificance of Proxy Access*, 97 VA. L. REV. 1347, 1348 (2011) ("[A]ttacks by the company for lack of qualification or conflicts of interest . . . will resonate especially for [director] nominees by unions and public pension funds").

83 *See generally* Jeffery N. Gordon, *Systematic Stewardship*, 47 J. CORP. LAW. 628 (2022); Michal Barzuza, Quinn Curtis & David H. Webber, *Shareholder Value(s): Index Fund ESG Activism and the New Millennial Corporate Governance*, 93 S. CAL. L. REV. 1243 (2020); Oliver Hart & Luigi Zingales, *Companies Should Maximize Shareholder Welfare Not Market Value*, 2 J. LAW FIN. & ACCT. 247 (2017).

84 *Statement on the Purpose of a Corporation*, BUS. ROUNDTABLE (Aug. 19, 2019), https://s3.amazonaws.com/brt.org/BRT-StatementonthePurposeofaCorporationOctober2020.pdf [https://perma.cc/KP89-5ZMG] ("We commit to. . . . [P]rotect the environment by embracing sustainable practices across our businesses. . . . Each of our stakeholders is essential. We commit to deliver value to all of them, for the future success of our companies, our communities and our country."). The language in the August 2019 BRT statement was touted in a BRT press release as a departure from its previous 1997 statement, which "endorsed principles of shareholder primacy—that corporations exist principally to serve shareholders." *Business Roundtable Redefines the Purpose of a Corporation to Promote 'An Economy That Serves All Americans'*, BUS. ROUNDTABLE (Aug. 19, 2019), https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans [https://perma.cc/5FTV-4YQH] ("[u]pdated [s]tatement [m]oves [a]way from [s]hareholder [p]rimacy, [i] ncludes [c]ommitment to [a]ll [s]takeholders"). Ed Rock, Lucian Bebchuk, and others have expressed skepticism about the impact of the statement, which they note is non-binding, on actual corporate priorities and decision making. *See generally* Bebchuk, Kastiel, and Tallarita, *supra* note 41; Rock, *supra* note 62.

board to monitor compliance with the law.[85] Shareholder primacy has always been touted as a *way* to help society by creating more value.[86] Delaware law permits shareholders to vote in ways that are not necessarily wealth maximizing.[87] Even Milton Friedman acknowledged that shareholders may have priorities other than profit maximization, and if so, it could be appropriate for boards to pursue them.[88]

However, there remains substantial doubt regarding whether purely voluntary ESG can change governance.[89] Corporate law scholars such as Edward Rock and Lucian Bebchuk argue that current ESG initiatives may consist of non-binding platitudes that improve corporate public relations but have little real impact on important governance decisions.[90] The analysis in this Article concurs *if* corporate governance continues to be based on "one-share, one-vote."

However, this Article argues that changes to shareholder voting could give ESG real teeth. These changes would improve corporate incentives to self-police, increase the efficiency of corporate governance, and preserve many of the benefits of shareholder primacy.

B. The Importance of Shareholder Voting

Only shareholders get to vote for the board or on changes of control.[91] Although scholars once suggested that shareholders

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85 *See generally* Leo E. Strine, Jr., Kirby M. Smith & Reilly S. Steel, *Caremark and ESG, Perfect Together: A Practical Approach to Implementing an Integrated, Efficient, and Effective Caremark and EESG Strategy*, 106 Iowa L. Rev. 1885 (2021).

86 *See* Hansmann & Kraakman *supra* note 1, at 441.

87 Blasius Indus. Inc., v. Atlas Corp., 564 A.2d 651, 659 (Del. Ch. 1988); Ringling Bros.-Barnum & Bailey Combined Shows, Inc. v. Ringling, 53 A.2d 441, 447 (Del. 1947) ("Generally speaking, a shareholder may exercise wide liberality of judgment in the matter of voting, and it is not objectionable . . . so long as he violates no duty owed his fellow shareholders."). Certain exceptions apply to controlling shareholders engaged in self-dealing at the expense of minority shareholders.

88 Friedman, *supra* note 3 ("[A] corporate executive['s]. . . . responsibility is to conduct the business in accordance with [the shareholders'] desires, which generally will be to make as much money as possible. . . . Of course, in some cases [shareholders] may have a different objective.").

89 *See, e.g.*, Robert P. Bartlett & Ryan Bubb, *Corporate Social Responsibility Through Shareholder Governance* (Eur. Corp. Governance Inst., Law Working Paper No. 682/2023), https://ssrn.com/abstract=4354220 [https://perma.cc/GV5H-MVG9].

90 Bebchuk & Tallarita, *supra* note 80, at 98; Bebchuk, Kastiel & Tallarita, *supra* note 41, at 1534; *see* Edward B. Rock, *supra* note 62, at 389.

91 Kahan & Rock, *supra* note 9, at 987; Bainbridge, *supra* note 49, at 590; *cf.* Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. Pa. L. Rev. 1209, 1209 (2006) (arguing that as

were too numerous, diffuse, and rationally apathetic to exercise effective oversight,[92] shareholders and intermediaries that serve them have since become better organized, more informed, and more effective.[93] In the United States and other common-law countries, directors who signal an interest in serving other constituents are less likely to be reelected.[94] The ongoing control exercised by shareholders is extremely valuable. Without residual control, incomplete contracts inevitably create opportunities for unanticipated value transfers.[95]

The reality of shareholder control raises the fundamental question—who are shareholders and what do they want? Is wealth maximization really shareholders' only concern? If not, can and should a board and senior managers attempt to accommodate other shareholder priorities?

III
Who are Shareholders and What do they Want?

A. Portfolio Returns and Diversification

According to the traditional model of corporate governance, shareholders care only about the returns to one individual stock, and managers and directors should conduct themselves accordingly.[96] But financial theory and empirical evidence increasingly suggest that investors make decisions based on how each investment affects the risks and returns to their overall

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firms approach insolvency, lenders can gain the power to appoint or remove top managers and may sometimes be able to prevent changes in control).

92 William O. Douglas, *Directors Who Do Not Direct*, 47 Harv. L. Rev. 1305, 1305 (1934); Blair & Stout, *supra* note 31, at 310–11; Bainbridge, *supra* note 49, at 590; Baird & Rasmussen, *supra* note 91, at 1214, 1223; Lucian Arye Bebchuk, *The Case for Shareholder Access to the Ballot*, 59 Bus. Law. 43, 43 (2003).

93 Gilson & Gordon, *supra* note 28, at 863; Hansmann & Kraakman, *supra* note 1, at 439; Stephen Choi, Jill Fisch & Marcel Kahan, *The Power of Proxy Advisors: Myth or Reality?*, 59 Emory L. J. 869, 869 (2010) (proxy advisors act as information aggregators for shareholders); Rock, *supra* note 14, at 1907; Lund & Pollman, *supra* note 17, at 2563.

94 *See* Lel & Miller, *supra* note 10, at 21–22.

95 *See generally* Hansmann, *supra* note 78; Mark J. Roe & Frederick Tung, *Breaking Bankruptcy Priority: How Rent-Seeking Upends the Creditors' Bargain*, 99 Va. L. Rev. 1235, 1279 (2013); Rasmussen & Simkovic, *supra* note 7, at 122; Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 Rev. Econ. Stud. 473, 490–92 (1992); Oliver D. Hart, *Incomplete Contracts and the Theory of the Firm*, 4 J. Law, Econ. & Org. 119, 119 (1988).

96 Jensen & Meckling, *supra* note 2, at 305; Hart, *supra* note 6, at 1076. Edward Rock and Marcel Kahan refer to this as Corporate law's "Single-Firm Focus." *See generally* Marcel Kahan & Edward Rock, *Systemic Stewardship with Tradeoffs*, 48 J. Corp. L. 497, 498 (2022).

portfolio, not the returns to each investment in isolation.[97] For shareholders who are broadly or even somewhat diversified, decisions by the leadership of one corporation could have a larger impact on their *other* investments.[98] These could include equity in other firms as well as corporate debt[99] or real estate.[100] Consistent with the view that investors value *portfolio* returns, managers' incentive compensation typically rewards an absolute increase in shareholder returns, not an increase in shareholder returns *relative* to competing firms. Relative performance is a better measure of skill. But focusing managers on relative performance could encourage them to undermine competitors and hurt industry profits.[101]

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97 Gordon, *supra* note 83, at 627; Stout, *supra* note 28, at 808; Robert G. Hansen & John R. Lott, Jr., *Externalities and Corporate Objectives in a World with Diversified Shareholder/Consumers*, 31 J. FIN. & QUANTITATIVE ANALYSIS 43, 43 (1996).

98 Madison Condon, *Externalities and the Common Owner*, 95 WASH. L. REV. 1, 64 (2020).

99 Managers have an explicit shield from liability when they advance creditor interests over shareholder interests in an insolvent firm. Quadrant Structured Prods. Co. v. Vertin, C.A. No. 6990-VCL, 2015 WL 6157759, at *10–11 (Del. Ch. Oct. 20, 2015), *aff'd*, 151 A.3d 447 (Del. 2016); Quadrant Structured Prods. Co. v. Vertin, 102 A.3d 155, 185–87 (Del. Ch. 2014) (affirming *Product Resources* and *Trenwick* and noting "the business judgment rule would protect a board's decision to pursue an efficient liquidation."); *see* Prod. Res. Grp., L.L.C. v. NCT Grp., Inc., 863 A.2d 772, 791 n.60 (Del. Ch. 2004) ("The maximization of the economic value of the firm might, in circumstances of insolvency, require the directors to undertake the course of action that best preserves value in a situation when the procession of the firm as a going concern would be value-destroying. In other words, the efficient liquidation of an insolvent firm might well be the method by which the firm's value is enhanced in order to meet the legitimate claims of its creditors."). *But see* Trenwick Am. Litig. Tr. v. Ernst & Young, L.L.P., 906 A.2d 168, 199 (Del. Ch.2006), *aff'd sub nom.* Trenwick Am. Litig. Tr. v. Billett, 931 A.2d 438 (Del. 2007) ("Even when a firm is insolvent, its directors may, in the appropriate exercise of their business judgment, take action that might, if it does not pan out, result in the firm being painted in a deeper hue of red. The fact that the residual claimants of the firm at that time are creditors does not mean that the directors cannot choose to continue the firm's operations in the hope that they can expand the inadequate pie such that the firm's creditors get a greater recovery. By doing so, the directors do not become a guarantor of success."). Case law creating potential liability in the "zone of insolvency" has largely also been reversed—fiduciary duties to creditors now attach at insolvency, not prior, at least in Delaware. N. Am. Catholic Educ. Programming Found., Inc. v. Gheewalla, C.A. No. 1456-N, 2006 WL 2588971, at *13 (Del. Ch. Sept. 1, 2006), *aff'd sub nom.* N. Am. Catholic Educ. Programming Found., Inc. v. Gheewalla, 930 A.2d 92 (Del. 2007).

100 JAMES P. HAWLEY & ANDREW T. WILLIAMS, THE RISE OF FIDUCIARY CAPITALISM: HOW INSTITUTIONAL INVESTORS CAN MAKE CORPORATE AMERICA MORE DEMOCRATIC 4–5 (2000); Gordon, *supra* note 83, at 627 (linking mutual fund ESG efforts to reduction of non-diversifiable systematic risk in a portfolio of investments).

101 Rajesh K. Aggarwal & Andrew A. Samwick, *Executive Compensation, Strategic Competition, and Relative Performance Evaluation: Theory and Evidence*, 54 J. FIN. 1999, 1999 (1999) ("The need to soften product market competition generates an optimal compensation contract that places a positive weight on both own and

A confluence of evidence suggests that investor diversification is common and is likely to become more pervasive.[102]

First, index mutual funds and ETFs have seen declining costs, large inflows, and more rapid growth than the rest of the mutual fund industry. Broadly diversified index funds now comprise most fund assets under management.[103] Second, investments other than index funds also provide diversification. Actively managed funds partially diversify to reduce risk.[104] Even when active funds overweight certain stocks or industries, their individual investors often invest in several funds, thereby increasing diversification.[105] Third, although individuals' direct stockholdings are often under-diversified,[106] the same individuals typically also own mutual funds or ETFs or have broader exposures through

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rival performance."); John E. Garen, *Executive Compensation and Principal-Agent Theory*, 102 J. Pol. Econ. 1175, 1198 (1994) ("[T]here is little evidence of the use of relative performance pay."); C. Scott Hemphill & Marcel Kahan, *The Strategies of Anticompetitive Common Ownership*, 129 Yale L. J. 1392, 1418 (2020) ("Since [diversified investors] lose out when managers reduce competitor value . . . [diversified investors] may actively favor . . . absolute over relative performance incentives."); *cf.* Guojin Gong, Laura Yue Li & Jae Yong Shin, *Relative Performance Evaluation and Related Peer Groups in Executive Compensation Contracts*, 86 Acct. Rev. 1007, 1007 (2011) ("[A]bout 25 percent of our sample firms explicitly use [Relative Performance] in setting executive compensation. . . . [But] both efficient contracting and rent extraction considerations influence . . . peer selection."); David I. Walker, *Common Ownership and Executive Incentives: The Implausibility of Compensation as an Anticompetitive Mechanism*, 99 B.U. L. Rev. 2373, 2373 (2019) ("[C]ompetition-enhancing executive relative performance evaluation [based] compensation . . . has increased dramatically in parallel with the increase in common ownership").

Overly competitive managerial behavior might also undermine efforts to build solidarity within the industry for purposes of joint advocacy on regulatory, tax, or other policy issues. Competitiveness along these lines would be anathema to diversified shareholders.

102 *See generally* Fischer Black & Myron Scholes, *From Theory to a New Financial Product*, 29 J. Fin. 399 (1974) (predicting the rise of indexed mutual funds); Lucian A. Bebchuk & Scott Hirst, *Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy*, 119 Colum. L. Rev. 2029 (2019) (documenting the rise of index funds); Dorothy S. Lund, *The Case against Passive Shareholder Voting*, 43 J. Corp. L. 493 (2017) (same).

103 Steve Johnson, *Passive Fund Ownership of US Stocks Overtakes Active for First Time*, Fin. Times (June 6, 2022), https://www.ft.com/content/27b5e047-5080-4ebb-b02a-0bf4a3b9bc08 [https://perma.cc/QT3M-8MKC].

104 *See generally* Joshua M. Pollet & Mungo Wilson, *How Does Mutual Fund Size Affect Behavior?*, 63 J. Fin. 2941 (2009).

105 *See generally* Shlomo Benartzi & Richard H. Thaler, *Naive Diversification Strategies in Defined Contribution Saving Plans*, 91 Am. Econ. Rev. 79 (2001); Edward S. O'Neal, *How Many Mutual Funds Constitute a Diversified Mutual Fund Portfolio?*, 53 Fin. Analysts J. 37 (1997).

106 *See generally* William N. Goetzmann & Alok Kumar, *Equity Portfolio Diversification*, 12 Rev. Fin. 433 (2008).

pensions.[107] Diversification increases with age, education, income, wealth, and sophistication.[108]

Today, in the absence of strong evidence to the contrary, it may be more reasonable to assume that the typical beneficial owner is broadly diversified rather than to assume concentrated holdings in a particular firm.

B. The Preferences of Beneficial Owners as Natural Persons

Natural-person beneficial owners may care not only about how the corporation affects their portfolio of investments, but also about how the corporation directly affects health and well-being through other negative externalities. As Lynn Stout,[109] Einer Elhauge,[110] Oliver Hart, and Luigi Zingales[111] have noted, individual shareholders are ultimately human beings who often care about things besides returns. For example, a shareholder who lives near a river might prefer that the corporation not pollute the river, even if this reduces financial returns.

Consistent with this view, Yair Listokin finds evidence from a close proxy contest at Proctor & Gamble that the median shareholder did not support unambiguously wealth-maximizing activist proposals to cut costs.[112] P&G had relatively high levels of retail ownership, likely including employees and customers who were concerned about the effects of cost cutting on themselves in their non-shareholding capacity.[113]

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107 Jesse Bricker et al., *Changes in U.S. Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances,* 103 FED. RES. BULL. 1, 18–19 fig.A (2017). In addition, if individual holdings are spread across several brokerage and retirement accounts, data from a single brokerage can understate diversification.

108 Goetzmann & Kumar, *supra* note 106, at 435.

109 *See generally* Stout, *supra* note 28.

110 *See generally* Elhauge, *Sacrificing Corporate Profits in the Public Interes*t, 80 NYU L. REV. 733, 783 (2005).

111 *See generally* Hart & Zingales, *supra* note 83.

112 Abnormal returns on equity were positive when it appeared as if the activists would prevail and negative when it appeared as if management would prevail. Because efficient stock markets price in the discounted present value of long-term effects using discount rates based on the opportunity cost of capital, it is unlikely that the contrast between abnormal returns and shareholder voting can be explained by differences between long-term and short-term effects. Yair Listokin, *The Board-Room Where It Happens—A Research Note*, 24 AM. L. & ECON. REV. 702, 716–18 (2023), https://doi.org/10.1093/aler/ahac010? [https://perma.cc/BHN2-QRHF].

113 Listokin notes that "the median voting shareholder may care less about maximizing stock value than conventionally assumed." *Id.* at 718.

The relationship between beneficial ownership and share voting is complicated by frictions including rational apathy, information asymmetries, indirect ownership and agency costs, bundling of share voting with other financial services, and regulations. These institutional details and frictions are discussed in greater detail in Part V below. For the time being, the analysis abstracts away from these considerations.

C. Previous Models of Shareholder-Driven Corporate Externality Reduction

Formal models of shareholder preferences regarding externalities have assumed either: (1) that shareholders are self-interested and care about externalities only to the extent that such externalities affect shareholders directly,[114] or (2) that shareholders have a (limited) capacity for empathy and altruism and care somewhat about the effects of externalities on strangers.[115]

Morgan and Tumlinson assume shareholders are self-interested. They argue that shareholders can often more efficiently coordinate and mitigate externalities through corporate decision-making than individual shareholders could avoid or remediate externalities themselves. Under their model, corporations optimally reduce both profits and pollution in response to shareholder preferences.[116] However, unlike the model presented below in this Article, they assume identical shareholders with identical profit shares and identical exposure to externalities.

In contrast, Hart and Zingales assume that shareholders are not directly affected by externalities, but care about externalities because of altruism and empathy.[117] Hart & Zingales posit a psychological model that depends on shareholders' feelings of personal responsibility for corporate actions. These feelings are proportionate to shareholdings and might not be shared by minority shareholders because of diffusion of responsibility and "amoral drift."[118] In recent work, they remove

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114 *See generally* John Morgan & Justin Tumlinson, *Corporate Provision of Public Goods*, 65 MGMT. SCI. 4489 (2019).

115 *See generally* Hart & Zingales, *supra* note 83.

116 Like the model below, their model assumes that share ownership is not universal (i.e., there are some individuals who do not own shares).

117 Hart & Zingales, *supra* note 83, at 252.

118 *Id.* at 250, 252, 262, 267 (2017) ("[A] small shareholder internalizes only a small part of the damage that a firm causes. He feels a responsibility that is proportional to his stake in the company.").

the assumption that shareholders' feelings of responsibility increase with shareholdings.[119]

By contrast, the model of shareholder preferences presented in this Article predicts that smaller beneficial owners will generally be more opposed to negative externalities because smaller owners often have higher exposures to externalities relative to their share of profits.

D. Shareholder as Broadly Self-Interested

The model presented in this Article assumes that each shareholder is self-interested and cares about both financial returns and externalities to the extent that these affect each shareholder or his family directly.[120] Consistent with this view, Li finds that firms pollute less from plants that are located near their CEOs' hometowns, but this effect diminishes as agency costs fall and CEOs become aligned with shareholders.[121] Executives then move away from polluted areas.[122]

The preferences of the owners of most shares likely correspond to those of wealthy individuals because, although many U.S. households beneficially own some shares, the overwhelming majority of shares are owned by the wealthiest one to ten percent of households.[123] Survey evidence suggests that wealthy individuals are less likely than the general population to support public spending on education, healthcare, job support, anti-poverty efforts, and the environment and are also less supportive of taxation of corporations or other property.[124] Similarly, experimental evidence suggests that wealthier subjects are typically less willing to donate a given percentage

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119 Oliver Hart & Luigi Zingales, *The New Corporate Governance*, 1 U. CHI. BUS. L. REV. 195, 207–09 (2022); Eleonora Broccardo, Oliver Hart & Luigi Zingales, *Exit Versus Voice*, 130 J. POL. ECON. 3101, 3116–17 (2022).

120 *See, e.g.*, Gary S. Becker, *Altruism in the Family and Selfishness in the Market Place*, 48 ECONOMICA 1 (1981).

121 Wei Li, Qiping Xu & Qifei Zhu, *CEO Hometown Preference and Corporate Environmental Policies* (2021), https://papers.ssrn.com/abstract=3859116 [https://perma.cc/VY3J-VA7C] (last visited Feb. 7, 2022).

122 Ross Levine, Chen Lin & Zigan Wang, *Pollution and Human Capital Migration: Evidence from Corporate Executives* (Nat'l Bureau of Econ. Rsch., Working Paper No. 24389, 2018), https://www.nber.org/papers/w24389 [https://perma.cc/LQ65-VT8G].

123 *See infra* Section IV.E. and Appendix.

124 *See generally* Martin Gilens, *supra* note 70; Page, Bartels & Seawright, *supra* note 56.

of their incomes to fund public goods.[125] Direct evidence on shareholder voting also finds that wealthier shareholders are less likely to vote in favor of environmental or social proposals.[126] This is consistent with self-interested preferences.

E. Shareholders Have Heterogenous Equity Exposures

The model in this Article makes an important contribution to the literature by assuming heterogeneity in shareholder equity exposures. All reasonable estimates of direct equity ownership and indirect beneficial ownership indicate concentrated equity exposures toward the top of the wealth distribution and negligible exposures and voting power toward the bottom of the distribution. According to U.S. household data from the Federal Reserve, a majority of corporate equities are effectively held by either the wealthiest one percent or the wealthiest ten percent of households.[127] The top 1 percent of households by wealth beneficially own between forty and fifty-three percent of equities, arguably granting them effective control. The top ten percent of households by wealth beneficially own eighty to ninety percent of equity. The bottom half of households by wealth have negligible beneficial equity holdings and corporate voting power: likely between one-half and two percent. Even

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125 *See generally* Edward Buckley & Rachel Croson, *Income and Wealth Heterogeneity in the Voluntary Provision of Linear Public Goods*, 90 J. PUB. ECON. 935 (2006). *See also* David Dubois, Derek D. Rucker & Adam D. Galinsky, *Social Class, Power, and Selfishness: When and Why Upper and Lower Class Individuals Behave Unethically*, 108 J. PERSONALITY & SOC. PSYCH. 436 (2015) (summarizing evidence that those with power tend to behave more selfishly, though not less ethically).

In practice, reductions in government spending do not appear to be fully offset by increases in private charity. Higher voter turnout by high socio-economic status groups relative to low-status groups is associated with less healthy populations, even after controlling for median income levels and income inequality. *See generally* Tony A. Blakely, Bruce P. Kennedy & Ichiro Kawachi, *Socioeconomic Inequality in Voting Participation and Self-Rated Health*, 91 AM. J. PUB. HEALTH 99 (2001).

126 In particular shareholders who have higher account balances and who reside in wealthier (higher income, older, and less dense) zip codes are less likely than those with lower account balances and those in less wealthy zip codes to vote for social and environmental proposals. *See* Robert J. Jackson, Jr. & Jonathon Zytnick, *Individual Investor Ideology* at 55, tbl.6 (2023).

127 Bd. of Governors of the Fed. Rsrv., *Distributional Financial Accounts, Release Tables: Shares of Wealth by Wealth Percentile Groups*, FED. RSRV. ECON. DATA, https://fred.stlouisfed.org/release/tables?rid=453&eid=813804#snid=813876 [https://perma.cc/X2LS-KEVP]; Bd. of Governors of the Fed. Rsrv., *Z.1: Financial Accounts of the United States: Release Tables: Sectors: Levels: Quarterly: L.101 Household and Nonprofit Organizations*, FED. RSRV. ECON. DATA, https://fred.stlouisfed.org/release/tables?rid=52&eid=804096 [https://perma.cc/5GUF-PW72].

accounting for pensions, beneficial ownership outside of the top ten percent remains negligible. For details of this analysis, see the Appendix and accompanying table. The main source of variation in estimates turns on how one accounts for indirect holdings and non-response bias in survey data.[128] Outside the U.S., household equity exposures also increase with income and wealth, with varying degrees of concentration.[129]

F. Exposures to Externalities Differ from Exposure to the Return on Equity

Negative externalities are costs that fall on someone other than the person who benefits from the activity and decides on the level of activity.[130] Thus, externalities generated by corporate actions presumptively have the greatest effect on those with the least corporate control. However, many corporate externalities are diffuse and hard to target. These will likely still have *some* effect on shareholders, even when agency costs are minimal. Consider the broad effects of pollution or global warming or the potential randomness of gun violence.

How might negative externalities be distributed across a population? The simplest assumption is uniformity: externality exposures are equal per capita. Another plausible assumption is that each corporation seeks to insulate powerful shareholders with many votes from negative externalities.[131] As a consequence of such efforts, costs of externalities would be concentrated on those who own few or no shares. Indeed, pollution is more concentrated in low-income areas.[132] A third

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128 *See generally* William Even & David Macpherson, *Defined Contribution Plans and the Distribution of Pension Wealth*, 46 INDUS. RELS. 551, 578–79 (2007) (documenting the relative decline in defined benefit plans and the rise of defined contribution plans as sources of household wealth and growing inequality in pension wealth); Paddy Ireland, *Shareholder Primacy and the Distribution of Wealth*, 68 MODERN L. REV. LTD. 49 (2005) ("Although share ownership has become more widely spread, it remains very heavily concentrated . . . .").

129 *See, e.g.*, Dimitris Christelis, Dimitris Georgarakos & Michael Haliassos, *Differences in Portfolios Across Countries: Economic Environment Versus Household Characteristics*, 95 REV. ECON. & STATS. 220 (2013); Oliver Denk & Alexandre Cazenave-Lacroutz, *Household Finance and Income Inequality in the Euro Area* (OECD Econ. Dep't, Working Papers No. 1226, 2015), https://doi.org/10.1787/5js04v5wh9zs-en [https://perma.cc/R4MG-9F8X].

130 *See generally* PIGOU, *supra* note 51; William J. Baumol, *On Taxation and the Control of Externalities*, 62 AM. ECON. REV. 307 (1972).

131 *See, e.g.*, *supra* notes 121–22 and accompanying text, noting that firms pollute less near the hometown of their CEOs.

132 *See generally* John A. Hird & Michael Reese, *The Distribution of Environmental Quality: An Empirical Analysis*, 79 SOC. SCI. Q. 693, 703 (1998) (finding that

possibility is that certain externality exposures are correlated with shareholdings. For example, both property and shareholdings increase with wealth. This implies that as beneficial ownership of equities increases, *absolute* exposure to property-externalities also tends to increase. However, ownership of real estate is less concentrated than ownership of equities. This implies that exposure to many property externalities still falls *relative* to exposure to corporate profits as equity ownership increases.

1. *Exposure to Health-Related Externalities Decreases as Shareholdings Increase*

Even if negative externalities to health were initially distributed uniformly, wealthier beneficial owners would have greater ability to insulate themselves *ex post*. The costs of avoiding health externalities are generally fixed; costs do not increase with shareholdings or wealth.[133] Externality avoidance becomes proportionately less expensive (relative to equity returns) as shareholdings increase. Thus, even if the wealthy place greater monetary value on staying healthy, this need not translate into greater willingness to sacrifice corporate profits to reduce externalities.

To avoid environmental pollution, larger beneficial owners—who are typically also wealthier—can move to a neighborhood with more foliage, live at a higher elevation or closer to parks, or install mechanical air and water purification systems. Amenities associated with cleaner air are capitalized into housing costs.[134] Larger beneficial owners may also

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areas with a higher percentage of racial and ethnic minorities tend to have higher levels of pollution and that air quality is higher in higher income areas); Jungho Baek & Guankerwon Gweisah, *Does Income Inequality Harm the Environment?: Empirical Evidence from the United States*, 62 ENERGY POL'Y 1434 (2013); Liam Downey & Brian Hawkins, *Race, Income, and Environmental Inequality in the United States*, 51 SOCIO. PERSPS. 759 (2008); Mariano Torras & James K. Boyce, *Income, Inequality, and Pollution: A Reassessment of the Environmental Kuznets Curve*, 25 ECOLOGICAL ECON. 147 (1998); Liam Downey & Brian Hawkins, *Single-Mother Families and Air Pollution: A National Study*, 89 SOC. SCI. Q. 523 (2008).

133 For example, the cost of a house in a low-pollution, low-crime area is the same regardless of the home buyer's shareholdings or wealth.

134 *See generally* Anup Malani, *Valuing Laws as Local Amenities*, 121 HARV. L. REV. 1273 (2008); Shawn M. Landry & Jayajit Chakraborty, *Street Trees and Equity: Evaluating the Spatial Distribution of an Urban Amenity*, 41 ENV'T & PLAN. A 2651 (2009); Rowland Atkinson, *Limited Exposure: Social Concealment, Mobility and Engagement with Public Space by the Super-Rich in London*, 48 ENV'T & PLAN. A 1302 (2016); Thomas Astell-Burt, Xiaoqi Feng, Suzanne Mavoa, Hannah M. Badland & Billie Giles-Corti, *Do Low-Income Neighbourhoods Have the Least Green*

have the option to live further from pollution because they can more easily afford faster transportation,[135] and may work in commercial rather than industrial sites. To avoid gun violence (a negative externality from the manufacture and sale of firearms), wealthier beneficial owners can live in communities protected by security guards,[136] ride in bullet-resistant vehicles,[137] and send their children to schools in safer jurisdictions.[138] To limit exposure to traffic fatalities (a negative externality related to alcohol[139] and mobile phone use),[140] wealthier beneficial owners can purchase newer, larger vehicles,[141] hire professional drivers, and purchase premium health insurance.[142]

2. *Exposure to Property-Related Negative Externalities Increases with Shareholdings*

Exposure to other externalities—those that affect property—typically increases with shareholdings. Diversified

Space? A Cross-Sectional Study of Australia's Most Populous Cities, 14 BioMed Cent. Pub. Health 292 (2014).

[135] Dominic-Madori Davis, *Aviation Service Blade Says It's Seeing Demand for Daily Helicopter Commutes from the Hamptons to NYC, and It's Launching a September Commuter Pass for the First Time Ever*, Bus. Insider (Aug. 16, 2020, 9:25 AM), https://www.businessinsider.com/blade-commuter-pass-helicopter-hamptons-nyc-service-price-2020-8 [https://perma.cc/DDA5-3Y35]; Neil Paulley et al., *The Demand for Public Transport: The Effects of Fares, Quality of Service, Income and Car Ownership*, 13 Transp. Pol'y 295–306 (2006) (car ownership increases with income).

[136] David J. Kennedy, Note, *Residential Associations as State Actors: Regulating the Impact of Gated Communities on Nonmembers*, 105 Yale L.J. 761, 777–78 (1995); Edward J. Blakely & Mary Gail Snyder, Fortress America: Gated Communities in the United States 159–60 (1997).

[137] Hannah Elliott, *The Market for Bulletproof Vehicles Is Skyrocketing*, Bloomberg (Oct. 31, 2019), https://www.bloomberg.com/news/articles/2019-10-31/the-market-for-bulletproof-cars-is-sky-high [https://perma.cc/EQA9-83NJ].

[138] Peter W. Cookson, Jr. & Caroline Hodges Persell, Preparing For Power: America's Elite Boarding Schools 15 (2008).

[139] *See generally* Richard L. Holcomb, *Alcohol in Relation to Traffic Accidents*, 111 J.A.M.A. 1076 (1938); Chad D. Cotti & Douglas M. Walker, *The Impact of Casinos on Fatal Alcohol-Related Traffic Accidents in the United States*, 29 J. Health Econ. 788 (2010).

[140] *See generally* Fernando A. Wilson & Jim P. Stimpson, *Trends in Fatalities From Distracted Driving in the United States, 1999 to 2008*, 100 Am. J. Pub. Health 2213 (2010); Despina Stavrinos et al., *Impact of Distracted Driving on Safety and Traffic Flow*, 61 Accident Analysis & Prevention 63 (2013).

[141] *See generally* Michael L. Anderson & Maximilian Auffhammer, *Pounds That Kill: The External Costs of Vehicle Weight*, 81 Rev. Econ. Stud. 535 (2014).

[142] *See generally* Joseph J. Doyle, Jr., *Health Insurance, Treatment and Outcomes: Using Auto Accidents as Health Shocks*, 87 Rev. Econ. & Stat. 256 (2005).

owners who have large holdings in one firm definitionally have large holdings in others. Those with larger portfolios of equities often also diversify into real property or buy more of it for their personal use. The personal cost of avoiding or insuring against externalities that harm property rises with property holdings. Therefore, shareholders may be more willing to sacrifice corporate profits to reduce externalities to property than to reduce externalities to health. Corporate equity exposures remain far more highly concentrated toward the top of the wealth distribution than other assets such as real estate.[143] Therefore, externalities that harm portfolio company profits or increase systematic risk are the most likely to be the focus of current efforts at corporate self-policing.[144] Externalities that primarily harm other property may be less-effectively self-policed.

The "common ownership" literature postulates that large, diversified investors cause corporations to limit competition for market-share that would adversely affect portfolio returns.[145] In other words, diversified shareholders limit negative externalities that hurt the profitability of other firms in their portfolio. Zohar Goshen similarly argues that institutional investors discourage internal reinvestment and encourage corporate payouts to investors, thereby limiting capacity and increasing the return on capital across portfolio companies.[146] While such findings may raise competition concerns, they imply a silver lining: negative externalities that are distributed in proportion to corporate profit entitlements can be

143 *See infra* note 195 and Appendix. For example, according to Federal Reserve data, the top one percent of the population by wealth beneficially owns approximately forty-two to fifty-three percent of shares, twenty-eight percent of total assets, and fourteen percent of real estate.

144 Gordon, *supra* note 83, at 627; Matthew J. Kiernan, *Universal Owners and ESG: Leaving Money on the Table?*, 15 Corp. Gov. 478, 478–85 (2007); Condon, *supra* note 98, at 45–47.

145 See *supra* notes 97–101; José Azar, Martin C. Schmalz & Isabel Tecu, *Anticompetitive Effects of Common Ownership*, 73 J. Fin. 1513, 1513 (2018); *cf.* Merritt B. Fox & Manesh S. Patel, *Common Ownership: Do Managers Really Compete Less?*, 39 Yale J. on Reg. 136, 136 (2022).

146 Zohar Goshen & Doron Levit, *Agents of Inequality: Common Ownership and the Decline of the American Worker*, 72 Duke L.J. 1, 6 (2022). Reducing capacity and limiting competition for market share would boost portfolio returns, but it would also reduce employment and increase prices for consumers. *Id.* Smaller beneficial owners—for whom consumption and wages are large relative to corporate profit entitlements—would be less supportive of such capacity reductions than large beneficial owners, for whom consumption and wages are small relative to corporate profit entitlements.

effectively self-policed under the extant one-share, one-vote systems.[147]

Relatedly, Jeff Gordon has argued that institutional investors should act as "systematic stewards," engaging in ESG activities that reduce systematic risks.[148] This risk-reduction would increase risk-adjusted portfolio returns. Madison Condon argues that institutional investors representing diversified investors can and should increase long-term portfolio returns by pressuring energy companies to reduce oil & gas production and increase prices, thereby protecting the rest of their portfolios from climate change risk.[149]

These ideas may have already been covertly put into practice at Exxon, where activist investors led by the hedge fund Engine No. 1 elected a short slate of directors over management's opposition. Engine No. 1's stated goal was to reduce Exxon's oil & gas investment, transition it to cleaner energy production more swiftly, and to curb greenhouse gas emissions.[150] Engine No. 1 claimed that its plan would boost profitability at Exxon by preventing overinvestment in soon-to-be obsolete assets. By contrast, Exxon management accused Engine No. 1 of seeking to sacrifice Exxon for the benefit of other firms.[151] Leading institutional investors (Blackrock, Vanguard, State Street and Legal & General); proxy advisors (ISS and Glass Lewis); and large pensions such as CalPERS ultimately backed directors nominated by Engine No. 1.[152] Corporate self-policing in recent years has often focused on climate change: a problem that adversely affects coastal infrastructure and agriculture,[153] and might harm stock portfolio returns.[154]

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147 At least when common/diversified owners can outvote concentrated owners.

148 Gordon, *supra* note 83, at 627.

149 Condon, *supra* note 98, at 1–82.

150 Derek Brower & Ortenca Aliaj, *Engine No 1, The Giant Killing Hedge Fund, Has Big Plans*, FIN. TIMES (June 2, 2021), https://www.ft.com/content/ebfdf67d-cbce-40a5-bb29-d361377dea7a [https://perma.cc/7QXD-7AMY].

151 Derek Brower & Justin Jacobs, *Exxon Faces 'Existential' Risk Over Fossil Fuel Focus, Activist Investor Warns*, FIN. TIMES (Apr. 25, 2021), https://www.ft.com/content/5ab010de-43c8-4b60-80f2-020f01610eee [https://perma.cc/KM3N-YQZD].

152 Thomas Ball, James Miller & Shirley Westcott, *Was the Exxon Fight a Bellwether?*, HARV. L. SCH. F. ON CORP. GOV. (July 24, 2021), https://corpgov.law.harvard.edu/2021/07/24/was-the-exxon-fight-a-bellwether/ [https://perma.cc/J5ZU-P2MY].

153 *See generally* Arthur Charpentier, *Insurability of Climate Risks*, 33 GENEVA PAPERS ON RISK & INS.—ISSUES & PRAC. 91 (2008); Darwin Choi, Zhenyu Gao & Wenxi Jiang, *Attention to Global Warming*, 33 REV. FIN. STUD. 1112 (2020).

154 Madison Condon, *Market Myopia's Climate Bubble*, 2022 UTAH L. REV. 63 (2021). *But see* Bubb *supra* note 89, at 29–31 (arguing that the effects of climate

G. Opposition to Negative Externalities is Often Inversely Related to Shareholdings

Larger beneficial owners will typically be less concerned with negative externalities than smaller beneficial owners or non-owners. This is because the benefits to larger owners of a higher return on equity are much greater: the same percentage increase in share value is multiplied by a higher base of shareholdings. In addition, as noted above, proportionate exposures to externalities will often be lower for wealthier beneficial owners. This is both because of *ex ante* corporate decisions about where to engage in activities that generate localized externalities and because of wealthier owners' greater ability to insulate themselves *ex post* from externalities that are diffuse.

Consider the following hypothetical. A manufacturing firm can sell itself to an acquiror who will increase shareholder value by lobbying for lax environmental regulations and cutting environmental costs. If the acquisition goes through, profits will be higher and shareholder value will increase by five percent. However, air pollution will intensify. Individuals can mitigate the adverse effects of this pollution by installing filtration systems in their homes, cars and offices, at a uniform cost of $5,000 per person, which will be borne by individuals rather than the polluting firm.

A relatively prosperous beneficial owner with 1% of her $1,000,000 diversified stock portfolio invested in the firm (i.e., $10,000 in exposure to the firm) would gain $500 in equity returns from the high-pollution, high-returns strategy. But she would lose $5,000 in personal expenditures. She will therefore prefer the lower-pollution, lower-profit strategy and vote against the sale.

On the other hand, a beneficial owner with $10,000,000 invested in the firm stands to gain $500,0000 in equity value from the high-pollution strategy, at a personal cost of only $5,000. She will therefore prefer the high-pollution, high-profit strategy and vote in favor of the sale.

In this example, beneficial owners with moderate holdings have preferences that are similar to individuals with no beneficial ownership. But if the acquiror could provide a large enough boost to shareholder value at a low enough cost in externalities, beneficial owners with moderate holdings would switch their allegiance.

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change are geographically located such that the effect on U.S. stock returns may be limited).

IV
A MODEL OF SHAREHOLDER VOTING BASED ON PROFIT SHARES AND EXTERNALITY EXPOSURES

Consider the following model of the relationship between beneficial ownership, negative externalities and corporate governance. For simplicity, assume away agency problems, information problems, indirect ownership, and strategic responses, side payments for votes, or efforts to game a voting system—topics addressed later.

A. Divergence Between Social Welfare and Shareholder Welfare

A corporation generates profits, *s*, but also generates negative externalities, *x*. Social welfare is maximized when the corporation undertakes every project which generates positive value, accounting for both shareholder profits and externalities.

$$\textit{Project Value to Society}(s,x) = s - x > 0$$

(1)

Where:

- s is the profits accruing to shareholders
- x is the net negative externalities imposed on the public (including, but not limited to, shareholders)

In contrast to this social welfare function, each person's preference with respect to each project is defined by a private welfare function which does not incorporate all shareholder profits and all externalities. Instead, this private welfare function only accounts for an individual's entitlement to shareholder profits and direct exposure to negative externalities. Each individual prefers the corporation to undertake all projects where their individual value is positive.

$$\text{Project Value to Individual}(s,x) = \sigma_i \bullet s - \rho_i \bullet x > 0$$

(2)

Where:

- s and x have the same meaning as in (1) above
- σ_i is the fraction of beneficial ownership of shares (i.e., the entitlement to a fraction of corporate profits)
- ρ_i is the fraction of the externalities that will be borne by shareholder i

An individual's preferences, (2), will always be consistent with the socially efficient decision, (1), when that individual's beneficial ownership percentage is identical to that individual's

percent of exposure to negative externalities.[155] Mathematically, this corresponds to $\sigma_i = \rho_i$, or equivalently, $\sigma_i - \rho_i = 0$.

(3)

By contrast, individuals with mismatched entitlements to corporate profits and exposures to negative externalities, $\sigma_i \neq \rho_i$, will have preferences that systematically deviate from the socially efficient decision. At one extreme, a non-shareholder may be exposed to negative externalities, $\rho_i > 0$, but have no entitlement to corporate profits, $\sigma_i = 0$. Thus, $\sigma_i < \rho_i$. This non-shareholder will inefficiently undervalue corporate profits and overvalue externalities. Conversely, a wealthy beneficial owner may have a relatively high entitlement to corporate profits and relatively low exposure to negative externalities. Thus, $\sigma_i > \rho_i$. Such a person will support projects that generate corporate profits even if they generate more harmful negative externalities.

An individual inefficiently overvalues shareholder profits and undervalues externalities when:

$$\sigma_i - \rho_i > 0$$

(4)

An individual inefficiently undervalues shareholder profits and overvalues externalities when:

$$\sigma_i - \rho_i < 0$$

(5)

In the example above, shareholders' skewed incentives are problematic when their voting influences corporate decision making. Non-shareholders' skewed incentives are not directly consequential under shareholder primacy, because only shareholders get to vote for corporate boards or on fundamental corporate changes.

B. Aggregation of Votes Across Shareholder Groups

Corporation's investment decisions can be modelled as an aggregation of the preferences of individual shareholders, based on their corporate voting power, v_i. Each shareholder will vote in favor of a project if the project's value to the individual shareholder is positive under equation (2). The project will proceed if, and only if, these shareholders for whom the value of the project is positive control a majority of the votes.[156] In mathematical notation, this voting rule corresponds to:

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155 Assume $\sigma_i > 0$ or $\rho_i > 0$.

156 A full exploration of the challenges voting systems face in aggregating preferences is beyond the scope of this article. *See, e.g.*, Kenneth J. Arrow, *A Difficulty in the Concept of Social Welfare*, 58 J. POL. ECON. 328 (1950).

Project proceeds when:

$$\sum_{\forall i s.t. \sigma_i s - \rho_i x > 0} V_i > 0.5$$

Where V_i is shareholder i's fraction of the vote.

(6)

If corporate voting power is coterminous with beneficial ownership—that is, "one share, one vote"—then the project proceeds when profit entitlements, $\sigma_i s$, exceed externality exposures, $\rho_i x$, for the shareholders who are entitled to a majority of the profits. In this case, equation (6) can be simplified as follows:

Where $\sigma_i = v_i$,

The project proceeds when:

$$\sum_{\forall i s.t. \sigma_i s - \rho_i x > 0} \sigma_i > 0.5$$

(7)

Corporations evaluate projects with varying ratios of profits and externalities. Each person has a different preference for the aggregate level of corporate profits and externalities, which depends not only on total profit and externalities generated by each project, but also depends on that person's individual entitlement to profits and exposure to externalities. Rather than reject socially inefficient projects where externalities exceed profits, $x > s$, corporations pursue such projects as long as profit shares exceed externality exposures, $\sigma_i s > \rho_i x$, for the majority of shareholders by voting power. The shareholders who control a majority of the votes get to decide the total level of profit and externalization. When shareholdings and votes are concentrated, but externality exposures are diffuse or concentrated on non-shareholders, corporations will pursue inefficient projects that generate high externalities in return for low profits.

1. *Three Groups Defined by Population, Externality Exposure, Profits and Votes*

Our aggregation analysis can be simplified by dividing the population into 3 groups:

- Non-shareholding public (1)
- Small shareholders (2)
- Large shareholders (3)

Within each of these groups, individuals are identical. Each group can be described using four parameters:

1. λ_g: share of population in group g
   - $\lambda_1 + \lambda_2 + \lambda_3 = 1$, by definition

2. ρ_g : per-person share of externality exposure in group g
   - $\lambda_g \rho_g$: aggregate externality exposure in group g
   - Normalization: $\lambda_1\rho_1 + \lambda_2\rho_2 + \lambda_3\rho_3 = 1$
3. σ_g : per-person share of profit in group g
   - $\lambda_g \sigma_g$: aggregate share of profit going to group g
   - Normalization: $\lambda_1\sigma_1 + \lambda_2\sigma_2 + \lambda_3\sigma_3 = 1$
4. υ_g : per-person share of votes
   - $\lambda_g \upsilon_g$: aggregate share of votes of group g
   - Normalization: $\lambda_1\upsilon_1 + \lambda_2\upsilon_2 + \lambda_3\upsilon_3 = 1$

By definition:

- Group 1 has no profit share and no votes

$$\sigma_1 = \upsilon_1 = 0$$

- Group 2 and Group 3 combined are entitled to all the profits

$$\lambda_2\sigma_2 + \lambda_3\sigma_3 = 1$$

- Group 3 has a higher profit share per person than Group 2

$$\sigma_3 > \sigma_2$$

An additional assumption, generally consistent with empirical evidence in the United States, is that small shareholders are more numerous than large shareholders:

$$\lambda_2 > \lambda_3$$

Since only shareholders get to vote, the analysis that follows explores the condition for a victory by either group of shareholders (large shareholders or small shareholders) under different voting rules. The analysis then explores whether a victory by small shareholders (group 2) or large shareholders (group 3) would result in a more socially efficient production decision by the corporation.

2. *Voting Rules and Conditions to Win*

Voting rules defined:

- *one*-share-*one-vote (i.e., votes = profit shares):*

  Per-person voting power

$$\upsilon_{\sigma,g} = \sigma_g$$

Group voting power

$$\lambda_g \upsilon_g = \lambda_g \sigma_g$$

- *one-natural*-person-*shareholder-one-vote (i.e., votes = population with shares):*

$$\upsilon_{\lambda,g} = \begin{cases} \dfrac{\lambda_g}{(\lambda_2 + \lambda_3)}, & g = 2,3 \\ 0, & g = 1 \end{cases}$$

In other words, non-shareholders get no votes. Shareholders get votes in proportion to their share of the population of shareholders.

- *intermediate voting rule* (a weighted average of the other two voting rules):

$$\upsilon_{\alpha,g} = \alpha \, \upsilon_{\sigma g} + (1 - \alpha) \, \upsilon_{\lambda g}$$

The intermediate voting rule is one-share-one-vote with additional bonus votes given to each natural person who owns shares.

The condition for Group 3 (large shareholders) to win under each voting rule:

- *one-share-one*-vote

Recall that by definition, $\sigma_3 > \sigma_2$
Condition to win: $\lambda_3\sigma_3 > \lambda_2\sigma_2$

Group 3 wins when Group 3 has more total shares than Group 2. This can be restated as Group 3 wins when the shareholdings per person times the number of people is greater for Group 3 than for Group 2. Either Group 3 or Group 2 could win depending on the concentration of shareholdings.

- *one-natural-person-shareholder-one-vote*

$$\lambda_3 > \lambda_2$$

Group 3 wins when there are more people in Group 3 than Group 2. By assumption, Group 2 is more numerous, and thus Group 3 always loses under this voting rule.

- *intermediate voting rule*

$$\lambda_3 \upsilon_{\alpha 3} > \lambda_3 \upsilon_{\alpha 2}$$

$$\alpha\left(\lambda_3\sigma_3 - \lambda_2\sigma_2\right) > \left(1 - \alpha\right)\frac{\lambda_2 - \lambda_3}{\lambda_2 + \lambda_3}$$

Group 3 wins when Group 3's advantage in share ownership is larger than Group 2's advantage in population, taking into account the relative weight assigned to each (share ownership versus population) under the voting rule.

3. *Measuring the Efficiency of Approved Projects*

Efficiency Index

To help understand how inefficient a project is, we can express a project in terms of its "efficiency index," which relates

the amount of shareholder profits generated to the level of negative externalities generated.

$$\frac{s-x}{s} = 1 - \frac{x}{s}$$

(8)

Thus, a project is efficient and contributes to social surplus whenever

$$\frac{x}{s} < 1 \Leftrightarrow x < s$$

(9)

The lower the value of $\frac{x}{s}$, the more efficient the project; the higher the value, the less efficient (or the more inefficient).

Per Equation (2), an individual will support a project when:

Project Value to Individual $(s, x) = \sigma_g \cdot s - \rho_g \cdot x > 0$

$$\frac{x}{s} < \frac{\sigma_g}{\rho_g}$$

(10)

If a voting group either has too much or too little profit entitlement relative to externality exposures, the group will make inefficient decisions.[157]

4. *Illustration Using the Actual Distribution of Beneficial Ownership*

The wealthiest 1 percent of U.S. households on average have corporate profits entitlements that are 41 times as high as their exposure to uniformly distributed negative externalities, $\frac{\sigma_g}{\rho_g} = 41$.[158] In other words, the top one percent rationally would support a corporation imposing harmful negative externalities worth $41 in exchange for only an additional $1 of aggregate corporate profits.[159] Under the same assumptions, households

157 When $\frac{\sigma_g}{\rho_g} \geq 1$, as $\frac{\sigma_g}{\rho_g}$ becomes larger, the group will support ever more inefficient projects, reducing aggregate social value. However, when $\frac{\sigma_g}{\rho_g} \leq 1$, as $\frac{\sigma_g}{\rho_g}$ gets smaller, the group may begin to reject some efficient projects, thereby reducing aggregate value.

158 $\frac{\lambda_3 \sigma_3}{\lambda_3} = \frac{0.41}{0.01} = 41$. See data on beneficial ownership in the Appendix and Equation (10).

159 This entails averaging, since the top 1% are not actually uniform in beneficial ownership of equities. Toward the top of the top 1%, the ratio would be higher, while toward the bottom of the top 1% it would be lower. This also assumes that all profits and negative externalities fall on U.S. households. If

between the 99th and 90th percentile of wealth would support a corporation imposing harmful negative externalities worth more than $4 in exchange for only $1 of additional corporate profits, $\frac{\sigma_g}{\rho_g} = 4.22$.[160] Households between the 89th and 50th percentiles would on average be willing to sacrifice one dollar of corporate profits to mitigate 50 cents worth of negative externalities, $\frac{\sigma_g}{\rho_g} = 0.49$.[161]

The top 1 to top 10 percent of households by wealth control a majority of votes under one-share-one-vote. Therefore, directing management to maximize shareholder wealth with minimal regard for negative externalities is a reasonable approximation for the preferences of the shareholders who hold a majority of corporate votes.[162]

Thus, shareholder wealth maximization is both consistent with likely shareholder preferences under one-share, one-vote, and also leads companies to engage in socially inefficient externalization.

However, viewed from the perspective of smaller shareholders who are more exposed to negative externalities than those who control a majority of the company, a mandatory norm of wealth maximization, and a prohibition on corporate consideration of externalities, is similar to a regime in which the company is run to provide private benefits to controlling shareholders at the expense of minority investors' interests.

C. The Joint Distribution of Exposures to Externalities, Beneficial Ownership & Votes

Each shareholders' willingness to reduce corporate externality production depends on both the fraction of the negative

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negative externalities are distributed globally and foreign investors are considered, the top 1 percent of U.S. households would likely be even less sensitive to negative externalities.

160 $\frac{\lambda_2 \sigma_2}{\lambda_2} = \frac{0.79 - 0.41}{0.1 - 0.01} = \frac{0.38}{0.09} = 4.22.$

161 $\frac{\lambda_1 \sigma_1}{\lambda_1} \frac{\lambda \sigma}{\lambda} = \frac{0.985 - 0.79}{0.5 - 0.1} = \frac{0.195}{0.4} = 0.49.$

162 This assumes that externalities are uniformly distributed throughout the population. If externalities are inversely related to shareholdings, large shareholders will tolerate an even higher ratio of externalities to corporate profits. If externalities grow with shareholdings, but at a slower rate than shareholdings, large shareholders will still tolerate externalities that exceed corporate profits, but their tolerance for inefficient externalization will be less extreme.

externalities he bears, ρ_g, and the fraction of profits he receives, σ_g. When shareholders are exposed to externalities, how much of the externalities does each type of shareholder bear?

Considers three plausible scenarios:

- Externalities are uniformly distributed throughout the population
- Externalities are distributed in inverse relation to individual entitlements to corporate profits
- Externalities are distributed in positive relation to individual entitlements to corporate profits

1. *Uniformly Distributed Externalities*

Assume that negative externality exposures are uniformly distributed across the population, including both shareholders and non-shareholders.

That is, $\rho_g = 1$ for $g = 1,2,3$

Under this assumption, by definition:

$$\frac{\sigma_2}{\rho_2} < \frac{\sigma_3}{\rho_3}$$

Because:

$$\sigma_2 < \sigma_3$$

This means that small shareholders (Group 2) will have less tolerance for negative externalities than large shareholders (Group 3). It also means that moving toward one natural-person shareholder-one-vote (under which small shareholders always win) will unambiguously make the marginal project generate less externalities. A win by small shareholders will *sometimes* improve efficiency compared to a win by large shareholders. Consider two cases:

(1) On the one hand, if share ownership is highly concentrated in Group 3, and Group 2 shareholders therefore have relatively low shareholdings per person,

$$\sigma_2 < 1 < \sigma_3$$

Then small shareholders may inefficiently oppose projects where $s > x$. However, in such a scenario, it will still be true that large shareholders will inefficiently support projects where $x > s$. It is therefore ambiguous which group prevailing (Group 2 or Group 3) would be more efficient. Nevertheless, there is some intermediate voting rule that is optimal. $0 < \alpha < 1$.

(2) On the other hand, if share ownership is relatively evenly distributed between large and small shareholders, then Group 2 small shareholders, like Group 3 large shareholders,

will still tend to favor projects where $s > x$. However, the bias toward profits will be less extreme in Group 2 than in Group 3.

$$\sigma_3 > \sigma_2 > 1$$

In this case, Group 2 will always make a more efficient decision than Group 3. Therefore, a voting rule that ensures a victory by Group 2 (i.e., one-natural-person-shareholder-one vote) would produce the most efficient outcome. In other words, the optimal $\alpha = 0$.

2. *Some Generalizable Insights from the Model*

This analysis suggests several insights. First, when externalities are uniformly distributed, the traditional voting rule (one-share-one-vote, $v_{\sigma,g} = \sigma_g$) is *always* less efficient than an intermediate voting rule.[163]

Second, as the share of the population that owns no shares, λ_1 gets larger, the population of shareholders, $\lambda_2 + \lambda_3$, gets smaller.[164] Therefore each remaining shareholder owns a larger percent of shares.[165] Both small shareholders and large shareholders shift toward tolerating more externalities. This also moves the optimal intermediate voting rule closer to one-natural-person shareholder-one vote, $v_{\lambda,g}$ than to one-share-one-vote, $v_{\sigma,g}$. In other words, as λ_1, gets larger, α gets smaller.

Third, as the difference in shareholdings per person between large shareholders and small shareholders, $\sigma_3 - \sigma_2$, increases, these groups preferences will diverge. The choice of voting rule will therefore be more important to the outcome.

Fourth, an intermediate voting rule that provided bonus votes to each natural-person-shareholder would be unambiguously more efficient than one-share-one-vote if it included a minimum threshold shareholding requirement to receive the bonus votes. If we only granted shareholders a bonus vote once their percent ownership were equal to or greater than their percent exposure to externalities, $\sigma_g \geq \rho_g$, (for example their percent of the population), then this bonus voting regime would dominate one-share-one vote. The threshold could be based on an average or typical distribution of externalities.

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163 One-share-one-vote $v_{\sigma,g}$ is *sometimes* less efficient than one-natural-person-shareholder-one-vote, $v_{\lambda,g}$.

164 Recall, $\lambda_1 + \lambda_2 + \lambda_3 = 1$.

165 Recall, $\lambda_2\sigma_2 + \lambda_3\sigma_3 = 1$. Thus, as the population of shareholders, $\lambda_2 + \lambda_3$, declines, percentage of shareholdings per person, $\sigma_2 + \sigma_3$, increases.

The minimum shareholdings requirement would ensure that voters granted bonus votes would still favor corporate profits over externality reduction. But this bias would be less extreme among the many small shareholders granted bonus votes than among the few large shareholders.

A threshold would be particularly useful in a realistic setting in which individual ownership varies across a distribution, owners are not clearly divided into two uniform groups, and individuals can increase or decrease their ownership levels in response to the new voting rule. Individuals would have incentives to adjust their holdings to slightly above the threshold to become eligible for bonus votes, causing many individuals to bunch at the level of ownership where they would have incentives to favor socially efficient decisions. Bonus votes would need to be large enough that smaller shareholders granted the bonus votes could outvote large shareholders.

3. *Negative Relation Between Externality Exposures and Shareholdings*

The key results above still hold if negative externalities are distributed inversely to profit shares. This could be the case, for example, if pollution is concentrated in poor neighborhoods but partly spreads to adjacent neighborhoods.[166] Under this distribution of externalities, large shareholders would be even more tolerant of inefficiently large externalities because their exposures would be lower. There is therefore still an intermediate voting rule that produces a more efficient result than one-share-one-vote. This intermediate voting rule would be closer to one-natural-person-shareholder-one-vote than under a uniform distribution of externalities. In other words, the threshold for bonus votes should be lower or recipients should receive more bonus votes.

4. *Positive Relation Between Externality Exposures and Shareholdings*

Exposure to some externalities might grow as shareholdings increase, but at a slower rate than shareholdings. This is plausible for negative externalities that primarily affect property rather than persons.[167] Under this externality distribution, one-share-one-vote performs better than under a uniform

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166 *See supra* Section IV.F.1.

167 *See supra* note 143 and accompanying text.

distribution. However, an intermediate rule that provides bonus votes at the threshold where profit shares equal externality exposures will still be more efficient.

V
Implementation Issues

The analysis above suggests that a system in which shareholder votes are not entirely proportionate to profit shares, but instead in which individuals with relatively low levels of beneficial ownership are granted bonus votes, could be more efficient than the status quo. Corporations would self-police more effectively and produce fewer diffuse inefficient negative externalities. Natural person shareholder voting would shift share votes toward those with private incentives to make socially efficient tradeoffs between corporate profits and negative externalities because these shareholders are exposed to an equal share of both profits and externalities. This would preserve the principle that only beneficial owners—only those with an interest in corporate profits—vote. Small beneficial owners would pressure firms to reduce many inefficient externalities—those that generate more social harm than private profit—for their own benefit. This would indirectly protect non-owners from externalities that affect both small shareholders and non-owners.

If an externality disproportionately affected many non-owners, non-owners could buy shares and thereby obtain substantial collective corporate voting power.[168] This would enable them to press for externality reduction while credibly demonstrating that the externality really is socially inefficient. As new shareholders, they would bear some of the cost of reduced profits. But this pro-social activism would be feasible even for those with limited capital. The anti-externality group would only need to obtain a large enough stake to influence corporate policy. If this was less than full ownership, the financial costs of reducing inefficient negative externalities would be shared between those who profited from externalities and those who were harmed. Bonus votes would alleviate liquidity constraints and collective action problems, while shared costs would reduce rewards to externalizers.

168 This approach would not work for concentrated externalities that affect few people. Inefficient concentrated externalities may be more addressable through Coasian bargaining, local regulation, or interest group politics.

Corporate profits could be safeguarded against those with too little skin-in-the-game by only allocating bonus votes to beneficial owners whose holdings exceed a minimum threshold. The ideal threshold is close to the point at which an individual's share of corporate profits equals that individual's share of externality exposures. If externalities were uniformly distributed, this threshold could be set at ownership share equals population share.[169] This threshold would lead to a corporate electorate that still favored corporate profits over externality reduction, but whose biases in this direction were less extreme than under the status quo.[170] The prospect of obtaining bonus votes would increase bunching near the threshold, thereby increasing the proportion of voters with incentives to make socially efficient tradeoffs between profits and externalities.[171] Unaffiliated small beneficial owners would generally outnumber workers at any one firm or other small groups with idiosyncratic interests.

Shareholders would vote on the same issues as under the status quo—board elections, sales and mergers, and charter amendments—preserving the extant regime under which shareholders delegate day-to-day authority to directors and managers. Directors and managers could remain in power by

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169 Assuming that corporate externalities are uniformly distributed throughout the U.S. population, and that the threshold for bonus votes should be set at the point where, $\frac{\sigma_g}{\rho_g} = 1$, then a fully diversified beneficial owner with roughly $122,000 in beneficial ownership of equities at the end of 2020 would cross the threshold for all the firms in his or her portfolio. This threshold is calculated as follows: $40.353 trillion in corporate equity at the end of 2020, divided by a U.S. population of 331.5 million, equals $121,700. *Quarterly: B.101.e Balance Sheet of Households and Nonprofit Organizations with Equity Detail*, FRED: FED. RSRV. ST. LOUIS, https://fred.stlouisfed.org/release/tables?rid=52&eid=810493&od=2020-10-01# [https://perma.cc/9GYV-KZS2] (last visited Jul. 12, 2024); *Population, Total for United States*, FRED: FED. RSRV. ST. LOUIS, https://fred.stlouisfed.org/series/POPTOTUSA647NWDB [https://perma.cc/E9UE-FMKR] (last visited May 14, 2024).

If global equity holdings and global population were used (assuming externalities are distributed uniformly around the world), then the beneficial ownership threshold for a portfolio would be significantly lower, around $12,000 at the end of 2020. This global threshold was calculated as follows: $93.7 trillion in global equities divided by a global population of 7.795 billion equals $12,000.

170 A corollary of this is that natural person shareholder voting would mitigate but not eliminate all externalities.

171 This is an important difference between *Natural Person Shareholder Voting* and an earlier proposal to shift voting power toward smaller shareholders, "square root voting," proposed by Eric Posner and Glen Weyl. Eric A. Posner & E. Glen Weyl, *Quadratic Voting as Efficient Corporate Governance*, 81 U. CHI. L. REV. 251, 266, 270–72 (2014).

appealing to a constituency of investors that cared about *both* corporate profits and externalities. Rivals in the market for corporate control would present offers that consisted of both a buyout price *and* an explanation of how they would change externality production. Shareholders would still care about corporate performance, and would therefore seek to constrain managerial slack, shirking, and self-dealing—much as shareholders currently do.

Shareholders wishing to refocus managers and directors on a slightly different goal—maximizing shareholders returns *without* generating inefficiently harmful negative externalities—would likely seek to supplement many of the monitoring, information reporting, and incentive compensation systems that currently reduce agency costs and help overcome information asymmetries. This would require time, resources, and experimentation. Existing systems developed over decades as shareholders became more active in governance. There are already nascent developments that may eventually help accommodate broader shareholder interests, including voluntary ESG disclosures, an SEC proposal for mandatory reporting of greenhouse gas emissions, scholarly proposals for disclosures of corporate lobbying efforts, and early efforts to incorporate ESG metrics into executive compensation.[172] These proposals have faced criticism and opposition on the grounds that they are costly, insufficiently relevant to shareholders' core concerns, and encourage avoidance through going-private transactions.[173] Improvements that would help address these concerns could be accelerated by empowering a constituency of shareholders that would value them more highly.

A. Overcoming Rational Apathy through Voting Intermediaries

Empowering small beneficial owners raises concerns about rational apathy, uninformed voting, and collective action problems. Small shareholders may have too little at stake in an individual company, and too few resources available, to invest in acquiring information, to analyze and understand that

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[172] *See, e.g.*, Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 Geo. L. J. 923, 923 (2019); Jill E. Fisch & Steven Davidoff Solomon, *Should Corporations Have a Purpose?*, 99 Tex. L. Rev. 1309, 1335 (2021).

[173] Lawrence A Cunningham, et al., *Comment Letter on SEC Climate Disclosure Proposal by 21 Law and Finance Professors*, Geo. Wash. Scholarly Commons (2022), https://scholarship.law.gwu.edu/faculty_publications/1593 [https://perma.cc/4GMV-K7PS].

information, and to make good decisions.[174] Indeed, such problems of scale and information cost may persist even for reasonably wealthy individual investors or financial institutions with limited holdings in individual companies.[175] If shareholders are uninformed, then agency costs might increase, because shareholders will not adequately monitor the board, which in turn will not adequately monitor management.[176]

The information problems facing shareholders are well known, as are the solutions that have been developed over decades to ameliorate them: a series of information and decision-making intermediaries.

Individual beneficial owners are often too rationally inattentive to vote for directors or on other key corporate decisions, but they generally do not have to do so. Mutual funds and pension funds vote on their behalf.[177] Many of these institutions in turn consider advice and recommendations from proxy advisory services such as ISS and Glass-Lewis, as well as proposals spearheaded by activist investors.[178] The use of advisory services increases economies of scale and reduces costs of information gathering. Because proxy advisory services are funded through subscription fees from mutual funds and other institutional investors, proxy advisory services seek to make voting recommendations that are consistent with institutional investors' fiduciary responsibilities and regulatory obligations as well as mutual funds' and pensions' economic interests. These recommendations generally relate to reducing agency costs, preventing managerial entrenchment, and encouraging enhancements to shareholder value. In practice budget constraints and other problems may lead proxy advisors to make recommendations imperfectly.[179] Larger mutual fund

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174 Adolf A. Berle, Jr. & Gardiner C. Means, The Modern Corporation and Private Property 247 (1932); Bernard S. Black, *Agents Watching Agents: The Promise of Institutional Investor Voice*, 39 UCLA L. Rev. 811, 871–72 (1992); Mark J. Roe, *A Political Theory of American Corporate Finance*, 91 Colum. L. Rev. 10, 12–14 (1991).

175 John C. Coffee, Jr., *Liquidity Versus Control: The Institutional Investor as Corporate Monitor*, 91 Colum. L. Rev. 1277, 1296 (1991); Roe, *supra* note 174, at 12–16, 57–58.

176 Oliver Williamson, *Corporate Governance*, 93 Yale L.J. 1197, 1225 (1984); Bainbridge, *supra* note 49, at 567.

177 Coffee, Jr., *supra* note 175, at 1326–27.

178 Choi, supra note 93, at 869; Robert J. Jackson, Jr., *Statement on Proxy Advisor Guidance*, S.E.C. (Aug. 21, 2019), https://www.sec.gov/newsroom/speeches-statements/statement-jackson-082119#_ftn8 [https://perma.cc/LN2M-QTQV].

179 ISS and Glass-Lewis sometimes rely on general corporate governance policies that they apply across firms rather than engaging in individualized evaluations of particular situations at particular firms. They might also make

companies with extensive market share may be able to invest more in monitoring and forming independent judgments.[180]

1. *Beneficial Ownership and Indirect Voting*

Indirect ownership and voting through mutual funds or other investment vehicles is not a panacea. It can introduce agency costs if fund managers have idiosyncratic preferences that differ from their investors. Even without agency costs, voting on behalf of investors presents fund managers with a challenging problem: investors have heterogeneous preferences. However, recent developments could increase the correspondence between beneficial owner preferences and share voting.

First, mutual fund families have created different funds, such as ESG or social values funds, that cater to investors with different voting preferences.[181] Some mutual fund families have sought to differentiate themselves through their ESG stance *across* funds within the family. Investors can therefore attempt to invest in mutual funds that roughly match their voting preferences. But this is far from a perfect solution.

It is costly for investors to sort themselves across funds according to voting preferences. Sorting on voting may limit investors' ability to sort on other fund features that could be more important to them. Funds offer a bundle of services consisting of an investment strategy, liquidity provision, tax attributes, information reporting, fees, and voting. A particular fund's vision of ESG may not be transparent or may not correspond to the specific issues that appeal to the investor.[182] Moreover, moving money that has already been invested may force investors to realize capital gains and pay taxes prematurely.

Funds within retirement accounts are not subject to capital gains taxation, but investors may still find it difficult to use mutual fund allocations within these funds for voting purposes. Retirement plan sponsors—employers—can limit

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recommendations to institutional investors that do not consider their overall portfolios. This reduces costs but can lead to inconsistent or problematic recommendations, such as advising mutual funds to vote for a merger with their shares of the target, but against the same merger with their shares of the acquiror.

[180] Marcel Kahan & Edward B. Rock, Index Funds and Corporate Governance: Let Shareholders Be Shareholders, 100 B.U. L. Rev. 1771 (2020).

[181] Quinn Curtis, Jill Fisch, & Adriana Z. Robertson, *Do ESG Mutual Funds Deliver on Their Promises?*, 120 Mich. L. Rev. 393, 393 (2021).

[182] *See, e.g.*, Elizabeth Pollman, *The Making and Meaning of ESG* (U. Pa. Carey L. Sch. Inst. for L. & Econ., Research Paper No. 22-23, 2022).

available funds. Department of Labor regulations encourage private sector employer sponsored pension funds to invest and vote to maximize financial returns to shareholders, without regard to other beneficiary priorities.[183] State officials direct how public pensions vote, subject to state law.

Nevertheless, individual beneficial owners are increasingly gaining greater control over how their money is invested and how shares are voted. BlackRock is offering to voluntarily pass votes through directly to its investors—primarily pension fund and employer retirement plan sponsors, but also some individual investors.[184] Many retirement sponsors are also offering beneficiaries unrestricted self-directed brokerage accounts, increasing the range of investment options.[185] Additional reforms

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[183] Dep't of Lab. Fiduciary Duties Regarding Proxy Voting and Shareholder Rights, 29 C.F.R. § 2509 (2020) ("ERISA plan fiduciaries may not [prioritize] non-pecuniary objectives. . . . Interpretive Bulletin 2008-02 (IB 2008-02) . . . stated that . . . fiduciary duties . . . require that . . . [proxy] votes shall only be cast in accordance with a plan's economic interests. . . . [A]ny use of plan assets by a plan fiduciary to further political or social causes 'that have no connection to enhancing the economic value of the plan's investment' through proxy voting or shareholder activism is a violation of ERISA's exclusive purpose and prudence requirements. . . . Interpretive Bulletin 2016-01 (IB 2016-01) . . . [prohibited] expend[ing] trust assets to promote myriad public policy preferences, including through shareholder engagement activities, voting proxies, or other investment policies . . . opposing commenters . . . argued that the proposal . . . would disenfranchise ERISA plans. . . . Instead, voting power would be concentrated in the hands of . . . hedge funds, foreign investors, and other activist investors whose motivations may be based on short-term profits and non-economic factors, as well as in the hands of corporate management[.]"). In March 2021, following an executive order by President Biden, the Department of Labor suspended enforcement of a new anti-ESG rule pending a review of whether ESG criteria contribute to shareholder value. U.S. DEPARTMENT OF LABOR STATEMENT REGARDING ENFORCEMENT OF ITS FINAL, RULES ON ESG INVESTMENTS AND PROXY VOTING BY EMPLOYEE BENEFIT PLANS (2021); *see also* Matthew T. Bodie, *Labor Interests and Corporate Power*, 99 B.U. L. REV. 1123–50 (2019) (discussing structural limits on labors' shareholder voting power); Paul Rose, *Public Wealth Maximization: A New Framework for Fiduciary Duties in Public Funds*, 2018 U. ILL. L. REV. 891–924 (2018) (arguing that public pensions should vote their shares while being mindful of externalities); David H. Webber, *Reforming Pensions While Retaining Shareholder Voice*, 99 B.U. L. REV. 1001–22 (2019) (arguing that the rise of defined contribution plans and the decline of public defined benefit plans limits labor unions' voice in corporate governance); *cf.* Roe, *supra* note 174, at 54 (arguing that institutional investors such as mutual funds, insurance companies, and banks often favor managerial interests because institutions wish to provide other services to corporations).

[184] BlackRock, 'It's All About Choice': Empowering Investors through BlackRock voting Choice (2022).

[185] Renée Pastor, *Does Your 401(k) Come with a Self-Directed Brokerage Account Option?*, KIPLINGER (Feb. 11, 2021), https://www.kiplinger.com/retirement/retirement-plans/401ks/602240/does-your-401k-come-with-a-self-directed-brokerage-account [https://perma.cc/EB48-JCFT].

and potential institutional developments could reinforce this trend toward matching votes with beneficial owner preferences.

2. *Unbundling Indirect Voting from Investment Management*

Additional reforms could make bonus votes for smaller beneficial owners even more effective at constraining corporate negative externalities. These reforms could enhance the incentives of voting intermediaries to vote consistent with the preferences of smaller beneficial owners.

Mutual funds and pensions bundle together many services. These services include voting as well as diversification, dividend reinvestment, liquidity, accounting and tax reporting, and investment selection. It is not obvious that voting should always be included in the bundle.[186] Some mutual funds may excel at investment management or low-cost diversification but not voting.[187] The interests of mutual funds are not necessarily fully aligned with those of their investors. Voting in a way that will please all investors may be impossible.[188] Many mutual funds currently engage in securities lending, effectively selling their votes to the highest bidder, while others pass votes through to their investors.

Many of the problems with indirect voting through asset managers could be ameliorated if voting were unbundled from asset management, so that a wider variety of institutions could offer voting services to beneficial owners. Individual beneficial owners could be authorized to register a "universal voting intermediary" that would be empowered to vote *all of their beneficially owned shares* across all accounts (including the natural person bonus vote), regardless of the brokerage, retirement plan, insurance product, or specific mutual fund in which the individual had invested.[189] This voting intermediary registration would remain effective until changed, so that the burdens on individuals would be minimal.[190] Individuals could select

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[186] Lucian A. Bebchuk, Alma Cohen & Scott Hirst, *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSPS. 89, 91, 95 (2017); Roe, *supra* note 174, at 29.

[187] *See, e.g.*, Lund, *supra* note 102, at 493–96.

[188] *See, e.g.*, Sean J. Griffith & Dorothy S. Lund, *Conflicted Mutual Fund Voting in Corporate Law*, 99 B.U. L. REV. 1151, 1151, 1182, 1188 (2019).

[189] This option for beneficial owners could be imposed on investment managers as a regulatory mandate.

[190] Reducing the costs of voting would increase participation. *See* Alon Brav, Matthew Cain, and Jonathan Zytnick, *Retail Shareholder Participation in the Proxy Process: Monitoring, Engagement, and Voting*, 144 J. FIN. ECON. 492, 493 (2022).

a voting intermediary and rarely revisit their choice, similar to the way in which individuals now register for political parties or select mutual funds for automatic investment.

Voting intermediaries would disclose the general philosophy that guides their voting, the process they use to research issues and make decisions, whether they outsource voting on certain issues to other providers, and would also provide detailed disclosures of their past votes.[191] They would disclose the fee for their services, which could either be a flat fee per person or could increase with assets. Unlike asset managers, voting intermediaries would *not* be obligated by regulations to prioritize shareholder wealth maximization, but could instead balance shareholder wealth maximization with negative externality reduction. On issues where a voting intermediary did not wish to vote, votes could revert to the original investment manager or to a secondary voting intermediary selected by the beneficial owner. Mutual funds that derive income from securities lending or other vote-selling transactions could charge investors who opt out an additional fee, while mutual funds that pay for proxy advisory services might be able to offer such shareholders a rebate.[192]

Voting intermediaries could be sponsored by extant asset managers, pensions, or proxy advisors who already have reputations with investors. However, voting intermediaries could also be sponsored by other well-recognized groups with explicit policy commitments, like educational, cultural, religious, or advocacy organizations, including business, environmental, religious, labor, or broader political organizations. Groups such as, the U.S. Chamber of Commerce, the AFL-CIO, the Natural Resources Defense Council, the American Medical Association and the Democratic and Republican parties already have significant brand-name recognition with investors.

Economies of scale might lead to the emergence of a handful of voting intermediaries, just as there are only two leading proxy advisors, only two leading U.S. political parties, and

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191 Mutual funds and ETFs are already required to disclose their proxy voting history using form N-PX. Recently promulgated SEC rules aim to make these disclosures more useful through standardization, categorization of votes, and machine readability. *SEC Adopts Rules to Enhance Proxy Voting Disclosure by Registered Investment Funds and Require Disclosure of "Say-on-Pay" Votes for Institutional Investment Managers*, U.S. SEC. & EXCH. COMM'N (Nov. 2, 2022), https://www.sec.gov/news/press-release/2022-198 [https://perma.cc/9C43-ELC6].

192 In practice this would likely be accomplished by creating different classes of mutual fund shares that carry different fees.

three or four leading index fund families.[193] Various existing organizations could band together to jointly sponsor voting intermediaries that would prioritize various concerns in ways that would be disclosed to investors. Voting philosophies might include an "unalloyed shareholder wealth maximization" provider, and a "balanced externality mitigation" provider, among others.

These voting intermediaries could in turn provide regular disclosures of their voting power in portfolio companies, on a quarterly or more frequent basis, analogous to mandatory 13F disclosures of institutional holdings or disclosures of large block holdings under the Williams Act. Such voting power disclosures would help directors and managers understand the priorities of the shareholders whose interests they represent. This would enable directors and management to take shareholder priorities into account in setting corporate policies, while limiting the need for expensive proxy contests or disruptive board or management turnover.

B. Private Ordering and Incentives to Adopt Natural Person Shareholder Voting

Natural person shareholder voting faces a challenging transition problem. Large beneficial owners have reasons to resist a move to a system of corporate governance that would reduce their influence over corporate decision-making. Large beneficial owners would be protected from expropriation through fiduciary duties, minority shareholder protections, officers' and directors' reputational concerns, and firms' need for capital.[194] But the putative benefits of natural person voting—a reduction in inefficient negative externalities—may accrue primarily to small beneficial owners, to non-owners, and to the public fisc; while putative costs—reductions in corporate profits—could come primarily at large beneficial owners' expense.

A federal mandate through securities regulations would only apply to publicly traded firms, could be circumvented by going private, and might deter some firms from going public.

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[193] *See, e.g.*, John C. Coates, IV, *The Future of Corporate Governance Part I: The Problem of Twelve* 13 (Harv. L. Sch., Discussion Paper No. 1001, 2018).

[194] *See, e.g.*, Marcel Kahan & Edward B. Rock, *When the Government is the Controlling Shareholder*, 89 Tex. L. Rev. 1293, 1320 (2011) ("Delaware . . . has developed an intricate set of doctrines that discourage and deter interested fiduciaries from exploiting their control").

At private and closely held firms, large beneficial owners might prohibit equity sales to smaller beneficial owners. If the benefits and costs of natural person shareholder voting vary by firm, private ordering might be preferable.

A transition to natural person voting could be facilitated if large beneficial owners were incented to agree to adopt natural person shareholder voting voluntarily. Incentives could take the form of a tax differential between firms that adopted natural person voting and allowed equity to be freely sold to smaller beneficial owners, and those that did not. This could involve lower corporate income taxes, sales taxes, property taxes, or reductions in a new gross income tax tied to using a limited liability entity.[195] Because business entities such as LLCs and limited partnerships and even many corporations do not pay corporate income taxes, an incentive based only corporate income taxes might not be very effective. Gross income taxes tied to limited liability can be well-calibrated to externality risk because businesses that would waive limited liability to escape a tax typically generate few externalities.[196]

In effect, the public would pay for reductions in externalities by lowering taxes on businesses that would likely self-police.

C. Takeovers and Vote-Padding

Natural person shareholder voting would not dramatically alter M&A practice compared to the status quo. An acquiror must currently obtain both board and shareholder approval to purchase a target company through a merger or asset sale. Although an acquiror nominally can circumvent the board through a tender offer made directly to shareholders, poison pills often block this approach. This leaves the acquiror with the option of negotiating with incumbents or pursuing a proxy contest against them. Even when an acquiror obtains a majority of shares, Delaware law encourages the acquiror to seek approval from a majority of the minority shareholders prior to consummating the merger. Under natural person shareholder voting, the main difference would be that smaller beneficial owners would have bonus votes, which they would lose once they sold their shares to a larger

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[195] For a discussion of how to tax limited liability business entities based on the externalities they expect to generate, see Michael Simkovic, *Limited Liability and the Known Unknown*, 68 DUKE L.J. 275, 275–76 (2018).

[196] *Id.*

block holder or were cashed out in a merger. An acquiror would therefore have stronger incentives to *persuade* small beneficial owners, or their voting intermediaries, to vote for a merger rather than simply buying their shares and voting those shares itself. This persuasion could take the form not only of a high premium to the previous market price, but also pledges regarding future corporate policies if small beneficial owners have concerns about broader impacts of the merger.[197] Thus, potential externalities could factor into merger approval.

In theory, an acquiror could increase its vote by selling some of its shares to cooperative small holders who would get additional bonus votes. But management or rival acquirors could pursue the same strategy, limiting the extent to which strategic efforts to gain bonus votes could alter the relative voting power of rival large block holders. Moreover, it would be costly for a large block holder to win and maintain cooperation from many small block holders over the long run if it promoted externalizing policies that would harm them.

D. Competition and ESG-assisted Regulation

Competition and circumvention efforts may limit the extent to which firms can voluntarily, unilaterally reduce externalities. If Company A, governed under ESG principles, reduces its output of negative externalities, perhaps its competitor, Company B will seize the opportunity to increase its own profits and market share by increasing output of negative externalities. Perhaps Company A will sell assets to Company B, which can afford to pay more for them because of Company B's greater ability to externalize costs. Perhaps Company A, seeing its profits under pressure, will relent.

But if Company B has adopted natural person shareholder voting, small beneficial owners can buy into Company B and pressure it to also exercise restraint. If Company B has not adopted natural person shareholder voting, it will face higher tax burdens than Company A, reducing its ability to compete. Moreover, companies that have adopted ESG oriented governance can help support regulation that would pressure all firms to reduce externalities, thereby denying non-ESG rivals a competitive advantage.

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[197] Appraisal rights could include an estimate of the value of bonus votes that small shareholders who reject the merger would lose if it were consummated.

Conclusion

Beneficial ownership of shares and corporate voting power are highly concentrated. Corporations and other business entities that seek to serve their equity holders' interests therefore have strong incentives to generate excessive, inefficient negative externalities. These incentives are strongest for externalities that are uniformly distributed or distributed in inverse relation to shareholdings: typically externalities related to health. Incentives to externalize are weaker for externalities whose distribution is correlated with shareholdings, such as externalities that lower property values.

Corporations can be encouraged to externalize less by moving away from one-share-one-vote. This could be accomplished by giving bonus votes to smaller beneficial owners who cross a threshold level of ownership—who are about equally exposed to profits and externalities. This would not cause firms to inefficiently under-emphasize profits, nor would it represent a dramatic departure from the extant regime of shareholder-oriented governance. Rational apathy and information problems among small beneficial owners could be mitigated through voting intermediaries. Voluntary adoption could be encouraged through tax incentives.

Corporations are extremely effective engines for wealth accumulation. A few small changes to governance could help ensure that such accumulation stems from genuine value creation.

Appendix: Distribution of Shareholdings and Corporate Voting Power

As noted above in section III.E., individual beneficial owners of corporate equities have heterogeneous exposure to corporate equities and relatedly heterogenous voting power with respect to corporate governance. Equity exposures—including indirect exposures—are concentrated in households toward the top of the wealth distribution. Direct equity exposure—which provides individuals with voting power not mediated through financial institutions—is even more highly concentrated toward the top of the wealth distribution.

Data on household beneficial ownership of financial assets, broken down by household wealth percentiles, comes from the Board of Governors of the Federal Reserve, Distributional Financial Accounts.[198] The DFAs present the share of each asset owned by the top 1%, top 10%, top 50%, and bottom 50% of households by wealth. Financial asset shares relevant to the analysis of direct and indirect equity exposures include: "Share of Corporate Equities and Mutual Fund Shares"; "Share of Pension Entitlements"; "Share of Life Insurance Reserves"; and "Share of Equity in Noncorporate Business."

These household shares of financial assets must then be weighted by the amount of corporate equity held within each category of financial asset. This data also comes from the Federal Reserve, in particular from release Z.1, Financial Accounts of the United States.[199]

As can be seen in Appendix Table 1A below, as of Q3 2020, the top 1 percent of households by wealth beneficially own between 41 and 53 percent of corporate equities. The top 10 percent of households by wealth beneficially own between 79

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198 Bd. of Governors of the Fed. Rsrv., *Distributional Financial Accounts, Release Tables: Shares of Wealth by Wealth Percentile Groups*, available at https://fred.stlouisfed.org/release/tables?rid =453&eid=813804#snid=813876. The DFAs integrate two data products produced by the Federal Reserve Board: the Financial Accounts of the United States, which provide quarterly data on aggregate balance sheets of major sectors of the U.S. economy, and the Survey of Consumer Finances (SCF), which provides comprehensive triennial microdata on the assets and liabilities of a representative sample of U.S. households.

199 Bd. of Governors of the Fed. Rsrv., *Release Z.1: Financial accounts of the United States: Release Tables: Sectors: Levels: Quarterly*, available at https://fred.stlouisfed.org/release/tables?rid=5 2&eid=804096.

and 88 percent of equities. The top 50 percent of households by wealth beneficially own between 98 and 99 percent of equities. The bottom 50 percent of households by wealth beneficially own between 0.5 percent and 1.5 percent of equities. A recent Goldman Sachs analysis using data from the Federal Reserve Survey of Consumer Finances (SCF) reaches similar conclusions.[200] For most households, personal wealth is primarily in the form of home equity rather than shareholdings or business ownership.[201]

The figures in Table 1A should be viewed as a lower bound on the concentration of corporate equity beneficial ownership toward the top of the wealth distribution. This is because these figures are based on the Survey of Consumer Finance, a self-report survey which underestimates wealth concentration toward the top of the wealth distribution compared to other sources such as the Forbes 400 and the capitalized earnings method of estimating wealth from administrative data on taxable investment income.[202] In other words, beneficial ownership of corporate equities is most likely even more highly concentrated toward the top of the wealth distribution.

The figures in Table 1A should also be viewed as underestimating the voting power of households toward the top of wealth distribution. This is because households' direct holdings of corporate equities are highly concentrated in the top 1 percent of households. These direct holdings can be directly voted by

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200 Robin Wigglesworth, *How America's 1% Came to Dominate Equity Ownership*, FIN. TIMES (Feb. 10, 2020), ttps://www.ft.com/content/2501e154-4789-11ea-aeb3-955839e06441 [https://perma.cc/P7A7-LSEE]; *see also* Timm Bönke, Markus M. Grabka, Carsten Schröder & Edward N. Wolff, *A Head-to-Head Comparison of Augmented Wealth in Germany and the United States**, 122 SCANDINAVIAN J. ECON. 1140, 1140 (2020) (including pension wealth reduces the Gini coefficient in the United States from 0.889 to 0.700).

201 James M. Poterba, *Stock Market Wealth and Consumption*, 14 J. ECON. PERSP. 99, 102, tbl.2 (2000) (finding based on analysis of the Survey of Consumer Finances that the top 0.5 percent owns 10.2 percent of housing equity but 37 percent of common stock and 24 percent of non-financial assets, whereas the bottom 80 percent owns 29 percent of housing equity, but only 4.1 percent of common stock and 14 percent of non-equity financial assets); Lisa A. Keister & Hang Young Lee, *The One Percent: Top Incomes and Wealth in Sociological Research*, 1 SOC. CURRENTS 13, 16–18 (2014) (finding evidence from the Survey of Consumer Finance that asset classes that comprise a large percentage of the top 1 percent's wealth include business ownership, stocks, and pooled investment vehicles, and that for the bottom 90 percent home equity accounts for over 5 times as high a percent of assets as it does for the top 1 percent).

202 Emmanuel Saez & Gabriel Zucman, *Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data*, 131 Q. J. ECON. 519, 566–69 (2016); *see also* Philip Vermeulen, *How Fat is the Top Tail of the Wealth Distribution?*, 64 REV. INCOME & WEALTH 357 (2018).

households. Indirect holdings of corporate equities are voted by financial institutions, not the beneficial owners. Regulations and institutional incentives typically cause financial institutions to vote these shares with an eye toward maximizing portfolio returns to equity.[203] This voting pattern is most consistent with the preferences of the wealthiest households, as explained in text in section IV and in the mathematical illustration in section V above.

Thus, *voting power* is effectively even more highly concentrated toward the top of the distribution of wealth than equity exposures.

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[203] Max M. Schanzenbach & Robert H. Sitkoff, *Reconciling Fiduciary Duty and Social Conscience: The Law and Economics of ESG Investing by a Trustee*, 72 Stan. L. Rev. 381, 381 (2020).

Mutual funds' revenue is a percentage of assets under management. Mutual funds are therefore likely to vote shares in a way that maximizes revenue by attracting more household investment and/or increasing portfolio returns, or that minimizes voting costs (for example, outsourcing voting decisions to ISS). Lucian Bebchuk & Scott Hirst, *Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy*, 119 Colum. L. Rev. 2029, 2029 (2019).

Table 1A: Beneficial Ownership of Corporate Equities by Household Wealth

Panel A: Beneficial Ownership by Asset (Percent)

Household Share of Wealth	Top 1%	Top 10%	Top 50%
Directly Owned Equity and Mutual Fund Shares (D)	52.7%	88.3%	99.4%
Pension Entitlements (P)	5.4%	53.6%	97%
Life Insurance (LI)	29.9%	58.6%	92.7%

Panel B: Estimated Indirect Beneficial Ownership of Corporate Equities (Percent)

Household Share of Equity Ownership	Top 1%	Top 10%	Top 50%
D	52.7%	88.3%	99.4%
D + P	41.6%	80.2%	98.8%
D + P + LI	41.1%	79.3%	98.5%

Panel C: Beneficial Ownership by Asset (USD millions)

Household Equity Ownership (Millions)	Top 1%	Top 10%	Top 50%
Equity and Mutual Fund Shares	$15,855,885	$26,570,328	$29,905,282
Indirect: Pension Entitlements	$494,638	$4,909,739	$8,885,162
Indirect: Life Insurance	$503,998	$987,770	$1,562,564

Panel D: Estimated Indirect Beneficial Ownership of Corporate Equities (USD millions)

Household Equity Ownership, Total (Millions)	Top 1%	Top 10%	Top 50%
D + P	$16,350,523	$31,480,067	$38,790,444
D + P + LI	$16,854,521	$32,467,837	$40,353,008

Notes: The process of calculating indirect equity ownership is as follows: First, we find the value of corporate equities and mutual fund shares held by pension funds. We then apportion the corporate equity held by pension funds to each household wealth group in an amount equal to that group's share of pension entitlements. For example, we see from Table 1 that the wealthiest 1% own 5.4% of pension entitlements. Pension funds hold slightly more than $6 trillion in corporate equities. Therefore, we apportion 5.4% of that $6 trillion to the wealthiest 1%.

The apportionment of mutual fund shares requires one extra step. Corporate equities only comprise about 67% of the total financial assets of mutual funds. Therefore, we only apportion 67% of the total value of mutual fund shares held by pension funds. As previously noted, the wealthiest 1% own 5.4% of pension entitlements. If pension funds held $100 of mutual fund shares, we would reduce the value of those shares to $67 to get the value of corporate equities held by mutual funds. We then apportion 5.4% of the remaining $67 to the wealthiest 1%.