Private Profits and Public Business

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Shareholder primacy is normally justified on the ground that shareholders' financial interests give them an incentive to pursue projects that increase social welfare. This alignment of interests occurs because shareholders hold a residual claim on firm value: they receive only what remains after the firm has met its contractual and regulatory obligations and therefore have a unique incentive to pursue innovative projects, increase profits, and keep costs down. According to the conventional view, third parties protect their interests through external mechanisms such as regulations and contracts negotiated against the backdrop of competitive markets.

This Article identifies a class of situations in which some of these assumptions break down. In many industries, including electric utilities, defense contracting, financial services, and pharmaceuticals, the government sets firm profits, establishes demand for a good or service, or protects counterparties from the negative consequences of excessive risk-taking. Whether justified or not, these interventions can put firms in a position to hold up the government. For example, if an intervention ensures that only the regulated firm can provide an essential service, the government often cannot credibly threaten to resolve the firm or force the firm to accept lower earnings. As a result, the firm can demand additional revenues to cover unexpected costs or pass the costs of regulatory noncompliance onto customers. That, in turn, weakens shareholders' financial incentives to pursue socially beneficial projects. The implication is that outside stakeholders, particularly the government, should participate more directly in corporate governance in these industries. Potential interventions include heightened merger review, a say in personnel decisions such as hiring, firing,

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and executive compensation, expanded fiduciary duties, and perhaps wider board representation.

Introduction

The view that corporations should be run for the financial benefit of shareholders presupposes that shareholders' financial interests align with broader societal interests.[1] This approach to corporate governance is known as shareholder primacy, and it is based on two related assumptions. The first is that shareholders hold the residual claim on the firm's assets.[2] Residual claimants are entitled to whatever value is left after the firm has met its legal and contractual obligations to creditors, suppliers, and employees. If a firm develops a useful product, shareholder profits increase. If an investment does not work out, shareholders are the first to incur a loss. Shareholders therefore have a financial interest in pursuing projects that will efficiently meet people's demand for goods and services.

The second assumption is that market and regulatory mechanisms are capable of causing the firm's revenues and costs to reflect the interests of

1. *See, e.g.*, FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 37–39 **[AU1]** (1991) (describing "harmony of interest between profit maximization and other objectives," which can be enhanced by regulations, taxes, and subsidies that cause "venturers' wealth" to correlate with social wealth); JOHN ARMOUR, LUCA ENRIQUES ET AL., THE ANATOMY OF CORPORATE LAW: A COMPARATIVE AND FUNCTIONAL APPROACH 23 (3d ed. 2017) (interpreting the shareholder primacy approach to governance as a claim that "focusing principally on the maximization of shareholder returns is, in general, the best means by which corporate law can serve the broader goal of advancing overall social welfare"). The body text describes the argument that shareholder primacy is appropriate because shareholders are the "residual claimant" on the enterprise, and thus internalize the consequences when the enterprise creates or destroys value. Other arguments are addressed *infra*, in Parts I.A and III.B. Several arguments, such as the idea that shareholders are uniquely vulnerable to expropriation or uniquely unable to protect themselves through explicit contracts, are ultimately based in part on the residual claimant concept. *See* Oliver Williamson, *Corporate Governance*, 93 YALE L.J. 1197, 1210, 1228 (1984) **[AU2]**. Other arguments, such as the potential that managers will shirk if they answer to several different interests and the potential for intractable disagreements among competing interests, present genuine tradeoffs, though those tradeoffs are likely to vary across industries and contexts.

2. *See, e.g.*, EASTERBROOK & FISCHEL, *supra* note 1, at 67–68; Williamson, *supra* note 1, at 1210 **[AU3]**; *In re* Trados Inc. S'holder Litig., 73 A.3d 17, 40–41 (Del. Ch. 2013) ("[T]he standard of conduct for directors requires that they strive in good faith and on an informed basis to maximize the value of the corporation for the benefit of its residual claimants, the ultimate beneficiaries of the firm's value. . . . In light of this obligation, it is the duty of directors to pursue the best interests of the corporation and its common stockholders.").

non-shareholders.[3] Non-shareholders have numerous ways to express their preferences. Consumers select products that appeal to them. Employees pick jobs based on pay, flexibility, or location. The government can tax or ban harmful activities. These market, contractual, and regulatory interventions create financial incentives for shareholders and managers to account for non-shareholder interests such as protecting the environment and worker welfare.

This Article explores a class of situations in which one or both these assumptions break down. In many critical industries, including electricity, defense contracting, financial services, and the development of pharmaceuticals, the government stipulates the demand for a good or service (electricity, defense, and pharmaceuticals), limits shareholder and managerial discretion to pursue profitable activities (electricity and financial services), or guarantees some of the firm's contractual obligations (financial services, perhaps electricity). In these markets, the government discerns (or attempts to discern) the socially optimal outcome and creates incentives for investors to manufacture or develop a product. These mechanisms can include setting firm profits, guaranteeing returns, reimbursing costs, limiting competition, purchasing a dominant portion of the firm's output at stated prices, or bailing out a firm whose liquidation would impose excessive social costs.[4]

When this kind of intervention is pervasive, shareholder-focused firms often have the ability and incentive to hold up the government. First, the underlying policy rationale driving the government's intervention may create opportunities for exploitation by profit seeking managers. If a bank failure would cause enormous economic and social harm, the bank's managers can engage in risky behavior knowing that it will be bailed out. Second, the intervention itself may facilitate opportunism. If the government must purchase a good from a contractor, and only one firm can sell due to limits on competition, the government is vulnerable if the firm demands price or quality concessions. Third, the scope of the government's intervention might oblige it to assume responsibility for protecting the financial health of firms in the space. The government must ensure that firms do not exit necessary businesses for lack of profits.

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3. *See, e.g.*, EASTERBROOK & FISCHEL, *supra* note 1, at 37; Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Stakeholder Governance*, 106 CORNELL L. REV. 91, 174–75 (2020).

4. *See* MORGAN RICKS, GANESH SITARAMAN SHELLEY WELTON & LEV MENAND, NETWORKS, PLATFORMS & UTILITIES: LAW & POLICY 24–31 (2022); ALFRED E. KAHN, THE ECONOMICS OF REGULATION 3 (1989).

In these situations, the government has only limited ability to protect its interests or those of non-shareholder constituents through contract and regulation. The government's first challenge is that ex ante interventions are difficult to implement and administer and are vulnerable to exploitation ex post. **[AU4]** It is challenging, if not impossible, for the government to anticipate every contingency in advance, particularly in areas where innovation is valuable. The clearest example of this is public utility regulation, where regulators protect firms from competition, cap returns, and authorize a return on investments.[5] These types of interventions transform shareholders from residual claimants into fixed claimants.[6] The government can try to encourage innovation by setting a correct price ex ante and calibrating utilities' financial incentives to reward welfare-enhancing investments. But even a knowledgeable and well-resourced regulator cannot predict every future contingency. Moreover, the benefits of potential innovations revert to customers in the form of lower prices or improved services. Once the government establishes an incentive structure, shareholders do not receive additional profits for welfare-enhancing investments that were not incorporated into the rate schedule. Shareholder-focused managers are therefore unlikely to pursue innovations whose benefits become apparent after the regulator has reviewed the firm's costs and authorized its revenues.

The second challenge is that the government's threats and promises often lose credibility ex post, after a project is underway or a threat has materialized. Although the governance implications of this phenomenon are well-studied in the relational contracting literature, these insights have been applied primarily to private markets and not to situations in which the government is an intermediary or counterparty. When parties enter into an arrangement that will create a bilateral monopoly, they become vulnerable to exploitation. **[AU5]** To use one famous example, once General Motors designed its cars around parts from suppliers like Fisher Body or Delphi, it had made relationship-specific investments that made it more difficult for General Motors to switch suppliers. As a result, those suppliers were in a position to demand new concessions from General Motors.[7]

5. *See* KAHN, *supra* note 4, at 25–32, 54–57.

6. Aneil Kovvali & Joshua C. Macey, *The Corporate Governance of Public Utilities*, 40 YALE J. ON REG. 569, 571 (2023).

7. *E.g.*, OLIVER HART, FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE 29–33 (1995) (developing this point using the example of General Motors and Fisher Body); OLIVER E. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS 34–35

This is a familiar observation in private markets: challenges with long-term contracting often facilitate holdup **[AU6]** and therefore require governance solutions.[8] General Motors acquired Fisher Body, bought factories from Delphi, and then managed those assets directly for its own benefit. Without this governance solution, the suppliers' managers would have been able to exploit information asymmetries and dependency to take advantage of General Motors.

Yet these observations have not been extended to government-dominated markets in the corporate governance literature or in public policy.[9]

(1975); OLIVER E. WILLIAMSON, THE MECHANICS OF CORPORATE GOVERNANCE 3–6 (1996). In private industry, the theory does seem to match practice. *See, e.g.*, STEVEN RATTNER, OVERHAUL 263 (2010) (describing how General Motors acquired factories from Delphi to get "access to the critical parts that had allowed Delphi essentially to extort billions of dollars of financing from GM over the years").

8. *E.g.*, WILLIAMSON, MARKETS AND HIERARCHIES, *supra* note 7, at 35–37; HART, *supra* note 7, at 29–33.

9. A few works have glimpsed aspects of the story. In the economics literature, scholars have made similar claims when discussing the relative merits of public and private ownership. *See* Oliver Hart, Andrei Shleifer & Robert W. Vishny, *The Proper Scope of Government: Theory and an Application to Prisons*, 112 Q.J. ECON. 1127, X (1997) **[AU7]**; David E. M. Sappington & Joseph E. Stiglitz, *Privatization, Information, and Incentives*, 6 J. POL'Y ANALYSIS & MGMT. 567, 568, 574–75 (1987). In the legal literature, some scholars have noted that shareholders may have imperfect incentives in particular contexts, particularly in the financial sector. Aneil Kovvali & Joshua C. Macey, *The Corporate Governance of Public Utilities*, 40 YALE J. ON REG. 569, 588 (2023) (arguing that arguments for shareholder primacy are less convincing in the context of rate-regulated utilities); Yaniv Heled, Liza Vertinsky & Cass Brewer, *Why Healthcare Companies Should Be(come) Benefit Corporations*, B.C. L. REV. 73, 74 (2019); Mark J. Roe, *Structural Corporate Degradation Due to Too-Big-To-Fail Finance*, 162 U. PA. L. REV. 1419, 1422 (2014); Da Lin & Lev Menand, *The Banker Removal Power*, 108 VA. L. REV. 1, 4 (2022) (noting that federal regulators have the statutory power to remove bank officials, and conceptualizing the power as appropriate given the corporate governance challenges at banks); Lev Menand & Morgan Ricks, *Federal Corporate Law and the Business of Banking*, 88 U. CHI. L. REV. 1361, X (2021) (describing and justifying the unique body of corporate law that applies to federally chartered banks); Saule T. Omarova, *Bank Governance and Systemic Stability: The "Golden Share" Approach*, 68 ALA. L. REV. 1028, 1034 (2017) (suggesting that the government should be empowered to assert governance rights at systemically important financial institutions that reach certain triggers); Andrew Verstein, *The Corporate Governance of National Security*, 95 WASH. U. L. REV. 775, X (2018) (describing and critiquing corporate governance interventions at foreign owned, controlled, or influenced defense contractors); Yair Listokin & Inho Andrew Mun, *Rethinking Corporate Law During a Financial Crisis*, 8 HARV. BUS. L. REV. 349, 344 (2018) (suggesting that corporate law rules regarding takeovers should be altered in the context of government-supported bank takeovers designed to forestall a financial crisis); John Armour & Jeffrey N. Gordon, *Systemic Harms and Shareholder Value*, 6 J. OF LEGAL ANAL. 35, X (2014) (suggesting that officers and directors of systemically important financial institutions should be subject to specialized liability rules); Jonathan R. Macey & Maureen O'Hara, *The Corporate Governance of Banks*, FED. RESERVE BANK OF N.Y. ECON. POL'Y REV. 91, 92 (Apr. 2003) (arguing that bank officers and directors should be held to "a heightened duty to ensure the safety and soundness of these enterprises"); ROBERT

Once the government embarks on a technologically innovative defense project, it may be difficult to switch to another contractor. As a result, the contractor may be able to demand additional revenue to cover cost overruns. This is a recurring theme of electricity regulation and defense contracting, where regulators often authorize revenue increases when a project turns out to be more expensive than anticipated.[10] The conventional scholarly response to these challenges is that the government should enter into more complete contracts and enact more effective external regulations.[11] But when it is impossible to anticipate difficulties that arise after initiating the contract, the government may not be able to rely on contract or regulation to protect its interests. This problem is especially salient when an entity becomes the government's only plausible supplier, since it may not be possible to force the firm to liquidate or switch to a new contractor.[12] In these situations, the government may be inclined to allow the firm to increase revenues to ensure that a naval destroyer is built, avoid electric service disruptions, or stave off a financial crisis.[13] The firm consequently becomes a monopolist in its

CHARLES CLARK, CORPORATE LAW 695–96 (1986) ("[P]rofit-maximizing private corporations that contract to provide public services will be tempted to cut corners and to neglect noneconomic values and policies. . . . These tendencies could be controlled by explicit rules, but . . . the rule making . . . would be extremely cumbersome and costly to enforce."). Professor Mark J. Roe has also shown that the shareholder primacy norm has less justification in markets characterized by monopoly or oligarchy. Mark J. Roe, *Corporate Purpose and Corporate Competition*, 99 WASH. U. L. REV. 223, 225 (2021); Mark J. Roe, *The Shareholder Wealth Maximization Norm and Industrial Organization*, 149 U. PA. L. REV. 2063, 2066 (2001). A separate public law and economics literature has examined related problems, largely in the context of government outsourcing and privatization. *See, e.g.*, Shelley Welton, *Public Energy*, 92 N.Y.U. L. REV. 267, 282–85 (2017); Steven J. Kelman, *Achieving Contracting Goals and Recognizing Public Law Concerns: A Contracting Management Perspective*, *in* GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY 153, 156 (Jody Freeman & Martha Minow eds., 2009).

10. *See, e.g.*, Joaquin Sapien, *The Inside Story of How the Navy Spent Billions on the 'Little Crappy Ship,'* PROPUBLICA (Sept. 7, 2023), https://www.propublica.org/article/how-navy-spent-billions-littoral-combat-ship.

11. *See, e.g.*, Welton, *supra* note 9, at 274 (stating that "energy law scholars have" previously "confined themselves to questions of how to improve the public-private partnership, rather than rethinking it") **[AU8]**; Lev Menand, *Why Supervise Banks? The Foundations of the American Monetary Settlement*, 74 VAND. L. REV. 951, 960, 1003 (2021) (describing Congress's persistent refusal to nationalize banking, despite repeated financial crises).

12. *See* Oliver E. Williamson, *The Theory of the Firm as Governance Structure: From Choice to Contract*, 16 J. ECON. PERSPECTIVES 171, 176, 187 (2002). As discussed below, many of the industries analyzed here are characterized by cost overruns that the government appears unable to control.

13. Arguably the opposite is true as well, and the government is also in a position to hold up the contractor. *See* WERNER TROESKEN, WHY REGULATE UTILITIES? 9 (1996).

dealings with the government and is therefore in a position to demand additional revenues to cover unplanned costs.

Because external mechanisms such as contract and regulation fail to protect social interests in these spaces, it may be appropriate for regulators and other stakeholders to protect their interests by participating directly in corporate governance decisions. The resulting system would take a context-specific approach: corporate governance*s* that vary to fit the nature of the intervention rather than a one-size-fits-all corporate governance arrangement.[14]

These insights open up a new space for policy interventions. The academic literature typically assumes a sharp distinction between private firms and public ownership and suggests that, where contract and regulation cannot induce profit-seeking firms to discharge a public function, the only alternative is to assign the function to an arm of the government. This Article's analysis reveals that there need not be a simple binary between public control and private ownership, and that there are a variety of intermediate solutions based on reforming corporate law to increase governmental influence ex post without taking complete control of private firms.

Policymakers could use numerous reforms to push firms in this direction. A system of interlocking governance tools currently encourages

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14. There are other arguments for varying corporate governance arrangements depending on context. *See, e.g.*, HENRY HANSMANN, THE OWNERSHIP OF ENTERPRISE X (1996) (describing how different patterns of ownership and control may be optimal in different contexts); Mariana Pargendler, *Corporate Law in the Global South: Heterodox Stakeholderism*, ECGI Working Paper No. 718/2023, at X (Oct. 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4495515 (describing variation in corporate law across the global south and suggesting that it may reflect an efficient adaptation to varying economic, legal, and institutional environments); Aneil Kovvali, *Countercyclical Corporate Governance*, 101 N.C. L. REV. 141, 143 (2022) (optimal arrangements may depend on macroeconomic context); Zohar Goshen & Doron Levit, *Agents of Inequality: Common Ownership and the Decline of the American Worker*, 72 DUKE L.J. 1, X (2022) (a diverse ecosystem of firms with different arrangements may produce the best macroeconomic results); Dorothy S. Lund, *In Search of Good Corporate Governance*, 131 YALE L.J. F. 854, 856 (2022) (suggesting that there may be good reasons for differences in governance arrangements across firms); Elizabeth Pollman, *Startup Governance*, 168 U. PA. L. REV. 155, 218 (2019) (suggesting that startups present distinctive governance challenges, in part because "common shareholders do not represent the firm value or an undifferentiated residual as imagined"); Yakov Amihud, Markus Schmid & Steven Davidoff Solomon, *Settling the Staggered Board Debate*, 166 U. PA. L. REV. 1475, 1480 (2018) ("In some firms the staggered board may be value-enhancing, in others value-destroying"); Curtis J. Milhaupt & Mariana Pargendler, *Governance Challenges of Listed State-Owned Enterprises Around the World: National Experiences and a Framework for Reform*, 50 CORNELL INT'L L.J. 473, 532 (2017) ("[T]here appears to be no single formula for achieving a high quality regulatory structure for [state owned enterprise] governance . . . .").

managers to focus exclusively on shareholder interests.[15] Firms that fail to deliver returns to shareholders are vulnerable to being acquired in the market for corporate control; shareholders appoint directors who hire and fire managers and make decisions about executive compensation; shareholders also enjoy representation on the corporation's board of directors; and corporate directors and officers owe judicially enforceable duties to advance shareholder interests. When the government creates demand for a good and directs the allocation of capital, these mechanisms may encourage firms to undertake opportunistic or destructive behavior. As a result, when the government intervenes in the market in this way, it should also consider governance reforms that would allow the government to weigh in on corporate decisionmaking ex post to force corporate managers to consider the interests of the government and of other stakeholders.

For example, when shareholder interests align with society's, the market for corporate control disciplines managers toward efficient conduct by removing managers who fail to deliver shareholder returns. But mergers in spaces like defense contracting may generate shareholder value while destroying social value; a smaller number of firms will be in a stronger position to negotiate with the government because competition will be limited, supervision of larger and more complex companies will be more difficult, and the government will lack the informational benefits that come from receiving multiple bids. This suggests that policymakers should take a more robust approach to competition issues in government dominated markets. They should account not only for the effect a merger has on consumer welfare, but also look at more idiosyncratic ways that the merger can harm social welfare. Similar logic suggests extending fiduciary duties to protect non-shareholders, expanding board representation, and giving non-shareholders some authority to determine executive compensation and weigh in on whether to hire or fire high-level managers.[16]

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15. *See* Dorothy S. Lund & Elizabeth Pollman, *The Corporate Governance Machine*, 121 COLUM. L. REV. 2563, 2568–69 (2021) (describing "a complex governance system in the United States composed of law, institutions, and culture that orients corporate decisionmaking toward shareholders").

16. Others have offered similar proposals in some of the industries we study, albeit for different reasons. *See, e.g.*, Lucian A. Bebchuk & Holger Spamann, *Regulating Bankers' Pay*, 98 GEO. L.J. 247, 247 (2010) (arguing that executive compensation for banking executives created incentives for excessive risk-taking); Armour & Gordon, *supra* note 9 at 40 (arguing for stricter liability rules for directors and officers of financial institutions); Jonathan Macey & Maureen O'Hara, *Bank Corporate Governance: A Proposal for the Post-Crisis World*, 22 ECON. POL'Y REV. 85, 86 (2016) (same).

Of course, the fact that a central justification for shareholder primacy does not apply to these industries hardly means that every aspect of corporate law and governance should be revised to focus on stakeholders. Such reforms would entail real-world tradeoffs that should be weighed when making changes. For example, the threat that a government agency will fire a company executive or reduce executive compensation may make it more difficult for firms to attract and retain talent. Similarly, increasing firm's vulnerabilities to ex post and ad hoc interventions could, perversely, heighten firms' incentives to try to capture regulators. The government may also lack the expertise or capacity for intensive engagement at these firms, and reforms could lead to intractable disputes or exacerbate the principal-agent problem and entrench managerialism. The strength of some of these concerns may be diminished in the context of these industries, but they are real and may weigh against changes.

Because of the difficulties in navigating the trade-offs that arise when trying to extend our insights into the real world, this Article presents a menu of governance reforms, recognizing that all these proposals involve unavoidable tradeoffs that may vary in different contexts. The point is not that any reform provides a panacea, but rather that the real world departs from the assumptions that underlie shareholder primacy, which in turn provides support for taking a context-specific approach to corporate governance. The optimal corporate governance regime for any given industry will depend on empirical facts about that industry and about government capacity. The analysis also has important descriptive implications. A surprising feature of government-dominated markets is that regulators often have legal authority to intervene in ways that are ordinarily thought to implicate core corporate governance issues. For example, the Department of Defense, the Federal Reserve, and the Federal Energy Regulatory Commission have authority to review mergers, weigh in on executive compensation, and, in certain circumstances, fire executives or ban them from the industry.[17] Regulators have shied away from using these authorities.[18] The analysis reveals that these legal authorities are economically justified, suggests that regulators should use them more frequently, and provides a theory as to when and how regulators should provide additional scrutiny of mergers and weigh in on corporate personnel decisions.

17. Lin & Menand, *supra* note 9.

18. *Id.* at 34–38.

We recognize that, although we describe what seems like a closed set of firms, the reality is that many firms may sometimes be able to hold up the government, and that even government-dominated industries may occasionally face competitive pressures. In our view, that only reinforces our point that optimal governance is context-specific, and that our observations have implications for a large segment of the economy.

The Article proceeds as follows. Part I describes features of conventional markets and their implications for optimal corporate governance arrangements. Part II provides case studies identifying salient features of the utilities industry, the defense industry, the financial services industry, and the pharmaceutical industry. Part III turns to the corporate governance implications of the unique features of government dominated markets, showing that government interventions in these industries substantially undermine the rationale for shareholder primacy and that shareholder primacy can cause problems in these contexts. Part IV identifies a range of policy interventions that can help address the problems.

I. The Standard Framework

This Part explains the standard approach to corporate governance and government intervention. Subpart A outlines the key arguments for shareholder primacy, which assume that firms operate in an environment that creates good incentives for shareholders to prefer socially optimal conduct. Subpart B describes government interventions that either address or break these assumptions.

A. The Case for Shareholder Primacy

Corporations affect and are affected by numerous stakeholders.[19] They raise money by borrowing from creditors and selling equity stakes to shareholders, invest in facilities and purchase materials from suppliers, hire workers, and sell products and services to customers. They then use the proceeds to pay taxes, pay suppliers and workers, pay debts to creditors, and deliver any remaining "residual" proceeds to shareholders. Most of these relationships are mediated by contracts with a finite duration. For example, a supplier may deliver set goods at a set time for a set price. But the terms of those contracts inevitably run out at some point; the managers of the

19. *See, e.g.*, Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 J. CORP. L. 637, 643–44 (2006).

corporation will have some residual authority to make decisions that are not dictated by contract.

Shareholder primacy suggests that corporate law and governance should ensure that this residual authority is exercised by shareholders. Shareholder primacy theorists offer a few justifications for their position. *First*, because shareholders are last in line to be paid, they are thought to internalize the marginal benefits and costs of corporate decisions.[20] When a firm is not financially distressed, suppliers, workers, and creditors are paid what they are contractually owed. If the corporation's value goes up or down by one dollar, financially stable firms will still be able to meet their contractual obligations. As a result, creditors and suppliers are indifferent to marginal fluctuations in value. Shareholders thus have a unique incentive to maximize the value of the enterprise.[21] Corporate law typically assumes that the parties to the "corporate contract" want to maximize the total value of the enterprise. Once the total value of the enterprise is maximized, suppliers and workers can claim their share by making appropriate price and wage demands. Because shareholders are uniquely incentivized to maximize the value of the enterprise, corporate law assumes that all stakeholders would agree to focus on shareholder returns.[22]

Although this argument is generally framed in terms of the value of the enterprise, it ties in neatly with a claim about social wealth. If markets are competitive, market participants are rational, and regulations are effective, prices and fines will align shareholders' incentives with the social goal of generating the maximum amount of wealth for society as a whole.[23] Supply

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20. *Id.* at 658; EASTERBROOK & FISCHEL, *supra* note 1, at 36–39.

21. This claim has received serious criticism. *See, e.g.*, Lynn A. Stout, *Bad and Not-So-Bad Arguments for Shareholder Primacy*, 75 S. CAL. L. REV. 1189, 1193–95 (2002); GRANT M. HAYDEN & MATTHEW T. BODIE, RESTRUCTURING THE CORPORATION 96–102 (2020).

22. *See* Eugene F. Fama, *Market Forces Already Address ESG Issues and the Issues Raised by Stakeholder Capitalism*, HLS F. on Corporate Governance (Oct. 9, 2020), https://corpgov.law.harvard.edu/2020/10/09/market-forces-already-address-esg-issues-and-the-issues-raised-by-stakeholder-capitalism/ ("For most firms, the winning contrat structure involves fixed promised payoffs for most stakeholders, with residual risk largely borne by shareholders, who as a result have most of the decision rights."); Williamson, *supra* note 1 at 1228.

23. *See* ANDREU MAS-COLELL, MICHAEL D. WHINSTON & JERRY R. GREEN, MICROECONOMIC THEORY 549–58 (1995) (describing the fundamental theorems of welfare economics).

and labor markets will set prices and wages so that the marginal costs faced by the corporation create the right incentive to use supplies and worker time efficiently.[24] Product markets will set prices so that the marginal benefits faced by the corporation create the right incentive to supply the efficient amount of quality goods.[25] Because shareholders are directly affected by these price signals, maximizing shareholder wealth will maximize societal wealth.

Second, shareholders are thought to face the greatest difficulties in protecting their interests through contract and market mechanisms.[26] Because they are relatively insulated from fluctuations in the enterprise's value, other groups can protect themselves relatively easily. If the relevant markets are competitive, workers do not need to concern themselves with the management of an enterprise because they can always quit and join another firm.[27] Similarly, customers who are unhappy with a company's prices or performance can generally switch to one of the company's competitors. Competition thus protects non-shareholders who have an interest in the firm.

Admittedly, not all stakeholders can exit. Like shareholders, creditors are generally somewhat locked in and unable to withdraw their capital. But creditors are only owed a contractually determined amount and do not share in the upside if the firm does exceptionally well. As a result, creditors generally do not need managers to take the best course of action, only a good enough course of action that preserves enough value to meet debt obligations. Creditors can accomplish this by taking a security interest in the firm's assets

24. *But see* Kovvali, *supra* note 14, at X (noting that these conditions may break down in contexts like recessions).

25. *But see* Roe, *supra* note 9, at 347 (noting that these conditions break down in markets lacking competition).

26. *See, e.g.*, Williamson, *supra* note 3, at X; Jonathan R. Macey, *An Economic Analysis of the Various Rationales for Making Shareholders the Exclusive Beneficiaries of Corporate Fiduciary Duties*, 21 STETSON L. REV. 23, 25 (1991). *But see* Fisch, *supra* note 19, at 659 ("[T]he assumption that stakeholders are protected by contract . . . proves problematic to the extent that stakeholder contracts are deficient.").

27. *See* Fisch, *supra* note 19, at 666–67 ("[M]ost stakeholders can exit, either continuously or periodically, at relatively low cost. The value of the stakeholder's investment is only affected to a limited extent by its withdrawal from the corporation."). But some stakeholders do make firm-specific investments. *See* Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 253 (1999) (arguing that delegation of management to the board of directors is intended to protect "firm-specific investment" by groups including "managers, rank and file employees, and possibly other groups, such as creditors").

or by insisting on restrictive loan covenants.[28] The availability of plausible contractual mechanisms for protecting creditor interests reduces the need to arm creditors with governance rights. And if creditors cannot protect their interests ex ante in a particular case, they can negotiate for ex post leverage or governance rights.[29]

Shareholders thus have the strongest interest in maximizing the value of the enterprise. But it is inherently difficult to specify the optimal course of action in advance. Because shareholders cannot possibly anticipate every situation, determine the appropriate course of action, and specify it in a contract, they must instead rely on ex post mechanisms of corporate law and governance.[30] Corporate law thus subjects corporate leaders to a fiduciary duty to maximize the value of the firm for its shareholder owners, makes them electorally accountable to shareholders on a regular basis, and threatens them with the possibility of replacement through a takeover if they fail to keep the company's share price high.[31] These ex post governance tools allow

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28 Williamson, *supra* note 1 at 1211; Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. Penn. L. Rev. 1209, 1248 (2006) ("Lenders . . . are quite capable of taking care of themselves. Rather than adding ill-defined fiduciary duties to the contracts that they write, a better course may be to ensure that such duties do not impede the exercise of contractual rights for which creditors have bargained.")..

29. *See* Del. Code Ann. tit. 8, § 221. This is particularly sensible at firms that face a real threat of insolvency, so that creditors internalize some of the consequences of shifts in the corporation's value. This can happen at distressed firms and at venture capital-backed firms with a high risk of failure. Formal corporate law does not always accommodate these bespoke governance arrangements, though judicial regulation may have limited impact at private firms. *See* Pollman, *supra* note 14, at 217–18 (describing and criticizing doctrines limiting certain bespoke governance arrangements); Anthony J. Casey & M. Todd Henderson, *The Boundaries of "Team" Production of Corporate Governance*, 38 SEATTLE U. L. REV. 365, 385–86 (2015) (describing and criticizing judicial resistance to certain bespoke arrangements); Brian J. Broughman & Matthew T. Wansley, *Risk-Seeking Governance*, 76 VAND. L. REV. 1300, 1370 (2023) (presenting a nuanced account of judicial skepticism and noting that many arrangements will never come to light or be litigated). Courts also will not supplement the rights that creditors have explicitly bargained for, based on a presumption that creditors can insist on adequate protections ex ante. *See* N. Am. Catholic Educ. Programming Found., Inc. v. Gheewalla, 930 A.2d 92, 100–01 (Del. 2007); Jared A. Ellias & Robert J. Stark, *Bankruptcy Hardball*, 108 CALIF. L. REV. 745, 749–50 (2020).

30. EASTERBROOK & FISCHEL, *supra* note 1, at 91–93.

31 *See* Aneil Kovvali & Jonathan R. Macey, *Toward a "Tender Offer" Market for Labor Representation*, 63 B.C. L. Rev. 2111, 2137 (2022) (describing "triad of mechanisms for disciplining officers and directors"); Leo E. Strine, Jr., *The Dangers of Denial: The Need for a Clear-Eyed*

shareholders to solve problems that they would struggle to handle ex ante through contract.

Third, giving shareholders control rights reduces the potential for destructive conflicts within firms. If managers had discretion to balance the interests of competing groups, it would reduce accountability to any given group and make it easier for managers to self-deal.[32] And if competing stakeholder groups all had a role in governing the firm, the firm would struggle to aggregate the preferences of a group of individuals in a rational way.[33] The firm could struggle to set a stable and rational policy if diverse individuals with competing preferences were permitted to participate in governance.

Admittedly, shareholders may have divergent preferences.[34] But complete markets should allow shareholders to neutralize many of those differences. For example, shareholders with an idiosyncratic need for cash now can raise cash by borrowing against their shares. Product, supply, labor, and capital markets do the work of balancing competing preferences, along with the supply and demand for capital, and translating them into prices. This eliminates the potential dispute between shareholders; all should agree on maximizing the firm's value given existing prices.[35] At least as to matters covered by financial market products, shareholders should agree.

B. *Government Interventions*

Of course, the market does not always produce optimal outcomes. These market failures create a standard set of rationales for government interventions. But despite the variety of situations in which the government intervenes to direct the allocation of capital, the playbook for government interventions remains limited.

1. Rationales.—Standard justifications for government interventions pick at the assumptions that underlie shareholder primacy. *First*, the

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Understanding of the Power and Accountability Structure Established by the Delaware General Corporation Law, 50 Wake Forest L. Rev. 761, 765-67 (2015).

32. *See id*. at 38.

33. HANSMANN, *supra* note 14, at 62; EASTERBROOK & FISCHEL, *supra* note 1, at 69–70.

34. *See* Iman Anabtawi, *Some Skepticism About Increasing Shareholder Power*, 53 UCLA L. REV. 561, 577–92 (2019).

35. *See* MAS-COLELL ET AL., *supra* note 23, at 152–54 **[AU11]**; Oliver Hart, *On Shareholder Unanimity in Large Stock Market Economies*, 47 ECONOMETRICA 1057, 1059 (1979).

government might intervene to force firms to bear the social costs of risky or harmful activities. Groups affected by corporate action are sometimes unable to protect themselves by striking voluntary deals on the market.[36] For example, it may not be feasible, or it may offend notions of fairness or justice, for individuals who are adversely affected by pollution to coordinate to pay potential polluters to abstain. Even if such a market could be constructed and individuals and firms could be induced to participate, it surely would not be an efficient solution to the problem. Instead, the government sets a price on pollution through regulations.

Second, the government might intervene to coordinate demand. It is sometimes difficult for people to coordinate through markets even when there is demand for a particular good or service.[37] An effective national defense is a public good. It would be difficult to induce everyone who benefits from an effective military to pay. And even if everyone could be induced to make a fair payment to support the national defense, uncoordinated market transactions by those consumers would surely be an inefficient way to make decisions on matters like whether to buy a missile or submarine. Instead, the government collects taxes and funds various defense projects.

Third, the government might intervene to support risky, capital-intensive investments. A for-profit firm may not be willing to make a large up-front investment when research costs are high or there is uncertainty about the viability of the product.[38] It can take decades to construct state-of-the art nuclear reactors, develop innovative weapons systems, or identify new drugs. While investors may have an appetite for some of these projects, they may not invest if they are risk averse, their investment horizons are short, or there is a risk that the market for the product may collapse in twenty or thirty years.

Investors may also worry that the value of anything the firm builds or invents will be eroded by competitor copying or government expropriation. To create an ex ante incentive to pursue these projects, the government might guarantee that the company that makes the investment is entitled to a certain return—either by paying the company directly or by granting it a monopoly.

Another set of financing problems relates to size. Government support for large infrastructure projects is often based on the view that private markets would not generate sufficient financial support for bridges or

36. *See, e.g.*, Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, And Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1119 (1972).

37 Mas-Colell, et al., supra note __ at 362,

38 **[FA]**

highways or railroads.[39] More recently, the Department of Energy and some state public utility commissions have offered large subsidies to projects such as nuclear reactors, battery storage facilities, and hydrogen research.[40] Some of these projects are currently uneconomic, but they are thought to offer potentially enormous environmental and economic benefits in the future.[41] When projects are too large or too risky for financial markets to handle effectively, they may be beyond the resources of individual parties with capital.

Finally, the government might intervene to address distributional concerns. Even under ideal conditions, markets will not always deliver optimal distributional outcomes. The standard law and economics prescription is to rely on tax and transfer schemes that reallocate income with minimal distortions.[42] But because of concern that recipients will not use cash effectively or simple political realities,[43] the government often insists on the purchase of specific goods. For example, the government sometimes provides food stamps, Medicaid, or Medicare, instead of providing funds with which impoverished individuals could choose to purchase food or medical coverage. Other interventions such as price controls are similarly intended to achieve better distributional outcomes within a market for specific goods.

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39 **[FA]**

40 *See* Brad Plumer & Ivan Penn, *U.S. Bets on Small Nuclear Reactors to Help Fix a Huge Climate Problem*, N.Y. Times (Nov. 12, 2023), https://www.nytimes.com/interactive/2023/11/12/climate/nuclear-reactors-clean-energy.html; Dep't of Energy, *Biden-Harris Administration Announces $7 Billion For America's First Clean Hydrogen Hubs, Driving Clean Manufacturing and Delivering New Economic Opportunities Nationwide* (Oct. 13, 2023), https://www.energy.gov/articles/biden-harris-administration-announces-7-billion-americas-first-clean-hydrogen-hubs-driving; Brad Plumer, *Energy Department Targets Vastly Cheaper Batteries to Clean Up the Grid*, N.Y. Times (July 14, 2021), https://www.nytimes.com/2021/07/14/climate/renewable-energy-batteries.html.

41 **[FA] [AU14]**

42. Louis Kaplow & Steven Shavell, *Why the Legal System Is Less Efficient than the Income Tax in Redistributing Income*, 23 J. LEG. STUD. 667, 669 (1994).

43. *See, e.g.*, Lee Anne Fennell & Richard H, McAdams, *The Distributive Deficit in Law and Economics*, 100 MINN. L. REV. 1051, 1053 (2016).

2. Existing Approaches.—The government interventions described in the previous section **[AU15]** are motivated by the perception that markets are failing to generate appropriate price signals. To correct these problems, the government can take an external approach that seeks to replicate or correct price signals through regulation or contract, or it can take an internal approach that seeks to revise governance at the relevant firms to reduce their shareholder orientation. Though there are some exceptions, American policymakers have largely selected the external approach of proceeding through regulation or contract.[44]

Regulatory interventions change the price of engaging in certain conduct. The government might directly set a price by charging for access to some necessary resource or facility, tax conduct, or ban a practice and impose a fine equivalent to a price.[45] The government can also seek to replicate the outcomes that would obtain if appropriate prices were charged in the market. For example, if the government believes that a company would not persist in conduct if it were forced to internalize the full social cost of the conduct, the government could impose a ruinous fine for engaging in it.[46]

Contractual interventions are another external mechanism through which the government influences that allocation of capital and goods. These transactions either set a price, as when the government is the only buyer or seller, or merely influence the price, as when the government is an important buyer or seller.[47] The government becomes a monopsonist in important areas of the economy, such as manufacturing of major weapons systems. In other areas such as pharmaceuticals or baby food, it is merely an important economic actor, as other smaller buyers do exist.

Governance interventions reorient firms to focus on goals other than shareholder profit maximization. The purpose of these interventions is to change the way that firms *react* to existing price signals and opportunities, as opposed to changing the signals and opportunities themselves. Although

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44. This is not true globally. For example, many electric utilities outside the United States are fully or partially state owned. *See Distribution of the Top 100 Utility Companies in Italy in 2017, by Ownership Type,* https://www.statista.com/statistics/957739/utility-companies-by-ownership-type-in-italy/. Even in the United States, some electric utilities are cooperatives, municipalities, or publicly owned. *See* Energy Information Inst., *Investor-Owned Utilities Served 72% of U.S. Electricity Customers in 2017*, https://www.eia.gov/todayinenergy/detail.php?id=40913.

45. Examples of such policies in the environmental domain include selling oil leases, environmental permitting, fines for environmental violations, cap and trade schemes, and emissions taxes. **[FA] [AU16]**.

46 **[FA]**

47 **[FA]**

such interventions are relatively rare, governance-style arguments have had some traction. Most state governments have attempted to shift the shareholder focus of corporations in an apparent effort to protect the jobs of in-state workers.[48] The government has established organizations with a nonprofit or mixed orientation to manage parts of the economy,[49] and has simply acted directly through its own massive workforce where a public orientation was deemed essential.

Policymakers have also occasionally experimented with governance reforms in the industries discussed here. In the context of government-dominated industries, some regulators have special authority to conduct merger review.[50] Most, though not all, of these agencies have chosen to defer to shareholder preferences about whether a merger should be approved. Still, the government's decision to allow agencies to veto proposed mergers suggests that, at certain points, policymakers have had reason to think shareholders do not have the correct incentives to determine whether a proposed merger is in the public interest. Similarly, state and federal agencies often have authority to review executive compensation.[51] In these cases, policymakers appear to have anticipated that government-dominated industries raise unusual challenges that create reasons for policymakers to involve themselves in internal governance matters.

But for the most part, American policymakers have been reluctant to shift corporate governance. Many policymakers and elected officials appear to believe that it would be improper, immoral, or imprudent to meddle with the profit motive of corporations.[52] It may be that they trust market outcomes more than government driven outcomes, at least in certain domains. But part of the reason is surely the commanding dominance of the shareholder primacy point of view.

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48. *See* Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Stakeholder Governance*, 106 CORNELL L. REV. 91, 105 (2020).

49. *See, e.g.*, Roberta S. Karmel, *Should Securities Industry Self-Regulatory Organizations Be Considered Government Agencies?*, 14 STAN. J. L. BUS. & FIN. 151, 160 (2008) (describing governance reforms intended to force a public orientation on self-regulatory organizations in finance); Shelley Welton, *Rethinking Grid Governance for the Climate Change Era*, 109 CAL. L. REV. 209, 227 (2021) (describing a not-for-profit regional transmission organization that runs the electric grid in Washington D.C. and parts of thirteen states).

50. *See, e.g.*, Federal Power Act § 203(a), 16 U.S.C. § 824b(a); Bank Merger Act, 12 U.S.C. § 1828(c).

51 **[FA] [AU17]**

52 **[FA]**

II. Government Dominated Industries

This Part surveys industries where some policy challenge has prompted a government intervention that replaces market competition with a system of price controls. Two themes emerge from our analysis. First, information asymmetries between the government and market participants make it difficult for the government to properly calibrate incentives ex ante. Second, government interventions often put market participants in a position to hold up the government. This can occur when the market participant becomes a monopolist in its relationship with the government or when the economic consequences of a firm's failure impose excessive societal costs. Regardless of the cause, this holdup problem makes it difficult for the government to plausibly commit to enforcing the compensation structure it established ex ante: if the government wants to build a naval destroyer or nuclear reactor, and if only one firm is in a position to pursue the project, then government will often be disinclined to impose large fines for firm misconduct, and the firm will often be able to demand additional revenue to cover cost overruns.

These features may not be unique to the four industries discussed here. For example, airlines have successfully diverted value to shareholders in good times and obtained government support during crises. While the analysis might be expanded into a broader challenge to shareholder primacy, the four industries selected at least highlight the salience of the holdup problem that arises as a result of certain government interventions.

A. Electric Utilities

In segments of various industries, including railroads, gas pipelines, telecommunications, and electric utilities, it may make sense to have only one supplier. This situation can create a holdup problem. The government fears that a private party will build the infrastructure then charge inordinate prices. Private investors fear that after it has paid to build the infrastructure, the infrastructure will be seized by the government. Rate regulation is partly a response. In rate regulated markets, the government grants a firm a legal right to a monopoly, imposes service obligations, and limits the firm's ability to charge monopoly prices.[53] Regulators approve investment decisions, tell utilities who to serve and on what terms, and determine the acceptable level of utility profits. In many ways, therefore, utility regulators already involve themselves in matters that are normally determined internally, within corporations.

53. *See* KAHN, *supra* note 4, at 40–41.

These interventions give investor-owned utilities powerful property-like legal entitlements against the government and allow them to retain the benefit of important information asymmetries. As a result, they can force the government to fund flawed projects. The structure of rate regulations reduces any incentive shareholders might have to independently pursue productive investments, and instead encourages them to use holdup problems to their advantage.

1. Basic Challenges.—Scholars have long debated why American policymakers chose to grant monopoly privileges to firms that operate in certain industries. However, there are some common explanations.

Natural Monopoly. Rate regulation could be a response to economies of scale. Some have justified public utility regulation on efficiency grounds.[54] If regulators know that an industry is a natural monopoly, and that it will be more cost-effective for a single firm to control an entire market, it should support that outcome by intervening prospectively to grant a single firm a monopoly franchise.

Importantly, this concern is more relevant in some segments of the electric industry than others. It is perfectly plausible to have many small merchant generators selling the electricity they generate in competitive markets, even if it makes sense to have only one system of facilities for long range transmission and only one set of wires for retail distribution to homes.

Holdup and Monopoly Pricing. If a private party owns essential infrastructure, it can demand excessive prices for its use. Rate regulation solves the problem by limiting what utility companies can charge. A related problem concerns the construction of new infrastructure. Once the project is underway, it can be difficult for the government to cut its losses and halt further efforts.

Financing. The provision of electric service is a capital-intensive undertaking. There is also limited potential for an upside surprise, particularly if the government will not allow the utility to set its own prices. And private investors might worry about the threat of expropriation once the desired facilities have been built. By guaranteeing returns, the government can make it easier for firms to attract capital.

Political Economy and Path Dependence. It is in industry's interest for regulators to protect incumbents from competition. A political economy account has argued that public utility regulation reflects successful industry

54 **[FA] [AU18]**

lobbying for a regulatory intervention that serves industry's financial interests.[55] By creating entrenched interests holding relevant legal entitlements, the resulting system of regulation has strengthened the economic and lobbying might of these firms and made change more difficult.

2. Profit Policy.—Rate regulated utilities are permitted to charge an amount set in administrative proceedings. The utility companies are often permitted to pass some costs, such as fuel, on to consumers. The companies are also entitled to earn a return on capital investments, provided that the investments are deemed "prudent" when made or "used and useful."[56] A utility that is authorized to earn a ten percent return can therefore expect $10 in profit if it makes $100 of new investments but $100 in profit if it makes $1,000 in new investments. As a result, utilities can increase profits by making additional capital investments.[57]

The regulations are intended to create incentives for utilities to contain costs and pursue useful projects. A utility should only earn a return if the investment creates social value. And the authorized return is calibrated to reflect the cost of raising capital in the financial markets—holding the company to a lower return could make investors unwilling to contribute capital.

3. Problems and Existing Governance Regulation.—The utility model creates perverse incentives for shareholders. *First*, utilities lack an incentive to innovate beyond whatever incentive structure its regulators created when authorizing its rates. Because shareholder profits do not increase when a utility makes value-enhancing investments or increase only slightly based on pre-determined performance criteria, shareholders do not have an incentive to push for investments that would generate value beyond whatever the regulator prioritizes ex ante during rate cases. If a utility invests in reliability improvements, it is ratepayers, not shareholders, who receive all the benefits. If a utility invests in improving its environmental performance beyond what the regulator mandates, it is again ratepayers who benefit. Thus, ratepayers,

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55. *See, e.g.*, George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. OF ECON. & MGMT. SCI. 3, 5 (1971); *cf.* Jill E. Fisch, *How Do Corporations Play Politics?: The FedEx Story*, 58 VAND. L. REV. 1495, X (2005).

56 **[FA] [AU19]**

57. *See* Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1059 (1962) ("[T]he firm has an incentive to acquire additional capital if the allowable rate of return exceeds the cost of capital.").

the people who pay utility bills, are the true residual claimants of public utilities.[58]

For example, it may increase safety for an electric utility to trim trees to reduce the risk that a transmission line will cause wildfires, or to winterize gas generating units so that they are able to operate during extreme cold events. **[AU20]** Yet shareholders are unlikely to pursue these investments if they do not allow the utility to expand its market share or raise prices. If the regulator does not authorize the utility to recover the costs of safety investments, or to earn a return on these investments, then the utility's margins will go down.

Conversely, utilities also have an incentive to make investments that do not create societal value. Because utilities earn a return on capital investments and regulators are unable to predict which projects will turn out to be worthwhile, utilities are often rewarded for spending money on new capital investments with little real value. **[AU21]** This phenomenon, known as gold-plating or the Averch-Johnson effect, reflects the fact that profit-maximizing shareholders are indifferent about whether an investment improves social value.[59] As long as the regulator authorizes the expense, shareholders increase profits by incurring costs. As a result, profit-maximizing rate regulated utilities lack an incentive to pursue projects that *are* in the public interest, and, moreover, lack an incentive to avoid projects that are *not* in the public interest.

Second, utility regulation creates opportunities for shareholders to expropriate value ex post after the firm has been granted a monopoly franchise. Regulators frequently struggle to induce utilities to meet their service obligations. Recent examples of utility misconduct and neglect include tens of billions in cost overruns at nuclear facilities,[60] coal ash spills that exposed hundreds to toxic waste,[61] and wildfires that resulted in hundreds of deaths.[62] In the wake of these crises, regulators have struggled

58. Kovvali & Macey, *supra* note 9, at 571.

59. Averch & Johnson, *supra* note 57, at 1059; Charles Needy, *The Gold-Plating Controversy: A Reconciliation*, 45 S. ECON. J. 576, 577 (1978).

60. *See* Jeff Amy, *Georgia Nuclear Rebirth Arrives 7 Years Late, $17B Over Cost*, ASSOCIATED PRESS (May 25, 2023), https://apnews.com/article/georgia-nuclear-power-plant-vogtle-rates-costs-75c7a413cda3935dd551be9115e88a64.

61. *See* U.S. Dep't of Int., *Dan River Coal Ash Spill*, https://www.cerc.usgs.gov/orda_docs/CaseDetails?ID=984.

62. *See* Kavya Balaraman, *Wildfires Pushed PG&E Into Bankruptcy. Should Other Utilities Be Worried?*, UTILITY DIVE (Nov. 19, 2020), https://www.utilitydive.com/news/wildfires-pushed-pge-into-bankruptcy-should-other-utilities-be-worried/588435/.

to discipline shareholders through contract and regulation. For example, Georgia regulators allowed Georgia Power to recover more than $30 billion, to the tune of $17 billion in cost overruns, to pay for a new nuclear reactor.[63] Similarly, after incurring approximately $10 billion in Clean Water Act costs after coal ash leaked into local water systems, North and South Carolina regulators allowed Duke Power to recover most of the costs it incurred to come into compliance with state and federal environmental law.[64] Perhaps most surprisingly, after Pacific Gas & Electric Company (PG&E) pled guilty to involuntary manslaughter for its role in fatal California wildfires, the bankruptcy court gave shareholders of old PG&E a financial stake in the reorganized company.[65]

While it is possible to dismiss these as examples of bad regulatory decision-making, they also demonstrate that rate regulation empowers utilities to hold up their regulators. Once Georgia committed to building a state-of-the-art nuclear reactor, the Georgia Public Service Commission could not plausibly prevent Georgia Power from increasing rates to cover cost overruns. Georgia had committed billions of dollars to constructing the facility.[66] The firm, Georgia Power, had developed specific expertise and held property rights in the nuclear reactor. Finding a new developer would have been disruptive and expensive and would have led to legal challenges.[67] In retrospect, that investment may not have been prudent. But having already

63. *See* Jeff Amy, *Georgia Nuclear Rebirth Arrives 7 Years Late, $17B Over Cost*, ASSOCIATED PRESS (May 25, 2023), https://apnews.com/article/georgia-nuclear-power-plant-vogtle-rates-costs-75c7a413cda3935dd551be9115e88a64. For a discussion of this episode and the implications, see Shelley Welton & Conor Harrison, *Lessons in Climate Derisking: The U.S. South's Failed Nuclear Renaissance* 4 (manuscript on file with authors) (describing how recent experiments with nuclear derisking "reveal[] deep webs of legislative and administrative capture that drove questionable legal precommitments to certain nuclear projects, which then proved politically hard to abandon as sunk costs and mismanagement mounted").

64. *See* Sonal Patel, *Duke Energy Reaches $1.1B Deal to Resolve North Carolina Coal Ash Cost Issues*, POWER (Jan. 28, 2021), https://www.powermag.com/duke-energy-reaches-1-1b-deal-to-resolve-north-carolina-coal-ash-cost-issues/. Corporate law mechanisms also did little to hold Duke Energy's managers accountable for the lapse. A shareholder suit seeking to hold Duke directors and officers liable for oversight failures was dismissed by the Delaware Supreme Court. *See* City of Birmingham Ret. & Relief Sys. v. Good, 177 A.3d 47, X (Del. 2017).

65. In the matter of: The Involvement of Pacific Gas and Electric Company's Electric Facilities in the 2020 Zogg Fire, Joint Motion for Approval of Settlement Agreement of Safety and Enforcement Division and Pacific Gas and Electric Company (U-39-E), https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-and-enforcement-division/acos-and-aeos/zogg-jt-motion-approving-settlement-agreement-btwn-pge-and-sed.pdf.

66 **[FA] [AU22]**

67 **[FA]**

committed so much money, it may have been cost effective to authorize additional rate increases to finish the project. As a result, regulators lacked the tools to prevent Georgia Power shareholders from shifting costs and risks onto the rate paying public.

Similarly, PG&E undertook a bankruptcy reorganization due to the prospect of tens of billions of dollars of liability for its contribution to wildfires in California. But although shareholders are supposed to be the last in line to recover, and the first in line to be wiped out, PG&E's existing shareholders owned a substantial portion of the company when it emerged from bankruptcy.[68] A more punitive approach might have increased the company's cost of capital, ultimately increasing the rates paid by customers. California also established a wildfire fund, effectively socializing part of the risk of another catastrophe.[69] In effect, PG&E's shareholders were able to use the company's unique position to force meaningful concessions.

All these misaligned incentives suggest that the justifications for shareholder primacy apply with less force to the corporate governance of public utilities. *First*, consider the justification that shareholder profit or preference maximization aligns with societal wealth maximization. These aligned incentives only exist when shareholders internalize shifts in the value of a firm and therefore bear the consequences of changes in the firm's value. But in the utility space, the government grants monopolies to rate regulated firms and sets rates. As a result, ratepayers, not shareholders, profit from value-enhancing investments and incur losses when other firms provide greater value in the form of cheaper or higher quality goods.

Second, consider the justification that unlike shareholders, non-shareholder counterparties have several tools to protect their interests, including turning to a competitor or writing and enforcing a more complete contract ex ante.[70] Like shareholders of firms that operate in competitive markets, regulators in utility industries cannot exit existing relationships and turn to competitors, and they are often unable to specify all outcomes ex ante. To convince a corporation to undertake a risky capital-intensive investment, it must promise a return on the costs. Because of the intervention, shareholders no longer internalize the costs and benefits of corporate decisions, and shareholders will have an incentive for the corporation to

68 **[FA] [AU23]**

69. *See* Jared A. Ellias & George Triantis, *Government Activism in Bankruptcy*, 37 EMORY BANKR. DEV. J. 509, 542 (2021).

70. *See id.*

increase recoverable costs and hide opportunities to improve efficiency.[71] This is a form of holdup. The firm takes advantage of information asymmetries and bargaining leverage to raise rates above the agreed upon price. While the government can seek to create external incentives that will drive optimal behavior, the exercise requires the government to develop information and expertise that may only be obtainable within the corporation. The government must find out what corporate managers know or discipline wasteful management, effectively crossing into the internal spaces of the corporation. Finally, because the government cannot plausibly exit its relationship with a utility—the utility possesses a franchise to operate and has likely developed special expertise in costly new capital projects—the government will often be vulnerable to holdup and ex post exploitation that reduces the credibility of ex ante contractual threats that are designed to bring shareholders' incentives into alignment with the government's preferences.

These misaligned incentives undermine the logic that justifies broad deference to shareholders. Consider American merger review. Absent traditional antitrust concerns, American corporate law typically defers to shareholders and management about whether to approve a proposed merger on the theory that the acquirer's willingness to pay a premium to the target's shareholders demonstrates that the combination would create real value.[72]

Yet that logic does not apply to public utilities. When a public utility offers to acquire another public utility, one cannot determine whether the merger will unlock value simply by looking at the premium offered by the acquirer. A utility that offers a premium to acquire another utility will only be rewarded if it convinces its regulators to allow it to increase its profits, because revenues are set by regulators. The utility may believe that it can create value that will be recognized by regulators. But it may believe it can convince its regulators to authorize rate increases without improving services, or to use financial complexity to exploit regulatory gaps. The merger might deprive regulators of a useful benchmark by eliminating a

71. *See* Jean-Jacques Laffont & Jean Tirole, *The Dynamics of Incentive Contracts*, 56 ECONOMETRICA 1153, 1155 (1988) ("The focus of this paper is the ratchet effect: an agent with a high performance today will tomorrow face a demanding incentive scheme. He should thus be reluctant to convey favorable information early in the relationship."); Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1059 ("[T]he firm has an incentive to acquire additional capital if the allowable rate of return exceeds the cost of capital.").

72 **[FA]**

competitor[73] or create opportunities to shift costs to rate regulated affiliates and profits to non-rate regulated affiliates.[74] While these are reasons to think that a merger will be in shareholders' interests, they do not promote public welfare.

There is also little reason to think that utilities' shareholders or their board representatives should receive deference when they make personnel decisions. Because firm profits normally indicate that the firm is producing a good or offering a service that meets customer demand, regulators can trust that shareholders will create incentives for management to reduce costs and to invest in products that people want. These mechanisms are unlikely to work in utility industries. If regulators allow the utility to raise rates to cover cost overruns, or if they allow the utility to pass the costs of liability onto ratepayers, the social harm will not be reflected in reduced shareholder profits. As a result, shareholders may not discipline managers even when a utility engages in gross misconduct or wastes billions of dollars in imprudent investments.

Finally, managers' fiduciary duties to shareholders are also less justified in utility industries. Utility managers can engage in socially destructive conduct without harming shareholders because regulators raise rates to allow the utility to cover the costs of a corporate disaster.[75]

Although these points suggest a profound governance problem with investor-owned rate regulated utilities, policymakers have only taken limited steps to address it. In principle, utilities are subject to a specialized merger review by FERC and by state regulators that is intended to prevent abuse or evasion of rate regulation, but in practice energy regulators appear to defer

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73. *See* Joshua C. Macey, *Utility Mergers and the Modern (and Future) Power Grid*, 42 ENERGY L.J. 237, 239 (2021); SCOTT HEMPLING, REGULATING MERGERS AND ACQUISITIONS OF U.S. ELECTRIC UTILITIES: INDUSTRY CONCENTRATION AND CORPORATE COMPLICATION, at iii (2020).

74. *See* Aneil Kovvali & Joshua C. Macey, *Hidden Value Transfers in Public Utilities*, 171 U. PA. L. REV 2129, 2131 (2023).

75. For example, Duke Energy paid a $100 million fine for Clean Water Act violations that "sent a slurry of coal ash and wastewater—containing lead, mercury, and arsenic—into the Dan River." City of Birmingham Ret. & Relief Sys. v. Good, 177 A.3d 47, 50 (Del. 2017). But regulators permitted Duke to recover a substantial portion of the cleanup costs, and even to earn a return on part of the balance. Patel, *supra* note 64, at X. And Delaware courts concluded that shareholders could not sue the directors of the company over the company's success in capturing its regulators. *Good*, 177 A.3d at 60–64. As a result, any injury experienced by shareholders was substantially less than the injuries experienced by the broader society, and fiduciary duty principles were not adequate to hold individual directors and officers responsible for the harms caused.

to ordinary antitrust authorities on the merits of particular transactions.[76] Utilities are also subject to structural limitations and rules on financing, but these limits have been substantially weakened in recent years and are underenforced.[77] California bargained for special governance measures at PG&E, but only seems to have obtained them because of the unique circumstances of PG&E's bankruptcy reorganization and the state's willingness to make a financial contribution.[78]

B. *Defense*

Defense procurement spending is concentrated.[79] Just five contractors captured over $100 billion in total spending in fiscal year 2021: Lockheed Martin ($39.2 billion), Boeing ($23.6 billion), Raytheon Technologies ($21.4 billion), General Dynamics ($16.9 billion), and Northrop Grumman ($15.0 billion).[80]

As a result, there are often only a few credible bidders on major projects, empowering those bidders to demand concessions from the government. The situation can become even more challenging after the government has initially selected a contractor and embarked on a project, as the contractor will develop expertise and facilities that will make it difficult to replace with a competitor.

The government must also ensure that this small set of private parties find it profitable to maintain excess capacity, as an unexpected crisis could create a sudden need for weapons and equipment. Shareholder-focused firms rationally seek to exploit these vulnerabilities after projects are underway, increasing costs and decreasing performance.

1. Basic Challenges.—Because the government is the only buyer of advanced weaponry, it cannot simply rely on a consumer market to set demand or incentivize resilience. Technical features of defense projects can

76. *See* Macey, *supra* note 73, at 239.

77. *See* Karmel, *supra* note 49, at 160.

78. *See* Ellias & Triantis, *supra* note 69, at 22.

79. Other areas of defense spending raise related concerns. The use of private military contractors—mercenaries—can raise questions about incentives, accountability, and control. *See* Martha Minow, *Outsourcing Power: Privatizing Military Efforts and the Risks to Accountability, Professionalism, and Democracy*, *in* GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY 110 (Jody Freeman & Martha Minow eds., 2009).

80. LUKA A. NICASTRO & HEIDI M. PETERS, CONG. RSCH. SERV., IF10548, DEFENSE PRIMER: U.S. DEFENSE INDUSTRIAL BASE (2023); *see also* JOMANA AMARA & RAYMOND E. FRANCK, THE U.S. DEFENSE ECONOMY 19 (2021).

complicate efforts to protect governmental interests through contract. And defense contractor activities can have subtle spillover effects.

Assessing Needs. In a typical market, individual consumers' purchasing decisions send clear signals about what products should be produced. Because the federal government is the principal buyer of key defense industry products, it cannot rely on a market. Instead, officials in all three branches of government, many with conflicting preferences,[81] must find some way to capture and aggregate social needs.[82] These features may limit the market power the government would ordinarily have as a monopsonist and reduce its ability to discipline relatively-united suppliers.

Demand Surges and Resilience. The government must also prepare for crises and surges in demand. While the military uses few bombs or missiles during peacetime, its needs could rapidly increase.[83] To address this concern, the government must maintain an industrial base that can meet the military's needs in a conflict.

The government must also ensure resilience. America might be cut off from foreign sources at times when its needs are greatest, challenging integrated supply chains. Consolidation and cost-cutting within the defense industry can similarly create choke points in supply chains. If the industry is overly dependent on one facility, it may be vulnerable to enemy action or simple accidents.[84]

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81. *See* AMARA & FRANCK, *supra* note 80, at 55 ("[T]he government sometimes functions more like a 'quarrelsome committee' than the monopsonist in standard economic theory . . . .").

82. This process may not be working. Defense spending has increased steadily and appears to follow patterns that are difficult to justify based on real world defense needs and priorities. *See* MacKenzie Eaglen, *AEI's Eaglen Peels Back Budget Onion*, BREAKING DEFENSE (Feb. 5, 2020), https://breakingdefense.com/2020/02/is-army-richest-service-navy-air-force-aeis-eaglen-peels-back-budget-onion/ (challenging the "myth" of equal spending across different branches).

83. Haley Britzky & Oren Liebermann, *Ukraine Is Burning Through Ammunition Faster Than the US and NATO Can Produce It. Inside the Pentagon's Plan to Close the Gap*, CNN (Feb. 17, 2023), https://www.cnn.com/2023/02/17/politics/us-weapons-factories-ukraine-ammunition/index.html; Seth G. Jones, *The U.S. Defense Industrial Base Is Not Prepared for a Possible Conflict with China*, CTR. FOR STRATEGIC & INT'L STUDIES (Jan. 23, 2023), https://features.csis.org/preparing-the-US-industrial-base-to-deter-conflict-with-China/ (concluding that America would run out of critical munitions within a week of conflict with China).

84. *See* SECURING DEFENSE-CRITICAL SUPPLY CHAINS, U.S. DEP'T OF DEFENSE 2 (Feb. 2022), https://media.defense.gov/2022/Feb/24/2002944158/-1/-1/1/DOD-EO-14017-REPORT-SECURING-DEFENSE-CRITICAL-SUPPLY-CHAINS.PDF; Gordon Lubold, *The U.S. Military Relies on One Louisiana Factory. It Blew Up.*, WALL ST. J. (Apr. 26, 2023), https://www.wsj.com/articles/the-u-s-military-has-an-explosive-problem-6e1a1049 (noting that a small spark at a factory "shut down the sole domestic source of an explosive the Department of Defense relies on to produce mortar shells, artillery rounds and Tomahawk missiles").

These governmental needs give firms the ability to resist attempts at discipline. If the government is too harsh with contractors, contractors will reduce investments or withdraw from the industry. And some of the private sector's normal tools for achieving efficiency—rationalizing operations, consolidating facilities and achieving returns to scale, or eliminating slack and excess inventory—can reduce resilience.[85]

Technical Innovation. Major weapons projects often entail the development of new technologies. For example, the F-35 Joint Strike Fighter was initially conceived as a fighter jet that would include a then-impossible combination of stealth, vertical takeoff and landing, supersonic flight, and computational capabilities.[86] The need for technological innovation creates challenges for defense contracting. Contractors are rationally reluctant to bear the risk that a problem cannot be solved, that the problem will be more expensive than expected to resolve, or that new problems will crop up.[87] The need for innovation also makes it impossible to write a contract in advance that covers all potentialities and fully specifies all features of the project.

The need for technological innovation can also contribute to holdup problems. Once an expensive project is underway, the contractor gains experience that cannot easily be transferred to a competitor. The government thus struggles to contract for all scenarios with an innovative project ex ante, and struggles to provide discipline through competition ex post, making it vulnerable to opportunistic demands.

Lobbying and Externalities. Like most major enterprises, defense contractors have a clear incentive to participate in politics.[88] But efforts by defense contractors could have particularly pernicious externalities, as defense contractors profit when the government adopts a militaristic orientation. Beyond direct lobbying for its preferred outcomes, defense contractors have proven adept at shifting the broader cultural conversation

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85. *See* Aneil Kovvali, *Essential Businesses and Shareholder Value*, 2021 U. CHI. LEGAL F. 191.

86. *See* Valerie Insinna, *The Number of Major F-35 Flaws Is Shrinking, But The Pentagon Is Keeping Details of the Problems Under Wraps*, DEFENSE NEWS (Jul 16, 2021), https://www.defensenews.com/smr/hidden-troubles-f35/2021/07/16/the-number-of-major-f-35-flaws-is-shrinking-but-the-pentagon-is-keeping-details-of-the-problems-under-wraps/.

87. *See* Doug Cameron & Drew FitzGerald, *Why Defense Contractors Are Saying No to Their Biggest Customer: The Pentagon*, WALL ST. J. (Jan. 30, 2024), https://www.wsj.com/politics/national-security/why-defense-contractors-are-saying-no-to-their-biggest-customer-the-pentagon-ad557306 (reporting that major defense contractors are increasingly reluctant to accept the risk of a cost overrun on large defense projects).

88. *See* Fisch, *supra* note 55, at 1500 ("[C]orporate demand for political activity is a natural response to the effect of legal rules on business operations . . . .").

by influencing media coverage[89] and embedding subtle advertising in popular films.[90]

2. Competition.—The government has adopted varying approaches to competition in the defense industry, both over time and across projects. While it may be difficult to transfer a project from one contractor to another after it is in motion, multiple competing bids at the beginning of a project can help the government obtain information and strike favorable deals. At the same time, the government might prefer to deal with a small number of trusted and healthy firms than a large number of firms that have been weakened by competition. And the government must address other interests with rules that may have the effect of curtailing competition. Because these tradeoffs vary, they have resulted in variation in policy.

Variation in Views on Consolidation. At an infamous "Last Supper" in 1993, top Pentagon officials told defense contractors that consolidation would be necessary with the end of Cold War spending, and that they would support consolidation with financial incentives and advocacy during antitrust reviews.[91] A $55 billion wave of consolidations followed, in which 51 companies were combined into five.[92] The mergers included the combination of Northrop and Grumman, Lockheed and Martin, and Boeing and McDonnell Douglas.[93] The Pentagon also facilitated the formation of the United Launch Alliance, a joint venture between Boeing and Lockheed Martin that held a monopoly on heavy lift launches from 2005 to 2016.[94]

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89. Aditi Ramawami & Andrew Perez, *Don't Trust the Defense Industry's Ukraine Pundits*, JACOBIN (Apr. 12, 2022), https://jacobin.com/2022/04/defense-industry-ex-military-officials-pundits-corporate-news-ukraine

90. *See* Jazz Tangcay, *'Top Gun: Maverick': How Real-Life Engineers Inspired the DarkStar Plane*, VARIETY (Dec. 8, 2022), https://variety.com/2022/artisans/awards/top-gun-maverick-darkstar-production-design-1235454705/.

91. Amara & Franck, *supra* note 80, at 34.

92. *Id.*

93. *Id.*

94. *Id.* at 56-57; William E. Kovacic, *Competition Policy Retrospective: The Formation of the United Launch Alliance and the Ascent of SpaceX*, 27 GEO. MASON L. REV. 863, 865 (2020). Various types of collaboration and supplier relationships are common in the defense industry. Although Lockheed Martin is the prime contractor for the F-35 Joint Strike Fighter, Raytheon's Pratt & Whitney division makes the engine, Northrup Grumman makes the fuselage, and BAE Systems makes various components. Northrop Grumman has already withdrawn from the competition to produce the next generation fighter for the Air Force, but explicitly signaled its willingness to act as a supplier for other bidders. Aaron Mehta & Michael Morrow, *Northrop Not Competing for NGAD Sixth-Gen Fighter: CEO*, BREAKING DEFENSE (July 27, 2023), https://breakingdefense.com/2023/07/northrop-not-competing-for-ngad-sixth-gen-fighter-ceo/

The government's position has not been uniformly in favor of consolidation. The government successfully opposed Lockheed Martin's proposed merger with Northrop Grumman in 1998.[95] Prompted by Congressional mandates to inject competition and reduce dependence on Russian components, the Pentagon sought to support launch development by three companies: ULA, SpaceX, and Blue Origin.[96] Ironically, as of this writing, SpaceX has a de facto monopoly on launch services as its competitors seek to develop new vehicles.[97] The government also imposed conditions on Northrop Grumman's acquisition of Orbital ATK, a supplier of solid rocket motors, although it is not clear how effective the conditions were in facilitating competition on major projects.[98]

Barriers to Entry. The government has imposed restrictions and requirements that have the effect of reducing competition, such as bans on foreign suppliers.[99] The government has also adopted rules on matters like cybersecurity that would be expensive for a new entrant to comply with. Incumbent firms with existing contracts may also be able to have the government cover compliance expenses, creating a further advantage over potential entrants.[100]

Potential new entrants can also be intimidated by the complexity and bureaucracy of the Pentagon's acquisition process, which may lead them to believe that large and experienced contractors have an insuperable advantage. This may be changing because of deliberate outreach by the Pentagon and the high-profile successes of new entrants SpaceX, Palantir Technologies, and Anduril Industries.[101]

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95. Amara & Franck, *supra* note 80, at 47.

96. *Id.* at 58; Doug Cameron, *Pentagon's Rocket Plan Runs Into Challenges*, WALL ST. J. (Mar. 19, 2015), https://www.wsj.com/articles/pentagons-rocket-plan-runs-into-challenges-1426807677?KEYWORDS=ula ("Congress has told the Air Force to have two competing launch systems ready by 2019. Amid growing U.S.-Russia tension last year, Congress directed the Pentagon to explore developing one of them itself.").

97. Micah Maidenberg, *Elon Musk's SpaceX Now Has a 'De Facto' Monopoly on Rocket Launches*, WALL ST. J. (July 7, 2023), https://www.wsj.com/articles/elon-musks-spacex-now-has-a-de-facto-monopoly-on-rocket-launches-3c34f02e

98. Amara & Franck, *supra* note 80, at 38–41; Kovacic, *supra* note 73, at 879–80.

99. Relevant statutes include the Buy American Act of 1933, the Berry Amendment, and the Specialty Metals Clause. *See* Nicastro & Peters, *supra* note 80, at 2; Amara & Franck, *supra* note 80, at 25.

100. AMARA & FRANCK, *supra* note 80, at 27-28.

101. *See* Sharon Weinberger, Robert Wall & Doug Cameron, *Pentagon Woos Silicon Valley to Join Ranks of Arms Makers*, WALL ST. J. (Mar. 26, 2023), https://www.wsj.com/articles/pentagon-woos-silicon-valley-to-join-ranks-of-arms-makers-38b1d4c0; *see also* Amara & Franck, *supra* note 80, at 30.

3. Profit Policy.—The inability of ordinary market forces to deliver the government's policy goals requires the government to devise incentives that encourage adequate investment in the space and causes participants to deliver high quality products at reasonable prices. The government's "profit policy" is intended to balance these objectives.[102]

The government's basic tool for achieving these goals is the cost-plus contract, in which the contractor is entitled to recoup certain expenses plus a return on those expenses. Variations on cost-plus contracts include award-fee contracts which tie the overall fee to the quality of the final product, and incentive fee contracts which tie the overall fee to achievement of performance goals such as cost savings. These arrangements effectively transfer some of the risk of cost overruns to the government, while seeking to preserve incentives for contractors to deliver good outcomes.

While the existing system seems successful in encouraging investment in the defense industry,[103] it is not clear that it is delivering on other efficiency and resilience goals. Partly as a result of the hollowing out of state capacity at the Pentagon, and partly as a result of the monopoly status of some suppliers, numerous firms appear to have been able to earn supernormal profits on contracts.[104] The system also does not give contractors strong incentives to control costs, and in fact, cost overruns are common.[105]

4. Existing Governance Regulation.—As with the utility industry, the structure of defense contracting makes shareholder primacy an awkward fit. The government has limited flexibility to use external tools to encourage good behavior given concentration in the industry and the bilateral monopolies that develop in pursuing large and innovative projects. Shareholder-focused managers will seek to exploit these problems.[106]

There have been some modest efforts to address misaligned incentives within the industry. Although the market for corporate control would

102. AMARA & FRANCK, *supra* note 80, at 29–30.

103. *Id.* at 30.

104. *See* Aliza Chasan, *How the Pentagon Falls Victim to Price Gouging By Military Contractors*, CBS NEWS (May 21, 2023), https://www.cbsnews.com/news/pentagon-budget-price-gouging-military-contractors-60-minutes-2023-05-21/ (describing overcharging by Raytheon, Lockheed Martin, Boeing, and Transdigm); Amara & Franck, *supra* note 80, at 30–31.

105. *See, e.g.*, U.S. GOV. ACCOUNTABILITY OFF., GAO-23-106059, WEAPONS SYSTEMS ASSESSMENT 29–30 (2023), https://www.gao.gov/products/gao-23-106059 (identifying numerous cost increases and finding that most programs that saw cost reductions achieved those reductions by reducing quantities instead of finding efficiencies).

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ordinarily encourage managers to focus exclusively on profits, defense acquisitions are scrutinized differently. In reviewing defense transactions, the Department of Justice and Federal Trade Commission defer heavily to the Department of Defense's views. Indeed, the FTC probably would not have approved Boeing and Lockheed Martin's decision to work together on satellite launches if not for the Department of Defense's support.[107] The Committee on Foreign Investments in the United States also reviews transactions involving foreign parties to address national security concerns.[108]

The government also imposes various corporate governance provisions on defense industry participants that are foreign owned, controlled, or influenced due to concerns about foreign meddling and leaks of classified information.[109] These measures might include a firewall between the sensitive operations and other parts of the firm, governance structures including management committees focused on national security concerns, and board representation or even dominance.[110]

A more subtle form of influence may come from the revolving door between the government's national security apparatus and the defense industry. Although it poses the obvious risk of causing government officials to prioritize private interests, it may also have the effect of placing public-spirited individuals with a real reputational interest in appearing honest in a position to police misconduct at contractors.

C. Finance

Financial institutions differ from electric utilities and military contractors in at least three respects. First, they typically do not possess a monopoly over particular goods or services.[111] In fact, the banking sector

107. *See* Kovacic, *supra* note 73, at 880 (noting FTC commissioners' reluctance to approve the ULA joint venture).

108. *See* Kristen E. Eichensehr & Cathy Hwang, *National Security Creep in Corporate Transactions*, 123 COLUM. L. REV. 549, X (2023) (describing the process and noting that its scope has expanded in recent years).

109. *See* Andrew Verstein, *The Corporate Governance of National Security*, 95 WASH. U. L. REV. 775, 777 (2018).

110. *Id.* at 796–97, 803.

111. While this is true in many financial services industries, it is not the case with financial infrastructures such as securities depositories, clearinghouses, and payments systems. *See* Dan Awrey & Joshua Macey, *Open Access, Interoperability, and DTCC's Unexpected Path to Monopoly*, 132 YALE L.J. 96, X (2022); Dan Awrey & Joshua Macey, *The Promise and Perils of Open Finance*, 40 YALE J. ON REG. 1, 5 (2023).

remains fragmented, though the number of American banks insured by the Federal Deposit Insurance Corporation (FDIC) has been declining steadily for the past twenty years.[112] Second, when firms are not in financial distress, shareholders of financial institutions act, at least in many respects, as residual claimants. If a financial institution pioneers a socially useful innovation, shareholder profits increase. If a financial institution becomes distressed, its shareholders are wiped out—at least so long as the various mechanisms for resolving financial institutions work as planned.[113] Third, the government does not typically directly intervene to establish demand or set profits. Instead, financial institutions compete for willing customers who are often able to sever their relationship with their financial institution and switch to a competitor.

Yet financial institutions, like defense contractors and electric utilities, are in a position to expropriate value from regulators in ways that cause shareholder interests to diverge from society's. Because the consequences of allowing a systemically important financial institution to fail are simply intolerable from society's perspective, regulators cannot commit to allowing a bank to fail if doing so would trigger a financial crisis. As a result, governments often intervene either directly to bail out failing financial institutions[114] or indirectly by committing to honor a failing firm's financial obligations.[115] The inevitability of these interventions creates an incentive for managers to take excessive risk ex ante.

1. Basic Challenges.—Externalities. Problems at a particular bank can have wide ranging consequences. Most narrowly, failure at one bank can

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112. *See Number of FDIC-Insured Commercial Banks in the United States from 2000 to 2022*, STATISTA https://www.statista.com/statistics/184536/number-of-fdic-insured-us-commercial-bank-institutions/.

113. *Investors Wiped Out as Bank Run Causes Collapse of Silicon Valley Bank*, FORBES (Mar. 22, 2023), https://www.forbes.com/sites/qai/2023/03/12/investors-wiped-out-as-bank-run-causes-collapse-of-silicon-valley-bank/; 1 Report of Anton R. Valukas, Examiner at 13, *In re* Lehman Bros. Holdings Inc., No. 08-13555 (Bankr. S.D.N.Y. Mar. 11, 2010), https://web.stanford.edu/~jbulow/Lehmandocs/VOLUME%201.pdf.

114. In 2008, Congress passed the Emergency Economic Stabilization Act of 2008, which created the Troubled Asset Relief Program (TARP). *See* Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343, § X, 122 Stat. 3765, X (codified in scattered sections of 12 and 26 U.S.C.) (granting the federal government authority to purchase distressed assets from financial institutions to provide support to systemically important financial institutions).

115. Title II of Dodd-Frank created the Orderly Liquidation Authority, which gives the FDIC authority to resolve a failing financial institution, as well as issue loans and loan guarantees to the bridge company. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, § 202(a)(1)(A)(v), 124 Stat. 1376, 1445 (2010) (codified at 12 U.S.C. § 5382(a)(1)(A)(v). **[AU24]**

prompt problems at other institutions, as customers who are unable to determine whether the bank is facing an isolated problem pull funds from other institutions. Although Silicon Valley Bank had an idiosyncratic customer portfolio and deficient risk management processes, its failure prompted customer and shareholder flight from a broad range of similar-sized institutions, making them unstable.[116] More broadly, financial failures cause problems in the real economy, as businesses are unable to raise the funds required to sustain operations or undertake new projects. This can have a disastrous effect on employment and stakeholders throughout the economy. As a result, shareholders of a particular financial firm do not bear the full risks created by the firm's conduct.

Holdup and Moral Hazard. Because the consequences of financial crises are so severe, financial institutions can hold up the government, forcing it to step in ex post to halt or mitigate a crisis by bailing out at least some of a failing bank's counterparties.[117] More dangerously, the likelihood of a government intervention can be forecasted up front. In some instances, the government's intervention is statutorily guaranteed: the FDIC guarantees deposits up to $250,000. Other interventions are ad hoc but predictable; it is unlikely that the government will tolerate losses even on deposits over $250,000 or the failure of a major financial institution.

These problems are not limited to banks. Non-bank financial institutions face similar run risks and collective action problems. Complex financial products are themselves vulnerable to run risk. Even though the FDIC does not formally insure money market mutual funds, repos, and credit default swaps, the government has bailed out financial institutions that took excessive risks in these markets to stave off a financial crisis.[118]

The prospect of a bailout creates incentive problems that are relevant to corporate governance. First, shareholders have an incentive to take excessive risks because they know that they will receive the upside but may not internalize the full losses if investments go sour.

Second, the government's interventions might crowd out governance forms that would do a better job of policing risk-taking by managers. Mutuals and other nonprofit forms may have been more effective in assuring

116. *See* Andrew Ackerman, *SVB Collapse Shows Smaller Banks Can Pose Risk in Numbers*, WALL ST. J. (Mar. 20, 2023), https://www.wsj.com/articles/svb-collapse-shows-smaller-banks-can-pose-risk-in-numbers-4c676894.

117. George A. Akerlof & Paul M. Romer, *Looting: The Economic Underworld of Bankruptcy for Profit*, 2 BROOKINGS PAPERS ON ECON. ACTIVITY 1, 1–5 (1993).

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depositors and commercial customers that their funds were safe. Once the government stepped in to assure safety, investor-owned firms lost their competitive disadvantage.[119]

Third, when a financial institution is allowed to fail, the government itself becomes the residual claimant. Ordinarily, a firm's creditors become the residual claimants when the firm fails. The shareholders are wiped out, so the creditors who are in the fulcrum position—those who can expect to take a loss but will not be wiped out entirely[120]—become the residual claimants of the firm. Because shareholder-focused managers would want to take excessive risks at creditors' expense, creditors are granted governance powers to protect their interests; creditors possess significant governance powers in bankruptcy, are entitled to equity in the reorganized firm, and often contract for governance rights when firms are approaching financial distress.[121]

However, when the government guarantees a financial institution's debts or other contractual obligations, it has a direct financial stake in the firm's operations. This means that the residual claimant of financial institutions is state-specific; shareholders operate as residual claimants when the bank is solvent whereas the government does when the bank is in distress. This creates a mismatch in which shareholder-focused managers want to take excessive risks, knowing that the government will be forced to bear the financial consequences if a speculative investment does not pay off.

2. Profit Policy.—The government has imposed various regulations to help align shareholder profits with social interests. First, systemically important financial institutions undergo periodic stress tests to make sure they can absorb losses and pay out deposits and other debts.[122] When a bank fails a stress test, regulators can prohibit it from paying dividends, thus

119. HANSMANN, *supra* note 14, at 255–58.

120. Anthony Casey, *The Creditors' Bargain and Option-Preservation Priority in Chapter 11*, 78 U. CHI. L. REV. 759, 773–75 (2011); Kenneth Ayotte & David A. Skeel, Jr., *Bankruptcy Law as a Liquidity Provider*, 80 U. CHI. L. REV. 1557, 1579–85 (2013); Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209, X (2006); Anthony J. Casey & Edward R. Morrison, *Beyond Options*, *in* RESEARCH HANDBOOK ON CORPORATE BANKRUPTCY LAW X, X (Barry E. Adler ed., 2020); Alan Schwartz, *A Normative Theory of Business Bankruptcy*, 91 VA. L. REV. 1199, 1257 (2005); Lucian A. Bebchuk, *A New Approach to Corporate Reorganizations*, 101 HARV. L. REV. 775, 785–87 (1988); Anthony J. Casey & Joshua C. Macey, *The Hertz Maneuver and the Limits of Bankruptcy Law*, 2020 U. CHI. L. REV. ONLINE 1, X.

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122. Dodd-Frank § 165, 12 U.S.C. § 5365; 12 C.F.R. pt. 252.

preventing shareholders from taking profits. Second, banks are required to hold more capital as they get bigger, more interconnected, or engage in risky activities.[123] The requirement to hold additional capital limits the profitability of these steps. And third, SIFIs are required to produce living wills in which they offer a plan about how they will be resolved if they fail.[124] These wills seek to formalize the shareholders' place at the end of the line in the event of a failure.

These interventions are designed to reduce the economic risks posed by the failure of a financial institution, but they can also limit shareholders' incentives to pursue socially-beneficial innovation or extend credit to worthy projects.[125] Of course, the bank might be able to raise additional capital in equity markets to support a new venture or loan, but at the very least, higher capital requirements increase the costs of pursuing potentially profitable new ventures. Capital requirements may also lessen incentives to develop innovative risk management practices, since such practices will only translate into shareholder profits if business managers are able to convince regulators to give them credit for any improvement. These regulations may be entirely justified because they reduce the likelihood of a financial crisis. Yet they also reduce firms' discretion to pursue valuable new projects. The opposition that firms have expressed to being designated as systemically important suggests that the designation has a significant effect on firm behavior.[126]

Prudential financial regulations thus limit the potential upside shareholders receive for socially useful innovations, while the various programs that guarantee financial institutions' contractual obligations reduce the financial risk shareholders and creditors face for engaging in excessively risky behavior. As a result, both assumptions underlying the residual claimant justification for shareholder primacy are relatively attenuated in the financial services context.

3. Existing Governance Regulation.—The government's financial exposure provides additional justification for the enormous authority the government possesses to control systemically important financial institutions

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123. 12 U.S.C. §§ 5381–94.

124. Dodd-Frank § 165(d), 12 U.S.C. § 5365(d).

125. We take no position here on whether any such socially beneficial innovations exist in the financial industry, and simply stress that shareholders have little incentive to pursue them.

126. MetLife, Inc. v. Fin. Stability Oversight Council, 177 F. Supp. 3d 219, X (D.D.C. 2016).

that are in distress.[127] This authority includes the right to determine which affiliates will receive financial assistance, which business lines will be saved, and which counterparties will be paid.[128] The government, through the FDIC, the Federal Reserve, and the Office of the Comptroller of the Currency (OCC), thus effectively determines what businesses the reorganized firm will continue and which business lines will be liquidated. This authority, and the legal process by which the government assumes this role, has been the subject of numerous legal challenges on the ground that it deprives the firm of its due process rights.[129] From one perspective, however, the government is simply protecting its own property rights. By assuming so many of the firm's financial obligations, the government may be the party that has the largest financial stake in maximizing the firm's value. It may therefore make sense for the government to make what look like ordinary business decisions, since it faces exposure for bad decisions and receives the upside of good decisions.[130]

Regulators also possess unusual authority to intervene in governance matters at financial firms prior to failure. The Federal Reserve has authority to fire managers and bar them from the financial services industry.[131] Executive clawback provisions further empower financial regulators to intervene in internal governance to force managers to consider the systemic consequences of firm behavior.[132] Special bank merger review provides an additional means of reviewing bank mergers, instructing the Fed, the OCC, and the FDIC to consider not just the anticompetitive effects of proposed bank mergers, but also any proposed merger's implications for financial stability, its likely effect on the public interest, and the merging firms' financial and managerial resources.[133] Under the Community Reinvestment Act, federal banking regulators also review banks' records of extending

127. For a critique of these tools, see David Zaring, *The Corporatist Foundations of Financial Regulation*, 108 IOWA L. REV. 1303, 1309 (2023).

128. Dodd-Frank Act § 210(b)(4)(A), 12 U.S.C. § 5390(b)(4)(A) (authorizing the FDIC to treat claims that would ordinarily receive the same priority in bankruptcy differently).

129. *See, e.g.*, Thomas W. Merrill & Margaret L. Merrill, *Too Big for the Constitution*, 163 U. PA. L. REV. 165, 167 (2014).

130. This justification applies when there is certainty that the firm is insolvent, and to varying degrees otherwise.

131. Lin & Menand, *supra* note 9, at 5.

132 **[FA] [AU25]**

133. *See* Bank Merger Act, 12 U.S.C. § 1828(c); Bank Holding Company Act of 1956 § 3(c), 12 U.S.C. § 1842(c); Jeremy Kress, *Modernizing Bank Merger Review*, 37 YALE J. ON REG. 435, 437 (2020).

credit to minority and disadvantaged communities when reviewing applications for new branches or mergers.[134]

These interventions can be explained as partial responses to the breakdown of the conventional justification for shareholder primacy within financial institutions. If shareholders are inclined to take excessive risks, it may be necessary for the government to intervene directly in setting executive compensation and even barring former bank employees from the financial services industry. Similarly, because financial institutions may pursue a merger to become more systemically important, and thus to increase the likelihood of a bailout, banks may pursue inefficient mergers simply to increase the strength of its implicit government backing.[135] As a result, it makes sense for bank regulators to review proposed mergers to make sure that the merger does not increase systemic risk, and that the consolidated firm will be able to withstand a financial crisis. Finally, government incentives to extend credit to underserved communities may help counter disincentives to innovate.

D. Pharmaceuticals

The pharmaceutical industry differs in important respects from utilities, defense, and finance. There is an unequivocal benefit to pharmaceutical innovation that is prompted by real consumer needs, and much of the innovation that occurs is generated by shareholder-focused firms that do profit from their discoveries. This makes it necessary to distinguish between segments of the industry: early-stage research is often financed by the government or nonprofits due to the difficulty of assuring shareholder profits; the basic research sometimes leads to advances that are pursued by shareholder-focused biotech firms; and successful biotech firms are acquired by pharmaceutical firms that navigate the product through regulatory approvals and pursue manufacturing and marketing.

In administering this ecosystem, the government uses two basic levers: (a) calibrating the level of competition in producing certain drugs and (b) setting prices or using other financial incentives. These problems can create gaps in the early research and biotech segments, where private investors will be unable to earn an adequate risk adjusted return, and a governance problem in the pharmaceutical segment, where private companies are empowered to

134. 12 C.F.R. pt. 345 (2024).

135. *See, e.g.,* Roe, *supra* note 9, at 1437.

hold up the government and patients to demand high prices for finished drugs.

1. Basic Challenges.—The government faces several key challenges in regulating the pharmaceutical industry. It must encourage development of new drugs that are socially valuable and ensure that they are delivered to patients who need them despite the difficulty of arranging private financing of large uncertain projects.

Innovation. Pharmaceutical development is uncertain, complex, and time-consuming. A drug may take over a decade to shepherd to market, and drug candidates face extraordinary failure rates. Tens of thousands of compounds may need to be evaluated before reaching clinical trials, and approximately 92% of clinical trials end in failure.[136] This process is extremely expensive. Taking a treatment from the laboratory bench to the patient's bedside may cost hundreds of millions or even billions of dollars.[137]

Externalities and Anticommons Problems. Innovative treatments can have various externalities. A drug company might spend hundreds of millions of dollars and take substantial financial risks to develop a drug addressing a new disease, only for other companies to develop follow on or "me-too" drugs that target the same disease.[138] Drug companies may also struggle to capture adequate value when their products are used in combination with others. Doctors often treat HIV and various cancers with combination therapies, in which a group of drugs with relatively little individual impact are combined to great effect.[139] Absent conscious regulatory intervention, it would be difficult for the creator of each constituent element to capture enough value to justify research and development expenses.[140]

Redistribution. Like most industrialized nations, the United States is committed to providing access to a minimal standard of healthcare for certain groups, including the elderly, the poor, and veterans. To address this commitment, the government has created programs and agencies, including

136. ANDREW W. LO & SHOMESH E. CHAUDHURI, HEALTHCARE FINANCE: MODERN FINANCIAL ANALYSIS FOR ACCELERATING BIOMEDICAL INNOVATION 1, 12 (2023).

137. *Id.* at 11.

138. Heled et al., *supra* note 9, at 84.

139. LO & CHAUDHURI, *supra* note 136, at 13.

140. *See* David Danko, Jean-Yves Blay & Louis Preston Garrison, Jr., *Challenges in the Value Assessment, Pricing and Funding of Targeted Combination Therapies in Oncology*, 123 HEALTH POL'Y 1230 (2019). This is related to challenges with coordinating demand. *See* Rachel E. Sachs, *Delinking Reimbursement*, 102 MINN. L. REV. 2307, 2309 (2018).

Medicare, Medicaid, and the Department of Veterans' Affairs, that are major purchasers of healthcare products and services.[141] These purchases drive a large fraction of revenues at major pharmaceutical companies. One analysis found that Medicare and Medicaid sales accounted for 56% of 2020 revenues at Amgen, 52% at Gilead, 40% at Biogen, and 35% at Vertex Pharmaceuticals.[142]

These expenditures could cause drug companies to pursue projects that would otherwise be uneconomic, discovering drugs that may help people who are not direct beneficiaries of the government programs.[143] But it could also attract research dollars that would otherwise be spent elsewhere. For example, GSK is accused of having prioritized a vaccine for shingles, an infection that causes a painful rash, over a potential vaccine for tuberculosis, a disease that killed 1.6 million people globally in 2022.[144] Because shingles affects seniors, who in the United States are covered by Medicare, it is a more lucrative target. Domestically, drug manufacturers are often able to capture higher prices for drugs sold through Medicare than through Medicaid, incentivizing them to focus on diseases affecting the elderly instead of the poor.[145]

Financing. Taking a drug from bench to bedside is financially demanding, risky, and time consuming. These features make it difficult for profit-seeking investors to back a complete project. Pharmaceutical financing can also be affected by asymmetric information, which creates agency and adverse selection problems. Financial backers lacking expertise and inside

141 **[FA]**

142. Christopher Newman, *Pharma CEOs Press Case Against Drug Price Negotiation as Bill Gains Support*, BIOPHARMADIVE (Aug. 4, 2022), https://www.biopharmadive.com/news/pharma-drug-pricing-negotiation-bill-ceo-response/628872/. The government also uses tax policy to support the provision of employer-based health insurance. *See* Mark J. Loewenstein & Jay Geyer, *Shareholder Primacy and the Moral Obligation of Directors*, 26 FORDHAM J. CORP. & FIN. L. 105, 137 (2021).

143. *See* Mark A. Lemley, Lisa Larrimore Ouellette & Rachel E. Sachs, *The Medicare Innovation Subsidy*, 95 N.Y.U. L. REV. 75, X (2020); *see also* Jeanne Whalen, *Why the U.S. Pays More Than Other Countries for Drugs*, WALL ST. J. (Dec. 1, 2015), https://www.wsj.com/articles/why-the-u-s-pays-more-than-other-countries-for-drugs-1448939481 (citing an industry analyst for the proposition that "[i]f U.S. pricing fell to European levels, the industry would almost certainly cut its R&D spending").

144. *See* Anna Maria Barry-Jester, *How a Big Pharma Company Stalled a Potentially Lifesaving Vaccine in Pursuit of Bigger Profits*, PROPUBLICA (Oct. 4, 2023), https://www.propublica.org/article/how-big-pharma-company-stalled-tuberculosis-vaccine-to-pursue-bigger-profits.

145. Rachel E. Sachs, *The Accidental Innovation Policymakers*, 72 DUKE L.J. 1431, 1472 (2023).

information can find it difficult to determine whether a particular drug candidate is actually promising or the developers are simply suggesting that it is promising to attract additional funds, and are forced to assume that developers are only selling stakes in projects that they are skeptical of.[146]

These problems have affected the structure of the industry. After years of low returns and pressure from Wall Street investors, pharmaceutical companies essentially retreated from financing much of the basic research that leads to new drugs. Nonprofit organizations—universities, charitable organizations, and government agencies—are the major funders of basic research.[147] Expert venture capital firms finance small biotech companies that develop a few promising concepts through to the early stages of testing. And large pharmaceutical companies acquire biotech firms once the testing shows promise and the focus shifts from dealing with scientific uncertainty to managing the regulatory process and marketing the drug.[148]

Lobbying. Lobbying is pervasive in the pharmaceutical industry. This can affect overall policy as industry participants frequently successfully advocate for subsidies or against reforms by citing impacts on incentives to innovate.[149] It also appears to play out at the level of individual drugs or projects. For example, the FDA overruled an independent advisory committee to approve Aduhelm, an Alzheimer's drug with limited proven benefits and significant side effects.[150] A subsequent review found that the FDA had engaged in an unusual degree of collaboration with the drug's maker, Biogen, and that FDA officials had undocumented meetings with the company.[151] More crudely, high profile Democrat Neera Tanden was a prominent critic of Mylan CEO Heather Bresch as the company raised the price of the EpiPen, a product used to deal with severe allergic reactions.[152]

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146. *See* Richard T. Thakor & Andrew W. Lo, *Optimal Financing for R&D-Intensive Firms*, Nat'l Bur. Econ. Rsch. No. w23831 (2017).

147. CLARK, *supra* note 9, at 701 (noting that nonprofits may be more trustworthy recipients of funding for basic research than for-profit firms).

148 **[FA]**

149. *See* Rachel E. Sachs, *The Accidental Innovation Policymakers*, 72 DUKE L.J. 1431, 1433 (2023).

150. *Id.* at 4–5.

151. Pam Belluck, *Congressional Investigation into Alzheimer's Drug Faults Its Maker and F.D.A.*, N.Y. TIMES (Dec. 29, 2022), https://www.nytimes.com/2022/12/29/health/alzheimers-drug-aduhelm-biogen.html.

152. Jacob Jarvis, *Neera Tanden Once Criticized Joe Manchin's Pharma CEO Daughter*, NEWSWEEK (Feb. 24, 2021), https://www.newsweek.com/neera-tanden-criticized-joe-manchin-daughter-heather-bresch-1571531.

Tanden later found her candidacy to lead the Office of Management and Budget defeated by Bresch's father, Senator Joe Manchin.

2. Competition.—The government's central tool for encouraging drug development is to limit competition. Patents protect the intellectual property involved in a drug or treatment, effectively preventing competitors from manufacturing the same drug while the patent remains in force.[153] During a market exclusivity period, the FDA will not approve a competing generic product for sale. During a data exclusivity period, the FDA will not allow a new applicant to rely on clinical data that had been submitted by the original innovator.

The importance of competition-reducing measures has led to various forms of opportunism and gamesmanship. Until recently, insulin manufacturers managed to maintain high prices on the drug (which was discovered over a century ago) by introducing new versions and new delivery devices.[154] Drug manufacturers have been accused of using a "product hopping" strategy in which they time the introduction of new drugs to coincide with the expiration of protection on their existing drugs.[155] Pharmaceutical manufacturers have used "pay for delay" strategies to cause generic manufacturers to hold off on introducing competing products.[156] Manufacturers can also develop "patent thickets": a large number of patents on related intellectual property that makes it difficult or impossible for another firm to develop a competing product, even when the patent on the product itself has expired. For example, Humira is one of the best-selling drugs within Medicare. Although the drug was first approved in 2002, it

153. The long lead times in pharmaceutical development reduce the utility of a patent. To help address this concern, the Hatch-Waxman Act restored a portion of patent terms for certain innovative drugs to compensate for years lost during the FDA's review. Sachs, *supra* note 145, at 1466.

154. A new chemical might receive a five-year market exclusivity period, while related chemicals supported with new essential clinical studies might receive a three-year market exclusivity period. To encourage the study of certain rare diseases, the government has offered a seven-year market exclusivity period for drugs targeting rare conditions. Sachs, *Accidental Innovation Policymakers*, *supra* note 145, at 1433 & n.8.

155. *See* Rebecca Robbins & Sheryl Gay Stolberg, *How a Drugmaker Profited by Slow-Walking a Promising H.I.V. Therapy*, N.Y. TIMES (July 23, 2023), https://www.nytimes.com/2023/07/22/business/gilead-hiv-drug-tenofovir.html.

156. *See* C. Scott Hemphill, *Paying for Delay: Pharmaceutical Patent Settlement as a Regulatory Design Problem*, 81 N.Y.U. L. REV. 1553, X (2006).

retained a dominant market position for decades because its manufacturer developed over 100 patents that block other attempts.[157]

3. Profit Policy.—The government also intervenes to affect the profitability of pharmaceutical projects, though much of this policymaking has an "accidental" or haphazard quality.[158] There are two basic categories of intervention.[159] The government uses tax credits and grants to make research and development more profitable ex ante, pushing companies to invest in innovation.[160] The government also limits competition and purchases an enormous quantity of pharmaceuticals, creating an ex post incentive for firms to develop drugs that will be purchased.[161]

Although ex post incentives could be a powerful tool to encourage good behavior, many are applied in an automatic way. Medicare Part B covers drugs administered at a hospital or in a doctor's office and covers treatments that are "reasonable and necessary for the diagnosis or treatment of illness or injury," regardless of cost.[162] Medicare Part D plans must cover at least two drugs in every therapeutic class.[163] Until recently, the government was not permitted to negotiate prices and had limited statutory authority to refuse to cover a drug. Instead of valuing the benefits of a drug and leveraging its

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157. Sachs, *supra* note 145, at 3; David Wainer, *What a $200 Billion Blockbuster Drug Reveals About Big Pharma's Playbook*, WALL ST. J. (Feb. 5, 2024), https://www.wsj.com/health/pharma/what-a-200-billion-blockbuster-drug-reveals-about-big-pharmas-playbook-e8d917c3 ("Innovation remains key to pharma companies' success. But increasingly, that can mean coming up with innovative ways to squeeze more years and money out of existing drugs."). Humira's manufacturer AbbVie managed to maintain a dominant market position in the United States even after the introduction of a competitor product by offering steep discounts, in a "strategy some investors refer to as 'burning down the house so nobody else can have it.'" David Wainer, *How AbbVie's Humira Still Reigns, Despite New Competition*, WALL ST. J. (July 27, 2023), https://www.wsj.com/articles/how-abbvies-humira-still-reigns-despite-new-competition-d4aa13a9. The strategy facilitated AbbVie's plans to keep patients on Humira until they could be switched to newer drugs and had the effect of damaging the business model of companies seeking to develop similar products.

158. *See* Sachs, *supra* note 122, at 3.

159. Daniel J. Hemel & Lisa Larrimore Ouellette, *Beyond the Patents-Prizes Debate*, 92 TEXAS L. REV. 303, 378-81 (2013) (discussing the relationship between ex ante and ex post interventions) **[AU26]**.

160. Sachs, *supra* note 145.

161. *See* Lemley et al., *supra* note 143, at 77.

162. *See id*. (quoting 42 U.S.C. § 1395y(a)(1)(A)).

163. *Id.* at 85–86.

enormous market power to insist upon rational prices, the government essentially outsourced price-setting.[164]

The Inflation Reduction Act of 2022 altered the landscape somewhat. The act capped insulin copays for Medicare participants at $35 per month, eventually prompting insulin manufacturers Eli Lilly, Novo Nordisk, and Sanofi to agree to price reductions ranging from 70% to 78% **[AU27]**.[165] It also installed a negotiation framework in which the government would directly bargain over the prices of ten drugs purchased by Medicare.[166] As of this writing, the negotiation program is underway, but has been challenged in court.[167] While it is difficult to forecast the consequences, there does seem to be a meaningful appetite for the government to take deliberate action to encourage better outcomes.

The COVID pandemic may have heightened this appetite. Under Operation Warp Speed, the government sought to foster the rapid manufacturing of new vaccines by addressing regulatory hurdles, smoothing production-related frictions, and pre-committing to enormous purchases.[168] While various parts of the program could be criticized, hundreds of millions of vaccine doses were ultimately delivered on a timeframe that would have been inconceivable previously; the government's failure to achieve similar results for other serious diseases has heightened dissatisfaction with existing policies.[169]

4. Problems and Existing Governance Regulation.—The challenges of the pharmaceutical industry create two governance problems: gaps in the basic research and biotech segments, where shareholder profit-oriented investors would refuse to fund socially valuable projects; and holdups and opportunism in the pharmaceutical segments, where shareholder profit

164. *Id.* at 86 (discussing government's role as a price taker, accepting prices negotiated by private pharmacy benefit managers); Sachs, *supra* note 145, at 1450 (discussing apparent irrationality of this approach); Sachs, *supra* note 140, at 230.

165. Annika Kim Constantino, *Facing Political Pressure, Sanofi Follows Eli Lilly and Novo Nordisk in Slashing Insulin Prices*, CNBC (Mar. 16, 2023), https://www.cnbc.com/2023/03/16/sanofi-to-slash-us-insulin-prices-after-eli-lilly-and-novo-nordisk-.html.

166 Inflation Reduction Act of 2022, Pub. L. No. 117-169, § 1101, 136 Stat. 1818, 1833–62. **[AU28]**

167 **[FA] [AU29]**

168 **[FA]**

169. *See* Daniel J. Hemel & Lisa Larrimore Ouellette, *Valuing Medical Innovation*, 75 STAN. L. REV. 517, 522–23 (2023).

oriented firms exploit the government's commitment to purchase treatments through Medicare and other programs.

The government has responded to gaps by encouraging nonprofit organizations and public agencies to fill in holes that would otherwise exist in the ecosystem. Research is often funded by universities or charitable organizations, not companies focused on delivering financial profits to shareholders. And the government plays an active role. The National Institutes of Health control an annual budget of $45 billion, using 10% for in-house research and 90% for grants at universities and other institutions.[170]

In response to opportunism in later phases of drug development, the government has taken some steps to police aggressive conduct. For example, Medicare ultimately limited coverage for Aduhelm, the controversial Alzheimer's drug.[171] And the FTC has sought to curb exploitation of a strategy in which pharmaceutical companies list ineligible patents in the "Orange Book," a listing of products that disables regulators from approving a generic competitor.[172] Pursuant to an Executive Order, the FTC is also considering banning "pay for delay" strategies in which pharmaceutical companies pay off generic manufacturers to prevent them from introducing competing products.[173] The FTC and DOJ have also sought to rethink their approach to pharmaceutical mergers.[174]

III. Implications for Corporate Governance

While electric utilities, defense contracting, financial, and pharmaceutical markets differ in important respects, they all present

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170 **[FA] [AU30]**

171. *Monoclonal Antibodies Directed Against Amyloid for the Treatment of Alzheimer's Disease*, CTRS. FOR MEDICARE & MEDICAID SERVICES CAG-00460N (Apr. 7, 2022), https://www.cms.gov/medicare-coverage-database/view/ncacal-decision-memo.aspx?proposed=N&ncaid=305; Pam Belluck, *Medicare Officially Limits Coverage of Aduhelm to Patients in Clinical Trials*, N.Y. TIMES (Apr. 7, 2022), https://www.nytimes.com/2022/04/07/health/aduhelm-medicare-alzheimers.html.

172. *See* Fed. Trade Comm'n, *Statement Concerning Brand Drug Manufacturers' Improper Listing of Patents in the Orange Book*, FED. TRADE COMM'N (Sept. 14, 2023), https://www.ftc.gov/system/files/ftc_gov/pdf/p239900orangebookpolicystatement092023.pdf; Rebecca Robbins, *Common Patenting Tactic by Drug Companies May Be Illegal, F.T.C. Says*, N.Y. TIMES (Sept. 14, 2023), https://www.nytimes.com/2023/09/14/business/ftc-drug-patents-inhalers.html; *see also* C. Scott Hemphill & Bhaven N. Sampat, *Fixing the FDA's Orange Book*, 41 HEALTH AFFAIRS 797, X (2022).

173. *Promoting Competition in the American Economy*, Executive Order 14036 (July 9, 2021).

174. *See DOJ Issue Summary on Joint Pharmaceutical Merger Analysis Workshop*, FED. TRADE COMM'N (June 1, 2023), https://www.ftc.gov/news-events/news/press-releases/2023/06/ftc-doj-issue-summary-joint-pharmaceutical-merger-analysis-workshop.

circumstances in which some of the justifications for shareholder primacy do not apply. Subpart A shows that shareholders do not internalize consequences of firm decisions because they are insulated by regulations, purchasing programs, or imbalances in power. Although they are not the focus of this Article, Subpart B canvases alternative justifications and shows that they operate differently within these industries.

A. Shareholders Do Not Internalize Consequences of Firm Decisions

Recall that two assumptions underlie the traditional view that shareholder interests align with society's. The first is that shareholders profit from developing new products or services for which there is demand. The second is that outside stakeholders can protect their interests through external mechanisms such as regulation and contract.

Both these assumptions break down in the industries described in the previous Part. In each case, some feature of the market puts firms in a position to expropriate value from the government after the government has committed to contractual or regulatory mechanisms to incentivize shareholders to cost-effectively pursue value-enhancing projects and to force shareholders to bear the costs of risky behavior. This can occur because of a government intervention to establish demand or fix profits, economic features of the industry that give the government a strong interest in bailing out failing firms, or some combination of the two. Regardless of the cause, these government interventions have two consequences for corporate governance theory. The first is that shareholders can often demand additional profits to cover cost overruns; the second is that the government cannot plausibly commit to forcing shareholders to take losses when an investment does not work out.

Shareholders' incentives align with society's when shareholders have a financial incentive to pursue socially valuable projects. This ordinarily occurs in the market where the social value of a good or service can be assessed by customers' willingness to pay. In some industries (perhaps even pharma if better regulated), the government could be trusted to create a prize system that will encourage firms to develop useful products. The government may get the price wrong—it may create an excessively high or low incentive—but firms nevertheless compete for a large payout. If the government manages to create a high enough reward, and if the project provides social value, then shareholders stand to benefit from capturing that value by developing useful projects.

In the cases described above, however, shareholders lack incentives to pursue socially useful innovations, and the government lacks credibility in threatening to use price-based mechanisms to deter misconduct ex post. Often this occurs because a firm is in a position to hold up the government after receiving a contract and thus demanding additional revenue so that it will deliver a good or service. Firms are able to hold up the government when a government intervention (1) limits the upside a company receives for socially useful innovations while (2) limiting the government's ability to exit its relationship with its counterparty.

1. Limited Returns to Socially Valuable Innovation.—In industries with pervasive government involvement, there are often limited returns for innovation. For example, rate-regulated electric utilities will often lack incentives to reduce costs, improve reliability, or reduce emissions beyond whatever targets its regulators have established. A rate regulated utility's return on equity is capped at a government-set rate. Thus, even if the utility realizes that it could improve electric service in its area, the profit cap undermines its incentive to invest to pioneer such innovations. If the company's investment is successful in reducing costs or otherwise improving profitability, its regulator will reduce allowed rates at the next opportunity.[175] And if the company's investment does not lead to improved performance, its regulator may seek to prevent it from recovering costs entirely. Other features of rate regulation can also be pernicious. If a utility is permitted to "pass through" certain costs such as fuel expenses, it will not earn a return on those expenses but will have little incentive to reduce them either. As a result, it will have little reason to shift to less expensive fuels or to renewable energy. Similar logic applies to military contracts in which the government agrees to bear the costs of a project, or financial institutions that know that the government will end up bearing key risks.

This concern does not apply with equal force throughout every part of the government-dominated industries considered here. For example, generators in a restructured energy market may engage in meaningful competition and could enjoy real returns from productivity-enhancing innovation. But the possibility of returns to innovation in the generation segment of a restructured market should not obscure the absence of returns to innovation in the transmission or retail distribution segments of that

175. Laffont & Tirole, *supra* note 71, at 11.

market, or within rate-regulated, vertically-integrated companies.[176] Similarly, biotech firms may derive substantial returns from identifying a promising drug candidate and navigating it through early clinical trials. But a large pharmaceutical company that acquires a promising drug candidate, completes trials, manufactures the drug, and markets it to patients is less likely to be involved in socially beneficial innovation. This may suggest a need for a diverse corporate ecosystem within these industries, with different niches filled by differently governed enterprises.

It is also possible for firms within these industries to derive substantial returns from innovation with questionable social value, such as efforts to evade existing regulations. While the financial services industry does innovate in meaningful ways, it is not clear how much social value these efforts create.[177] Arguably, much of the creative energy in the financial services industry is directed toward influencing the content of rules and exploiting gaps in them. Non-bank firms also seek innovative ways of providing banking services without becoming subject to banking regulations. Even where these efforts create social value, it is not always clear that the benefits exceed the costs in heightened complexity and risk.

2. Limited External Tools for Disciplining Firms.—A second challenge to shareholder primacy in the markets described in Part II is that holdup problems render the usual external mechanisms for disincentivizing corporate misconduct less effective. When a firm is the only potential supplier to the government, or when its failure would trigger a financial crisis, it is difficult for the government to force shareholders to bear the costs of corporate misconduct. As a result, the government is likely to step in to make sure that a firm is able to continue operating even if it has not met its regulatory or contractual obligations.

As a result, when companies that receive a contract to build a state-of-the-art nuclear facility or new naval destroyer that is already underway, the government has a strong incentive ex post to authorize the contractor to

176. Indeed, a failure to properly distinguish between these segments can create opportunities for companies to transfer value and distort outcomes. *See* Aneil Kovvali & Joshua Macey, *Hidden Value Transfers in Public Utilities*, *supra* note 74, at 2133.

177. *See, e.g.*, Saule T. Omarova, *License to Deal: Mandatory Approval of Complex Financial Products*, 90 WASH. U. L. REV. 63, 73 (2012) (describing forces that may lead to “socially useless over-innovation” within the financial industry); Dan Awrey, *Complexity, Innovation, and the Regulation of Modern Financial Markets*, 2 HARV. BUS. L. REV. 235, 259 (2012) (reframing the “understanding of financial innovation as simply a process of (perceived) *change*—and not necessarily one of *improvement*”).

receive additional revenue to cover cost overruns. The contractor has already begun building the project and likely possesses special expertise. Switching to a competitor may be exorbitantly costly if the new firm has not developed special expertise in the area, and it may be illegal or require the use of eminent domain if the original contractor possesses property rights in the development.

Thus, if the government wants to actually build a new naval destroyer or nuclear power plant, it is likely to authorize revenue increases so that the contractor continues to develop the project. Doing so, however, creates problematic incentives ex ante. Because shareholders know that the government is likely to allow them to raise prices to cover unexpected costs, they lack an incentive to keep costs down and develop a cost-effective way to meet their contractual obligations.[178] The contractor, like a private party possessing a bilateral monopoly or monopsony, can hold up its counterparty and demand additional revenue ex post. This is a classic problem in the relational contracting literature,[179] and it applies with just as much force to contracts with the government.

Shareholders' lack of incentives to prevent cost overruns is only one example of how the government struggles in long-term relational contracts to limit cost overruns. Because shareholders expect that the government will intervene to reduce the financial impacts they face for cost overruns, they may not make significant investments ex ante to keep costs down. Similarly, shareholders lack incentives to reduce systemic risk when they expect the government to bail them out. Thus, the enormous social cost of a financial crisis leads to government interventions (bailouts) that protect shareholders from paying for the consequences of taking excessive risks. Electric utilities, too, have managed to secure additional funding to cover the costs of corporate misconduct. For example, North Carolina regulators allowed Duke Power to recover the costs of coal ash spills that resulted in hundreds of deaths.[180] As a result, shareholders at these enterprises are not residual claimants and do not internalize the consequences of corporate decisions.[181]

178. *Cf.* Lisa Fairfax, *Stakeholderism, Corporate Purpose, and Credible Commitment*, 108 VA. L. REV. 1163, 1199 (2022) ("[T]he incentives of" corporate directors and shareholders "may not be aligned with stakeholder commitments," which "necessarily raises credible commitment concerns").

179 **[FA]**

180 **[FA] [AU31]**

181. This has implications for other arguments for shareholder primacy. The argument that shareholders face unique difficulties in protecting themselves through explicit contractual terms is

One could, of course, explain this as bad regulatory decisionmaking. But one might also think that the government was in a difficult position. It could not allow these firms to fail. Excessive liability would ultimately cause costs to go up, and costly reorganization in which equity fought tooth and nail to recover could also cause costs to increase. In fact, when liability would not cause a firm to fail, regulators may be disinclined to keep the firm in financial-distress limbo, since doing so causes its capital costs to go up, which in turn can raise the cost the government or ratepayers pay for military contracts and electric service since creditors will charge higher interest rates. Thus, perversely, regulators have an incentive to allow utilities to recover for engaging in misconduct to reduce total costs. Regardless of whether any of these interventions was good policy, they highlight that interventions that prevent shareholders from paying for corporate misconduct undermine the viability of government threats to discipline a firm ex post through the imposition of liability.

The government's inability to force shareholders to take a loss provides some justification for giving the government direct authority to discipline executives who have failed to comply with government standards. For example, if liability for corporate misconduct does not translate into meaningful incentives to mitigate the risks of socially harmful activities, perhaps the government should simply fire managers who behave inappropriately. The government could also be empowered to bring the type of lawsuits that shareholders use to discipline managers who fail to monitor for risks.[182]

B. Other Justifications for Shareholder Primacy

In the industries discussed above, the residual claimant argument applies with less force than it does in markets in which willing customers set the price for goods and services. But this fact alone is not a conclusive argument in favor of reorienting corporate governance away from shareholders in these industries. Although government interventions can weaken shareholders' incentives to innovate and counteract external mechanisms for deterring corporate misconduct by creating an opportunity for certain firms to hold up the government, they may not entirely disrupt other justifications for shareholder primacy.

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based in part on the idea that shareholders are the residual claimants on the enterprise. *See* Fisch, *supra* note 19, at 667.

182. *See In re* Caremark Int'l Inc. Deriv. Litig., 698 A.2d 959, X (Del. Ch. 1996).

First, one argument for giving shareholders control rights is that doing so mitigates agency problems. Managers may shirk or self-deal. A diverse and diffuse group of stakeholders may struggle to reach a consensus on goals and hold managers to account. Corporate law scholars have long argued that it is easiest to police managerial self-dealing and monitor managerial slack when managers are accountable to a single principal.[183] If these agency costs are exorbitant, then they may outweigh the concerns described in the previous Part.

While these concerns may weigh in favor of retaining shareholder primacy, the concerns operate somewhat differently in the industries we have described. Shareholder primacy does not *eliminate* the costs of reaching a consensus among competing stakeholder groups. Instead, it pushes those costs outside the firm. In an ordinary industry, competitive markets meet the challenge efficiently. For example, preferences for high quality products are reconciled with preferences for cheaper items by consumers making choices in the market.[184] But in a government-dominated industry, the government will have to handle the task (and bear the costs) of balancing competing stakeholder concerns.

Second, some commentators have offered the related argument that shareholder primacy offers a clear criterion on which corporate action can be judged.[185] It gives managers a clear instruction—maximize financial returns to shareholders—and promotes accountability because managers can be adjudged successes or failures based on the criterion.

Again, this consideration may weigh in favor of retaining shareholder primacy. But the difficulty of stating a clear criterion can also cut in the opposite direction within government dominated markets. If it is not possible to distill competing stakeholder considerations into a single criterion, it will not be possible for the government to write a clear and explicit contract that addresses those concerns.[186] The difficulty of stating a clear criterion may thus enhance the case for government involvement in firm decisions.

Third, institutional specialization may weigh in favor of shareholder primacy. As Professor Jill Fisch has argued, diffuse shareholders are likely

183. EASTERBROOK & FISCHEL, *supra* note 1, at 38.

184 **[FA]**

185. *See, e.g.*, STEPHEN BAINBRIDGE, THE PROFIT MOTIVE: DEFENDING SHAREHOLDER VALUE MAXIMIZATION 132–33 (2023).

186. *See, e.g.*, Clark, *supra* note 9, at 702.

to be at a disadvantage in lobbying the political branches.[187] As a result, a court hearing a fiduciary duty case may be the one institution that is likely to defend shareholder interests effectively. While this may be a strong reason for courts to favor shareholders over managers or even workers, it is less clear that the argument would apply to the even more diffuse and disempowered groups affected by corporations within these industries. For example, future victims of a disease are unlikely to be able to identify themselves today, let alone advocate for a research and development strategy that could save their lives or a treatment pricing strategy that could save their future finances.

Finally, prudential considerations may weigh in favor of insulating corporate decisions from political interference. There may be instances in which it is desirable to allow corporations to set a steady policy even when political leaders have electoral reasons for preferring variations.[188] And while the lack of shareholder responsiveness may create a theoretical justification for empowering the government to fire managers and set executive compensation, such interventions may make it more difficult or more expensive to attract and maintain executive talent. Prospective CEOs may be less inclined to accept a job, or they may demand a higher salary, if they are worried that government officials—perhaps motivated by petty politics rather than sound business judgment—will step in and fire them on a moment's notice. These concerns are not absent in private industry.[189] But the law recognizes that they have particular salience in the political context.[190]

A more pedestrian version of the concern is that the government may lack the expertise or capacity to take such a direct role in corporate affairs, or that corruption or capture concerns may outweigh all other

187. Fisch, *supra* note 19, at 664–66; *see also* Frank H. Easterbrook, *The Race for the Bottom in Corporate Governance*, 95 VA. L. REV. 685, 701–02 (2009) ("Investors are so scattered and diversified that they cannot resist" unfavorable legislation).

188. *See* Menand & Ricks, *supra* note 4, at 1366 (suggesting that the federal government chartered national banks as federal instrumentalities to prevent federal officials from allocating assets in a politicized way).

189. *See, e.g.*, Brehm v. Eisner, 746 A.2d 244, X (Del. 2000) (approving a massive no-fault termination fee that an executive had negotiated when Disney convinced him to join, based in part on the need to provide him with certainty to induce him to leave his former firm).

190. For example, the Pendleton Civil Service Reform Act was designed to end the "spoils system," in which newly elected politicians would quickly replace subordinate officials with political allies. **[FA]** Numerous high government officials also enjoy fixed terms that extend beyond any one presidential administration, in part to insulate them from petty political concerns. The governors of the Federal Reserve remain in place for 14-year, staggered terms. **[FA]**

considerations.[191] If the government is simply incapable of making reasonable decisions about when to hire a manager or claw back her compensation, then perhaps it is worth accepting the somewhat suboptimal incentives of shareholder-focused managers in government-dominated industries. A system of mixed objectives could also distort policymaking as politicians seek to deliver benefits to constituents through relatively opaque corporate decisions instead of relatively transparent taxing and spending decisions or try to enhance the value of a government stake in a particular corporation by changing corporate law or regulations more broadly.[192]

But institutional capacity is not merely a static outside constraint when designing a system of corporate governance. Some nations, such as Norway and Singapore, have enjoyed success with state-owned enterprises by adopting schemes aligned to their particular institutional arrangements.[193] Although it is a problematic example due to corruption and political authoritarianism, China's system of state-owned enterprises built a coherent coalition of business and political elites that delivered a long period of phenomenal economic growth.[194] More broadly, the level of state capacity is a choice; policymakers could always choose to build up the necessary capacity by hiring and making appropriate investments. America's enormous strengths—its rule of law, its low levels of corruption, its highly developed capital markets, and the breadth and size of its economy—suggest that it could navigate the challenges successfully.

IV. Solutions

This Part canvasses potential responses to the corporate governance mismatch described above. Subpart A examines the conventional policy playbook focused on external mechanisms. While many of these tools are worthwhile, they also have deficiencies and shade into internal governance

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191. Experiences with some state-owned enterprises may support this perspective. *See, e.g.*, Milhaupt & Pargendler, *supra* note 14, at 478 (describing some of the "agency costs of state capitalism" at state owned enterprises); Andrei Shleifer & Robert Vishny, *Politicians and Firms*, 109 Q.J. ECON. 995, 995 (1994) ("[P]ublic enterprises are highly inefficient, and their inefficiency is the result of political pressures from the politicians who control them . . . .").

192. *See* Mariana Pargendler, *State Ownership and Corporate Governance*, 80 FORDHAM L. REV. 2917, X (2012).

193. Milhaupt & Pargendler, *supra* note 14, at 532.

194. *See* Li-Wen Lin & Curtis J. Milhaupt, *We Are the (National) Champions: Understanding the Mechanisms of State Capitalism in China*, 65 STAN. L. REV. 697, 701–02 (2013). For a discussion of the dangers of the Chinese government's interventions in civil society, see DANIEL C. MATTINGLY, THE ART OF POLITICAL CONTROL IN CHINA (2021).

approaches. Subpart B develops a playbook based on internal corporate governance reforms. Subpart C addresses the further potential step of insisting on public ownership, either of key facilities or of whole enterprises.

A. External

This Subpart briefly describes the external policy toolkit for addressing the governance problems described above. These tools include: (1) using purchase and sales decisions to create incentives for desired corporate conduct, (2) using regulations to require socially-friendly conduct, and (3) using relational contracting to inject governance-style mechanisms into otherwise arm's length arrangements. Although many of these tools are already in use, they have serious limitations.

1. Purchase and Sales Decisions.—The government can use its power as a key buyer or seller to create conditions that align shareholders' incentives with social aims. Importantly, these tools do not actually shift the corporation's goals. Instead, they are intended to create an environment in which shareholder profit maximizing behavior aligns with social welfare. This can make the tools ineffective or expensive.

For example, the Trump Administration's "Operation Warp Speed" sought to rapidly develop and deploy a vaccine for COVID-19. The program was an astonishing success. Americans received millions of doses within months, while typically vaccines take years to develop, test, and deploy.[195] Perhaps because it wanted to avoid taxpayer-protective contract or statutory terms, Pfizer sought to maintain distance from the program. It did not formally participate, and its eventual deal was with Advanced Technology International instead of the government itself. As a result, Pfizer retained intellectual property it would ordinarily have to share with the government, suffered from manufacturing delays because it did not have access to government expertise and resources, and sent confusing messages about its progress to government officials desperately trying to plan the public response.[196] Because Pfizer was the first to obtain an Emergency Use

195 **[FA]**

196. Sydney Lupkin, *The U.S. Paid Billions to Get Enough COVID Vaccines Last Fall. What Went Wrong?*, NPR (Aug. 25, 2021), https://www.npr.org/sections/health-shots/2021/08/25/1029715721/pfizer-vaccine-operation-warp-speed-delay.

Authorization for a vaccine, it had the power to put its shareholders ahead of public concerns, much to the frustration of government officials.[197]

This suggests real limits to the government's ability to obtain desired conduct through purchase and sales decisions. Even if the government successfully inserts protective terms into a contract, the most it can expect to obtain is grudging acquiescence with the explicit language of the provision. And it may not even achieve that, if the contractor develops the power to hold up the government as the project unfolds. The government's capacity to attach terms to its purchases and sales may only be an effective tool where the desired conduct can be clearly and fully specified in advance,[198] and the government will retain continuing leverage.

2. Regulations.—The government can also impose regulations designed to align shareholder interests with social goals. Indeed, this point is often offered as a central defense of shareholder primacy.[199] Instead of asking firms to balance shareholder financial interests with social goals, the government can simply impose fines on destructive conduct that align shareholder profits with social wellbeing.

Regulation is undoubtedly a critical part of the policy toolkit, but it has meaningful limitations. If corporations remain focused on shareholder profits, they will seek to evade regulations and may enjoy success unless the government remains focused and active. Corporations will also lobby to weaken or eliminate regulations that interfere with profits and may succeed due to their resources and unique access to information.

A full evaluation of the merits of regulation would be beyond the scope of this Article. But the forces that make shareholder primacy a difficult theoretical fit for these industries—information asymmetries, opportunism, the need for rapid ex post adjustments, and the threat of holdup—can make traditional regulation a difficult strategy for public officials to implement successfully.

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197. *Id.* Purchasing agreements with pharmaceutical companies also prohibited the use of vaccines for research purposes without company consent, frustrating efforts to compare vaccines or test the next generation of vaccines. *See* Benjamin Mueller, *The End of Vaccines at 'Warp Speed'*, N.Y. TIMES (Nov. 18, 2022), https://www.nytimes.com/2022/11/18/health/covid-nasal-vaccines-warp-speed.html.

198. *See* CLARK, *supra* note 9, at 702 ("[C]ontracts by for-profit business corporations to provide services for governments are likely to flourish only where governmental goals have been clearly defined and the services are specified in terms of outputs and activities that are easily monitored yet meaningfully related to the goals").

199. Easterbrook & Fischel, *supra* note 1, at 82, Bebchuk & Tallarita, *supra* note 3, at 102–03.

3. Relational Contracting.—The government could also make greater use of contractual governance mechanisms to manage projects collaboratively. Relational contracts are intended to address the information asymmetries, opportunism, and bilateral monopolies that can develop over the course of a complex, innovative, or long-term project.[200] To accomplish this, the contracts install formal mechanisms that force parties to share information or otherwise check in and use informal or relational mechanisms to constrain opportunistic behavior.[201]

The government has experimented with aspects of this approach in various contexts. As Professor Matthew Jennejohn has explained, the Department of Defense has already used "alpha contracting" processes to develop projects collaboratively.[202] More broadly, the government has used phased competitions and audits to maintain discipline in large projects.[203]

But the government's ability to use these tools depends on its capacity to process any information it receives and the credibility of its threats. If the government is unable to handle the information it receives, it will be unable to react appropriately. Similarly, if it is unable to shift phases of projects from one contractor to another, it will be unable to use the tools afforded by a relational contract. For example, one mechanism identified in the relational contracting literature is the "hostage" exchange, in which a party that will have opportunities to make demands ex post hands over something of value ex ante to provide reassurance.[204] But when the government lacks the ability to follow through and seize the valuable asset, as when the government must ensure that continued participation in the industry is profitable in order to meet its broader goals, these mechanisms have limited utility.

More fundamentally, relational contracting empowers public officials to get closer to decisions, and to use informal tools to make ex post

200. *See* Matthew Jennejohn, *Braided Agreements and New Frontiers for Relational Contract Theory*,45 J. CORP. L. 885, X (2020); Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 COLUM. L. REV. 431, X (2009).

201. Gilson et al., *supra* note 200 at 435; *cf.* Pollman, *supra* note 200, at 186 (describing how venture capital firms use staged financing mechanisms to discipline managers at innovative firms, "reducing information asymmetry and the impact of uncertainty"); Williamson, *supra* note 7, at 1212, 1215 (describing use of progress payments and credible commitments to secure desired conduct).

202. Jennejohn*, supra* note 200, at 888–89.

203. *See supra* Part II.B.

204. *See, e.g.*, Oliver Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519, 519 (1983).

adjustments. As a result, the line between relational contracting and governance interventions is blurry at best.

B. Governance Interventions

This subpart describes reforms intended to reorient the governance of relevant firms to address public interests. Because the existing shareholder-focused corporate governance system is supported by multiple mechanisms, an effort to rebalance objectives would call for changes on several fronts: (1) the market for corporate control, (2) managerial incentives, (3) representation on the board of directors, and (4) the fiduciary duties of directors and officers.

Of course, these authorities might be described as ordinary regulation and contract, rather than governance interventions. After all, heightened merger review is an ordinary legal intervention. The government can similarly use contract to negotiate for a board position. But this is merely a semantic distinction. These issues are typically considered core governance matters that are reserved to shareholders and their representatives on a board of directors. To the extent that the government limits shareholder discretion in these areas through contract or regulation, it is, in our view, involving itself in ex post decisionmaking about what projects the firm should pursue.

1. Market for Corporate Control.—Policymakers might intervene in the market for corporate control. At present, the market for corporate control encourages managers to focus on generating profits for shareholders. If a manager fails to maximize shareholder value, the corporation will be taken over and the managers terminated. The mechanisms that structure the market are all oriented toward shareholders: financing is driven by financial profits, only shareholders vote or sell shares, and directors and officers are subject to heightened fiduciary duties that demand a focus on shareholders' financial interests.[205]

Deference to shareholder interests is sensible if shareholder value is created because the merger creates efficiencies. If an acquirer can pay a premium for a target because the company is being run in a sloppy manner and can be fixed, or because the combination of the acquirer and target would create unique opportunities to generate real value, the transaction will

205. *See* Bebchuk & Tallarita, *supra* note 3, at 143–46; Leo E. Strine, *Our Continuing Struggle with the Idea that For-Profit Corporations Seek Profit*, 47 WAKE FOREST L. REV. 135, 137 (2012).

increase total wealth.[206] But a combination may generate financial returns for shareholders by transferring wealth away from other groups. This point is already well understood in antitrust. If a company can buy its competitors and exercise monopoly power, it may be able to constrain production and charge monopoly rents—destroying total social wealth but achieving financial returns for shareholders by transferring wealth away from employees and customers. As a result, the Federal Trade Commission and Department of Justice review transactions for antitrust concerns.

The analysis here suggests additional reasons for concern with transactions in the relevant industries. A merger between companies within a government dominated market may complicate the government's task by removing competition, enhancing the bargaining power of the merged firm, reducing the credibility of any government threats of punishment for bad behavior, and denying the government the ability to benchmark a company's performance against rivals. And larger and more complex organizations are more difficult for the government to supervise, creating opportunities for managers to evade regulatory strictures.[207] This suggests a need for specialized review focused on particular problems within specific industries.

Existing legal structures already authorize this type of scrutiny in various contexts. The Committee on Foreign Investment in the United States reviews foreign acquisitions of American assets with a view toward national security implications.[208] Banks covered by the Federal Deposit Insurance Corporation must secure regulatory preapproval before merging.[209] And FERC has the authority to review transactions by electric utilities.[210] All these authorities might be used creatively to address a broader range of concerns with mergers in particular industries, and to encourage managers to consider more than shareholder welfare.

The government might also revive the New Deal tradition of structural prohibitions designed to protect regulatory objectives.[211] The Glass-Steagall Act sought to separate commercial from investment banking in an effort to

206. *See* Oliver E. Williamson, *Economies As An Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18, 19–21 (1968) (suggesting such synergies might outweigh significant anticompetitive effects).

207. Kovvali & Macey, *supra* note 74, at 2134.

208. S*ee* Kristen Eichensehr & Cathy Hwang, *National Security Creep in Corporate Transactions*, 123 COLUM. L. REV. 549, 553 (2023).

209. Federal Deposit Insurance Act § 18(c) ("Bank Merger Act"), 12 U.S.C. § 1828(c).

210. Federal Power Act § 203(a)(1)(B), 16 U.S.C. § 824b(a)(1)(b).

211. Roberta S. Karmel, *Is the Public Utility Holding Company Act a Model for Breaking Up the Banks That Are Too-Big-to-Fail?*, 62 HASTINGS L.J. 821, 823 (2011).

prevent financial crises from becoming broader economic crises.[212] In 1998, Citicorp merged with Travelers Group pursuant to a temporary waiver of the prohibition, as its lobbyists confidently predicted that the act would be repealed permanently.[213] Congress obliged with the Gramm-Leach-Bliley Act in 1999.[214] Some commentators have suggested that the repeal contributed to the global financial crisis of 2007 to 2008.[215] Similarly, the Public Utility Holding Company Act of 1935 sought to eliminate complex corporations and financial structures within the utility industry.[216] It was repealed in the Energy Policy Act of 2005.[217] There is good reason to believe that utility companies are using the relaxation of the regulatory scheme to transfer value, gain unfair advantages, and flummox policies designed to encourage a transition to clean energy.[218] Such prohibitions could be expanded to help ensure that corporate dealmaking in the relevant industries is intended to create real value and not simply exploit government failings.

2. Managerial Appointment, Removal, and Incentives.—The government might assert greater authority within the relevant industries to appoint or remove executives and to set their compensation. Under current law, corporate boards—whose members are answerable to shareholders—take the lead in exercising these powers.[219] This creates an incentive for managers to advance shareholder interests, even where those interests conflict with social or governmental goals.

One way to address boards' misaligned incentives is to give public officials a say in managerial decisions. For example, public officials might be granted power over removal but not appointment, allowed to claw back compensation in the event of a corporate problem but not allowed to set compensation in the first instance, granted a voice but not total authority over these matters, allowed to exercise authority within strict statutory parameters, or granted a complete and standardless veto on each issue. While different

212 **[FA]**

213 **[FA] [AU32]**

214 Gramm-Leach-Bliley Act, Pub. L. No. 106-102, § 101, 113 Stat. 1338, 1341 (1999).

215 **[FA] [AU33]**

216 **[FA] [AU34]**

217 Energy Policy Act of 2005, Pub. L. No. 109-58, § 1263, 119 Stat. 594, 974.

218. *See* Kovvali & Macey, *supra* note 74, at 2134.

219 **[FA] [AU35]**

approaches are possible, every system would require a high level of capacity, activity, and public mindedness by public officials. Public officials must closely monitor corporate conduct within each affected industry and make aggressive proactive use of their powers to protect the public interest—or at least be perceived as doing so, to create a deterrent effect.

The government already has the required legal authorities in certain industries, but it often does not appear to use those authorities aggressively or with the goal of focusing attention on public goals instead of shareholder interests. Although the Federal Reserve has substantial authority to remove bankers, it has never used that power against a senior executive at a major U.S. bank.[220] Special rules can limit "golden parachute" payments at troubled financial institutions regulated by the Federal Deposit Insurance Corporation,[221] subject executive compensation at banks to special scrutiny for conformance with risk management goals,[222] and require clawbacks of certain improper compensation.[223] Public utility commissions can refuse to allow utility companies to recover executive compensation expenses in rate cases, and otherwise pressure companies to adopt suitable arrangements.[224]

As a result, it may not be necessary to make major changes to the legal framework. Instead, the first change would be ideological. At present, when the government intervenes in appointment, removal, or compensation, it often acts to make directors and managers more accountable to shareholders. Pursuant to Dodd-Frank and rules imposed by securities exchanges, boards of public companies have sought to give *shareholders* more power over management.[225] Dodd-Frank imposed "say on pay" requirements giving *shareholders* more opportunity to voice disapproval over executive pay.[226] The analysis here suggests that the government should act with a fundamentally different goal in mind. A second change would be to increase

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220. Lin & Menand, *supra* note 9, at 7.

221. COMPENSATION COMMITTEE GUIDE, WACHTELL, LIPTON, ROSEN & KATZ 73 (2020), https://www.wlrk.com/webdocs/wlrknew/ClientMemos/WLRK/WLRK.26789.20.pdf.

222. *Id.* at 66.

223. *See* Jesse M. Fried & Natzan Shilon, *Excess-Pay Clawbacks*, 36 J. CORP. L. 722, X (2011).

224. Julia E. Sullivan & Jennifer Good, *Recovery of Executive Compensation Expenses in Utility Rate Cases*, THE ELECTRICITY J. (Apr. 2011), https://www.akingump.com/a/web/5164/Sullivan-Electricity-Journal-April2011.PDF.pdf

225. *See* Dorothy S. Lund, *Public Primacy*, 47 SEATTLE U. L. REV. 1, 29 (2024) ("Many faulted shareholder primacy for contributing to the environment of moral hazard that brought down the global economy, and yet, Dodd-Frank included multiple reforms that strengthened shareholder control over corporate decisionmaking.").

226. LISA FAIRFAX, SHAREHOLDER DEMOCRACY 78–80 (2011).

state capacity. The power to remove corporate leaders is meaningless unless public officials can monitor for problems and proactively exercise their power. That would require public officials to collect, analyze, and act on an enormous amount of information. Many major institutional investors struggle to engage in meaningful stewardship activities today.[227] The government would face similar challenges.

3. Representation.—Policymakers could also consider revamping corporate boards within the relevant industries to ensure that the government's interests are protected. At a typical American corporation, the directors are regularly elected by shareholders and serve as the shareholders' representatives.[228] This system has several important functions. It incentivizes directors to focus on shareholders, because directors know that shareholders have the power to hold them electorally accountable for their decisions.[229] And it assures shareholders that someone acting in their interest is privy to the confidential corporate information that is needed to make critical decisions.[230]

Reforming the board so that other interests are represented might help reorient firms away from shareholders and toward public goals. Policymakers could choose from among a broad range of options for accomplishing this. At one extreme, directors accountable to the public could be given a majority of board seats, allowing them to direct corporate policy. At another, a single director accountable to the public could achieve meaningful results provided that the director was armed with important rights. These might include access to information and a means for disclosing it, a right to participate in key decisions and committees, and a right to veto important decisions. Policymakers might also select from different options for appointing these officials and keeping them accountable: they might be appointed by elected officials or relevant agencies, high officials at relevant agencies might have an ex officio seat on the boards of key contractors,

227. *See* Dhruv Aggarwal, Lubomir P. Litov & Shivaram Rajgopal, *Big Three (Dis)Engagements* X (Northwestern L. & Econ. Rsch. Paper, Paper No. 23-17, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4580206; Lucian Bebchuk & Scott Hirst, *Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy*, 119 COLUM. L. REV. 2029, 2095–116 (2019).

228. FAIRFAX, *supra* note 226, at 12–13.

229. *Id.* at 13, 29–30.

230. Although this would not eliminate information asymmetries on its own, this dynamic does reduce their impact. Shareholder-elected directors would also have an incentive to disclose any information needed to justify their positions.

corporations could select from a set of director candidates with relevant experiences or qualifications, or the public might elect directors.

A system of public representation would not be a total break from current practice. Defense contractors subject to foreign ownership, control, or influence must have government representatives on their boards.[231] Less formally, major contractors and firms operating in these industries routinely employ former government officials,[232] presumably on the theory that these officials are considered uniquely trustworthy by the government. More broadly, private parties regularly bargain for representation on the board of directors to protect their investments,[233] and founders at successful technology firms often reserve outsized voting power to advance their idiosyncratic vision or broader preferences.[234] Various actors have shown increasing interest in ensuring representation of women or racial minorities on boards in an effort to enhance social performance.[235] Other advanced economies have struck even more extreme balances, mandating worker representation on boards[236] or giving government officials "golden share" powers that arm them with a veto on important decisions.[237] Thoughtfully expanding representation on the boards of American companies in relevant industries would not be a totally anomalous approach. Of course, the fact that some representation strategies have been tried but problems remain may suggest limitations to the approach.

4. Fiduciary Duties.—Policymakers could also make changes to the fiduciary duties of directors at firms in government dominated industries. At present, directors of most major corporations have a judicially enforceable

231. Verstein, *supra* note 9, at 777.

232 **[FA]**

233. *See id*.

234. *See* Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560, X (2016).

235. California's women on boards statute represented a governmental effort to insist on representation. *See* Jill E. Fisch & Steven Davidoff Solomon, Centros*, California's "Women on Boards" Statute and the Scope of Regulatory Competition*, 20 EUR. BUS. ORG. L. REV. 493, X (2019). Institutional investors such as State Street have also advocated for gender diversity at major corporations. *See* David H. Webber, Michal Barzuza & Quinn Curtis, *Shareholder Value(s): Index Fund ESG Activism and the New Millennial Corporate Governance*, 93 S. CAL. L. REV. 1243, 1244 (2020).

236. *See* Leo E. Strine, Jr., Aneil Kovvali & Oluwatomi O. Williams, *Lifting Labor's Voice: A Principled Path Toward Greater Worker Voice and Power Within American Corporate Governance*, 106 MINN. L. REV. 1325, X (2022).

237 **[FA] [AU36]**

obligation to advance shareholder interests.[238] And although the leaders of Delaware corporations may consider the interests of other constituencies as part of their business strategy, "[p]romoting, protecting, or pursuing nonstockholder considerations must lead at some point to value for stockholders."[239]

Reforming fiduciary duty law would be necessary to reorient firms toward the public. Even if directors are given incentives to focus on public objectives, they would be unable to do so if they retained a fiduciary obligation to focus on shareholders instead. Undertaking other corporate governance interventions without reforming fiduciary duties would thus accomplish nothing other than to create conflicts of interest. And while it would theoretically be possible to have public representatives on the board with duties to the public serving alongside shareholder representatives on the board with duties to the shareholders, that approach would seriously compromise the board's ability to reach consensus on corporate policy.[240]

Reforms to fiduciary duties would not be a decisive break with existing practice. As noted, most states allow directors to consider interests of stakeholders other than shareholders. Private parties—including union pension funds—have often bargained for board representation, presumably in the belief that it would help them advance their particular interests.[241] The

238. N. Am. Catholic Educational Programming Found. Inc. v. Gheewalla, 930 A.2d 92, 101 (Del. 2007) ("The directors of Delaware corporations have 'the legal responsibility to manage the business of a corporation for the benefit of its shareholders-owners.'" (quoting Malone v. Brincat, 722 A.2d 5, 9 (1998)); *see also* Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 955 (Del. 1985) ("[C]orporate directors have a fiduciary duty to act in the best interests of the corporation's shareholders . . ."); eBay Domestic Holdings, Inc. v. Newmark, 16 A.3d 1, 35 (Del. Ch. 2010) ("Directors of a for-profit Delaware corporation cannot deploy a rights plan to defend a business strategy that openly eschews stockholder wealth maximization—at least not consistently with the directors' fiduciary duties under Delaware law."). *But see* William T. Allen, *Our Schizophrenic Conception of the Business Corporation*, 14 CARDOZO L. REV. 261, 276 (1992) (suggesting that Delaware law reflected a "social entity" conception of the business corporation that allowed managers to reject economic or market discipline in ways that help meet corporations' social obligations); William D. Savitt & Aneil Kovvali, *On the Promise of Stakeholder Governance: A Response to Bebchuk and Tallarita*, 106 CORNELL L. REV. 1881, 1888 (2021) ("Delaware law surely permits directors to advance stockholders' interests as the stockholders themselves understand their interests. Investors today—or a critical mass of them at any rate—recognize their interests require a broader focus, including stakeholders, and a clearer sense of corporate purpose.")

239. *Newmark*, 16 A.3d at 33.

240. *See* Strine et al., *supra* note 236, at 1382 (suggesting that worker representation on the board of directors would be most effective if all directors had the same stakeholder focused fiduciary duties).

241. *But see* STEVEN RATTNER, OVERHAUL 258 (2011) (stating that the United Autoworkers instructed their representative on GM's board to focus on maximizing the firm's share price).

government has also insisted on public oriented directors in specific contexts. State fiduciary duty rules do not apply to government representatives on the boards of foreign owned, controlled, or influenced defense contractors.[242] Broadening these exceptions to Delaware's stated approach to fiduciary duties would be an evolutionary, not revolutionary change.[243]

But changing fiduciary duties might not be a sufficient reform. Directors today already enjoy significant protection from liability for violations of their fiduciary duties under the business judgment rule, which shields many of their decisions from meaningful judicial scrutiny and makes it possible as a matter of practice for them to divert value to other corporate constituencies.[244] Most states also have defined fiduciary duties differently from Delaware and allow directors to consider the interests of other constituencies.[245] Yet despite these protections, directors overwhelmingly focus on shareholder interests, presumably because the other mechanisms of corporate governance only empower shareholders.[246]

These points suggest that there could be value in reforming the fiduciary duties of the directors at relevant companies, but that the intervention should be thoughtfully structured and accompanied by other reforms. A generic instruction to advance the public interest may be so broad as to be

242. Verstein, *supra* note 9, at 798.

243. Policymakers might also take a step in this direction by building on *Caremark* duties. At present, *Caremark* is understood to impose a fairly minimal duty on corporate directors to oversee a risk monitoring system that is tailored to the firm's particular regulatory and reputational risks. **[FA]** Although it has proven to have real teeth in some recent cases, this conception of *Caremark* duties is ultimately an ineffective tool for aligning director incentives with social interests. A deeper understanding of *Caremark* might impose a responsibility to cooperate with the basic goals of regulatory policy, even where existing rules and regulators are deficient. *Cf.* Good, 177 A.3d at 65 (Strine, C.J., dissenting).

244. Einer Elhauge, *Sacrificing Corporate Profits in the Public Interest*, 80 N.Y.U. L. REV. 733, 776–83 (2005); *see also Newmark*, 16 A.3d at 33 ("When director decisions are reviewed under the business judgment rule, this Court will not question rational judgments about how promoting non-stockholder interests—be it through making a charitable contribution, paying employees higher salaries and benefits, or more general norms like promoting a particular corporate culture—ultimately promote stockholder value.").

245 **[FA] [AU37]**

246. *See* Bebchuk & Tallarita, *supra* note 3, at 93; Leo E. Strine, Jr., *The Dangers of Denial: The Need for a Clear-Eyed Understanding of the Power and Accountability Structure Established by the Delaware General Corporation Law*, 50 WAKE FOREST L. REV. 761, 766 (2015). *But see* Savitt & Kovvali, *supra* note 238, at 1891, 1894 (noting that even where governing law appears to allow consideration of nonstockholder constituencies, corporate directors might reasonably fear liability if they fail to prioritize stockholders).

unenforceable.[247] Policymakers might define duties more precisely and tailor them to the specific industries at issue. While varying fiduciary duties across firms and industries would create some costs, the operative content of many fiduciary duties already does vary. For example, within the duty of directors to install and oversee a reasonable system to monitor for legal violations and key risks, the appropriate measures and key risks will vary across firms and industries.[248] Formalizing that variation would be a useful complement to this reform.

Policymakers might also consider changes to business judgment deference. At its best, the business judgment rule encourages socially beneficial risk-taking by corporate leaders by assuring them that any failures will not be subject to judicial second-guessing in fiduciary duty lawsuits.[249] But in contexts where the government uses external mechanisms to effectively dictate key decisions, the value of managerial risk-taking is sharply diminished. If the underlying fiduciary duties are owed to the public, it may be sensible to enforce them without the deference normally provided by the business judgment rule.[250]

C. *Public Ownership*

This Subpart considers public ownership as an alternative to shareholder-owned firms in government-dominated industries. Public ownership might be applied to (1) certain assets and intellectual property that are critical to relevant projects, or (2) entire enterprises.

1. Assets and Intellectual Property.—The government might address the issues associated with bilateral monopoly by insisting on public ownership of the facilities, intellectual property, and employment contracts needed to execute the relevant project. Even if an outside contractor was responsible

247. *See* Aneil Kovvali & Yair Listokin, *Valuing ESG*, 49 BYU L. REV. 705, X (2024); Jill E. Fisch & Steven Davidoff Solomon, *The "Value" of a Public Benefit Corporation*, *in* RESEARCH HANDBOOK ON CORPORATE PURPOSE AND PERSONHOOD Y, X (Elizabeth Pollman & Robert B. Thompson, eds., 2022).

248. Marchand v. Barnhill, 212 A.3d 805, 821 (Del. 2019) (acknowledging that "directors have great discretion to design context- and industry-specific approaches tailored to their companies' businesses and resources").

249. *See* EASTERBROOK & FISCHEL, *supra* note 1, at 99-100.

250. Within the current regulatory scheme, similar considerations may support a more searching review of corporate decisions. For example, regulators might do more to ensure that a public utility's investments were prudent when made and used and useful before allowing the utility to earn a return.

for using these in the first instance, the government would retain the ability to replace the contractor through competitive bidding.[251] Although the basic approach was suggested in the context of public utilities and other "natural monopolies,"[252] it might be adapted to a broader range of industries. For example, the government might award an initial contract to Lockheed Martin to develop a warplane, but if the government retained ownership of any facilities built, the intellectual property developed, and the employment contracts of key individuals involved in the project, the government could always reopen the project to competitive bidding at a later date. In effect, Lockheed Martin's advantage in assets and "know-how" would be neutralized.

In addition, government ownership of the key assets would substantially increase the government's supervisory capabilities because any residual authority over the assets would reside with the government.[253] If the contract between Lockheed Martin and the government was unclear or silent as to some aspect of the use of the critical assets and personnel, the government would be free to decide. And ownership would create more opportunities for the government to elicit information through bargaining.

This would not be a complete break with current practice, as the government currently reserves property or property-like interests in intellectual property developed with government support. Existing statutes allow the government to obtain patents on federally funded inventions, and to insist on licenses for itself and its contractors.[254] The government also imposes regulatory schemes that force private actors to share critical facilities.[255] And the government has significant authority under the Defense Production Act of 1950 to effectively commandeer materials, services, and facilities.[256] These powers might be expanded with explicit statutory

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251. An alternative way to achieve a similar result would be to authorize the government to force divestitures of the relevant divisions. If the government could force Lockheed Martin to sell or spin off the portions of the business relevant to production of the F-35, it could achieve results similar to a Demsetz auction. **[FA]**

252. *See* Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55, 58 (1968).

253. *Cf.* OLIVER HART, FIRMS, CONTRACTS AND FINANCIAL STRUCTURE 5–6 (1995).

254. Laura E. Dolbow, *Public Patent Powers*, 123 MICH. L. REV. (forthcoming) (manuscript at 43–44), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4739492. **[AU38]**

255. *See* Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, X (2004) (discussing the interconnection obligations of certain carriers under the Telecommunications Act of 1996); RICKS ET AL., *supra* note 4, at 26-–8 (discussing "equal access" and interconnection requirements).

256. *See* 50 U.S.C. § 4501 *et seq.* **[AU39]**

provisions or by revamping antitrust doctrines in this context.[257] However, the government's general reluctance to take full advantage of its existing powers suggests some limitations. The government has not been willing to be aggressive in forcing pharmaceutical companies to license intellectual property to generic manufacturers, either due to the political power of entrenched incumbents or concern that aggressive use of the authority would diminish ex ante incentives to invest.[258]

2. Enterprises.—The government might also own the entire enterprise, using public officials and employees to manage and execute projects. This would ensure that decisions are being made in a way that is responsive to the political system, as opposed to shareholder profits. Public ownership could be implemented in a variety of ways. Financially, the government might create a new organizational form or use a standard for-profit structure, fully own the entity or simply retain control, and exercise governance prerogatives or merely reserve the right to do so.[259] Operationally, the government could attempt to carry out all functions with its own personnel or still contract out for various services while reducing the scope of those contracts. For example, in developing new weapons systems, the government might take on the responsibilities currently borne by prime contractors while continuing to contract out for specific parts or subsystems.

Again, this would not be a fundamental break with prior practice. The government currently executes many core functions with its own personnel. Within the industries considered here, there are also notable instances of public ownership. The Tennessee Valley Authority is a utility company created as part of the New Deal, to electrify and develop the Tennessee Valley. It remains government owned.[260] The military obviously continues to handle many functions in-house, with hundreds of thousands of civilian employees (and over a million uniformed personnel) conducting various

257. Under the "essential facilities" doctrine, a company might be required to make a critical asset available to a competitor under specific and narrow circumstances. *See* HERBERT HOVENKAMP, PRINCIPLES OF ANTITRUST 297–99 (2d ed. 2021). The doctrine is limited, particularly in contexts where an effective regulatory regime already exists. *Id.*; *Trinko*, 540 U.S. at 407–08.

258. Dolbow, *supra* note 254, at 8.

259. *Cf.* Milhaupt & Pargendler, *supra* note 14, at 480–529 (describing examples of different structures across eight jurisdictions); Marcel Kahan & Edward B. Rock, *When the Government is the Controlling Shareholder*, 89 TEXAS L. REV. 1293, 1295 (2011) (describing U.S. government stakes in various enterprises).

260. **[FA]** Shelley Welton has also demonstrated that cities have played an important role in supplying electricity. *See* Shelley Welton, *Public Energy*, 92 N.Y.U. L. Rev. 267, X (2016).

functions.[261] The National Institutes of Health conduct substantial research in house, in addition to funding research at universities and other institutions.[262] And in finance, the Government National Mortgage Association, or Ginnie Mae, is a government owned corporation that guarantees mortgages to promote the development of affordable housing.[263]

The analysis here suggests that further experimentation with these modes of ownership would be worthwhile. There are real costs associated with political control of important enterprises, including the potential for inefficient pandering to voters or special interests. But there are also costs to a model in which important enterprises are owned by shareholders and subjected to regulation by constrained public officials. The balance is likely to vary across industries and context.

Conclusion

In certain industries, firms can increase shareholder profits without creating value for society. The problem is particularly pronounced in environments where firms are in a position to hold up the government, as when the government grants firms monopolies, embarks on complex joint projects with firms, commits to purchases on set terms, or cannot avoid stepping in to absorb risk. In these environments, shareholders can profit when firms engage in opportunistic behavior that squeezes the government and damages the broader society. In situations where shareholders do not absorb the full consequences of managerial decisions, there is less justification for giving shareholders residual control rights and making managers responsible to shareholders. Policymakers should therefore consider reforms designed to reorient firms so that they consider objectives beyond maximizing financial returns to shareholders.

Beyond the corporate law reforms presented here, these observations have implications for other business law fields. For example, they suggest that policymakers should consider how mergers and barriers to competition can have harmful consequences beyond the traditional emphasis on price and output. Similarly, labor law should perhaps be reoriented to consider whether

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261. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-23-106966, DEFENSE WORKFORCE: OPPORTUNITIES FOR MORE EFFECTIVE MANAGEMENT AND EFFICIENCIES 2 (2023), https://www.gao.gov/assets/gao-23-106966.pdf.

262. *See Organization and Leadership*, INTRAMURAL RESEARCH PROGRAM, NATIONAL INST. OF HEALTH (last accessed Jan. 13, 2024), https://irp.nih.gov/about-us/organization-and-leadership.

263. *See* CONG. BUDGET OFF., GINNIE MAE AND THE SECURITIZATION OF FEDERALLY GUARANTEED MORTGAGES 1 (2022), https://www.cbo.gov/system/files/2022-01/57176-GinnieMae.pdf.

ordinarily helpful arrangements become problematic for public sector unions or unions within critical industries. In each of these areas, tidy and seemingly universal insights about how to organize doctrinal fields may need to give way to complex and context-specific realities.