

Equal Ownership

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> Ofer Eldar Rory Van Loo

The authors are grateful to Einer Elhauge, Elizabeth de Fontenay, Stavros Gadinis, Jeffrey Gordon, Zohar Goshen, Michael Guttentag, Chris Havasy, Henry Hansmann, Lynn LoPucki, Joshua Macey, Amelia Miazad, Elizabeth Pollman, Emily Strauss, Roberto Tallarita, and participants in the Organization of Social Impact workshop, Columbia Law School Law & Economics workshop, and the American Law & Economics Association annual conference for invaluable feedback. Celene Chen and Jackson Barnett provided excellent research assistance.

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Abstract

Market concentration and weak competition do not just lead to lower efficiency, but also result in corporate profits flowing primarily to wealthy households that own a disproportionate share of public corporations. We demonstrate that this is a growing distributional problem not only due to familiar reasons in the literature, most notably shifts in market power, but also due to changes to the socio-economic makeup of ownership. Over the past twenty years, households in the bottom 90 percent of wealth have seen their share of stock ownership decline by half. That is, the ownership of corporations has become increasingly concentrated among the wealthy at a time when corporations are arguably extracting ever more surplus from consumers and workers. This Article seeks to situate the distribution of ownership at the center of policies to address the impact of declining competition. The gist of our proposal is that policies to reverse existing trends by broadening the ownership of public corporations to middle and low-income households may help mitigate the harmful consequences of market power. The general objective of such policies would be to bring the distribution of ownership closer towards equal ownership of corporations by the public. Equal ownership is desirable for two main reasons. First, the simplest effect of equal ownership would be to enable a broader array of stakeholders to benefit from the excess profits earned by firms in concentrated markets. Second, we demonstrate theoretically that if corporate stakeholders, particularly consumers and workers, own shares in public corporations, managers may offer more competitive prices and wages, to the extent that managers internalize the interests of their owners. Accordingly, policies to promote equal ownership of corporations can potentially achieve the same welfare goals that were long confined to other policy areas. A major advantage of equal ownership is that it does not seek to challenge the existing corporate governance paradigm, which focuses on enhancing accountability of managers to owners. Rather it reinforces it by changing the ownership makeup of corporations. While there are practical challenges with implementing equal ownership, given the imperfections of standard policy responses to declining competition—such as stronger antitrust enforcement or regulation—our proposal could serve as a complimentary policy tool to existing approaches, and offers potentially consequential advantages.

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EQUAL OWNERSHIP

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This Article seeks to situate the distribution of ownership at the center of policies to address the impact of declining competition. The gist of our proposal is that policies to reverse existing trends by broadening the ownership of public corporations to middle and low-income households may help mitigate the harmful consequences of market power. The general objective of such policies would be to bring the distribution of ownership closer towards *equal ownership* of corporations by the public.

Equal ownership is desirable for two main reasons. First, the simplest effect of equal ownership would be to enable a broader array of stakeholders to benefit from the excess profits earned by firms in concentrated markets. Second, we demonstrate theoretically that if corporate stakeholders, particularly consumers and workers, own shares in public corporations, managers may offer more competitive prices and wages, to the extent that managers internalize the interests of their owners. Accordingly, policies to promote equal ownership of corporations can potentially achieve the same welfare goals that were long confined to other policy areas.

A major advantage of equal ownership is that it does not seek to challenge the existing corporate governance paradigm, which focuses on enhancing accountability of managers to owners. Rather it reinforces it by changing the ownership makeup of corporations. While there are practical challenges with implementing equal ownership, given the imperfections of standard policy responses to declining competition—such as stronger antitrust enforcement or regulation—our proposal could serve as a complimentary policy tool to existing approaches, and offers potentially consequential advantages.

^{*} UC Berkeley School of Law; Boston University School of Law. The authors are grateful to Einer Elhauge, Elizabeth de Fontenay, Stavros Gadinis, Jeffrey Gordon, Zohar Goshen, Michael Guttentag, Chris Havasy, Henry Hansmann, Lynn LoPucki, Joshua Macey, Amelia Miazad, Elizabeth Pollman, Emily Strauss, Roberto Tallarita, and participants in the Organization of Social Impact workshop, Columbia Law School Law & Economics workshop, and the American Law & Economics Association annual conference for invaluable feedback. Celene Chen and Jackson Barnett provided excellent research assistance.

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INTRODUCTION

The recent decades have seen a dramatic rise in corporate profits.¹ The ability to extract these ever-higher profits is due, in large part, to a steady increase in market concentration across many industries.² But while this increase in corporate profits has greatly benefitted investors, there is evidence that it has left out most consumers and workers. Average consumer product prices have increased over time, arguably due to limited competition.³ Hourly wages to workers have remained largely stagnant, despite workers' increasing productivity, again because large profitable firms may wield enormous market power in labor markets.⁴ The literature has devoted considerable attention to how market power has increasingly harmed non-wealthy consumers and workers,⁵ and benefited wealthy households that own a disproportionate share of public corporations.⁶

We argue that this is a growing distributional problem not only due to familiar reasons in the literature—most notably shifts in market power away from consumers and workers—but also due to changes to the socio-economic makeup of ownership. As shown in Figure 1, while market power and income inequality rose steadily through recent decades, another concerning trend went largely overlooked. Since 2000, the bottom 90 percent of households, or those with

¹ Jan De Loecker, Jan Eeckhout & Gabriel Unger, *The Rise of Market Power and the Macroeconomic Implications*, 135 Q.J. ECON. 561, 562 (2020) (finding that markups have risen from 21% above marginal cost to 61% above cost in 2016).

² See id. at 567. For simplicity, we put aside another potential contributor to higher profits, the leveraging of behavioral economics strategies to charge consumers more. See OREN BAR-GILL, SEDUCTION BY CONTRACT: LAW, ECONOMICS, AND PSYCHOLOGY IN CONSUMER MARKETS 2–11 (2012) (showing how businesses widely exploit consumers' imperfect rationality to introduce behavioral market failures that raise the prices paid). The proposal we lay out in this Article is potentially relevant to that larger universe of market failures.

³ See, e.g., Gustavo Grullon, Yelena Larkin & Roni Michaely, Are US Industries Becoming More Concentrated?, 23 REV. FIN. 697, 712 (2019) (contending market concentration may allow industry incumbents to earn higher profits by setting higher prices relative to production costs).

⁴ Jan Eeckhout, The Profit Paradox: How Thriving Firms Threaten the Future of Work (2021); Eric A. Posner, How Antitrust Failed Workers (2021).

⁵ See, e.g., Michael D. Guttentag, Law and Surplus: Opportunities Missed, 2019 UTAH L. REV. 607, 628 (2019) (focusing on consumers); Brishen Rogers, Toward Third-Party Liability for Wage Theft, 31 BERKELEY J. EMP. & LAB. L. 1, 5 (2010) (focusing on employees). There is also a growing push to move beyond the economic dimensions of market power that are the focus of this paper. See Zephyr Teachout & Lina Khan, Market Structure and Political Law: A Taxonomy of Power, 9 DUKE J. CONST. L. & PUB. POL'Y 37, 72 (2014) ("A society with strong voting rights, speech protections, and fair elections cannot realize democratic principles with an oligarchic economy."); Daniel A. Crane, Fascism and Monopoly, 118 MICH. L. REV. 1315, 1369 (2020) (presenting historical evidence that the lack of a strong anti-monopoly regime "facilitated Hitler's rise and consolidation of political power."); Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynski & K. Sabeel Rahman, Building A Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis, 129 YALE L.J. 1784 (2020) ("We hope to help amplify and catalyze scholarship and pedagogy that place themes of power, equality, and democracy at the center of legal scholarship.").

⁶ See Jonathan B. Baker & Steven C. Salop, Antitrust, Competition Policy, and Inequality, 104 GEO. L.J. ONLINE 1, 11-12 (2015); Lina Khan & Sandeep Vaheesan, Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents, 11 HARV. L. & POL'Y REV. 235, 241 (2017) (proposing antitrust reforms after observing that skewed capital ownership means that "a large percentage of market power rents likely flow to a tiny sliver of the American population"). But see Daniel A. Crane, Antitrust and Wealth Inequality, 101 CORNELL L. REV. 1171, 1183 (2016) (questioning the relationship between antitrust and inequality, especially by pointing out that there is much we don't know).

⁷ Loecker et al., *supra* note 1; EECKHOUT, *supra* note 4.

incomes below \$180,000, saw their share of ownership of public corporations decline from around 22 percent to 11 percent. Consequently, the people who bear most of the burden of rising prices and stagnant wages have, over time, also received a smaller share of the resulting profits.

We argue that expanding the ownership of corporations to all households has the potential to mitigate the harmful consequences of excess market power on consumers and workers. Although we cannot systematically determine the optimal allocation of ownership, we use the term *equal ownership* to denote the general aspiration that a broader array of stakeholders, particularly consumers and workers, will have a sizeable and influential ownership stake in capital markets. While some form of this idea has floated amorphously in various policy proposals, we are the first to theorize equal ownership across socio-economic groups as a solution to corporations' excessive market power and their ability to extract rents from consumers and workers.

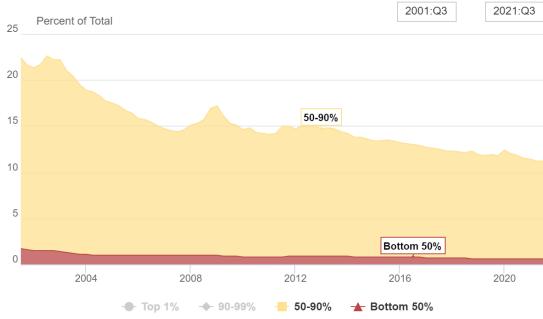


Figure 1: The Share of the Bottom 90% in Corporate Equities and Mutual Funds

Source: Survey of Consumer Finances and Financial Accounts of the United States

⁸ See Distribution of Household Wealth in the U.S. Since 1989, FED. RESERVE (Dec. 17, 2021), https://www.federalreserve.gov/releases/z1/dataviz/dfa/distribute/chart/ (last visited Feb. 18, 2022).

⁹ For ideas about expanding ownership that do not explore the link to market power, see MICHAEL SHERRADEN, ASSETS AND THE POOR: A NEW AMERICAN WELFARE POLICY 220-23 (1991); LYNN STOUT, TAMARA BELINFANTI & SERGIO GRAMITTO, CITIZEN CAPITALISM: HOW A UNIVERSAL FUND CAN PROVIDE INFLUENCE AND INCOME TO ALL 119-24 (2019); Robert Hockett, Whose Ownership? Which Society?, 27 CARDOZO L. REV. 1 (2005); Robert Hockett, Toward A Global Shareholder Society, 30 U. PA. J. INT'L L. 101 (2008); Jeffrey N. Gordon, Employees, Pensions, and the New Economic Order, 97 COLUM. L. REV. 1519, 1563 (1997). These proposals form part of a broader set of income and wealth expanding ideas offered by academics. See, e.g., ANNE ALSTOTT & BRUCE ACKERMAN, THE STAKEHOLDER SOCIETY (1999) (proposing that everyone at birth receive a substantial monetary grant).

The basic intuition for our theory has two components: First, if consumers, workers, and the public have a larger ownership stake, as owners they will share in the economic gains made by corporations. Consequently, when corporations raise prices or decrease wages, at least consumers and workers would get back some of those losses through their ownership stake in the resulting increased profits. Equal ownership could thus allow more stakeholders to share in the rents of market power to the extent that they get a larger share of corporate profits. Second, to the extent that managers are accountable to owners or at least assimilate their preferences, equal ownership could mitigate managers' incentives to exploit their market power to extract rents from their stakeholders. Accordingly, corporations with a broader set of owners that include the average consumers and workers would plausibly charge fairer prices and pay higher wages.¹⁰

Our insight suggests that, at least theoretically, equal ownership may be able to move markets toward outcomes that mimic the outcomes in a world of perfect competition. While it is widely recognized that markets realistically never reach perfect competition, it provides a normative benchmark for policymakers. In the classic and highly stylized model of perfect competition, consumers and workers extract all the surplus from market transactions with commercial firms. This idea of perfect competition is largely based on the presence of numerous competitors, without considering the attributes of owners. We show that in well-known economic models, when the owners are also the consumers of the firm, the firm is likely to charge the consumers the same price it would in a market with perfect competition (and the same applies to workers and wages). If I similar outcomes could be obtained by changing the composition of owners, the goal post for economic policies should arguably be not only traditional mechanisms for moving markets towards perfect competition, such as antitrust and consumer protection, but also to encourage equal ownership by a broader section of the public that includes middle-and-low-income consumers and workers.

Although our main contribution is to expand the theoretical justification for broadening ownership, we also discuss specific policies to implement equal ownership. We consider a range of paths to expanding ownership, from tax incentives to repurposing savings held in banks. The success of such policies should be gauged not by whether they achieve a seemingly unrealistic equal distribution of ownership of public corporations. Rather, the more immediate goal is to reverse the concerning state in which an increasingly smaller share of public firms is held by less wealthy individuals.

Although reversing that concerning ownership trend is valuable by itself, there is no guarantee that broader ownership by itself will produce changes in corporate decision-making on issues such as prices and wages. Thus, we discuss an array of institutional mechanisms to

¹⁰ For an analysis of some related issues in the context of utilities, see Joshua Macey, *The Corporate Governance of Public Utilities*, (YALE J. REG., forthcoming 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4394608. For a forceful argument that human investors who are heavily dependent on long-term corporate performance have limited power to influence firms' strategy, see Leo E. Strine Jr., *Who Bleeds When the Wolves Bite: A Flesh-and-Blood Perspective on Hedge Fund Activism and Our Strange Corporate Governance System*, 126 YALE L.J. 1870 (2017).

¹¹ See, e.g., ROBERT S. PINDYCK & DANIEL L. RUBINFELD, MICROECONOMICS 252 (5th ed. 2001) (acknowledging the gap between perfect competition and actual markets); JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 106 (Harper & Bros 1942)) (concluding that perfect competition is impossible).

¹² See WILLIAM J. BAUMOL & ALAN S. BLINDER, ECONOMICS PRINCIPLES & POLICY 199 (11th ed. 2011).

¹³ Perfect competition has other features as well, such as informed decisions. *Id.*

¹⁴ See infra Section II.C.

promote managerial responsiveness to the interests of a broader set of owners, such as information technologies that could vote directly on shareholders' behalf after asking for their preferences, or alternatively communicate such preferences to fund managers who will have a fiduciary duty to consider them in making voting decisions or engaging with corporate managers.¹⁵

In this respect, our project is tangentially related to a burgeoning literature on common ownership of corporations that creates a link between corporate governance and market competition. The main concern in the common ownership literature is that firms that are owned by the same set of large institutional shareholders, such as BlackRock and Vanguard, are less likely to compete with one another, and will thus charge higher prices to consumers or pay lower wages to workers. An underlying premise in those arguments is that managers internalize the interests of institutional shareholders, and thus maximize the aggregate value of their owners' portfolios by failing to compete with other commonly owned firms. There is a heated debate as to whether seemingly passive institutions can actually affect managerial decisions-making, and we do not take a stance on this issue. For our purposes, the upshot of the common ownership literature is that it suggests that it is plausible that managers do consider owners' interests in making decisions, even if the extent to which they do so is debatable. And in any case, even if shareholders' preferences are not adequately accounted for, equal ownership would still offer policy appeal by providing a mechanism to distribute the rents of corporate profits to less affluent households.

It bears emphasis that common ownership and equal ownership are focused on institutionally distinct but complementary problems. They are complementary in that both ultimately indicate policy reforms that would push markets toward more competitive prices and wages. However, even if the proposals in the common ownership literature are successful in preventing institutions such as Vanguard from concentrated ownership of competitors, those reforms would not change the socio-economic makeup of owners, nor would they affect the problem of market concentration.²⁰ The reason is that the same mostly wealthy households would still hold the same proportion of corporations in a world without common ownership,

¹⁶ See José Azar, Martin C. Schmalz & Isabel Tecu, Anticompetitive Effects of Common Ownership, 73 J. FIN. 1513 (2018) (showing evidence that common ownership of airlines is associated with higher ticket prices); Einer Elhauge, Horizontal Shareholding, 129 HARV. L. REV. 1267 (2015) (arguing that common ownership is one of the major causes for income equality); Patrick J. Dennis, Kristopher Gerardi & Carola Schenone, Common Ownership Does Not Have Anti-Competitive Effects in the Airline Industry, 77 J. FIN. 2765 (2022) (questioning the robustness of the empirical findings that common ownership causes higher prices). To the extent that wealthier individuals hold stocks through institutions, a highly reasonable presumption, then the potentially harmful effect of common ownership further exacerbates the distributional problem that is at the center of this Article.

¹⁵ See infra Section III.B.

¹⁷ Zohar Goshen and Doron Levitt, Agents of Inequality: Common Ownership and the Decline of The American Worker, 72(1) DUKE L. J. 1 (2022).

¹⁸ See Miguel Anton, Florian Ederer, Mireia Gine & Martin C. Schmalz, Common Ownership, Competition, and Top Management Incentives, J. POL. ECON. (forthcoming 2023) (managerial incentives are less performance-sensitive in firms with more common ownership).

¹⁹ Scott C. Hemphill & Marcel Kahan, *The Strategies of Anticompetitive Common Ownership*, 129 YALE L.J. 1392 (2019) (questioning the causal link between passive common ownership and higher prices).

²⁰ A recent paper suggests that the harmful impact of industry concentration on consumer welfare is substantially larger than the impact of common ownership. *See* Florian Ederer and Bruno Pellegrino, *A Tale of Two Networks: Common Ownership and Product Market Rivalry* (Working Paper, 2022), available at https://ssrn.com/abstract=3964304.

only through a more fragmented institutional landscape. In contrast, equal ownership is not concerned with a more fragmented distribution of institutions that hold shares. Equal ownership aims instead to broaden the socio-economic distribution of individuals (or households) who own corporations (directly or through institutions).

Policies to promote equal ownership have some advantages over many other proposals seeking to address corporations' market power. Existing proposals, in one way or another, face the daunting challenge of undermining the normative objective that corporate law seeks to accomplish: inducing business organizations to maximize owners' profits. Interventions based in antitrust and market regulation, for instance, impose the dictates of regulators or courts over owners' interests in making profits to determine how managers should run the business. This tension helps explain why such proposals are often risky and costly. Relatedly, another line of proposals advocates a change to the basic objective of corporations; rather than maximizing shareholder profits, boards should maximize the benefits to all stakeholders, including consumers and workers. Those proposals push against the basic incentive structure of corporations, in which managers are primarily accountable to the owner-shareholders, either though elections (for boards) or through performance-based pay (for executives).

We do not pass judgment on these other proposals' social value. Nor is it possible at this point to conclude that any one proposal is necessarily the best of all possible policy options. Such a difficult comparison would require nuanced institutional comparisons informed by experimentation with interventions, such as equal ownership, that have never been tried. But as a threshold observation for those institutional comparisons, a key advantage of equal ownership is that it does not fight against the basic architecture of corporations, which is that managers have to a duty to maximize shareholders' interests.²⁴ These interests are not necessarily confined to making larger profits but could include shareholders' interests in being treated fairly as consumers and workers,²⁵ or at least get a larger share of corporate profits.

Finally, we emphasize that other mechanisms for addressing market power, such as antitrust and regulation, would still have a central place in a world of equal ownership. However, given the imperfections of standard policy responses to declining competition, equal ownership could serve as a complimentary policy tool to existing approaches, and it offers potentially compelling advantages. Equal ownership is rooted deeply in the link between corporate ownership and competitive markets. The nature of ownership shapes the way firms compete in the product and labor markets. Policy makers would be ill-advised to ignore this

²¹ See Rory Van Loo, In Defense of Breakups: Administering a "Radical" Remedy, 105 CORNELL L. REV. 1955, 2007-09 (2020) (observing that both structural and behavioral remedies are costly and unpredictable); infra notes 31-34

²² See Margaret M. Blair & Lynn A. Stout, A Team Production Theory of Corporate Law, 85 VA. L. REV. 247.

²³ As a result, corporate managers now mostly cater to stakeholders only when it promotes goodwill and increases revenues, or alternatively engage in performative behavior with little material benefit to stakeholders. See Ofer Eldar, Designing Business Forms to Pursue Social Goals, 106 VA. L. REV. 937 (2020); Lucian Bebchuk & Roberto Tallarita, The Illusory Promise of Stakeholder Governance, 106 CORNELL L. REV. 91 (2022).

²⁴ Others have recognized the importance of not fighting against this basic incentive structure for different proposals. *See, e.g.,* Dorothy S. Lund, *Corporate Finance for Social Good,* 121 COLUM. L. REV. 1617 (2021) (proposing corporate debt solutions to influencing corporate behavior).

²⁵ In this sense our project is complimentary to Oliver Hart & Luigi Zingales, *Companies Should Maximize Shareholder Welfare Not Market Value*, 2 J.L. FIN. & ACCT. 247 (2017). Hart and Zingales argue that corporations should maximize the pro-stakeholder preferences of shareholders. However, there is little evidence that investors in public corporations, mostly asset managers, have pro-stakeholder preferences that would entail sacrificing profits by reducing prices or increasing wages. See *infra* text accompanying notes 117-127.

link. Even if equal ownership would fall short at eliminating market power altogether, at a minimum it will move society away from the trend toward tapered ownership.

Our Article proceeds as follows. Part I provides the context for equal ownership by outlining the problem of rising market power and the shortcomings of existing policy proposals. Part II develops the theory of equal ownership as a response to rising market power. It shows how moving toward broader socio-economic ownership of corporations has the potential not only to lessen the distributional harms of excess market power, but also to push firms toward behavior that mimics firms' behavior in a world of perfect competition. Part III discusses the practical aspects of equal ownership, briefly exploring ways to broaden ownership and to encourage stronger influence by ordinary owners on corporate decision-making. Part IV considers potential challenges to equal ownership and the responses to such challenges.

I. MARKET POWER AND POTENTIAL SOLUTIONS

There is increasing evidence that corporations have exploited their market power in ways that harm consumers and workers. The main responses to those concerns are based on curbing market power by reducing the size of corporations, regulating corporations' conduct, or changing the basic purpose of corporations to incorporate consumer and worker welfare. This Part summarizes that scholarship as background to our alternative approach based in ownership.

A. The Rise in Markups and Inequality

When there are too few competitors or other obstacles to competition, corporations can use their market power to exploit consumers, workers, and suppliers. The most straightforward harm is higher prices for products, lower wages paid to workers, and lower prices paid to suppliers. Hand US industries are oligopolies, including banks, airlines, social media, pharmaceuticals, and health care. When there are only a few firms in an industry, a condition known as oligopoly, firms often have the power to raise prices for consumers and make fewer products. Similarly, if there are too few firms in a given location employing workers in a specific industry, a condition known as oligopsony, these employers may lower wages and employ fewer people. These states of affairs contrast with competitive markets, in which firms reduce prices and increase wages in order to attract consumers and retain workers.

Antitrust-related channels are not the only significant channels for anticompetitive markups. On the consumer side, for instance, anticompetitively high prices can come through confusing, manipulating, or deceiving consumers. The tactics used in this category are too vast to list. They include shifting more of the price of a printer from the initial purchase to the

²⁶ Although price is the focus throughout this Article, harms can manifest in many other ways, such as through lower quality products and worsened worker safety.

²⁷ See, e.g., Thomas A. Piraino, Jr., Regulating Oligopoly Conduct Under the Antitrust Laws, 89 MINN. L. REV. 9, 11 (2004).

²⁸ See Hal Varian, Intermediate Microeconomics 497-521 (8th ed. 2010).

²⁹ See Ioana Marinescu & Eric A. Posner, Why Has Antitrust Law Failed Workers?, 105 CORNELL L. REV. 1343, 1354 (2020).

replacement ink cartridges;³⁰ hiding fees and price increases in the fine print of mortgage, credit card, and other contracts; and offering complex pricing packages, such as cell phone plans with various charges for data, minutes, and overage fees.³¹ Each of these practices makes it more difficult and time-consuming to compare prices, which is problematic because price comparison is necessary for competitive markets to function well.³² These and other practices have been shown to significantly raise the prices that consumers pay by exploiting either the costs of collecting information or the mind's limits in processing complex information.³³

While the extent to which competition is declining is widely debated,³⁴ there is mounting evidence to that effect. Since the 1990s, about 75 percent of US industries have experienced an increase in concentration levels.³⁵ There is also evidence that markups—the difference between prices and marginal costs of production—have been steadily increasing. Whereas the typical business sold its goods at 21 percent above costs in 1980, by 2016 that figure had risen to 61 percent.³⁶ This suggests that firms have increased their ability to extract more from consumers.³⁷

Likewise, there is evidence that workers are suffering from substantial concentration in labor markets. A recent study finds that more than 60 percent of geographic-occupational markets in the US are concentrated, and that market concentration is associated with lower wages.³⁸ The trends in the wage-productivity gap are particularly alarming. Before the 1980s, workers were paid more if they were more productive. But in the last decades, wages have remained mostly stagnant even as workers have become much more productive.³⁹

It is not surprising that in the same period, corporate profits and market values of large corporations have increased dramatically.⁴⁰ In other words, shareholders are making larger returns, while consumers and workers are relatively worse off. This suggests that owners are benefiting at the expense of other corporate stakeholders.⁴¹ Accordingly, there is a deep concern that market concentration, weak competition, and manipulation of consumers

³⁰ See Xavier Gabaix & David Laibson, Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets, 121 Q.J. ECON. 505 (2006).

³¹ See BAR-GILL, *supra* note 2 (theorizing and providing evidence on behavioral economics research on credit cards, mortgages, and cell phones).

³² See, e.g., id. (explaining the economic model for behaviorally manipulated pricing).

³³ See, e.g., Rory Van Loo, Broadening Consumer Law. Competition, Protection, and Distribution, 95 NOTRE DAME L. Rev. 211 (2019) (summarizing the literature).

³⁴ See, e.g., Mark J. Roe, Corporate Purpose and Corporate Competition, 99 WASH. U. L. REV. 223, 250, 268 (2021) (reviewing the evidence for and against declining competition and finding considerable evidence for both narratives but ultimately concluding that competition has declined in many contexts).

³⁵ See Grullon et al, supra note 3, at 697 ("Since the late 1990s, over 75% of US industries have experienced an increase in concentration levels."); Roe, supra note 34, at 250, 268 (reviewing the evidence for and against declining competition and finding considerable evidence for both narratives but ultimately concluding competition has declined in many contexts). See generally Joshua D. Wright, Elyse Dorsey, Jonathan Klick & Jan M. Rybnicek, Requiem for A Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust, 51 ARIZ. ST. L.J. 293 (2019) (reviewing literature and concluding that concerns about excess monopoly power are unfounded).

³⁶ De Loecker et al., *supra* note 1, at 562.

³⁷ See id. at 627.

³⁸ See José Azar, Ioana Marinescu & Marshall Steinbaum, *Labor Market Concentration*, 55 J. Hum. RESOURCES 1218 (2020).

³⁹ Simcha Barkai, Declining Labor and Capital Shares, 75 J. FIN. 2421 (2020).

⁴⁰ De Loecker et al., *supra* note 1, at 562.

⁴¹ See id.

contribute to economic inequality across the economy.⁴² Since both consumers and workers are made up of all socio-economic groups, whereas owners are much more concentrated among the wealthy, anticompetitive prices and wages transfer resources from lower to higher income groups.⁴³

Finally, it is important to emphasize that weak competition is not only inequitable, but it is also inefficient in the sense that it reduces aggregate welfare, which is the total welfare of shareholders and society. As we explain below more formally, when firms have market power, they produce lower quantities and employ fewer people, resulting in lower aggregate welfare to the economy as a whole.

B. Policy Proposals and Their Limits

The responses to market power can roughly be put into three categories: (1) changing the structure of corporations, such as by breaking them up; the idea is to reduce corporations' market power over their stakeholders; (2) regulating corporations' behavior towards their stakeholders, such as by ensuring that consumer contracts and wages are fair; and (3) empowering corporate boards to take actions that primarily benefit stakeholders rather than shareholders. Each of these options faces significant practical limits.

The two main structural proposals for reducing corporations' market power are blocking a higher percentage of mergers and more aggressively breaking up companies. ⁴⁴ Critics of these proposals argue that they will wind up harming consumers and workers. Blocking mergers or breaking up companies might make businesses less efficient by removing economies of scale, which could mean higher consumer prices. ⁴⁵ Part of the problem is that it is difficult to accurately predict the magnitude of efficiency savings compared to the magnitude of the market power increase that will result from any structural intervention. ⁴⁶ In any case, blocking mergers is insufficient by itself because corporations can obtain monopoly status without making any mergers or acquisitions. Yet even if regulators were to execute a breakup perfectly, it would require resources to design and oversee this process. ⁴⁷ And it is often pointed out that after the breakup of an oligopoly, it is only a matter of time before the industry returns to the

⁴² See BAR-GILL, supra note 2 (observing that behavioral pricing may have regressive distributional effects); Van Loo, Broadening Consumer Law, supra note 33 (reviewing the literature and concluding that there is reason to believe that behavioral pricing strategies could contribute significantly to economic inequality).

⁴³ See citation supra note 6.

⁴⁴ See Lina Khan & Sandeep Vaheesan, Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents, 11 HARV. L. & POLY REV. 235, 291 (2017) (advocating for regulators and courts to "restructure the monopolist's business operations . . . dividing a monopolist into multiple horizontal competitors . . . [or separating] a monopolist in vertically related lines of business into separate entities"); Michael L. Katz & Howard A. Shelanski, Mergers and Innovation, 74 ANTITRUST L.J. 1, 81 (2007) (advocating for regulators to block mergers when "blocking the merger will have the higher net benefit for consumer welfare" as compared to "the effects of the merger on product-market competition and on innovation."). Divestitures also include the forced sale of assets.

⁴⁵ See, e.g., Wright et al., supra note 35.

⁴⁶ See, e.g., Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2 (1984) ("Unless the court knows the 'right' balance between competition and cooperation in each market, it does not know in which direction to move.").

⁴⁷ See Howard A. Shelanski & J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U. CHI. L. REV. 1, 32-34 (2001) (critiquing a lack of "rigorous discussion of the monitoring and oversight costs of" breakups as an antitrust remedy).

same level of monopoly power, as managers seek to obtain it.⁴⁸

The second approach is to regulate the corporation's behavior in ways that push it closer to competitive conduct. One leading behavioral remedy is to require the firm to allow competitors access.⁴⁹ For instance, Apple might be ordered to allow competitors to offer apps to Apple customers, even if those apps offer the same services, such as maps or music, as Apple does.

Another set of interventions lie in consumer law. Like the practices themselves, policy recommendations to address consumer law-related pricing strategies are diverse. Although scholars sometimes propose outright banning a practice, more commonly they have recommended laws that introduce behavioral nudges and information disclosures, such as attempting to push consumers toward better choices or providing them (or their digital assistants) with the data they need to make better decisions.⁵⁰

One of the most far-reaching ways to regulate corporate behavior is to limit prices and wages. In some geographies where cable companies have monopolies, for instance, local governments limit the prices for basic services.⁵¹ And minimum wage laws are sometimes justified as necessary to move wages toward the level they would be in more competitive labor markets.⁵² In other words, rather than increasing competition, price and wage restrictions seek to mitigate the resulting harms.

Although at least some of these proposals have promise,⁵³ they also face limitations.

⁴⁸ See Herbert Hovenkamp & Fiona Scott Morton, Framing the Chicago School of Antitrust Analysis, 168 U. PA. L. REV. 1843, 1857 (2020) ("Today many economists would hesitate to break up oligopolistic firms if they had arrived at that market structure by competitive means because their high fixed costs very likely entail that restructuring would do more harm than good."); ROBERT BORK, THE ANTITRUST PARADOX 196 (1st ed. 1978) ("If the law dissolved a firm having a 100 percent monopoly into five approximately equal parts, the economic forces that had led to monopoly would still be operative and would lead in that direction again.").

⁴⁹ See Herbert Hovenkamp, Antitrust and Platform Monopoly, 130 YALE L.J. 1952, 2032 (2021) ("While a breakup frequently increases costs or reduces quality by denying firms economies of scale or scope, interoperability or pooling can make a firm effectively larger, even while situating it in a more competitive environment."). At the extreme, the combination of behavioral oversight would require what amounts to utility-style regulation. See K. Sabeel Rahman, The New Utilities: Private Power, Social Infrastructure, and the Revival of the Public Utility Concept, 39 Cardozo L. Rev. 1621 (2018).

⁵⁰ See Oren Bar-Gill & Rebecca Stone, Pricing Misperceptions: Explaining Pricing Structure in the Cell Phone Service Market, 9 J. EMPIRICAL LEGAL STUD. 430, 433-34 (2012) (proposing behavioral interventions and smart disclosures where carriers disclose statistical use pattern information to consumers); Rory Van Loo, Helping Buyers Beware: The Need for Supervision of Big Retail, 163 U. PA. L. REV. 1311 (2015) (proposing mandated data disclosures targeting digital intermediaries).

⁵¹ Regulation of Cable TV Rates, FCC, https://www.fcc.gov/consumers/guides/regulation-cable-tv-rates (last visited Feb. 22, 2022) ("Your state-approved local franchising authority (LFA) – usually a city, county, or other governmental organization – may regulate the rate your provider can charge for "basic" cable service, but only when your provider is not faced with effective competition from another cable service provider.").

⁵² See TITO BOERI & JAN VAN OURS, THE ECONOMICS OF IMPERFECT LABOR MARKETS 40 (2d ed. 2014) ("When employers can unilaterally set wages, their profit-maximizing choice involves lower employment and wage levels than in a competitive labor market."); CHRISTOPHER J. FLINN, THE MINIMUM WAGE AND LABOR MARKET OUTCOMES 262 (2011) ("Thus minimum wages, besides clearly being a reallocative device, could also produce superior constrained efficient outcomes under certain conditions on the underlying primitive parameters characterizing the labor market.").

⁵³ For instance, there is some evidence that the type of proposal that Oren Bar-Gill has made for disclosures aimed at sophisticated third-party intermediaries have had a real-world impact on lowering prices paid. *See* Van Loo, *Broadening Consumer Law, supra* note 33, at 248-51 (summarizing the evidence that legal interventions based on behavioral economic insights has produced intended real-world price shifts).

Among the many limits of such behavioral regulation, one of the chief ones is the difficulty in designing and enforcing it. It is difficult to know what level of wages or prices will not deter companies from hiring workers or from investing in consumer services and innovation. ⁵⁴ Similarly, managers often find new ways around regulation, even price regulation. For instance, cable companies responded to price regulation by creating complex contract structures with hidden fees and equipment charges that technically met the base price restrictions but still allowed the cable company to charge functionally anticompetitive prices. ⁵⁵ And access remedies require the government to police various day-to-day decisions inside the firm about which competitors can have what kind of access as the monopoly continually innovates and creates subtle barriers to block the competitors who are supposed to have that access. ⁵⁶

In short, one of the main limitations of structural and behavioral interventions is that they require external actors who are less sophisticated and under-resourced, such as courts and government regulators, to make complex market decisions, which they may be ill equipped to make. Moreover, managers then have the incentive to find ways around those interventions.

The last approach is rooted in reforming the management of corporations. The idea here is to change the purpose of corporations themselves by requiring corporate boards to maximize stakeholders' value rather than just shareholder profits.⁵⁷ The intuition behind this idea is that corporations that are single-mindedly focused on profits are more likely to exploit their stakeholders. Proponents reason that a stakeholder-oriented firm would act more fairly towards consumers and workers, and thus, despite its market power, would choose to charge lower prices and pay higher wages.⁵⁸

The challenge with this idea, however, is that ultimately stakeholder models rely on managerial discretion. That is, the managers have the discretion to make decisions based on whether they benefit stakeholders, and they are supposed to balance the interests of stakeholders and shareholders. But managers are primarily answerable to shareholders. Shareholders have the power to appoint the board, and the board appoints the CEO and the leading executives of the corporation. These executives are paid mostly with stocks and options to ensure that they have strong incentives to maximize value for shareholders.

This incentive structure reflects the preferences of the shareholders of public corporations,

⁵⁴ Compare Alessio J.G. Brown, Christian Merkl & Dennis J. Snower, The Minimum Wage from a Two-Sided Perspective, 124 ECON. LETTERS 389 (2014) ("[H[igh minimum wages destroy jobs."), with David Card & Alan B. Krueger, Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania, 84 AM. ECON. REV. 772, 792 (1994) ("[W]e find no evidence that the rise in New Jersey's minimum wage reduced employment.").

⁵⁵ See Jonathan Schwantes, How Cable Companies Use Hidden Fees to Raise Prices and Disguise the True Cost of Service, CONSUMER REPS. (Oct. 2019), https://advocacy.consumerreports.org/wp-content/uploads/2019/10/CR-Cable-Bill-Report-2019.pdf.

⁵⁶ Spencer Weber Waller, *Access and Information Remedies in High-Tech Antitrust*, 8 J. COMPETITION L. & ECON. 575 (2012) (arguing that complex access remedies require "sophisticated oversight and dispute resolution mechanisms that typically exceed the resources and strengths of the enforcement agencies").

⁵⁷ See e.g., Blair & Stout, supra note 22.

⁵⁸ To be sure, the stakeholder model is not specifically designed to address the problem of market power, and it extends to other social goals, such as protecting the environment. However, as consumers and workers are two key stakeholders, corporations that have monopoly or oligopoly power harm stakeholders. See Roe, supra note 18, at 236; Matteo Gatti & Chrystin D. Ondersma, Stakeholder Syndrome: Does Stakeholderism Derail Effective Protections for Weaker Constituencies?, 100 N.C. L. REV. 167 (2021).

the vast majority of whom are institutional investors,⁵⁹ which presumably want their investment portfolios to have the highest possible return.⁶⁰ In fact, their fiduciary duty is to act in the interests of their beneficial investors by maximizing the risk-adjusted returns of their portfolios.⁶¹ While it is true that institutional investors have been increasingly more vocal about social issues, the evidence to date suggests that they are primarily focused on profit-maximization.⁶²

Within this framework, it is unrealistic to rely on managers to set prices and wages in a way that compromises shareholder value to benefit stakeholders. Moreover, because managerial discretion is protected by the business judgment rule, managers may simply claim that their decisions are giving adequate consideration to the interests of stakeholders. In fact, that's what managers often do in order to boost their companies' reputations as being socially responsible.

Accordingly, none of the well-known legal mechanisms for addressing market power are likely to be sufficient in eliminating anticompetitive profits. This partly explains why the goalpost of perfect competition that maximizes consumer and workers' welfare is elusive in practice. We do not suggest that existing mechanisms for addressing market power are entirely useless and should be cast aside. Rather, we argue for an additional policy channel that would complement existing approaches and could potentially be more consequential.

The main advantage of equal ownership is that unlike existing approaches it does not seek to fundamentally alter the basic structure, conduct, and norms of corporations. Equal ownership does not require aggressive antitrust interventions to increase the relative bargaining power of stakeholders, costly regulation of corporations' behavior toward stakeholders, the marketing group's inclination to set prices as high as possible, or jettisoning the shareholder primacy norm in favor of a stakeholder model. The idea is simply to allocate to stakeholders, particularly consumers and workers who belong to lower income groups, a greater share of public corporations. Because equal ownership is a less drastic remedy, it offers a more actionable path for tackling the growing market power of corporations.

II. THE THEORY OF EQUAL OWNERSHIP

In this Part we demonstrate how changes in ownership may respond to concerns about anticompetitive corporate behavior. After laying foundations from the theoretical literature on corporate ownership, we discuss the two main ways that equal ownership may influence market power. The first is that some of the surpluses from market power would flow to the consumers and workers as owners of the corporations. The second is that to the extent that

⁵⁹ See Ronald J. Gilson & Jeffery N. Gordon, The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights, 113 COLUM. L. REV. 863 (2013).

⁶⁰ Note that institutions can pursue higher returns either by actively pressuring managers to compete against their competitors, or even passively by failing to pressure managers to compete against other firms in which the institutions have an ownership stake (see the discussion of common ownership in the text accompanying notes 16-20).

⁶¹ 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 (2020).

⁶² Bebchuk & Tallarita, *supra* note 23 at 174 ("If corporate leaders elect to resist any stakeholder-protecting policies that would hurt profits, why should stakeholderists expect corporate leaders, acting on their own, to protect stakeholders at the expense of profits?").

corporate managers may internalize owners' preferences, they will incorporate the interests of consumers and workers in making business decisions.

A. Ownership by Stakeholders as a Response to Market Power

The focus of our analysis is on the extent to which ownership by stakeholders may serve as a response to market power. The idea of broadening the ownership base of corporations and extending it to a wider section of the population has been proposed in various shapes and forms. However, these proposals have overlooked the role of ownership in mitigating the costs of market concentration and exploitative contracting. The relationship between ownership and market power has been articulated in Henry Hansmann's seminal 1996 book, The Ownership of Enterprise. In this book, Hansmann lays out a theory of ownership that explains how consumers or workers might become owners as a means of avoiding exploitation by monopoly or monopsony firms. Hansmann's basic idea was that the firm will internalize the interests of its owners. Consequently, if those owners are also the firm's consumers or workers, the firm should have weaker incentives to exploit them.

Hansmann reasoned that when a firm has market power with respect to one or more affected groups, those groups have incentives to own the firm by forming a cooperative in order to avoid price exploitation.⁶⁷ By owning a firm that has market power, customers can avoid the costs of paying a monopoly price for the goods or services that they purchase from the firm.⁶⁸ At a minimum, the monetary fruits of any surpluses in transacting with the stakeholders will simply flow back to the those stakeholders if they are the sole owners of the firm.

A simple example of a consumer-owned cooperative is a retailer-owned wholesale cooperative in the grocery business, where a few wholesalers enjoy considerable market power, and large chains have their own wholesale distribution systems.⁶⁹ The retailers avoid exploitation by owning wholesalers that serve them. Other examples include mutual banks owned by the bank's borrowers who seek to avoid exorbitant interest rates,⁷⁰ or farmer-owned cooperatives who buy produce from individual farmers at fair prices and sell it to retailers.⁷¹

A significant policy limit to these insights is that these companies tend to be small or at least face substantial impediments to scaling. While some have highlighted the benefits of cooperatives and suggested policies for further expanding their uses,⁷² the main challenge for

⁶³ See supra note 9 and accompanying text.

⁶⁴ HENRY HANSMANN, THE OWNERSHIP OF ENTERPRISE (1996).

⁶⁵ *Id.* at 20-21 ("When both the purchaser and the seller are under common ownership, the incentive for one party to exploit the other by taking advantage of market imperfections is reduced or eliminated.").

⁶⁶ See id.

⁶⁷ See id. at 24.

⁶⁸ *Id.* at 24-25. Ownership also helps them to avoid the costs of under-consuming the firm's good or services due to the excessively high price. *Id.*

⁶⁹ Id. at 157-158.

⁷⁰ Id. at 246-251.

⁷¹ *Id.* at 120-145.

⁷² See Peter Molk, The Puzzling Lack of Cooperatives, 88 Tul. L. Rev. 899 (2014) (suggesting that cooperatives should be "subsidized, through favorable tax treatment, grants, or regulatory intervention like ABA rules requiring law firms to be owned by lawyers."); Marc Schneiberg, Toward an Organizationally Diverse American Capitalism? Cooperative, Mutual, and Local, State-Owned Enterprise, 34 SEATTLE U. L. REV. 1409 (2011).

cooperatives is reaching scale. Because ownership is restricted to a particular set of stakeholders, such as consumers or workers, it is difficult for firms to attract equity capital from investors.⁷³ Thus, despite providing intellectual foundations for a path forward, these examples of stakeholder ownership are unlikely to provide a broader solution to corporations' contributions to economic inequality.

Our idea of equal ownership extends on Hansmann's insights in that he focuses only on well-identified groups of owners as a means of influencing managers' corporate decisions. Equal ownership is much broader in that it contemplates consumers and workers owning a diversified portfolio of public firms' stocks.⁷⁴ The firms that consumers buy from or workers work at will be only a fraction of their portfolio – and only if they buy from and work in public firms. In contrast, in a mutual or worker coop, the ownership is entirely by the consumers or the workers of the firm itself.⁷⁵ Thus, Hansmann focused on ownership structures that enabled the sharing of surpluses that firms extracted directly from their stakeholder-owners. In contrast, the thrust of our proposal is primarily to enable consumers and workers to share in public firms' profits as a form of insurance against corporations extracting supra-competitive profits earned generally across markets.

There are essentially two channels though which equal ownership can address market power and surplus. The first is the distributional channel, which means giving people a share of the rents that corporations extract from the people. The second is the governance channel, which is that to the extent that managers are attentive to their owners' preferences, and that owners are regular people who prefer corporations to act fairly towards consumers and workers, corporations will be less likely to exploit their market power by charging excessive prices or paying low wages. We discuss each of these channels in turn.

B. The Distributional Effects of Equal ownership

To better understand the distributional appeal of equal ownership, it is necessary to consider the market goal post used by economists for decades: perfect competition. To streamline the exposition, we focus the analysis on consumer markets, but equal ownership has similar implications for other markets, such as labor markets. In the context of consumer markets, perfect competition is a hypothetical market defined by characteristics such as a large number of sellers and consumers possessing adequate information to make informed decisions, and ideally also ease of market entry for new competitors. The socially desirable outcome from an antitrust perspective is to move from a state of oligopoly, in which each market is dominated by a few firms, toward perfect competition.

Under perfect competition, firms lack the market power to charge higher prices for the same quality of product, and they set the price of the goods to their marginal costs, such that

⁷³ HANSMANN, *supra* note 64, at 75-77.

⁷⁴ With the rise of unicorns known as large private firms that tend to avoid or delay going public, there may be scope for considering permitting greater access of the public to investing in private firms. *See* Elizabeth Pollman, *Startup Governance*, 168 U. PA. L. REV. 155 (2019). For simplicity, we confine our analysis to public firms because the increase in the return to capital remains mostly attributable to firms that ultimately go public.

⁷⁵ See Hansmann, supra note 64, at 246-251.

⁷⁶ See Walter Nicholson, Microeconomic Theory: Basic Principles and Extensions 401-02 (7th ed. 1998); Pindyck & Rubinfeld, *supra* note 11, at 252-53.

firms' profits are theoretically zero.⁷⁷ To state the obvious, when the price is lower, the distributional benefits to consumers are larger. More precisely, perfect competition enables consumers to capture the maximum possible value of what economists call "consumer surplus." The consumer surplus is simply the difference between the maximum price that consumers are willing to pay for a product and actual price paid for the product. In an oligopolistic market, the consumers extract a smaller consumer surplus than in a world of perfect competition. The greater the market power of the firms is (i.e., when there are fewer firms), the smaller the consumer surplus. Thus, market power redistributes from consumers to the firm: consumers pay more for products and the firm earns greater profits at their expense.

Equal ownership essentially means that the consumers are also owners, and thus by definition, they also get a share of the profits of the firm. It is widely accepted that perfect competition is not attainable and that corporations extract some surplus. Nonetheless, more equal ownership allows consumers to recoup a portion of that surplus by sharing as owners in the profits of the firm. Stated otherwise, equal ownership allows consumers and workers a share of the profits resulting from any anticompetitive profits and wages. Equal ownership thus mitigates the residual rents corporations extract from consumers and workers that is not addressed through regulation. Thus, equal ownership is different from leading proposals to address market-related inequality in that our proposal does not require fixing market failures to produce a distributional benefit.⁷⁸

In Appendix A, we provide a simple model of an oligopoly using the influential Cournot model. ⁷⁹ Cournot is a simplified model, like other leading economic models used in antitrust policy, and thus has limits because the real world is more complex and nuanced. ⁸⁰ Nonetheless, the model is widely used to evaluate the effects of limited competition and antitrust policy and adjudication. ⁸¹ This simple model provides a numerical example of the impact of market power on consumer welfare. ⁸² It then shows that share ownership allows consumers to have a greater share of total welfare, which includes the joint welfare of both the firm (i.e., its profits) and the consumers.

The above analysis is very similar in the context of workers and suppliers of input. For example, in concentrated labor markets, firms may set lower wages that are below their marginal productivity. The worker surplus is lower because fewer people are willing to work

⁷⁷ This assumes that the costs of production include compensating investors for their risk. The idea is that investors get the return of capital that compensates them for the risk-free return, inflation, depreciation, and a premium for the risk of the investment.

⁷⁸ For examples of such proposals, see *supra* Part I.B. (summarizing the work of Bar-Gill, Van Loo, and others proposing behavioral economics-informed interventions).

⁷⁹ PHILLIP E. AREEDA, HERBERT HOVENKAMP & JOHN L. SOLOW, 4 ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION 925 (Aspen rev. ed. 1998).

⁸⁰ See id.

⁸¹ See id.; see also Castro v. Sanofi Pasteur, Inc., 134 F. Supp. 3d 820, 837-39 (D.N.J. 2015) (discussing the widespread use of the Cournot and Bertrand models).

⁸² The basic assumption in the model is that there are a few firms that all produce one homogeneous product. All the firms have substantial market power in the sense that their decisions to produce the product affect the good's price. The firms compete by setting the quantities rather than price, and the product's price decreases when quantity is larger. All firms set the quantity they produce to maximize profits. They take the output of the other firms as given. The market price is set at a level such that the demand equals the total quantity produced by all firms. *See id.*

for such low salaries, and thus market power diverts wealth from workers to corporations.⁸³ And the same applies to suppliers who sell their products to a few large firms with market power and pay them below competitive prices for their products. Likewise, equal ownership will allow workers and suppliers to share in the profits, which are partly the product of the profits made at their expense through anticompetitive conduct.

Thus, equal ownership fills some of the distributional gap inevitably left between perfect competition and real markets. As shown in Figure 1, households with incomes below \$180,000 experienced a sharp decline in share of ownership of public corporations in the past twenty years. Reversing this trend may therefore mitigate the harmful consequences of market power.

This simple analysis ignores, however, what is arguably the key problem of market power, which is that it creates a deadweight loss. Deadweight loss is the difference in total wealth to both firms and their stakeholders between the perfectly competitive economy and a concentrated market. In consumer markets, it reflects all lost surplus to consumers and firms that would have transacted for the lower competitive prices. All that equal ownership does, based on our assumptions thus far, is redistribute profits to consumers and workers. It does not salvage the deadweight loss as compared to a perfectly competitive world. The reason for this is that the managers only seek to maximize profits, but do not consider the interests of their owners who are consumers. In the next section, we explain how equal ownership might improve total welfare by reducing the deadweight loss.

C. The Governance Effects of Equal ownership

In the previous section, we assumed that managers maximize firms' profits, irrespective of who their owners are. In this part, we show how equal ownership could produce even better outcomes if managers internalized the interest of owners who are stakeholders, such as consumers and workers. The intuition behind equal ownership having market benefits beyond distribution begins with the observation that when the owners are also consumers, those owners would prefer that the firm treat them better as consumers. If managers internalized that preference, they would set prices lower than their market power allows, which is closer to competitive prices.

To understand the importance of that insight, we consider again an oligopolistic industry using the Cournot model we introduced in the previous section. In this setup, the firms with market power choose the quantity of the products, and the price of the product is determined by the quantities. The model shows that when firms have market power they produce fewer products, and by doing so they increase the prices. Within this framework, the typical approach is to assume that the firm and its owners are focused on maximizing profits.⁸⁴

We vary the basic Cournot model so that all consumers have shares of ownership of all the firms in the economy.⁸⁵ In our model, we assume that when consumers have a share in the corporation, the corporation considers the interests of investors who are both consumers and

⁸³ POSNER, supra note 4, at 16.

⁸⁴ The exception to this is the literature on common ownership, which assumes that firms are interested in maximizing the aggregate profits of the portfolios of their owners who own shares in other competing firms. *See* sources cited *supra* note 16.

⁸⁵ Again, although we focus on consumers, the theoretical analysis applies with equal force to workers and producers.

non-consumers of the firms' products.⁸⁶ For non-consumer investors, such as investment funds, the model assumes that they care exclusively about profits.⁸⁷ The specific details are described in Appendix B, and here we describe the main results and intuition for them.

When we introduce this ownership twist into the basic Cournot model, it gives the result that managers decide to produce higher quantities than in the standard Cournot model. That decision to produce higher quantities drives the price of the product lower. This further results in greater consumer surplus, and lower firm profits. These findings show that equal ownership can, in theory, bring about the kind of socially desirable outcomes as those sought by many calling for stronger antitrust enforcement. 88

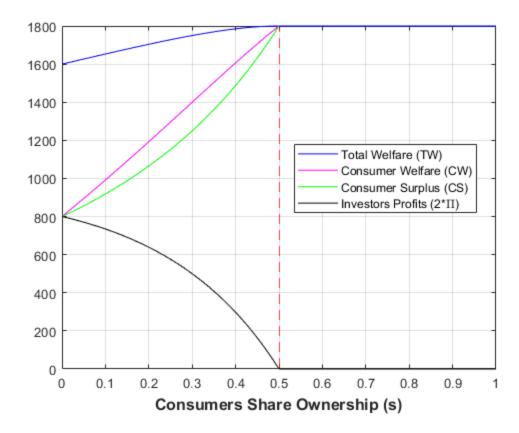


Figure 2: The effect of consumer ownership on welfare

Importantly, using our Cournot-ownership model we obtain the result that total welfare, which includes the aggregate welfare of consumers and investors, increases when firms internalize the interests of the owners who are consumers. In fact, at the optimal point of

⁸⁶ Thus, if *s* is this share of ownership held by consumers, the firm will give a weight equal to 1-*s* to the interests of profit-seeking investors, and a weight of s to consumers who want to maximize both profits and the consumer surplus. We further assume that the firm is still subject to the constraint that it must make nonnegative profits, and therefore the firm will not make decisions that cause it to essentially become bankrupt.

⁸⁷ This is of course an illustrative account, and we discuss the real work complexities of this account in Section III.A below.

⁸⁸ See supra Appendix.

share ownership, total welfare is exactly the same as in the case of perfect competition. The reason is that at lower prices, there is no deadweight loss resulting from consumer who would not buy the products at higher prices. The results of this analysis are shown graphically in Figure 2 for a Cournot model with two firms in the market (see Appendix B). ⁸⁹ As shown in the figure, the optimal level of consumer ownership in the example we examine is where 50 percent of the firm is owned by consumers. ⁹⁰ At this point, firms choose to produce the product at the competitive price, which is equal to the marginal cost of producing a product. ⁹¹ When ownership is increased above 50 percent, the welfare results remain at that same level. That leveling off reflects an assumption that the firm will not lower the price below the marginal costs of producing the product. In any case, the key take is that total welfare and consumer welfare increase with consumer ownership up to the point at which the market outcomes are equivalent to perfect competition. ⁹²

This basic analysis can be applied to other stakeholders, such as workers and suppliers, although it requires some elaboration. If we consider employment, in a market with few firms, the number of jobs would be smaller and wages would be lower compared to a competitive market. Equal ownership could mitigate this problem if managers internalize workers' preferences for higher wages.

The analysis here is slightly different than that in the case of consumers because the managers here would maximize shareholder-workers' preferences rather than pure profits. However, recall that with equal ownership, workers would have a share in a broad section of public corporations, including the company they work for, but mostly many other firms. In theory, these workers will prefer that only the firm they work in will increase wages, and all other firms will reduce wages. But such preferences would be counterproductive. The workers of each corporation on their own would have too little stake for managers to change the firm's wage policies. They would thus need the support of other worker-shareholders for managers to internalize a general preference for higher wages. Moreover, workers further have an interest in supporting higher salaries at other firms because those higher salaries will increase

⁸⁹ When *s*=0, we see the baseline total welfare, consumer surplus, consumer welfare, and firms' profits under the Cournot model when the consumers have no ownership interests. As *s* increases, we see that firms profits decreases and consumers surplus increase. The reason is that the firm produces more quantity at a lower price. The consumer welfare increases as well and it is higher than the consumer surplus because it includes both the consumer surplus and the consumers' share of the firms' profits.

⁹⁰ Of course, we do not suggest that 50% is exactly the optimal share ownership, and this figure is driven by the assumptions we make in Appendix B. The point is that there is some share ownership above which the price of the product will be equivalent to the competitive price.

⁹¹ At this point, firms' profits equal zero, but that still means owners receive a competitive return on their investment—the firm simply does not receive anything above that.

⁹² We acknowledge that this is a stylized model, and the results are driven by assumptions. For example, we assume that the consumers who are owners care about consumer surplus just as much as they care about the firms' profits. But, naturally, the extent to which they care about that surplus depends on how much they consume. It is possible that the weight that consumers themselves would assign to consumer surplus is lower than assumed in the model, and therefore the firm itself would give a lower weight to sharing that surplus with consumers. Regardless, the firm would still move directionally toward charging more competitive prices, resulting in greater benefits for consumers. Thus, while the model, like the Cournot model itself, cannot offer absolute precision, the upshot of the analysis remains intact. For a discussion of the Cournot model's value, see, for example, AREEDA ET AL., *supra* note 79.

⁹³ As discussed above, this is consistent with Hart and Zingales who argue that corporations should maximize the pro-stakeholder preferences of shareholders. See *supra* note 4.

the pressure on the firm they work for to increase salaries as well.⁹⁴ Relatedly, since workers often switch employers at some point, higher wages at other firms create more attractive exit opportunities.

Accordingly, we think that workers, that is people who make their living primarily from earned income, would prefer corporations they own to pay higher wages. And if managers internalize these preferences, equal ownership will result in higher wages. Moreover, if workers' ownership share is large enough, it could mimic the competitive wage and maximize total welfare.

* * *

It is now possible to see how equal ownership could address the central limitations of the stakeholder model of the corporation. Existing stakeholder proposals seek to empower managers to pay more attention to non-owner stakeholders without direct accountability to those stakeholders. By making stakeholders owners, corporate managers become more directly accountable to these stakeholders' financial incentives. Thus, unlike many stakeholder approaches that seek to pressure managers to go against owners' interests, equal ownership encourages managers to pay more attention to owners' interests. Rather than pushing against the relationship at the heart of the corporation, that between owners and managers, equal ownership operates within it.

Additionally, in comparison to other institutional responses to market power, such as breakups or regulation, equal ownership does not depend on government actors with limited resources, sophistication, and information. Because firms know considerably more about their own operations and their customers, and generally have greater sophistication, managers are better positioned to efficiently design and implement the quality, quantity, and pricing mechanisms for achieving perfect competition.

A key practical challenge for our theoretical claims is that it is not clear how big of a stake would stakeholders need to hold in order for managers to care about their interests. After all, currently corporations are overwhelmingly owned by a small slice of the population. Even if ownership were broader, it not clear that the managers would maximize the interests of shareholders beyond profit, because the owners would still need to find a way to express their preferences to managers. However, the question of whether firms internalize the interests of their stakeholder-owners is not binary in the sense that the firm either internalizes those interests or doesn't. The more the firm internalizes the interests of stakeholder-owners, the more equal ownership would push oligopolies towards more competitive behavior. In the next Part, we delve into the institutional design of equal ownership, which seeks to address some of these practical challenges and increase the likelihood that the firms will act in a way that is consistent with consumers and workers' preferences.

III. INSTITUTIONAL MECHANISMS TO IMPLEMENT EQUAL OWNERSHIP

The previous Part developed the theory for equal ownership's economic benefits. But

⁹⁴ To be sure, we do not claim that all firms automatically adjust their wages to those of their competitors and in many cases, they prefer to compete by keeping wages low to increase profits. But at the very least, higher wages at other firms will at least increase the pressure to increase wages by attracting more talented workers to those firms.

implementing equal ownership would also involve two main practical steps that would benefit from some development. The first is expanding ownership so that more households beyond the wealthy own stocks. The second is ensuring that those owners influence corporate managers' decisions in ways that are consistent with sharing surplus. These two aspects are related to one another. The greater the share ownership of consumers and workers, and the more that they are able to influence managers' decisions, the more likely it is that equal ownership will result in outcomes that resemble those in more competitive markets.

A. Encouraging Broader Ownership

This section contributes to the literature a brief overview of possible paths to broadening ownership of corporations to all segments of society, including some novel ideas for doing so. ⁹⁵ As shown above, the share ownership of the bottom 90 percent in wealth has declined dramatically in the past twenty years. ⁹⁶ Broadening ownership thus means instituting policies that would expand ownership beyond the very wealthy segment of the population. In this section we are indifferent as to the form of ownership (i.e., retail or institutional) and focus on the various policy options for encouraging broader ownership. Rather than propose a particular policy, we see this array of options as a menu from which legislators can choose. The options are not mutually exclusive and thus may be pursued simultaneously.

Before discussing specific policies, we emphasize that not everyone needs to own substantial portions of the stock market to receive considerable benefits from expanded ownership. For instance, households between the 50th percentile of income and the 90th percentile of income—roughly the upper middle class and well off but not rich—own about 11 percent of corporate stocks but account for roughly 66 percent of consumer spending.⁹⁷ Those households would overall prefer that corporations charge lower prices because they compose a much greater percentage of consumer spending than they do of ownership. It is not unreasonable to contemplate a world in which they own 22 percent of public corporations (as was the case twenty years ago⁹⁸) or possibly a larger share (say 30 percent). Our analysis suggests that such shifts in ownership could influence the conduct of corporations to set more competitive prices and wages.⁹⁹

We first consider the question of who will actually purchase the stock on behalf of individuals. The three main potential purchasers of such stocks are wealthy donors, the government, and the individuals themselves. Relying on donations by wealthy individuals may be attractive because it does not depend on either tax dollars or spending by individuals with tight budgets. Such donations could be encouraged by providing tax breaks. The actual choice of which stocks to buy would be performed by the beneficiaries themselves or an intermediary on their behalf to ensure donors do not attempt to boost the stock price of firms

⁹⁵ See STOUT ET AL., supra note 9, at 49.

⁹⁶ See infra Part I. A.

⁹⁷ See Distribution of Household Wealth in the U.S. Since 1989, FED. RESERVE (Dec. 17, 2021), https://www.federalreserve.gov/releases/z1/dataviz/dfa/distribute/chart/ (last visited Feb. 18, 2022).

⁹⁸ See text accompanying note 8.

⁹⁹ See infra Part II.

¹⁰⁰ Most notably, Stout, Gramito, and Belifanti propose expanding ownership solely by this method. *See* STOUT ET AL., *supra* note 9, at 119-24.

¹⁰¹ See id.

they have a stake in.¹⁰² However, philanthropy may never materialize in any substantial amount, and therefore it is worth considering other paths.

The most straightforward way for the government to expand ownership would be for it to purchase shares on behalf of low-income individuals. Although the political will for such expenditures may not materialize during normal times, the federal governments is more likely to consider stock ownership to address wealth inequality during economic crises. There are macroeconomic contexts within which the government must infuse money into capital markets to avoid economic collapse. During the 2008 financial crisis, for example, the U.S. Treasury injected hundreds of billions of dollars into corporations. Then again, in 2020, as stock markets plummeted upon news of the coronavirus outbreak, the Federal Reserve pumped over a trillion dollars into capital markets. The next time the federal government decides to direct massive amounts into corporations, it could in exchange require increased stock ownership for the bottom 90 percent of households.

Other avenues for equal ownership exist without any government purchases or private donations. For upper middle-income individuals who have more ability to invest, tax incentives are a way to encourage equal ownership. One way to design such incentives would be to lower the taxes on small-value trading. Currently, investors pay capital gains taxes when they sell a stock for profit after a short period. Those taxes discourage stock ownership by making it less financially lucrative to invest. ¹⁰⁵ If those taxes on small-value trades were lowered or eliminated, purchasing small amounts of stocks would become more affordable to individuals with limited resources.

Wealthy interests have heavily lobbied for capital gains tax reductions, making tax incentives a potentially more politically feasible policy option. On the other hand, tax incentives would still require middle-income households to make purchases from what is often a tight household budget. It is thus worth considering whether there is a way to leverage existing sources of household wealth.

One area in which the bottom 90 percent of households has substantial wealth is in bank deposits, valued at over a trillion dollars. Thus, it is worth thinking about how these deposits might be held in a way that would provide more of an ownership stake in corporations until that wealth is withdrawn.

There are many ways that such a program could be designed, but for the sake of illustration, consider that financial regulation currently limits what banks can do with deposits. In particular, banks cannot invest more than a fraction of customer deposits, such as about 10

¹⁰² Stout, Gramito, and Belifanti, *id.*, propose allocating donations to a "universal fund" which would be a federally managed mutual funds acting on behalf of all citizens.

¹⁰³ See Robert K. Rasmussen & David A. Skeel, Jr., Governmental Intervention in an Economic Crisis, 19 U. PA. J. BUS. L. 7, 13-14 (2016).

¹⁰⁴ Lev Menand, *The Federal Reserve and the 2020 Economic and Financial Crisis*, 26 STAN. J.L. Bus. & FIN. 295, 297 (2021).

¹⁰⁵ Zhonglan Dai et al., *Capital Gains Taxes and Asset Prices: Capitalization or Lock-in?*, 63 J. FIN. 709 (2008) (studying "the 1997 reduction in the capital gains tax rate" and finding evidence of the capitalization effect).

¹⁰⁶ As of Q3 2021, the bottom 90% of households held over \$1.23 trillion in checkable deposits and currency. See Checkable Deposits and Currency Held by the 50th to 90th Wealth Percentiles, FED. RES. SYS., https://alfred.stlouisfed.org/series?seid=WFRBLN40059 (last visited Feb. 19, 2022) (as of Q3 of 2021, the 50 to 90th percentiles held \$995 billion in checkable deposits and currency); Checkable Deposits and Currency Held by the Bottom 50% (1st to 50th Wealth Percentiles).

percent depending on the bank, in stocks.¹⁰⁷ What deposits banks do put toward stocks yield profits for the bank, not for the deposit holders.¹⁰⁸ One way to increase the bottom 90 percent of households' ownership share would thus be to design a mechanism for some portion of those savings to be automatically converted to stock ownership as a default. Depositors could opt out if they did not want to participate. However, the savings could be essentially insured from stock market losses, which is not a substantial expansion of insurance that is already provided to customers, through FDIC insurance, and to the biggest banks in the form of implied bank bailouts.¹⁰⁹ Many further details would of course need to be ironed out, such as constraints on banks' abilities to invest the funds and how the profits from such investments would be allocated.

In summary, there are various avenues for expanding the ownership base of corporations. Again, the point here is not to argue that any particular mechanism is necessarily better than others, but rather to show that one or more feasible options could be designed.

B. Encouraging Stronger Influence by Owners

Equal ownership's potential to mitigate the harmful effect of concentrated markets depends in large part on the extent to which managers internalize owners' interests as consumers, workers and suppliers. An obstacle to that internalization is the core problem that has animated corporate governance from the field's beginning: agency costs. In the traditional analysis, the problem is that managers may engage in wasteful projects or shirk on their duties instead of maximizing profits on behalf of shareholders. That problem imposes costs on shareholders in the form of lower profits. In contrast, our concern is with the likelihood that managers make decisions that benefit their stakeholder-owners beyond simply profit, to include other interests like paying lower prices and earning higher wages.

To elaborate, a challenge facing equal ownership is that if the shareholding of average people were to increase, managers would simply neglect their interests.¹¹¹ As is well known, the costs of collective action for dispersed shareholders are high, resulting in managerial entrenchment and shirking.¹¹² Moreover, less wealthy disaggregated individuals may have insufficient expertise, information and sophistication in monitoring managers. Shareholders' failure to monitor managers or managers' inattentiveness to shareholders could make the

¹⁰⁷ See BERT LOUDIS, DANIEL NGUYEN, & CARLO WIX, FED. DEPOSIT INS. CORP., ANALYZING THE COMMUNITY BANK LEVERAGE RATIO (2020), https://www.fdic.gov/analysis/cfr/staff-studies/2020-03.pdf (detailing the various capital ratios, which require banks to have between 5-10.5% of capital to risk-weighted assets).

¹⁰⁸ In theory, higher bank profits on deposits could prompt higher interest rates paid to depositors.

¹⁰⁹ See Chrystin Ondersma, Shadow Banking and Financial Distress: The Treatment of "Money-Claims" on Bankruptcy, 2013 COLUM. BUS. L. REV. 79, 91 (2013).

¹¹⁰ Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976).

¹¹¹ Recent empirical evidence suggests that mutual funds do not vote in line with the ideological preferences of their beneficial owners; *See* Jonathon Zytnick, *Do Mutual Funds Represent Individual Investors?* NYU Law and Economics Research Paper No. 21-0

^{4 (2022),} available at https://ssrn.com/abstract=3803690.

¹¹² See, e.g., Edward B. Rock, The Logic and (Uncertain) Significance of Institutional Shareholder Activism, 79 GEO. L.J. 445, 453 (1991) ("Corporate law presents two related problems: the divergence of interests between managers and shareholders (the agency problem); and the problems facing dispersed shareholders in minimizing agency costs (the collective action problem).").

governance effects of equal ownership inconsequential.

In modern markets, most public stocks are held by institutional investors. In recent decades institutional asset managers, like BlackRock and Vanguard, have gradually increased their ownership stakes, and they nowadays own about 72 percent of public stocks. Thus, a natural way to broaden the ownership of public corporations is not by increasing retail ownership, but by increasing stakeholders' investment through mutual funds and pension funds.

The question then becomes to what extent such institutions would actively cause managers to make decisions about prices and employment that are conducive to the interests of some of their underlying investors. Due to their size and resources, institutional investors were supposed to solve shareholders' inability to act collectively and monitor managers. However, asset management has created another layer of potential agency costs, which is the risk that these asset managers fail to serve the interests of their own investors. There is a lively debate about the extent and nature of these agency costs, and most of it focuses on whether institutional investors are too passive or too active, and whether their actions actually improve firm performance. This debate centers on maximizing shareholder economic value as the main objective of institutional engagement.

Institutional investors, however, are increasingly aware that they are expected to ensure that their portfolio companies are run in a socially and environmentally responsible manner. Leo Strine, former Chief Justice of the Delaware Supreme Court, expressed the concern that asset managers' pressure on firms to pursue profits is too strong and may be detrimental for ordinary people. Larry Fink, the CEO of Blackrock, has repeatedly stated that the purpose of corporations is to promote social welfare and not just maximize profits. Moreover,

¹¹³ ADRIANA DE LA CRUZ, ALEJANDRA MEDINA & YUNG TANG, OECD, OWNERS OF THE WORLD'S LISTED COMPANIES (2019), https://www.oecd.org/corporate/Owners-of-the-Worlds-Listed-Companies.pdf ("In the United States...institutional investors show a strong presence holding 72%... of the listed equity....").

¹¹⁴ See Bernard S. Black, Shareholder Passivity Reexamined, 89 MICH. L. REV. 520, 523 (1990) ("Large institutions can combine forces, form trade groups to represent their collective interest, and one way or another act as monitors.").

¹¹⁵ See Gilson & Gordon, supra note 59, at 890 (2013) ("Investment managers thus have little private incentive to address proactively strategy and performance problems at portfolio companies and therefore do not develop the expertise to engage in that activity, even if such activity would benefit their beneficiaries."); Lucian A. Bebchuk, Alma Cohen & Scott Hirst, The Agency Problems of Institutional Investors, 31 J. ECON. PERSPS. 89, 90 (2017) (showing "that index funds have especially poor incentives to engage in stewardship activities that could improve governance and increase value").

¹¹⁶ See Jill E. Fisch, Asaf Hamdani & Steven Davidoff Solomon, The New Titans of Wall Street: A Theoretical Framework for Passive Investors, 168 U. PA. L. REV. 17, 71 (2020) (highlighting "the structural advantages of passive investors with respect to certain types of engagement, particularly market-wide initiatives such as improving corporate governance"); Bebchuk et al., supra note 115, at 107 ("the agency problems of institutional investors prevent the full realization of the potential benefits of the increased concentration of shareholdings.").

¹¹⁷ See Strine, supra note 10, at 1970 ("The current corporate governance system, however, gives the most voice and the most power to those whose perspectives and incentives are least aligned with that of ordinary American investors."). His concerns are seemingly driven in large part by activist hedge funds that arguably seek to increase short-term profits and cause companies to take excessive risks. See id. at 1886 ("I focus on the more oxymoronic part of the [hedge fund] industry, which . . . seeks to make returns by influencing the corporation to change its capital structure or business plan.").

¹¹⁸ Larry Fink, A Sense of Purpose, HARV. L. SCH. F. CORP. GOVERNANCE (Jan. 17, 2019),

because institutional shareholders make their income from fees based on the amount of assets they manage, they have started marketing their social responsibility actions to potential clients, who are arguably socially minded.¹¹⁹ The amount of assets invested in environmental, social and governance ("ESG") funds has grown dramatically in recent years and is expected to continue growing in the coming years.¹²⁰

These developments suggest that there is a possibility that if more stakeholders invest in the market through institutional investors, these investors would face competitive pressures to promote causes that enhance consumer and worker welfare. ¹²¹ Institutional investors may make shareholder proposals that require firms to increase wages or reduce prices. Even without equal ownership, the number of shareholder proposals relating to environmental and social matters has been increasing, such that as of 2022 they form more than 80 percent of shareholder proposals. ¹²² These include proposals to urge corporations to reduce prices for consumers ¹²³ and consider increasing wages for workers. ¹²⁴

Likewise, institutions may vote for directors who specifically seek to improve consumer and worker welfare, and withhold votes from those that do not.¹²⁵ Institutions may even use their advisory votes on executive compensation schemes to push for tying compensation to better treatment of consumers and workers.¹²⁶ Managers would still have incentives to maximize profits, but they will be encouraged to pursue greater profits without increasing

https://corpgov.law.harvard.edu/2018/01/17/a-sense-of-purpose/ ("[A] company's ability to manage environmental, social, and governance matters demonstrates the leadership and good governance that is so essential to sustainable growth.").

¹¹⁹ 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, 1265-66 (2019) ("While funds' ESG efforts have been occasionally noted in the literature, we show that funds' marketing efforts and public pronouncements have been accompanied by aggressive, meaningful action.").

¹²⁰ See PWC Report, Asset and Wealth Management Revolution 2022: Exponential Expectations for ESG (2022), available at https://www.pwc.com/gx/en/industries/financial-services/asset-management/publications/asset-and-wealth-management-revolution-2022.html?WT.mc_id=CT11-PL1000-DM2-TR2-LS4-ND1-TTA9-CN_gx-fy22-xlos-esg-awm-esg-revolution-pressrelease (predicting asset managers globally to increase their ESG-related assets under management from \$18.4 trillion in 2021 to \$33.9 trillion by 2026).

¹²¹ In fact, the available evidence suggests that at least so far as ESG funds are concerned, their voting correlates with the voting preferences of their beneficial owners; see Zytnick, *supra* note 111.

¹²² Gibson Dunn, Shareholder Proposal Developments During the 2022 Proxy Season, July 11, 2022, available at https://www.gibsondunn.com/wpcontent/uploads/2022/07/shareholder-proposal-developments-during-the-2022-proxy-season.pdf.

¹²³ See Carly J. Goeman, The Price Isn't Right: Shareholder Proposals as Opportunities for Institutional Investors to Restore Firm Value and Reduce Pharmaceutical Prices, Colum. Bus. L. Rev. 748 (2017) (describing shareholder proposals to urge pharmaceuticals to reduce drug prices).

¹²⁴ Interfaith Center on Corporate Responsibility, Worker Justice Rises to the Top of Investors' Agenda at 2023 Annual Meetings, Apr. 27 2003, available at https://www.iccr.org/worker-justice-rises-top-investors-agenda-2023-annual-meetings (describing shareholder proposals urging corporations to improve workers' rights including raising wages); See also Orrick, Herringon & Sutcliff LLP, Pay Equity-Related Shareholder Proposals in 2023, Sep. 5, 2023, available at https://corpgov.law.harvard.edu/2023/09/05/pay-equity-related-shareholder-proposals-in-2023/ (showing shareholder support for pay-equity proposals is significant).

¹²⁵ This form of pressure on corporate boards was particularly instrumental in getting corporations to remove antitakeover devices, such as poison pills and staggered boards. *See* Dorothy Lund & Elisabeth Pollman, *The Corporate Governance Machine*, 121 COLUM. L. REV. 2563, 2620-2624 (2021).

¹²⁶ This is consistent with the recent trend of tying compensation schemes to ESG metrics; See Shira Cohen et al., Executive Compensation Tied to ESG Performance: International Evidence, ZEW - Centre for European Economic Research Discussion Paper No. 22-051 (2022), available at: https://ssrn.com/abstract=4271016.

prices or paying low wages.127

To be sure, there is already a serious concern as to whether institutions' current focus on ESG is merely an exercise in greenwashing. One key reason for questioning the impact of ESG investing is that it is often difficult to measure whether ESG standards, which are very general and broad, truly promote practices that are beneficial for society. Moreover, many ESG practices are designed to increase risk-adjusted returns and thus entirely consistent with profit maximization. But the present status of ESG may be partly driven by the fact that the underlying investors in institutions are primarily wealthier individuals whose wealth is unlikely to be affected by product prices or wages. In the world we are contemplating, a greater percentage of the investors would be interested not just in profits, but also in maximizing consumer and worker surpluses.

In a world of more equal ownership, stronger accountability to owners is thus desirable from a social perspective. ¹³¹ This is counterintuitive because the standard critique of expanding corporate governance to include a broader set of stakeholders' interests is that doing so might lower total economic welfare. ¹³² The basic reasoning underlying that concern is that the pursuit of profits by all corporations enhances competition, which in turn maximizes total welfare; thus, pushing managers to consider issues beyond profit could move markets away from the ideals of perfect competition. But, in a world where firms have market power, our theory shows that if managers internalize owners' preferences as stakeholders, total welfare is actually higher. Giving stakeholders an ownership stake therefore bolsters the normative justification for stronger corporate governance, and mitigates the concern that stronger governance would harm ordinary people.

Although we do not propose any particular mechanism for increasing internalization of stakeholder interests, it is worth noting that many options exist. The most straightforward way of making firms internalize the surplus interests of owners would be to require expanded duties of institutional investors. In consumer finance, lenders are required to "know your customer," referring to the importance of checking income carefully and extending only loans that the customer can repay.¹³³ Institutional investors might similarly be required to "know

¹²⁷ The managers would still seek to maximize profit subject to the constraint that they offer competitive prices and wages.

¹²⁸ Davidson Heath, Daniele Macciocchi, Roni Michaely & Matthew C. Ringgenberg, *Does Socially Responsible Investing Change Firm Behavior?* 33, European Corp. Governance Inst., Fin. Working Paper No. 762/2021 (2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3837706 (finding that socially responsibility investment funds "do not cause improvements in firm behavior.").

¹²⁹ Eldar, supra note 23, at 940.

¹³⁰ Lund & Pollman, *supra* note 125, at 2566 ("Today many companies pursue ESG goals, and many investors favor ESG funds, not for moral reasons or a prosocial willingness to sacrifice profits, but because ESG is thought to provide sustainable long-term value or higher risk-adjusted returns for shareholders.").

¹³¹ That point builds on Stout et al.'s aim of giving more citizens a say in how corporations are governed by expanding ownership. However, Stout et al. did not connect their proposal to the possibility that if a greater proportion of owners are the average consumer, worker, or supplier, they could potentially influence corporate managers to make decisions that essentially distribute surplus to such stakeholders outside of profits. *See* STOUT ET AL., *supra* note 9, at 113-18.

¹³² See e.g., Henry Hansmann & Reinier Kraakman, The End of History for Corporate Law, 89 GEO. L.J. 439 (2001).

¹³³ Those rules were loosely inspired by lighter stockbroker rules. See Kathleen C. Engel & Patricia A. McCoy, A Tale of Three Markets: The Law and Economics of Predatory Lending, 80 Tex. L. Rev. 1255, 1284-84 (2002)

your shareholder," or have a sense of where their shareholders' interests are, and to make some good faith efforts to vote accordingly.¹³⁴

Information technologies would help lessen the costs of knowing shareholder preferences. Indeed, apps might help to translate institutional ownership into a more direct form of representative governance by sending notifications for the type of elections or issues that are coming up in director voting. Interestingly, Blackrock pledged to give its clients greater say in its choices in shareholder votes, ¹³⁵ and even started providing a pass-through voting option to its institutional clients. ¹³⁶ This suggests that institutions may be developing the mechanisms needed to give underlying investors the ability to express their preferences.

More specifically, it is worth considering whether institutional investors like BlackRock, or banks that might invest customers' deposits in the stock market, should be required to allow third parties to develop services, such as voting apps, that would communicate with and engage shareholders. The mandate might even require the institutional investor to allow those apps to vote on the behalf of end shareholders, in proportion to the apps' clients' holdings. Thus, the institution would manage the investment but not the voting, for at least those who opt into the third-party apps. Importantly, the apps could be designed to allow time-pressed and unsophisticated equal ownership stockholders to delegate all the voting for their shares to a third party that would be better situated to determine, for example, what corporate policies would be more likely to share consumer and worker surplus with those owners.

Although the discussion has so far focused on institutional investing, an alternative for strengthening internalization could be to encourage retail investors to play a more active role in governance. The challenge is to get retail investors to influence corporate decision-making. The general perception of retail investors is that they are naïve and uninformed, and would have generally limited ability to coordinate their positions, or influence the composition of corporate boards. However, recent research suggests that at least a subset of retail investors are actually highly involved in corporate voting. Specifically, there is evidence that they punish the management of poorly performing firms, as proxied by low valuation, low profitability, and stock price performance. This evidence suggests that retail investors may be able to express their preferences in corporate decision-making. Thus, if a greater percentage of shareholders would prefer managers that make decisions that are favorable to stakeholders, they might actually make an impact on corporate decision-making.

(proposing reforms in consumer finance based on stock broker rules); FINRA, KNOW YOUR CUSTOMER AND SUITABILITY: REGULATORY NOTICE 11-02 (2011), https://www.finra.org/sites/default/files/NoticeDocument/p122778.pdf.

¹³⁴ Fisch and Schwartz argue for requiring managers of mutual funds and pension funds to seek input from their beneficiaries on their views on social and environmental issues and reflect those views in both their engagement efforts and their votes, See Jill E. Fisch & Jeff Schwartz, *Corporate Democracy and the Intermediary Voting Dilemma*, Tex. L. Rev. (forthcoming).

¹³⁵ See Simon Jessop & Ross Kerber, Blackrock to Give Clients More Say on Holding Companies to Account, REUTERS (Oct. 7, 2021), https://www.reuters.com/business/finance/blackrock-give-clients-more-say-holding-companies-account-2021-10-07.

¹³⁶ See BlackRock, BlackRock Expands Voting Choice to Additional Clients, https://www.blackrock.com/corporate/newsroom/press-releases/article/corporate-one/press-releases/2022-blackrock-voting-choice (last visited Dec. 29, 2022).

¹³⁷ For example, through tax incentives. *See* text accompanying *supra* notes 101, 105.

¹³⁸ Alon Brav, Matthew Cain & Jonathon Zytnick, Retail Shareholder Participation in the Proxy Process: Monitoring, Engagement, and Voting, J. FIN. ECON. (2021). It is possible though that the subset of highly informed retail investors tends to be wealthier.

The GameStop episode also illustrates potential mechanisms for retail corporate influence. In early 2021, retail investors bought shares of the company, causing share prices to rise by over 1000 percent and squeezing sophisticated investors that shorted the stock. These retail investors coordinated their purchases through social media outlets, seemingly overcoming collective action problems. Although GameStop investors were motivated by personal affinity with the brand rather than the motivation we outline for equal ownership, it shows that retail investors may be able to coordinate with one another when they believe it is in their interest to do so. Thus, retail investing may potentially reduce the power of institutions that focus primarily on profit, and enable greater engagement by ordinary individuals in social issues. In the contract of the cont

To tie the GameStop episode to more systemic corporate governance, it may be possible to leverage corporate governance digital intermediaries in a way similar to that discussed above for institutional investors. Retail shareholders might communicate their general preferences to some digital intermediary that proxy votes on behalf of a large number of shareholders. The investors would communicate their preferences, such as a preference for maximizing their overall financial situation, including consumer prices and employee wages. The digital intermediary would then, for each director election, shareholder proposal, or other issue vote according to the preferences that the retail investor communicated to the digital intermediary.¹⁴²

Overall, this discussion shows that there are a range of possible retail and institutional governance mechanisms for encouraging owners to better internalize the economic welfare interests of different types of shareholders. Implementing these mechanisms may bolster equal ownership by making managers more attentive to the interests of their owners whose wealth is sensitive to changes in consumer prices and market wages.

IV. POTENTIAL CHALLENGES TO EQUAL OWNERSHIP

Equal ownership is not without limits and risks. This Part surveys some potential issues that might arise. Since equal ownership is novel, can be built in many different ways, and would inevitably be implemented gradually, it would be necessary to continually study the impact of broader ownership closely and adjust accordingly. Thus, the discussion below ultimately begins to map some topics for future research.

A. Limits on the Influence of Stakeholder-Owners

Equal ownership will be constrained by two main factors: the distribution of ownership of public shares and the salience of the possible harm. The more evenly and widely distributed

¹³⁹ Yun Li, Gamestop Mania Explained: How the Reddit Retail Trading Crowd Ran Over Wall Street Pros, CNBC (Jan. 27, 2021), https://www.cnbc.com/2021/01/27/gamestop-mania-explained-how-the-reddit-retail-trading-crowd-ran-over-wall-street-pros.html ("Wall Street has been watching GameStop in awe as a band of Reddit-obsessed retail investors managed to push the stock up 1,500% in two weeks, squeezing out short selling hedge funds.").

¹⁴⁰ Id.

¹⁴¹ See Jill Fisch, GameStop and the Reemergence of the Retail Investor, 102 B.U.L. Rev. 1799 (2022).

¹⁴² The specific details would need to be worked out for such a proxy to work, such as the duties to the owners or what information would need to be disclosed to the retail owner.

stock ownership is, the more likely equal ownership will be to push managers to pursue policies that reflect the interests of lower-income groups. There is a concern that even with significant public expenditures, shareholding would likely remain skewed toward high-income households that are less affected by product prices or wages.

Thus, to be highly consequential, the ownership stake of middle-and low-income individuals must be sufficiently high, so that either the distributional or governance effects of equal ownership will be meaningful. Thus, policies to encourage broader ownership, such as tax incentives, must be substantial enough to ensure meaningful shifts the distribution of ownership.

The second factor that could limit owners' influence is the salience to owner-stakeholders of the possible harms of consumer manipulation or market power. Some consumer manipulation or monopoly pricing may remain imperceptible to most people. Indeed, even markets controlled by a few firms may appear to be competitive to the naked eye. For instance, the existence of multiple gas stations in the neighborhood does not mean that oil oligopolies are not charging higher prices to those gas stations. Moreover, the magnitude of price manipulation, monopoly pricing, or monopsony wages may be less observable or seem less important than shifts in the value of individuals' stock portfolios.

However, this challenge is not unique to our proposal. Regulators struggle with this task on a regular basis. We anticipate that shareholders will be aided by the work of consumer protection and competition authorities. Investigations by the Federal Trade Commission or the U.S. Department of Labor will inform shareholders about potentially exploitative practices. In fact, whereas such authorities face political challenges in bringing action to address anticompetitive behavior, shareholders may be less constrained in their ability to pressure managers to reduce prices or increase wages because they will not have to follow a formal legislative or judicial process. For example, antitrust investigations could lead shareholders to bring shareholder proposals for fairer prices or vote for directors who are more attentive to stakeholders' interests. Thus, shareholder pressure can complement and reinforce the work of regulators.

B. The Costs of Collective Decision Making

Another challenge for equal ownership is that it might raise the costs of decision-making in corporations. A broad ownership base might create conflicts between providers of large amounts of capital and a sizable number of dispersed lower-income people with small investments who are vulnerable to higher prices of consumer products and lower wages.¹⁴⁵

¹⁴³ An example of visible harm may be Amazon denying worker breaks. *See* Zahra Tayeb, *Amazon Hit with Lawsuit Over Claims that it Failed to Provide Employees with Required 30-Minute Lunch Breaks, Bus. Insider (Mar. 28, 2021, 6:28 AM), https://www.businessinsider.com/amazon-hit-with-lawsuit-over-claims-did-not-provide-lunch-breaks-2021-3.*

¹⁴⁴ In the context of securities litigation, shareholder regularly piggyback on regulatory actions when they bring a lawsuit against corporations; see Emily Strauss, *Is Everything Securities Fraud?* 12 UC IRVINE L. REV. 1331 (2021).

¹⁴⁵ In general, managers have a duty to act in the best interests of the corporation, which is often viewed as a duty to maximize firm profits. For the classic statement of this duty, see Dodge v. Ford Motor Co., 170 N.W. 668, 671, 684 (1919), which notes that "[a] business corporation is organized and carried on primarily for the profit of the stockholders." However, it is well known that managers have discretion to consider a broad range

For example, it will often be that owners in the bottom 90 percent of households will prefer low prices and higher wages, while the wealthier providers of capital would prefer managers to set higher prices and lower wages. ¹⁴⁶ Equal ownership might thus turn corporations into a forum where different socio-economic groups battle over different economic outcomes.

The costs of this conflicted decision-making might harm the efficiency of corporations. One of the most attractive features of for-profit firms is that their investors have homogenous interests in the sense that they are all focused on firm value maximization.¹⁴⁷ If these conflicts are strong enough, they might even reach the boardroom with different board members siding with different factions of shareholders. Likewise, the costs of decisions could also rise if institutions expend resources soliciting and synthesizing input from shareholders.¹⁴⁸

This concern should not be overstated in large part because institutional investors themselves already face pressures to be more sensitive to societal interests, and because the stakeholders as owners would presumably also be concerned about ensuring that corporations operate in a financially sound manner. Moreover, when making decisions about prices and wages, managers can make compromises by setting them at a level that aggregates the weighted sum of the owners' preferences.¹⁴⁹ This means of course that the final outcomes might not reflect the prices and wages in a perfectly competitive world, but as long as they are substantially closer, equal ownership will have a material impact on social welfare.

C. Excess Demand for Public Stock

Equal ownership would entail an inflow of money into capital markets. By injecting stock markets with a large infusion of investment dollars, equal ownership could distort capital markets. ¹⁵⁰ The surge in demand for stocks would drive up prices and increase the risk of economic overheating and a stock market bubble. ¹⁵¹ Although the transition to equal ownership may bring some market turbulence, there are upsides to these dynamics as well. ¹⁵²

of non-pecuniary factors in making decisions, and their decisions are protected by the business judgment rule. See Einer Elhauge, Sacrificing Corporate Profits in The Public Interest, 80 N.Y.U. L. REV. 733 (2005). Thus, it is unlikely that courts will intervene in managers' decisions about prices or wages, especially if these are designed to further the interests of the owners themselves. In fact, two leading economists, Hart and Zingales, have recently argued that managers should maximize shareholder welfare rather than shareholder profits. Hart & Zingales, supra note

¹⁴⁶ There may also be conflicts between consumers and workers, for example if managers consider whether to increase prices or cut costs by reducing wages, although it is hard to speculate about the nature of such conflicts at present.

¹⁴⁷ Hansmann, *supra* note 64. Goshen and Squire, however, recently highlight that investors may face conflicts when they disagree about strategies to manage the company, for example, by pursuing shot-term or long-term projects. *See* Zohar Goshen & Richard Squire, *Principal Costs: A New Theory for Corporate Law and Governance*, 117 COLUM. L. REV. 767 (2017).

¹⁴⁸ For Blackrock's recent statement that it will indeed solicit views from their beneficial owners see supra note 135.

¹⁴⁹ This is essentially what the managers are doing in the model we present in Section II.C and Appendix B.

¹⁵⁰ Yair Listokin, *Law and Macro: What Took So Long?*, 83 L. & CONTEMP. PROBS. 141, 151 (2020) ("Quantitative easing brings (unrealized) risks of inflation and may create asset bubbles.").

¹⁵¹ See CARMEN REINHART, LEONARDO LEIDERMAN & GUILLERMO CALVO, THE CAPITAL INFLOWS PROBLEM: CONCEPTS AND ISSUES (1993) (discussing how "massive capital inflows" are associated with "stock market bubbles" and suggesting regulatory reforms to "insulate the banking system from the bubbles").

¹⁵² Antony Mueller, Financial Cycles, Business Activity, and the Stock Market, 4 Q.J. AUSTRIAN ECON. 3 (2001)

Greater investment capital could spur economic growth, ¹⁵³ and overall increases in stock prices could help to make equal ownership more politically and economically attractive to those with great wealth—especially compared to the alternative possibilities for addressing inequality. These risks of market distortions should be considered in deciding whether to pursue, and how to design, equal ownership policies. However, in some ways the risks and limits of equal ownership reflect those of capitalism. The idea of capitalism is based on the notion that corporations should be able to raise capital from a diffuse range of investors. These investors naturally have different preferences and views, and they increasingly want corporations to consider them. As discussed above, information technologies significantly lessen the costs of collecting and synthesizing dispersed retail interests. ¹⁵⁴ Thus, we believe this risk is unlikely to materially increase the inherent risks of robust capital markets, and that capital markets will prove dynamic enough to adapt.

D. Encouraging Noise Trading

Broadening the ownership base of corporations may also lead to introducing a great deal of noise to stock markets. The concern is that lower-income individuals may be uninformed and unsophisticated, and therefore will act primarily as noise traders. The efficiency of capital markets depends on the presence of informed traders that gather and analyze market and firm specific information. Noise traders on the other hand are those that falsely believe they have valuable informational advantage or superior ability to trade stocks. The more noise traders there are, the more likely it is that stocks will deviate from their fundamental value. While noise traders can cancel each other, when they act as a herd, they may bias stock prices for a prolonged time. Over the long-tun, such traders inevitably lose to more sophisticated traders when prices go back to their fundamental value.

However, middle-and-low income individuals would not necessarily act as noise traders. As discussed above, the evidence suggests that retail traders, who are likely less affluent than other shareholders, are often well-informed and engaged in corporate voting.¹⁵⁷ In any event, there is scope for complementing our proposal with programs to increase and improve financial literacy in order to encourage the new group of stock traders to engage in informed trading.¹⁵⁸ Finally, we do not require that the new class of equal ownership shareholders would hold stocks directly as retail investors. Rather they could hold it through sophisticated institutional investors that have a duty to take their viewpoints into account when voting their

⁽using the Mises-Hayek model to conclude that "new liquidity, while inciting business activity, will make economic distortions more severe").

¹⁵³ See Lawrence Christiano, Cosmin Ilut, Roberto Motto & Massimo Rostagno, Monetary Policy and Stock Market Booms (Nat'l Bureau of Econ. Rsch., Working Paper No. 16402, 2010) (finding that sixteen of eighteen historical U.S. stock market booms were associated with credit growth).

¹⁵⁴ See supra Section III.B.

¹⁵⁵ Zohar Goshen, and Gideon Parchomovsky, *The Essential Role of Securities Regulation*, 55 Duke L.J. 711 (2005).

¹⁵⁶ *Id*.

¹⁵⁷ See text *supra* note 138-142.

¹⁵⁸ Recent research shows a U-shaped correlation between financial literacy and stock market participation. See Jill E. Fisch & Jason S. Seligman, *Trust, Financial Literacy, and Financial Market Participation*, 21(4) J. OF PENSION ECON. & FIN. 634 (2022).

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E. Regulatory Laxity

Equal ownership could create a convenient political environment to justify regulatory laxity in areas such as antitrust and labor law. Consumers and workers may incorrectly believe that they are overall benefitting from monopoly prices and low wages because they are shareholders. Thus, they may exert insufficient democratic pressure on authorities to effect policies, such as antitrust and consumer protection, that are important for total welfare and the distribution of wealth. But if ownership share is too small, the profits that consumers and workers gain from equal ownership may be lower than the resulting harm from laxer regulation.¹⁶⁰

While these political influences would be harmful if they materialized, it is only a speculative possibility. It is impossible to predict how equal ownership would affect the legislative and regulatory process, and inevitably our proposal requires a great deal of experimentation. As we emphasized above, equal ownership is not a substitute to existing regulation, but rather a complement to address persistent concerns such as rising mark-ups and stagnant wages.

CONCLUSION

We have identified an alarming trend in the distribution of corporate ownership. For years ownership has trended toward wealthier households owning an ever-larger share of public corporations. This trend is particularly concerning when considering the gradual increase in industry concentration and corporate profits, higher prices charged to consumers, and lower wages for workers. The inescapable conclusion is that low-and middle-income individuals are increasingly getting a lower share of the wealth created by corporations.

While policy makers and academics have been studying potential links between institutional ownership and market power, they have given insufficient focus to a potentially bigger problem: the declining ownership stake of ordinary people who are the true victims of market power. The literature on how to address market power has missed the potential upsides of broadening ownership as a policy tool to combat market power. Likewise, the corporate governance literature has failed to fully theorize the potential impact that corporate stakeholders can have on firm decisions and strategy if they had a greater ownership stake in corporations.

Since existing proposals to either break up large companies or to regulate them like utilities have considerable political and practical limits, it is worth considering how equal ownership may accomplish similar goals. Expanding ownership would reduce the harms by giving back some of the value extracted to consumers and workers. To the extent that managers internalize owners' interests, more equal ownership could also push firms to adopt behavior that mimic firm behavior in a perfectly competitive markets.

These insights indicate that the socio-economic distribution of ownership should be an

¹⁵⁹ See text *supra* note 113-136.

¹⁶⁰ If consumers have a fraction of the shares, only a fraction of every dollar in increased monopoly price paid by a low-income consumer will return to consumer-owners in ownership value.

integral part of the considerable intellectual energy devoted to figuring out how to improve markets. At a minimum, policies should be adopted to reverse the declining share of stakeholders in corporate ownership. Rather than focusing solely on antitrust and regulation, equal ownership has a potentially powerful contribution to make in mitigating the costs of market power, and perhaps even creating an alternative path to perfect competition in maximizing social welfare in the economy.

Appendix

A. The Distributional Effects of Equal ownership

Consider a simple Cournot oligopoly market in which there are two firms each producing the same product. The demand function is a function of the quantity of the product, and we assume that P(Q) = 100 - Q, where $Q = q_1 + q_2$, and q_1 and q_2 are the quantities produced by firms 1 and 2, respectively. The cost function C(q) = 40q. Each firm $i = \{1,2\}$ chooses the quantity produced to maximize the following function:

$$Max_{q_i} \pi_i = P(Q)q_i - C(q_i) = (100 - Q)q_i - 40q_i.$$

We refer to the results under the Cournot oligopoly using the subscript ω , and the results under perfect competition with the subscript pc. The first order condition yields: $q_1^{co} = (60 - q_2^{co})/2$ and likewise $q_2^{co} = (60 - q_1^{co})/2$. Solving this system of equations we obtain $q_1^{co} = q_2^{co} = 20$, and $p^{co} = 60$. The consumer surplus (CS) is the triangle below the demand function and above the price charged in equilibrium. Thus, $CS^{co} = \frac{(100 - p^{co})Q}{2} = \frac{(q_1^{co} + q_2^{co})^2}{2}$, which equals 800. The total welfare (TW) gains in the economy equal the profits of the firms and the consumer surplus. Thus, $TW^{co} = \pi_1^{co} + \pi_2^{co} + CS^{co}$ equals 1,600 (because $\pi_1^{co} = \pi_2^{co} = 400$).

Contrast this with a world in which there is perfect competition. In such a world, the price equals marginal costs, and the profits of firms equal zero. Thus, $p^{pc} = 40$, and $Q^{pc} = 60$. In this case, the firm does not make any profits, and $TW^{pc} = CS^{pc} = 1,800$. From a social welfare perspective, this is a better outcome. The deadweight loss of the Cournot oligopoly is the difference between total welfare with perfect competition (which is equal to the consumers surplus since firms' profits are zero) and the welfare under a Cournot model (the consumer surplus plus the firms' profits), which in this case equals 1,800 - 1,600 = 200.

Suppose now that in equilibrium where the firms are choosing quantity, the consumers receive a share, s = [0,1], of both firms' profits. Consumers' welfare may be higher if they get to share in firms' profits. The consumer welfare would be higher the higher their share of the profits. In this case, $s(\pi_1^{co} + \pi_2^{co})$, such that consumer welfare (CW) includes the consumer surplus plus their share of the profits of the two firms. Thus, $CW^{co} = CS^{co} + s(\pi_1^{co} + \pi_2^{co})$. For example, for s = 1/2, CW = 1,200. Thus, giving a share of the ownership to consumers naturally distributes some of the gains from shareholders to consumers.

We note that in this case even if s = 1, the largest share the consumer can get in the company, they will still be worse off than in a world of perfect competition because their total welfare will be equal to 1,600. As we show below, this changes if the firms internalize the interests of consumers in choosing the quantity they produce.

B. The Governance Effects of Equal ownership

We now make the assumption that the firm is maximizing the interests of its owners as a whole, taking into account that some of its owners are also consumers. Therefore, the firm may increase quantity even if it has the effect of reducing the firm's profit because it knows that some of its owners will benefit as consumers from the price reduction and greater availability of products. The objective function of the firm is:

$$Max_{q_i} \emptyset_i = (1 - s)\pi_i + s(\pi_i + CS),$$

subject to the constraint that $\pi_i \ge 0$. That is, the firm will not choose a quantity that renders it insolvent. Thus, $\emptyset_i = (1-s)[(100-Q)q_i - 40q_i] + s[(100-Q)q_i - 40q_i + Q^2/2] = (100-q_1-q_2)q_i - 40q_i + (s(q_1+q_2)^2)/2$. This yields the following first order condition: $q_1^{co} = \frac{(s-1)q_2^{co}+60}{2-s}$, and $q_2^{co} = \frac{(s-1)q_1^{co}+60}{2-s}$. Thus, the quantity is clearly increasing in s, and therefore the price is decreasing in s.

The simplest way to show the result is to examine the equilibrium quantity, price and welfare analysis for different levels of s. As shown in Figure 2, the optimal result, from a social welfare perspective, occurs when s=1/2 and firms' profits are equal to zero. In this case, the price is 40 and each firm produces 30 units of product. This is equivalent to a world with perfect competition, where price equals marginal costs. The total welfare equal 1,800, exactly the same as in a world with perfect competition.

If we increase s above 1/2, the output and prices stay the same as in the case where s=1/2 because the firm is subject to the constraint that it must make nonnegative profits. Because $p^{co}=30$, $Q^{co}=60$, and $\pi_i^{co}=0$ for $1 \ge s \ge \frac{1}{2}$, then the consumer surplus, consumer welfare, and total welfare stay the same as in the case where s=1/2. The following table summarizes these dynamics in tabular form for different values of s.

Table 1: The effect of consumer ownership on welfare

	s = 0	s = 1/4	s = 1/2	s = 1
$q_1^{co} = q_2^{co}$	20	24	30	30
p^{co} =100- $q_1^{co}-q_2^{co}$	60	52	40	40
$\pi_i^{co} = p^{co}q_1^{co} - 40*q_1^{co}$	400	288	0	0
$CS^{co} = ((100 - p^{co}) * (q_1^{co} + q_2^{co}))/2$	800	1,152	1,800	1,800
$CW^{co} = CS^{co} + s(\pi_1^{co} + \pi_2^{co})$	800	1,296	1,800	1,800
$TW^{co} = CS^{co} + \pi_1^{co} + \pi_2^{co}$	1,600	1,728	1,800	1,800

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