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Essential Businesses and Shareholder Value

Aneil Kovvali[†]

The COVID-19 crisis has demonstrated that Americans rely on certain for-profit corporations to supply the essentials of everyday life. Even though the government had assumed extraordinary responsibilities for the wellbeing of its citizens for the duration of the crisis, for-profit companies were deemed so essential to social functioning that workers were sent to keep them running despite the risk of infection with a deadly disease. If our society's capacity to meet basic needs in a crisis is entirely dependent on the capacity of private corporations, it is necessary to critically evaluate the performance of the directors and officers who lead these companies, and to ask whether their pre-crisis decisions were made within an appropriate framework of incentives. Recent experience suggests good reasons to question whether our existing system of corporate governance has proven equal to the outsized role of key corporations. Various corporations were not prepared to operate safely at appropriate levels during a crisis, creating enormous economic and public health risks. These issues were at least plausibly caused by an over-emphasis on short-term profit maximization within a specific pre-crisis operating environment, and a failure to address the undiversifiable risks associated with a potential disruption. While external regulation and coordination by the government is a critical part of the solution to this problem, new corporate governance tools could play a valuable role in ensuring that directors and officers recognize and carry out a duty to build resilient organizations. This Article discusses one possible tool: a focused liability regime that would hold the directors and officers of corporations running essential businesses liable if they fail to prepare for crises.

INTRODUCTION

The COVID-19 crisis vividly demonstrated that Americans rely on certain for-profit corporations to supply the essentials of everyday life. Even in a crisis situation in which the government had assumed an extraordinary role and extraordinary responsibilities, it was deemed necessary for workers handling "essential" tasks to risk infection to continue their work at private companies. Our society's capacity to meet

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basic needs in a crisis thus seems entirely dependent on the capacity of private corporations, which in turn is determined by the decisions of the private actors in positions of authority at these companies.

At the same time, these actors have limited incentives to consider the full implications of their decisions. Under a conventional understanding of corporate law, corporate officers and directors have an obligation to maximize the value of the corporation for the benefit of its shareholders, without considering the interests of other stakeholders like employees or customers.[1] While this legal understanding does give corporate actors practical discretion to consider a broad range of issues as they pursue long term profits, powerful institutional investors and influential academics have installed incentives that encourage directors and officers to use their discretion to generate quick returns for shareholders.[2] As a result, corporate actors will generally consider issues like employee or customer welfare only to the extent that external factors like legal liability or business dynamics make their welfare relevant to shareholder profits. In addition, corporate actors are normally encouraged to take risks by the business judgment rule, which insulates them from liability for a broad range of decisions as long as they are taken in good faith. The risk-taking encouraged by the rule normally benefits shareholders, who are generally able to diversify away risks at an individual company by holding a portfolio of stocks.[3]

[1] *See, e.g.*, 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, 768 (2015) ("Despite attempts to muddy the doctrinal waters, a clear-eyed look at the law of corporations in Delaware reveals that, within the limits of their discretion, directors must make stockholder welfare their sole end, and that other interests may be taken into consideration only as a means of promoting stockholder welfare."); Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 440–41 (2001) (describing a "standard shareholder-oriented model" under which "ultimate control over the corporation should rest with the shareholder class; the managers of the corporation should be charged with the obligation to manage the corporation in the interests of its shareholders; other corporate constituencies, such as creditors, employees, suppliers, and customers, should have their interests protected by contractual and regulatory means rather than through participation in corporate governance; . . . and the market value of the publicly traded corporation's shares is the principal measure of its shareholders' interests").

[2] *See, e.g.*, Dorothy Shapiro Lund & Elizabeth Pollman, *The Corporate Governance Machine*, 122 COLUM. L. REV. (forthcoming 2022) (noting that powerful institutional players reinforce a corporate governance system focused on shareholder interests); Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Corporate Governance*, 106 CORNELL L. REV. 91, 139–58 (2020) (urging that corporate directors and officers have powerful economic incentives to use their discretion to advance shareholder interests). *But see* William D. Savitt & Aneil Kovvali, *On the Promise of Stakeholder Governance: A Response to Bebchuk and Tallarita*, 106 CORNELL L. REV. (forthcoming 2021) (describing the introduction of new stakeholder-friendly norms and understandings amongst investors and managers).

[3] *See, e.g.*, FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 99–100 (1993) ("Managers especially want to avoid risk because they cannot diversify the value of their human capital. Shareholders, however, readily diversify risk through capital markets. They want managers to take the projects with the highest mean returns, which

These principles lead to odd results in a pandemic. External sources of liability like tort law are unlikely to cause a business to internalize the full costs of its decisions in a pandemic, meaning that a corporation can cause harm without having to pay out damages or denting the corporation's profits.[4] These harms are amplified at essential businesses, which are likely to keep operating and thus keep causing harm even in the midst of a pandemic. And disruptions to the operations of an essential business are likely to cause downstream impacts on the operations of other businesses—the importance of their goods and services to other businesses and to consumers is part of what makes an essential business essential. As a result, shareholders cannot diversify away the risks that such firms create.

There are some conventional responses to these issues, but they are likely to prove inadequate. First, the government can use emergency powers like those accorded by the Defense Production Act[5] to force essential businesses to carry out necessary tasks.[6] But this power to reshape incentives ex post, in the midst of a crisis, would do little to improve important decisions ex ante, when many critical decisions are made. Indeed, ex post threats may have undesirable dynamic effects. Companies may anticipate that the government will use its emergency powers to facilitate continued operations during a crisis regardless of safety, and thus deem it unnecessary to invest in safety precautions in advance. And if investors expect that emergency powers will be used against critical businesses in a crisis, they may avoid investing in critical businesses in the first place. Second, the government might seek to impose regulations ex ante that require businesses to adopt appropriate measures.[7] But such measures are likely to be incomplete. Corporate directors and officers have more information about their operations than the government and have a better sense of what is required to ensure reliability. Businesses seeking to maximize short-term stock

may entail high risk . . . . Investors may agree to release managers from liability in order to reduce risk and thus to reduce the amount that must be paid in compensation . . . the business judgment rule acts as an implicit contract with similar effects.").

[4] *See, e.g.*, Daniel J. Hemel & Daniel B. Rodriguez, *A Public Health Framework for COVID-19 Business Liability*, 7 J.L. & BIOSCIENCES 1 (2021) (noting obstacles to plaintiffs seeking to impose tort liability); Jacob Gershman, *Businesses Feared a Flood of Covid-19 Lawsuits. It Hasn't Happened*, WALL ST. J. (Dec. 24, 2020), https://www.wsj.com/articles/businesses-feared-a-flood-of-covid-19-lawsuits-it-hasnt-happened-11608811201 [https://perma.cc/3TV7-4J5H] ("Nine months into the pandemic, an expected torrent of virus-related personal-injury lawsuits hasn't materialized, as plaintiff attorneys find it more challenging than anticipated to hold a business responsible for spreading Covid-19.").

[5] *See* 50 U.S.C. § 4501 *et seq.*

[6] *See infra* Part II.A.

[7] *See infra* Part II.B.

prices could also try to undermine and evade regulations, lobbying officials for weaker regulations and moving to jurisdictions that impose less stringent requirements.

This suggests a role for corporate governance. Bad corporate decisions with respect to pandemic preparation create problems for shareholders[8] and for a broader range of social stakeholders.[9] Diversified shareholders will experience many of these losses indirectly, both in their capacity as human beings living in an ailing society and in their capacity as investors in other companies. Indeed, they will be unable to diversify away the risks associated with such losses, as they will strike all areas of the economy. But the losses will not be fully reflected in any individual company's stock price. As a result, individual corporations running essential businesses are likely to underinvest in protective measures and to seek to eke out additional profits even at the expense of redundancy or resilience.

To address these problems, modifications to corporate doctrine may be in order.[10] In the wake of a financial contagion a decade ago, Professors John Armour and Jeffrey N. Gordon suggested modifying fiduciary duties and the business judgment rule at systemically important financial institutions.[11] The analysis above would support a similar set of modifications at firms that are important to society's capacity to weather a true contagion. The paradigm case would be firms whose operations are essential in a crisis but potentially devastating in their effects. A real case could also be made for firms whose operations are simply essential in a crisis. In either case, corporate actors must be incentivized to make appropriate preparations for a crisis if economic and social harm is to be avoided.

One way to provide incentives would be to impose liability upon directors and officers at corporations running large essential businesses whose unapproved or inadequate action or inaction prior to a crisis renders the essential business unable to operate safely at appropriate levels during a qualifying crisis. If each of these predicates were satisfied, the directors and officers would be liable up to an amount not to exceed a set number of years of compensation prior to the crisis. While it is possible to imagine other plausible enforcers, shareholders would be particularly effective plaintiffs.

[8] *See infra* Part III.

[9] *See infra* Part IV.

[10] *See infra* Part V.

[11] John Armour & Jeffrey N. Gordon, *Systemic Harms and Shareholder Value*, 6 J. LEGAL ANALYSIS 35 (2014). For related proposals focused on financial institutions, see David Min, *Federalizing Bank Governance*, 51 LOY. U. CHI. L.J. 833 (2020); Steven L. Schwarcz, *Misalignment: Corporate Risk-Taking and Public Duty*, 92 NOTRE DAME L. REV. 1 (2016).

Each element would require explanation and justification. First, directors and officers have responsibility for monitoring and running the corporation and are a natural target for the reform. In addition, imposing liability upon them would be unlikely to exacerbate any financial or economic crisis accompanying a pandemic; smaller damages would be sufficient to provide deterrence, and the remedy would not drain the coffers of the corporation itself. Second, the motivating problems described here are at their worst at large essential businesses like major food processors, which have the greatest ability to cause disruptions to the overall system. Though measures might be adopted to regulate other legal entities running essential businesses, corporations have a unique ability to raise capital and distribute risk, making them a natural focus for efforts to encourage preventative investments. Third, focusing on decisions prior to a crisis would avoid interfering with government efforts to keep operations going during a crisis. Increased liability for decisions made during a pandemic might discourage businesses from cooperating with government efforts to sustain or ramp up activity. The approach would also encourage corporations to seek clarity from regulators on appropriate measures, causing them to put their political capital to work in prompting necessary action instead of stalling it. Fourth, making failure to maintain safe operation during a crisis the trigger for liability maintains an appropriate focus on what society needs from essential businesses and the people who lead them. Fifth, limiting liability to a set number of years of compensation would avoid excessively chilling valuable behavior by corporate actors. The important goals of fostering safety and resilience must be balanced against the goal of pursuing efficiency, and the liability regime should not push corporate actors too far in one direction. Finally, shareholders would be effective plaintiffs. Public regulators could have an incentive to ignore some violations, and other stakeholders like workers would be better protected by other areas of law.

This Article proceeds as follows. Part I provides an overview of the COVID-19 crisis, calling out problems that inform the overall proposal. Part II considers traditional regulatory responses to these issues and explains why they are likely inadequate. Part III analyzes these issues through the lens of shareholder value, showing that reforms are warranted even if corporate governance focuses exclusively on shareholder interests. Part IV briefly analyzes these issues through the lens of stakeholder governance, showing that reforms are especially warranted if corporations are expected to advance the interests of non-shareholder constituencies. Part V presents a proposed solution: a liability regime designed to focus the attention of corporate decision-makers on resilience issues.

I. THE COVID-19 CRISIS

This Part provides a brief overview of the COVID-19 experience, with particular attention to the issues created by essential businesses. Part I.A provides background, showing that government and commercial entities had anticipated the crisis and outlining the principal government policy response of "lockdowns." Part I.B discusses the concept of "essential businesses" exempted from lockdowns because of a determination that their continued operation is necessary to social functioning. Part I.C turns to some of the problems that arose with essential businesses during the COVID-19 crisis.

A. Prior Pandemics and the COVID-19 Crisis

Public and private figures in American life had been expecting a pandemic for some time. In the wake of high-profile events like the H1N1 pandemic in 2009 and MERS outbreaks in 2012 and 2015, the Obama Administration's National Security Council prepared a "playbook" discussing the threat in specific terms.[12] Corporate lawyers similarly appear to have understood that the prior pandemics had highlighted a real and ongoing risk. After those experiences, contracts for corporate transactions increasingly called out and allocated the risk of a future pandemic.[13]

Despite this awareness, America was largely unprepared for the actual crisis prompted by the novel coronavirus SARS-CoV-2 and its resulting disease COVID-19. After a systematic hollowing-out of state capacity, public health authorities struggled to articulate and enforce credible and effective policies. Because federal leadership was largely absent—or malicious and willfully ignorant—a patchwork of state and local authorities was often forced to formulate and impose measures in response to shifting circumstances.

Many jurisdictions sought to place limits on various in-person business activities for the duration of the crisis.[14] While something of a misnomer, these limitations were frequently described as "lockdowns" by

[12] *See* Dan Diamond & Nahal Toosi, *Trump Team Failed to Follow NSC's Pandemic Playbook*, POLITICO (Mar. 25, 2020), https://www.politico.com/news/2020/03/25/trump-coronavirus-national-security-council-149285 [https://perma.cc/8PH5-UGSJ] (reporting on the Obama Administration's "Playbook for Early Response to High-Consequence Emerging Infectious Disease Threats and Biological Incidents" which drew on experiences with prior pandemics).

[13] Matthew Jennejohn et al., *COVID-19 as a* Force Majeure *in Corporate Transactions*, MICH. ST. L. REV. (forthcoming 2021); Guhan Subramanian & Caley Petrucci, *Deals in the Time of Pandemic*, 121 COLUM. L. REV. 1405 (2021).

[14] For example, New York Governor Andrew M. Cuomo's Executive Order 202.8 ordered any employer not providing essential services or functions to "reduce the in-person workforce at any work locations by 100% no later than March 22[, 2020] at 8 p.m." N.Y. Exec. Order No. 202.8 (Mar. 20, 2020), https://www.governor.ny.gov/news/no-2028-continuing-temporary-suspension-and-

both proponents and opponents.[15] The reasoning behind these steps was straightforward: businesses bring groups of people into close proximity, facilitating the spread of infectious disease. Prohibiting business activities thus had the potential to slow transmission of the virus.

B. Essential Businesses

But these "lockdown" policies had to be qualified. Americans rely upon certain businesses to supply goods and services they deem important. To avoid disruption to daily life, governments exempted various businesses from ordinary lockdown requirements.

Like the overall pandemic response, the exemptions for essential businesses were crafted in patchwork fashion by authorities at different levels of government. But they shared some basic priorities and features. For example:

- Illinois Governor J.B. Pritzker's Executive Order 2020-10 covered healthcare and public health operations; human services operations; certain governmental functions; certain infrastructure; and a laundry list of business categories focused on food production, food processing, food delivery, financial services, and professional services.[16]

- New York Governor Andrew Cuomo's Executive Order 202.6 similarly carved out healthcare operations; certain infrastructure; food processing and pharmaceutical manufacturing; grocery stores; financial services; and certain professional services.[17]

modification-laws-relating-disaster-emergency [https://perma.cc/T4GG-WEV5]. The order represented part of Governor Cuomo's "New York State on PAUSE" program, a "[P]olicy to [A]ssure [U]niform [S]afety for [E]veryone" that required social distancing. Press Release, Governor Cuomo Signs the 'New York State on PAUSE' Executive Order (Mar. 20, 2020), https://www.governor.ny.gov/news/governor-cuomo-signs-new-york-state-pause-executive-order [https://perma.cc/C4W8-5NW2].

[15] *See* Shannon Palus, *America Never Did a Real Lockdown*, SLATE (Nov. 25, 2020), https://slate.com/technology/2020/11/america-never-did-lockdown.html [https://perma.cc/MF2D-EKZX] (noting that American rules restricting behavior were riddled with exceptions and generally not enforced, and contrasting with strict limitations imposed in other countries); Jacob Gershman, *A Guide to State Coronavirus Reopenings and Lockdowns*, WALL ST. J. (May 20, 2020), https://www.wsj.com/articles/a-state-by-state-guide-to-coronavirus-lockdowns-11584749351 [https://perma.cc/V6RX-YA9U] (using the term "lockdown" to refer to a broad range of measures, including such limited steps as temporary closures of parks and beaches).

[16] *See* Ill. Exec. Order No. 2020-10 (Mar. 20, 2020), https://www2.illinois.gov/pages/executive-orders/executiveorder2020-10.aspx [https://perma.cc/38PT-NV78].

[17] *See* N.Y. Exec. Order No. 202.6 (Mar. 18, 2020), https://www.governor.ny.gov/news/no-2026-continuing-temporary-suspension-and-modification-laws-relating-disaster-emergency [https://perma.cc/Y2LB-56UU].

- California Governor Gavin Newsom's Executive Order N-33-20 also carved out categories of businesses, citing federal guidance.[18] These carve-outs covered several sectors, including health care and public health; transportation and logistics; food and agriculture; and energy.[19]
- At the federal level, the Cybersecurity and Infrastructure Security Agency insisted that local and state authorities were responsible for managing and executing the COVID-19 response[20] but issued guidance identifying certain categories as essential, including healthcare and public health; infrastructure; food and agriculture; and energy.

These carve-outs covered a vast portion of the economy. The Brookings Institution estimated that the industries covered by the federal government's definition of essential employed up to 62 million workers before the COVID-19 crisis.[21] The carve-outs also created enormous opportunities for rent-seeking, as companies eagerly sought to be deemed essential so that they could continue to operate and bring in profits.[22]

C. Problems

Over the course of the COVID-19 crisis, many essential businesses struggled to fulfill their social role without endangering workers and local communities. Because of decisions intended to make operations more profitable in a non-crisis environment, firms were unable to function properly when needed.

[18] *See* Cal. Exec. Order No. N-33-20 (Mar. 19, 2020), https://covid19.ca.gov/img/Executive-Order-N-33-20.pdf [https://perma.cc/U5XS-P2RE].

[19] *Essential Workforce*, CAL. ALL, https://covid19.ca.gov/essential-workforce/ [https://perma.cc/JHF6-RVSQ] (last accessed May 31, 2021).

[20] Cybersecurity and Infrastructure Security Agency, *Guidance on the Essential Critical Infrastructure Workforce: Ensuring Community and National Resilience in COVID-19 Response* 5 (vers. 4.0 Aug. 18, 2020), https://www.cisa.gov/sites/default/files/publications/ECIW_4.0_Guidance_on_Essential_Critical_Infrastructure_Workers_Final3_508_0.pdf [https://perma.cc/UP59-Q43G] ("Response efforts to the COVID-19 pandemic are locally executed, state managed, and federally supported.").

[21] Adie Tomer & Joseph W. Kane, *How to Protect Essential Workers During COVID-19*, BROOKINGS INST. (Mar. 31, 2020), https://www.brookings.edu/research/how-to-protect-essential-workers-during-covid-19/ [https://perma.cc/XF28-QH96] ("The Department of Homeland Security uses a sweeping definition of such essential industries, which collectively employed anywhere from 49 to 62 million workers prior to the COVID-19 outbreak according to our highest estimates.").

[22] *See, e.g.*, Theodoric Meyer & Anna Gronewold, *'Choosing Winners and Losers': Behind the Battle to be Deemed Essential*, POLITICO (Apr. 10, 2020), https://www.politico.com/news/2020/04/10/lobbyists-battle-to-be-deemed-essential-178488 [https://perma.cc/AL6T-RGKE]; Ari Natter, *What Makes a Business Essential? Inside the Frantic Lobbying Efforts to Fit the Definition—and Make Trump's List*, FORTUNE (Apr. 14, 2020), https://fortune.com/2020/04/14/essential-businesses-list-definition-workers-employees-dhs-trump-what-is-considered-necessary-coronavirus-covid-19-pandemic/ [https://perma.cc/8S6B-REND].

The meat processing industry offers a paradigmatic example.[23] Relentless consolidation within the industry over the preceding decades resulted in a small number of national players controlling supply, instead of a broader set of regional players.[24] While regional slaughterhouses could go offline without a noticeable disruption to the farmers that supplied them or the consumers that purchased their products, the disruption to national slaughterhouses during the COVID-19 crisis had systemic effects.[25]

The supply and distribution chains running through meat processing facilities had also been relentlessly optimized for a particular operating environment.[26] One chain supplied individual consumers while another supplied restaurants; facilities intended for one chain were not flexible enough to supply another. When COVID-19 caused an increase in at-home dining and a collapse in restaurant dining, the chain for individual consumers was unable to keep up with demand even as livestock, milk, and eggs intended for restaurants were being destroyed.[27]

The facilities themselves had also been relentlessly optimized in the pursuit of corporate profits.[28] They could only accept inputs within

[23] *See, e.g.*, Wendell Steavenson, *Covid-19 Has Exposed the World's Fragile, Complex Food Supply Chains: Disrupted Distribution Has Amplified Concerns about the Ethics and Ecology of What We Eat*, FIN. TIMES (Sept. 24, 2020), https://www.ft.com/content/65ad7504-b7de-4df4-8747-f669a2e541fe [https://perma.cc/3NXM-SWJQ]; Michael Pollan, *The Sickness in Our Food Supply*, N.Y. REV. BOOKS (May 12, 2020), https://michaelpollan.com/articles-archive/the-sickness-in-our-food-supply/ [https://perma.cc/MBA7-7MV5]; Eric Schlosser, *America's Slaughterhouses Aren't Just Killing Animals*, ATLANTIC (May 12, 2020), https://www.theatlantic.com/ideas/archive/2020/05/essentials-meatpeacking-coronavirus/611437/ [https://perma.cc/84EC-U7S9].

[24] Julie Creswell, *Your Steak Is More Expensive, but Cattle Ranchers Are Missing Out*, N.Y. TIMES (June 23, 2021), https://www.nytimes.com/2021/06/23/business/beef-prices.html [https://perma.cc/XZ4C-9USL] (One "outcome of the consolidation has been sharp drops in slaughtering when a single Big Four plant shuts down, even briefly."); Pollan, *supra* note 23 ("America's meat eaters . . . would never have found themselves in this predicament if not for the concentration of the meat industry, which has given us a supply chain so brittle that the closure of a single plant can cause havoc at every step, from farm to supermarket."); *cf.* Steavenson, *supra* note 23 ("The food industry [in the U.K.] has become more capital intensive, vertically integrated and concentrated in fewer and fewer hands. Economies of scale have led to consolidated farms, huge factories, supermarkets . . . but increasing fragility in the system.").

[25] *See* Creswell, *supra* note 24; sources *supra* note 23.

[26] Pollan, *supra* note 23 (describing separate food chains for "institutional purchasers of food" and for customers of retail outlets); Jayson L. Lusk & Michael D. Boehlje, *For Farmers and Consumers, A Crazy Year in Food*, WALL ST. J. (Dec. 16, 2020), https://www.wsj.com/articles/for-farmers-and-consumers-a-crazy-year-in-food-11608071329 [https://perma.cc/X48R-J3AJ] ("The processing sector served as a bottleneck in part because of plants specifically designed to affordably produce and package products—whether it be half-pint milk containers for schools or large cheese boxes for pizza joints—that cannot be easily repurposed for retail grocery-store distribution.").

[27] Pollan, *supra* note 23.

[28] *Id.* ("Slaughterhouses have become hot zones for contagion, with thousands of workers now out sick and dozens of them dying."); Schlosser, *supra* note 23 ("The industry practice of making hundreds of workers stand close together at a production line—with sharp knives and a fast line speed—endangers not only their safety, but food safety and public health.").

narrow parameters. And they were set up in a way that required assembly-line workers to stand close to each other in a chilly environment. These decisions had caused extensive injuries and illnesses before COVID-19. Once the pandemic struck, the decisions made the plants a focal point for the spread of the coronavirus. Workers and surrounding communities faced a wave of infections.[29]

As state and local governments sought to respond to the spread of the coronavirus by slowing or stopping meat processing plants, the disruption propagated as a result of supply chain consolidation and optimization.[30] Suppliers and customers experienced costly disruptions, and meat processing companies missed out on profitable opportunities at home and abroad.[31]

Under heavy lobbying by meat processing companies—including an extraordinary public appeal by the CEO of Tyson Foods in an advertisement in the New York Times[32]—the government responded forcefully to ensure the nation's meat supply. President Donald J. Trump issued an executive order stating that plants should remain open, complicating efforts to regulate plants and supporting waivers of normal worker safety standards.[33] State governments also stepped in. Governor Kim Reynolds of Iowa forced frightened workers to return to the plants by threatening that those who stayed away would not be eligible for unemployment insurance.[34] And Governor Kristi Noem of South Dakota provided public relations support, claiming that sickened workers had likely contracted the disease at home.[35]

Problems were not limited to meat processing.[36] Before the COVID-19 crisis, the hospital industry had experienced years of downsizing and

[29] *Id.*

[30] *Id.*; Creswell, *supra* note 24.

[31] Pollan, *supra* note 23.

[32] *Id.*; Schlosser, *supra* note 23.

[33] Exec. Order No. 13,917, 85 Fed. Reg. 26,313 (Apr. 28, 2020); Steavenson, *supra* note 23 ("When Covid-19 outbreaks closed down American meatpacking plants in March and April, Donald Trump was convinced by industry heavyweights (some of whom had contributed large amounts to his presidential campaign) to issue an executive order, calling for plants to remain open as a matter of national security, all but indemnifying them against Covid-19 liability claims from sick workers.").

[34] Schlosser, *supra* note 23.

[35] *Id.*

[36] While the body text focuses on impacts to food processing and healthcare, the movement to consolidate and optimize has had serious consequences across a broad range of industries. Auto makers using "just in time" manufacturing—which relies on supplies reliably arriving days or even hours before they are integrated into the product—faced serious challenges as consolidated supply chains were disrupted by crises. Sean McLain, *Auto Makers Retreat From 50 Years of 'Just in Time' Manufacturing*, WALL ST. J. (May 3, 2021), https://www.wsj.com/articles/auto-makers-retreat-from-50-years-of-just-in-time-manufacturing-11620051251 [https://perma.cc/U7MR-MRN3]. Even apart from COVID-19, an unusual snowstorm in Texas, a lack of semiconductor manufacturing

consolidation, with the end result that the United States had one of the lowest numbers of hospital beds per capita in the developed world.[37] Despite some evidence that hospital mergers are bad for health outcomes,[38] such mergers and rationalization efforts were often abetted or encouraged by public officials.[39] The resulting lack of hospital beds had deadly consequences when the COVID-19 crisis tested capacity by placing new demands on the system.[40]

Some businesspeople and corporate law practitioners reacted to the problems surfaced by COVID-19 by pledging to improve resilience.[41] But such steps can be costly and time-consuming—there is, after all, a reason why firms pursued efficiencies in the first place. It is not clear that these changes will stick absent revised incentives for corporate decision-makers.

II. TRADITIONAL REGULATORY SOLUTIONS

This Part considers traditional regulatory solutions, which are designed to create a system of external incentives that induce corporations to engage in appropriate behavior. By setting standards for corporate

capacity, and limited supply of batteries and battery components presented real challenges to immediate manufacturing and long-term product development.

[37] *See* Elizabeth Kim, *Can New York Create A Unified Hospital System to Respond to the Coronavirus Pandemic?*, GOTHAMIST (Apr. 1, 2020), https://gothamist.com/news/ny-create-unified-hospital-system-coronavirus-pandemic [https://perma.cc/6YX6-J79Q].

[38] Austin Frakt, *Hospital Mergers Improve Health? Evidence Shows the Opposite*, N.Y. TIMES (Feb. 11, 2019), https://www.nytimes.com/2019/02/11/upshot/hospital-mergers-hurt-health-care-quality.html [https://perma.cc/KW5K-5GF7].

[39] Ross Barkan, *Cuomo Helped Get New York Into This Mess*, NATION (Mar. 30, 2020), https://www.thenation.com/article/politics/covid-ny-hospital-medicaid/ [https://perma.cc/85KV-EEKF] ("The same [New York Governor Andrew] Cuomo who holds press briefings at a major New York City convention center, now the home of a temporary 1,000-bed hospital, presided over a decade of hospital closures and consolidations, prioritizing cost savings over keeping popular health care institutions open."); Richard Perez-Pena, *Plan Could Close 20 or More New York Hospitals*, N.Y. TIMES (Nov. 29, 2006), https://www.nytimes.com/2006/11/29/nyregion/29hosp.html [https://perma.cc/X2LQ-YF2V].

[40] *Cf.* Niall Ferguson, *How a More Resilient America Beat a Midcentury Pandemic*, WALL ST. J. (Apr. 30, 2021), https://www.wsj.com/articles/how-a-more-resilient-america-beat-a-midcentury-pandemic-11619794711 [https://perma.cc/H5N2-UFXR] ("[T]he U.S. hospital system was not overwhelmed in [the 1957–58 flu pandemic] for the simple reason that it had vastly more capacity than today. Hospital beds per thousand people were approaching their all-time high of 9.18 per 1,000 people in 1960, compared with 2.77 in 2016.").

[41] *See, e.g.*, Martin Gelter & Julia M. Puaschunder, *COVID-19 and Comparative Corporate Governance*, 46 J. CORP. L.557 (2021) (suggesting that corporations will have a greater focus on resilience); Mike Cherney, *Firms Want to Adjust Supply Chains Post-Pandemic, but Changes Take Time*, WALL ST. J. (Dec. 27, 2020), https://www.wsj.com/articles/firms-want-to-adjust-supply-chains-post-pandemic-but-changes-take-time-11609081200?mod=hp_lead_pos11 [https://perma.cc/96F8-3QGE]; Carmen X.W. Lu et al., *The Other "S" in ESG: Building a Sustainable and Resilient Supply Chain*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Aug. 14, 2020), https://corpgov.law.harvard.edu/2020/08/14/the-other-s-in-esg-building-a-sustainable-and-resilient-supply-chain/ [https://perma.cc/62RH-SH7R].

conduct and punishing violations of those standards, the government aims to create incentives for companies to avoid socially destructive conduct. Appropriately designed regulations could play an important role in addressing the problem of crisis preparation. But they suffer from important weaknesses in coaxing rational corporations to take optimal steps. Relying exclusively on external regulations also means forgoing a valuable opportunity to leverage existing corporate structures, knowledge, and expertise. Part II.A considers how these issues affect the government's use of emergency powers, while Part II.B considers how they affect the government's efforts at ex ante regulation.

A. Emergency Powers

To begin, the government has some regulatory tools that it could use during a crisis to force better behavior. For example, the government can use emergency regulatory powers accorded by the Defense Production Act to force essential businesses to carry out necessary tasks: among other things, the Act permits the President to require private businesses to accept certain government contracts and prioritize performance of those contracts over any others.[42]

But this is a power to change behavior ex post, in the midst of a crisis, and it would do little to improve important decisions ex ante, when many critical decisions are made. When corporate actors decide whether to preserve redundancy and resiliency (for example, by operating two small factories instead of streamlining operations at one large factory) or what precautions to take (for example, by laying out a factory in a way that permits distancing instead of making it impossible) before a crisis, they are making decisions that critically affect performance during a crisis.

The prospect that the government may use emergency powers ex post is unlikely to shape those ex ante decisions positively and may even create perverse incentives. If the business anticipates that the government will use emergency powers to permit continued operations even if those operations are unsafe—as was the case with meat processing during the COVID-19 crisis—the business would have little reason to invest in safety. And if the business anticipates that the government will use emergency powers to commandeer assets that are useful in a crisis, it will be discouraged from investing in creating those assets in the first place.[43]

[42] *See* 50 U.S.C. § 4501 *et seq*.

[43] For example, after Anthrax attacks in 2001, government officials pressured Bayer AG to sell its antibiotic Cipro at a reduced price. Pharmaceutical executives later cited the episode as a reason for avoiding investments in attacking infectious disease. *See* Scott Hensley & Bernard Wysocki, Jr., *As Industry Profits Elsewhere, U.S. Lacks Vaccines, Antibiotics*, WALL ST. J. (Nov. 8,

B. Advance Regulation

The limitations of emergency powers demonstrate the need for ex ante regulation. One approach would be to identify a desired end-state for a given industry or supply chain, then apply a comprehensive regime of subsidies and regulations designed to move the industry toward that state.

For example, author Michael Pollan has urged adoption of a comprehensive federal strategy that would shift food processing and production from a national industrialized system to a regional deindustrialized system.[44] The strategy would include differential regulations that credited smaller facilities for lower risk of contamination, along with subsidies for local farmers' markets and food distribution networks. The resulting food system would be more resilient because a network of regional facilities is less likely to be disrupted by a localized disaster. Other programs, such as a system of greenhouse gas regulation that discouraged transportation over long distances, could have similar effects in other industries.

A review of the merits of such proposals is beyond the scope of this Article. But while there have been some governmental steps toward more resilient systems,[45] it is unlikely that a full suite of such measures will be adopted due to their likely collateral effects. America's industrialized food system is surely open to criticism, but it does normally deliver foods that Americans want to eat at low prices. Pollan's ideas may result in Americans eating a diet that is healthier, fresher, and better for the environment, but it is also likely to be more expensive, less efficient, and potentially less fun.[46]

2005), https://www.wsj.com/articles/SB113141787830190837 [https://perma.cc/JY2Z-NSMQ]. Even if the government does not use high pressure tactics, drug companies may anticipate that they will be selling to governments and philanthropies during a public health crisis, reducing any profit potential. *See* Dhruv Khullar, *What Will It Take to Pandemic-Proof America?*, NEW YORKER (Apr. 15, 2021), https://www.newyorker.com/science/annals-of-medicine/what-will-it-take-to-pandemic-proof-america [https://perma.cc/BHP9-Y4RF].

[44] *See* Mary Jane Angelo, *Small, Slow, and Local*, 12 VT. J. OF ENVT'L L. 354 (2011) (discussing Pollan's proposals); Michael Pollan, *Farmer in Chief*, N.Y. TIMES MAG. (Oct. 9, 2008), https://www.nytimes.com/2008/10/12/magazine/12policy-t.html [https://perma.cc/DX22-UK7C].

[45] For example, in June 2021, the United States Department of Agriculture announced a $4 billion program to "strengthen critical supply chains" in the food industry. Press Release, U.S. Dep't of Agric., USDA to Invest More Than $4 Billion to Strengthen Food System (June 8, 2021), https://www.usda.gov/media/press-releases/2021/06/08/usda-invest-more-4-billion-strengthen-food-system [https://perma.cc/7YDE-E4G6]. The program specifically identified the need to make investments that would "address the shortage of small meat processing facilities across the country as well as the necessary local and regional food system infrastructure needed to support them." *Id.* There has also been increasing Congressional interest in legislation that would strengthen the position of ranchers and farmers who supply the major meat processing companies. *E.g.*, Creswell, *supra* note 24.

[46] *See* Pollan, *supra* note 44 (acknowledging that industrialized food production has driven the price of meat to historic lows).

A second approach would be to apply general tools like antitrust law to these problems.[47] There is a close connection between the problems discussed above and the market power of essential businesses—if a company is a major buyer or supplier, its failures will have a greater capacity to disrupt a supply chain.[48] But antitrust alone would not be well-tailored to these problems. A firm's internal decision to consolidate activities at a smaller number of facilities would not increase the firm's market power over consumers, making it an unlikely target for antitrust.[49] Moreover, the decision to consolidate may make sense from antitrust law's usual short-term efficiency or consumer-welfare perspective, even if the decision reduces resilience.[50] More broadly, large companies may well be better positioned than small ones to prepare for a crisis.

[47] For example, robust use of antitrust principles has been proposed as a useful measure for improving the performance of the food industry. *See, e.g.*, Tom Philpott, *Biden Needs to Bust Big Ag Immediately*, SLATE (Jan. 4, 2021), https://slate.com/business/2021/01/biden-big-food-agribusiness-rural-states-antitrust.html [https://perma.cc/GB5K-BCVJ]; ZEPHYR TEACHOUT, BREAK 'EM UP: RECOVERING OUR FREEDOM FROM BIG AG, BIG TECH, AND BIG MONEY (2020); Amelia Timbers, *Overdoing It: The Story of the Agricultural Exemption in United States Antitrust Regulation*, 12 VT. J. OF ENVT'L L. 373 (2011).

[48] Companies with this type of market power can also force counterparties to absorb the costs of a crisis, even where the costs might have been reduced or avoided through better conduct by the dominant firm. The meat processing industry may be an example of this problem. *See* Jacob Bunge, *The $213 Billion Meatpacking Industry Faces Stricter Oversight in Washington*, WALL ST. J. (June 21, 2021), https://www.wsj.com/articles/meatpacking-industry-faces-overhaul-push-in-washington-11624294728 [https://perma.cc/RHK3-QKHG] ("Farmer and rancher groups have complained that meat companies have recorded big profits while farmers' incomes have suffered, including through disruptions like 2020's pandemic-driven plant shutdowns and the May cyberattack on JBS.").

[49] That said, consolidating operations at a remote facility might increase a firm's power over workers by making it the sole buyer in the relevant labor market. Such labor market monopsony power may be a more apt target for antitrust law. For a proposal on how antitrust could approach mergers that increase a firm's power in the labor market, see Eric A. Posner et al., *Antitrust Remedies for Labor Market Power*, 132 HARV. L. REV. 536 (2018).

[50] Pollan, *supra* note 44 (acknowledging that industrialized food production has made meat extraordinarily cheap for consumers); *cf.* Philpott, *supra* note 47 (noting perception among regulators that "allowing a few companies to dominate a particular market is more efficient, leading to lower costs and thus lower prices for consumers" but suggesting that this is not the case for the food industry). Admittedly, certain antitrust remedies such as breaking up oligopolistic firms could potentially have a positive impact on consumer prices. But the effect cannot be predicted as a matter of pure theory. *Cf.* HERBERT HOVENKAMP, PRINCIPLES OF ANTITRUST 140 (2d ed. 2021) ("Break-up of oligopoly firms will certainly yield an industry with more firms, and they will likely price their output closer to their costs, but their costs could be higher.").

Of course, if antitrust law were revised to consider a broader set of objectives beyond reducing immediate consumer prices, it could become a useful tool for encouraging resilience. Even a more enlightened focus on consumer welfare could be sufficient—consumers do not benefit from shortages or disruptions during crises. A rough analogy might be drawn to "predatory pricing," in which a firm sells a product at a price below cost to drive rivals out of the market, with the goal of eventually charging consumers monopoly prices. Greater attention to the long-term threat to consumers would cause antitrust doctrine to be more skeptical of predatory pricing, even though it reduces prices in the short run. *Id.* at 335 ("Predatory pricing is not condemned because it results in current lower prices. It is condemned because, if successful, it will eventually result in reduced output and higher prices.").

A third approach would be to apply more specific regulations affecting safety and health issues. The government already regulates many issues that are directly relevant to preparations for a pandemic. For example, the federal Occupational Safety and Health Administration (OSHA) regulates workplace safety standards. In the wake of the H1N1 pandemic, it issued new guidance for businesses that could be affected by an influenza pandemic.[51] As the COVID-19 crisis unfolded, OSHA released new guidance on workplace safety requirements and called attention to existing standards bearing on the pandemic.[52]

Appropriate regulations on spacing workers within facilities, mandatory sick leave and family medical leave, or maintaining redundancy would address many of the concerns raised here.[53] Such rules can play a particularly important role in addressing resilience problems that cut across firms. Limiting the size of firms would not guarantee resilience: if multiple small firms in an industry adopt the same practices,[54] use the same facility, or rely on facilities that are clustered together within a small geographic area, they will be just as vulnerable to a shock as a large firm that has chosen to consolidate its operations. Regulating operations can help address many of these concerns.

But to be effective, such rules must be set appropriately, corporations must expect that they will be enforced appropriately, and corporations must react appropriately to the regulations that are in place. Absent corporate governance reforms, there is good reason to question each of these three assumptions.

First, the government is unlikely to issue regulations that are strict enough to address resilience problems without corporate governance changes. To be sufficient to speak to a future pandemic, a regulation would have to be stringent. If a regulation speaks to the risk of a low-

[51] Press Release, U.S. Dep't of Labor, US Department of Labor's OSHA Provides Workplace H1N1 Influenza Precaution and Protection Information for Workers and Employers (Nov. 9, 2009), https://www.osha.gov/news/newsreleases/national/11092009 [https://perma.cc/S537-8GMX].

[52] *Regulations*, U.S. DEP'T OF LABOR, https://www.osha.gov/SLTC/covid-19/standards.html [https://perma.cc/5PG5-4JNW] (last accessed Aug. 4, 2021).

[53] *See, e.g.*, Cecilia Elena Rouse, *Government is Not a Dirty Word*, MEDIUM (Apr. 27, 2020), https://medium.com/@WilsonSchool/government-is-not-a-dirty-word-a71952f877d6 [http://perma.cc/5C6D-VEEP] ("While the Coronavirus Aid, Relief, and Economic Security Act ('CARES Act') requires employers to provide paid sick leave for employees suffering from this virus, we need a law that mandates (and perhaps subsidizes) paid sick leave, which has been shown to reduce turnover, increase productivity, and lower overall health care costs for employers.").

[54] Small companies taking identical precautions could also suffer disruptions simultaneously in a crisis, collectively causing a problem even if each individual company lacked market power on its own. This type of problem might be addressed by setting higher standards, or by adopting regulations designed to encourage companies to take divergent strategies instead of herding. *Cf.* Ian Ayres & Joshua Mitts, *Anti-Herding Regulation*, 5 HARV. BUS. L. REV. 1, 2 (2015) (suggesting potential "anti-herding" regulations to "reduce the kinds of systemic risk that occur when there is excessive behavioral uniformity").

probability, systemic event, it may have a small *expected* benefit: A regulation that would avoid a billion dollars in societal losses during a once-in-a-century pandemic would only provide an expected benefit of ten million dollars, far less than the cost of refitting a single major industrial facility. A regulator would thus need to muster the political capital to go beyond a simple comparison of expected costs and benefits to promulgate regulations that adequately address these issues.[55] Politicians with fixed terms who are unlikely to have a major pandemic occur on their watch may be unwilling to muster this capital.[56]

Without reform, corporations would be unlikely to embrace such regulations, and would instead seek to deploy their political capital to

[55] There is a relationship between risks that would cause problems for diversified investors and risks that would cause problems for standard cost-benefit analysis. First, consider the risk associated with disasters that strike narrowly but with relative certainty. For example, imagine a disease that will randomly strike 1 percent of the population of 330 million, imposing a cost in discomfort that can be quantified as $10 per person. In quantifying the benefits from a measure that would eliminate the risk of the disease, it would be reasonable to take a risk-neutral approach and focus on *expected* benefits: 1 percent of the population, or 3.3 million people, would have been expected to suffer a $10 loss, so the benefit is $33 million. If the cost of the measure is greater than $33 million, the measure would not be justified. The use of averaging—focusing on the *expected* impact from the disease in a risk-neutral manner—is reasonable because the 99 percent of the population that does not suffer from the disease can always compensate the 1 percent that do. Risk-neutrality maximizes social wealth, and the remaining harm can be addressed through redistribution. The point parallels the way that a diversified investor would deal with a risk striking at 1 percent of the companies in her portfolio. Unless the total costs and benefits support action, she would prefer to simply take the loss on 1 percent of her companies and make up for it with gains in the remaining 99 percent of her portfolio.

Second, consider the risk associated with disasters that strike broadly but infrequently. For example, imagine a disease that will randomly strike once in a century, infecting and imposing a cost of $10 on everyone in the society. It is relatively difficult to transfer wealth from the good 99 years to the one bad year, making it difficult to justify the use of a risk-neutral cost-benefit analysis. Similarly, even diversified investors as a group will suffer when systemic problems strike. *See infra* Part III.B. An individual investor might be able to obtain insurance, but the risk must ultimately be borne by someone.

Third, consider the risk associated with predicting the frequency or severity of a disaster. For example, imagine that there is a 99 percent probability that the COVID-19 epidemic is a one-time disaster, but a 1 percent chance that equally serious epidemics will occur every other year. It is essentially impossible for society to transfer wealth from the good scenario to the bad scenario, making it difficult to justify a risk-neutral approach to cost-benefit analysis. Diversified investors as a group would similarly struggle to manage this type of systemic risk.

Traditional cost-benefit analysis can thus fail to adequately address the types of catastrophic risks that would most affect diversified investors—risks in the second and third categories. Though further elaboration is beyond the scope of this Article, there is a voluminous literature addressing related problems with cost-benefit analysis in the context of catastrophic low-probability high-impact events, particularly under conditions of basic uncertainty. *E.g.*, Martin L. Weitzman, *On Modeling and Interpreting the Economics of Catastrophic Climate Change*, 91 REV. ECON. & STATS. 1, 11 (2009) (discussing "dismal theorem" that the global reach of a problem and uncertainty about its impact can lead cost-benefit analysis to support infinitely costly policy interventions).

[56] *See* Richard A. Posner, *Efficient Responses to Catastrophic Risk*, 6 CHI. J. INT'L L. 511, 514 (2006) ("Politicians with limited terms of office, and thus foreshortened political horizons, are likely to discount low risk disaster possibilities steeply since the risk of harm to their careers from failing to take precautionary measures is truncated.").

defeat a specific regulation on topics of interest to them. More subtly, business decisions could affect agencies' cost-benefit analyses. Simply by laying out facilities without consideration of those risks, corporations can raise the cost of a rule change addressed to the risk: once a meat processing plant has been built in a way that makes distancing impossible, it becomes costly to refit it to permit distancing.[57]

Second, companies would have good reason to suspect that regulations issued before a crisis would not be enforced during a crisis. Even absent a crisis, corporations have substantial capacity to prevent effective enforcement of regulations. Corporations have substantial resources they can often use to beat back overmatched agencies that lack capacity to go all the way in investigating and litigating misconduct.[58] Government regulators and prosecutors may also lack incentive to pursue fines that are adequate to deter misconduct.[59]

In the context of a crisis, these issues are exacerbated by the capacity of essential businesses to hold society hostage. During a crisis, a substantial government penalty could threaten the capacity of a firm to operate seamlessly.[60] As a result, the government may be forced to abandon meritorious prosecutions—or settle them for pennies on the dollar—against essential companies. Anticipating this, companies will

[57] *Cf.* Jonathan S. Masur & Eric A. Posner, *Should Regulation Be Countercyclical?*, 34 YALE J. REG. 857, 873 (2017) (suggesting that once firms have invested in meeting more stringent standard, they may not enjoy meaningful cost savings from a relaxed regulation).

[58] *Cf.* David Michaels, *America's Workplaces Are Still Too Dangerous*, N.Y. TIMES (Apr. 28, 2021), https://www.nytimes.com/2021/04/28/opinion/osha-us-workplace-safety.html [https://perma.cc/Q24U-R8GX] ("The agency's enforcement staff is so small that if [the Occupational Safety and Health Administration] sent inspectors to every workplace, it would take 162 years to visit them all."); JOHN C. COFFEE, JR., CORPORATE CRIME AND PUNISHMENT: THE CRISIS OF UNDERENFORCEMENT 6 (2020) ("For both legal and logistical reasons," complex cases against corporations "are mismatches—a David-versus-Goliath battle, in which the slingshot is seldom mightier than the sword."); Schlosser, *supra* note 23 ("[T]he Trump administration has let the number of inspectors at OSHA fall to the lowest level in almost half a century.").

[59] *See* Dorothy S. Lund & Natasha Sarin, *Corporate Crime and Punishment: An Empirical Study* 44 (U. Penn. Inst. for L. & Econ. Rsch. Paper No. 20-13, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3537245 [https://perma.cc/HHA3-6TDN] (noting that prosecutors may be deterred from seeking massive fines by "political or legal forces," and that they may accept fines that are large in absolute terms but small relative to the size of the defendant corporation).

[60] In principle, the government could levy crippling fines and put a firm through a bankruptcy reorganization. But this prospect may not create strong ex ante incentives for managers, who would likely be tapped to continue to manage the firm through and after bankruptcy. In addition, even if the government recouped the full amount of the fines by wiping out the shareholders' interests, the maneuver would cause disruption to supply chains unless the productive assets of the firm remained in use during the crisis. If the assets are not set up to operate safely in a pandemic, continued use of the assets would spread disease. And even if it would be preferable for the firm to continue to operate, the firm may struggle to attract financing or a buyer for its assets during a crisis. *Cf.* Andrei Shleifer & Robert Vishny, *Fire Sales in Finance and Macroeconomics*, 25 J. ECON. PERSP. 29, 32 (2011) (suggesting that when a firm is in distress and is disposing of productive assets, its competitors are likely to also be in distress and unable to buy).

discount the likelihood of a penalty in advance of a crisis and fail to take an appropriate level of precautions.

Third, managers of public corporations may lack incentives to make adequate investments in compliance or crisis preparation. Even if expected penalties are set at a level that would theoretically cause shareholders to want appropriate precautions to be taken, the interests of directors and managers may diverge from those of stockholders.[61] For example, directors and officers may bet that they will depart the company and dispose of any stock holdings before problems are uncovered, and so may be unwilling to have short term earnings reduced by costly investments in compliance.

As a perceptive recent paper noted, this dynamic can be exacerbated by effects on the stock market.[62] A costly investment in precautions would reveal to stock market participants that the firm's managers believed that the company faced substantial regulatory risks. As a result, even managers whose financial incentives are aligned with the financial interests of stockholders will be inclined to underinvest in precautions in an effort to avoid revealing risks that could dent the stock price.

Finally, even if a purely external strategy could theoretically work, it would miss an opportunity to leverage existing structures, knowledge, and expertise within corporations. Under the Delaware Chancery Court's decision in *Caremark*, corporate law already requires the directors of corporations to make a good faith effort to monitor for risks.[63] These *Caremark* duties are enforced through lawsuits brought by shareholders in the wake of corporate traumas.[64] But the true impact of the standard has been an internal recognition among corporate directors that they had an obligation to build systems that would monitor for risks.[65] As discussed below, there are meaningful gaps in this accountability structure. But it could provide a useful starting point for a revised approach.

[61] *Cf.* Lund & Sarin, *supra* note 59, at 44–45; Jennifer Arlen & Marcel Kahan, *Corporate Governance Regulation Through Nonprosecution*, 84 U. CHI. L. REV. 323, 328 (2017) ("Because senior managers obtain personal benefits from deficient policing, the threat of sanctions imposed *on the firm* for deficient policing may not be sufficient to induce them to ensure the firm undertakes effective policing.").

[62] John Armour et al., *Taking Compliance Seriously*, 37 YALE J. REG. 1 (2020).

[63] *See In re* Caremark Int'l Inc. Derivative Litig., 698 A.2d 959 (Del. Ch. 1996).

[64] While such lawsuits have historically faced high hurdles, recent cases have demonstrated that it remains a viable avenue for accountability in extreme circumstances. *See infra* note 75.

[65] Jennifer Arlen, *The Story of* Allis-Chalmers*,* Caremark*, and* Stone*: The Directors' Evolving Duty to Monitor*, CORP. L. STORIES 323, 345 (J. Mark Ramseyer ed., 2009) ("*Caremark*'s bad faith liability standard is so narrow that it is unlikely that a well-advised board of directors will run afoul of it, whether or not it monitors effectively. *Caremark*'s effectiveness thus depends heavily on its moral suasion.").

By encouraging better behavior by directors and officers who are knowledgeable about the firm's risks and abilities, corporate law mechanisms would also benefit from information that is not necessarily in the government's hands. Prescribing optimal conduct through ex ante rules would require the government to get information and convert it into properly calibrated regulations. That may be impossible given rapidly changing conditions.[66] Creating incentives for directors and officers to use their own knowledge to improve outcomes may be a better approach.

III. RESILIENCE AS A SHAREHOLDER-VALUE PROBLEM

This Part examines resilience as a corporate governance problem from within the dominant shareholder-value paradigm. Part III.A considers resilience as an agency problem in which short-sighted corporate managers fail to act in the best interest of shareholders who have their capital locked in for the long term. Part III.B considers resilience as an agency problem in which corporate managers with undiversified stakes in their firms fail to act in the best interest of shareholders who are likely to hold diversified stakes across the broader economy. Part III.C considers resilience as an issue for internal agency problems, in which relatively low-level supervisors fail to report or properly manage risks that are relevant to the leaders of the firm. Part III.D considers resilience as an issue for the relationship between the government and shareholder-oriented firms. If the government has the tools to defend non-shareholder interests, even shareholder-oriented firms must anticipate and prepare for crises that threaten those interests; if the government lacks the necessary tools, it poses a deeper challenge to the shareholder paradigm.

A. Long-Term Value

Directors at public companies only serve for a relatively short period.[67] While pandemics are not infrequent occurrences, the level of disruption caused by COVID-19 has been unusual. This creates a serious

[66] Schwarcz, *supra* note 11, at 22–23.

[67] Tenures vary by industry and jurisdiction, but the average tenure for directors of companies in the Russell 3000 index was 9.5 years in 2020. Matteo Tonello, *Corporate Board Practices in the Russell 3000 and S&P 500*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Oct. 18, 2020), https://corpgov.law.harvard.edu/2020/10/18/corporate-board-practices-in-the-russell-3000-and-sp-500/ [https://perma.cc/JJ8V-QNE9]. The shortest median tenure for departing board members is in the health care industry, with 6.2 years. *Id.*

mismatch: a director might reasonably believe that a once-in-a-generation crisis will not strike during her tenure and fail to take appropriate preparations.[68]

This problem might be limited if financial markets appropriately impounded the value of precautions. If the current share price reflects the value of future disruptions and the value of efforts to address them, directors and officers compensated mostly on the basis of share price would have an incentive to make cost-justified investments in precautions.

But investors in the market are unlikely to have the information and insight required to properly estimate the impact of a pandemic or the utility of precautions. If the share price does not reflect these values, directors and officers will not have appropriate incentives to take precautions.[69] This dynamic can be exacerbated by signaling issues.[70] If directors and officers make a major investment in precautions, the market might infer that the firm faces abnormally high risks and devalue the firm's shares accordingly. This might encourage directors and officers to hold off on valuable precautions in order to avoid revealing the risks that the firm faces.

It is important to recognize that these problems are *agency* problems. Shareholders will eventually face crises and bear the costs from a lack of preparation. If directors fail to prepare because their personal incentives do not encourage them to take appropriate steps, it would mean that directors are failing to advance shareholders' economic interests.

B. Contagion and Undiversifiable Risk

Pandemics and certain other crises also pose particular risks for shareholders because they are systemic. Shareholders can deal with idiosyncratic risks at firms by diversifying those risks away. If a risk is specific to one firm, shareholders can reduce their exposure to that risk by holding shares in other firms. But if a risk affects all firms in the economy, shareholders will not be able to diversify away these risks.

[68] This concern also applies to politicians who have fixed terms of office. *See* Posner, *supra* note 56, at 514.

[69] *Cf.* Madison Condon, *Market Myopia's Climate Bubble*, 2021 UTAH L. REV. (forthcoming 2021) (discussing problem in the context of climate change crises); Charley Grant, *Losing Dollars by Pinching Pennies: When Short-Termism Goes Bad*, WALL ST. J. (Oct. 11, 2021), https://www.wsj.com/articles/losing-dollars-by-pinching-pennies-when-short-termism-goes-bad-11616165999 [https://perma.cc/2R7R-BY24] ("Anticipating what's coming next has always been a good way for companies to turn a profit. But in less turbulent times, executives have often been rewarded for pinching pennies instead. Over the past year it's become clear that pinching too hard can cost them, and their customers, dollars.").

[70] Armour et al., *supra* note 62, at 30.

This suggests that corporate directors and officers can advance the shareholders' interests by managing the firm's exposure to systemic risks. Instead of simply seeking to maximize alpha—the firm's idiosyncratic returns—managers can improve shareholders' portfolios by managing beta—the correlation between the firm performance and the performance of the broader market.[71] In practical terms, this would generally mean identifying and managing risks that could cause firms to be affected alongside the broader market.

These issues are particularly pronounced at essential firms. Most firms are essentially passive recipients of systemic risk. But while ordinary firms can make decisions that affect their *exposure* to systemic problems, important firms can make decisions that *create or exacerbate* systemic problems.

This dynamic is well understood in the context of financial contagions. When systemically important financial institutions make risky bets that end up jeopardizing their solvency, the losses can cause harms at other companies, which find themselves unable to avoid taking losses as well, unable to tap disrupted financial markets, and unable to convince skittish investors that they are not facing the same magnitude of problems.[72] The normal approach to failing firms is resolution or restructuring through bankruptcy, but applying this approach to systemically important financial institutions would only exacerbate the problems by threatening solvency and confidence at other firms.[73]

Similar dynamics can play out at essential firms in the context of an actual contagion. When an essential firm has not prepared to operate safely in a pandemic—effectively making a risky bet that no pandemic would ever occur—continuing operations would cause infections that spread and damage other firms, and pausing operations would cause business disruptions that damage other firms. Even apart from the enormous human toll of such failures, there is an effect on other businesses in which shareholders' capital is invested. Normally, the government would shutter or fine businesses that were unable to operate safely, but in the case of essential businesses this could exacerbate problems by further disrupting supply chains.[74]

Importantly, market participants cannot express concern over these issues by bringing down the share price of essential businesses. An essential business will not internalize the costs it imposes on other

[71] *Cf.* Jim Hawley & Jon Lukomnik, *The Long and Short of It: Are We Asking the Right Questions?*, 41 SEATTLE U. L. REV. 449 (2018) (stressing management of "beta" in the sense of overall systemic risks as opposed to "alpha" in the sense of outperformance).

[72] Armour & Gordon, *supra* note 11, at 53–56.

[73] *Id.* at 46–47.

[74] *See supra* note 60 and accompanying text.

companies. A company will not pay any price if its operations infect the employees or customers of other businesses,[75] and a company with a chokehold on a critical function can use its leverage to ensure that other market participants bear the cost of any problems.[76] Indeed, an essential business may outperform other companies in a crisis because it will be allowed to operate despite the costs that its operations impose on third parties. As a result, if conscientious shareholders sell the shares of an essential business at reduced prices, they will simply be creating an arbitrage opportunity for others who are willing to build up a concentrated position in the company.

C. Internal Agency Issues

Inattention to resilience issues can also create internal agency problems, in which relatively low-ranking employees fail to properly monitor, report, or manage risks. Taking the view most charitable to Tyson, reports that its supervisors were gambling on the number of COVID-19 infections at its plants instead of taking appropriate action[77] may be an extreme example of this dynamic. Plant design and management decisions taking place well below the c-suite are potentially bigger drivers of infection rates. And failing to take appropriate precautions or reporting to work while sick would be more everyday examples.

Corporate governance can play an important role in managing this type of problem. A risk-management system that is tended by the board of directors can empower certain forces within the company.[78] Compliance and risk management functions receive larger budgets and a seat at the table when important decisions are made.

Risk management can also communicate important messages to the rank and file. Literature on corporate compliance routinely highlights the importance of "tone at the top."[79] If appropriate messages are

[75] *Cf.* Gelter & Puaschunder, *supra* note 41 ("Employers themselves might . . . have incentives to *underinvest* [in precaution] because part of the cost of contagion will be borne by individuals not working for the employer deciding about such measures. In other words, firms will have incentives to only take their own bottom line into account when engaging in health management practice, but maybe not benefits to the wider public.").

[76] *See supra* note 48 and accompanying text (discussing how dominant firms can use market power to offload risk).

[77] *See* Jacob Bunge, *Tyson Suspends Managers After Lawsuit Claims They Bet on Covid-19 Infections*, WALL ST. J. (Nov. 19, 2020), https://www.wsj.com/articles/tyson-suspends-managers-after-lawsuit-claims-they-bet-on-covid-19-infections-11605821442 [https://perma.cc/CBK6-JK2R].

[78] *Cf.* Stavros Gadinis & Amelia Miazad, *The Hidden Power of Compliance*, 103 MINN. L. REV. 2135, 2139 (2019) (observing that compliance officials at companies are powerful partly because they can bring matters to the board's attention, making it "much harder for directors to do nothing and still meet the good faith requirements of our laws").

[79] *See, e.g.*, Martin Lipton et al., *Risk Management and the Board of Directors*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (Mar. 20, 2018), https://corpgov.law.harvard.edu/2018/03/20

not being sent by directors and officers at the top of the organization, lower-level employees may make decisions that ultimately damage the organization.

D. Relationship With Government

The principle that corporations are to be managed for the benefit of shareholders is based in part on a division of responsibility. Corporate directors and officers manage the company to maximize returns to shareholders while ensuring that corporate conduct follows the "rules of the game."[80] The government can set the rules of the game to protect non-shareholder interests.[81]

The problem of resilience during a pandemic destabilizes this model. While corporate law does provide some incentive for directors and officers to ensure that companies follow the rules of the game, the incentives are relatively weak and incomplete.

The *Caremark* regime sits at the intersection of corporate governance and external regulation.[82] As liability for corporate crimes escalated, Delaware courts established that corporate directors and officers had a duty to establish systems to monitor for the risk of regulatory noncompliance. There is an enormous literature exploring the *Caremark* doctrine and its rationale, but the basic logic is simple: The government will ensure that crime does not pay for shareholders, so shareholders' representatives on the board of directors have an obligation to monitor to ensure that crime does not take place. Directors who fail in that duty, and as a result allow the corporation to come to harm, can be held liable by shareholders bringing suit in the corporation's name.

The concept of *Caremark* could do useful work in encouraging directors and officers to prepare corporations for crises. But there are two limitations on the doctrine which constrain its effect.

First, *Caremark* claims are exceedingly difficult to bring because of the exceedingly high level of deference accorded to corporate directors. Indeed, the Delaware Court of Chancery described it as "possibly the most difficult theory in corporation law upon which a plaintiff might

/risk-management-and-the-board-of-directors-5/ [https://perma.cc/Z69X-L9KS]; Donald C. Langevoort, *Cultures of Compliance*, 54 AM. CRIM. L. REV. 933, 939 (2017).

[80] Milton Friedman, *A Friedman Doctrine—The Social Responsibility of Business Is to Increase Its Profits*, N.Y. TIMES MAG. (Sept. 13, 1970), https://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html [https://perma.cc/FY5G-C6S5].

[81] *See, e.g.*, 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) (urging that courts can protect contractual counterparties of a firm, like workers and bondholders, and the political process can protect other stakeholders).

[82] *In re* Caremark Int'l Inc. Derivative Litig., 698 A.2d 959 (Del. Ch. 1996).

hope to win a judgment."[83] While recent cases have demonstrated that *Caremark* liability remains a real possibility for directors who totally fail to monitor the central risks facing their organizations, the prospect of liability remains remote for directors who take even slight precautions.[84]

Conceptually, the difficulty of a *Caremark* claim is based on the deference accorded to the business judgments of well-informed directors.[85] This, in turn, is based on presumptions about the preferences of shareholders. Monitoring for regulatory violations is expensive and requires decisions tailored to the circumstances of a particular business; even when it is done well, violations can still slip through.[86] Having courts second-guess directors' decisions every time a violation occurs is a blunt instrument that could make directors overly cautious.[87] Given shareholders' ability to diversify away the harm from a regulatory violation, shareholders may well prefer to address the agency problem using the same tools that they use to address other agency problems—shareholder voting and incentives in executive compensation agreements.

This logic breaks down with respect to the impact of pandemics on essential firms. As discussed above, directors may believe that a pandemic that reveals their failures will not occur during their tenure, exacerbating ordinary agency problems. And there is good reason to question whether shareholders can diversify away the risk of a failure at an essential firm. As a result, an unmodified *Caremark* regime may not be adequate to defend shareholders' interests.

Second, *Caremark* depends on a threat of liability to the corporation that is large enough to prompt appropriate action. This can raise

[83] *Id.* at 967.

[84] *See In re* Clovis Oncology, Inc. Derivative Litig., 2019 WL 4850188, at *15 (Del. Ch. Oct. 1, 2019) (determining that the board had failed to properly monitor clinical trial of company's sole pharmaceutical product, resulting in false statements to the investing public); Marchand v. Barnhill, 212 A.3d 805, 822–24 (Del. 2019) (determining that the board of ice cream company had undertaken "no efforts" to monitor for compliance with food safety requirements). As Professor Elizabeth Pollman has explained, *Caremark* liability is normally reserved for directors who "not only ignored red flags, but had gone farther down a path of participation or complicity in wrongdoing." Elizabeth Pollman, *Corporate Oversight and Disobedience*, 72 VAND. L. REV. 2013, 2041 (2019).

[85] *Caremark*, 698 A.2d at 970 (stating that the "the level of detail that is appropriate" for an information and reporting system "is a question of business judgment").

[86] *Id.* ("[O]bviously . . . no rationally designed information and reporting system will remove the possibility that the corporation will violate laws or regulations, or that senior officers or directors may nevertheless sometimes be misled or otherwise fail reasonably to detect acts material to the corporation's compliance with the law.").

[87] *Id.* at 967 (stating that more searching review of director decisions "would expose directors to substantive second guessing by ill-equipped judges or juries, which would, in the long-run, be injurious to investor interests").

problems with respect to pandemics. There is no guarantee that regulations or other features of the business environment will cause the company to experience large liabilities even if they inflict massive suffering or cause losses elsewhere in a shareholder's portfolio. Regulations may not be in place in advance of a crisis. A company can use its control over an essential business to temporarily maintain profits or defeat regulations even if its poor decisions have caused extraordinary problems for society. Even without threats, government regulators may be inclined to protect favored businesses.[88] And the government may use macroeconomic policy tools in a way that causes share prices to rise, even if a company has failed in a profound sense.[89]

This can lead to a mismatch between *Caremark* and the interests of shareholders. *Caremark* may not provide a meaningful remedy even when diversified shareholders experience major losses elsewhere in their portfolios as a result of the company's decisions.[90]

And in the long run, a company's failure to meet societal expectations in a crisis can eventually result in regulations that damage the company's long term capacity to generate returns for shareholders.[91] As Adolph Berle noted, important companies can face "inchoate laws": a set of community expectations for corporate behavior that will be written into law if violated.[92] Managers may not fully internalize the threat that an inchoate law will become a written law despite the potential harm to shareholders in the long term, and *Caremark* doctrine will do little to correct that problem.

[88] *Cf.* City of Birmingham Ret. & Relief Sys. v. Good, 177 A.3d 47, 60 (Del. 2017) (determining that allegations of "cooperation" with a "too-friendly regulator" not sufficient to make out a *Caremark* claim).

[89] In the wake of the COVID-19 crisis, the Federal Reserve cut off a precipitous fall in stock prices by announcing that it would do whatever it took to protect the economy. *See, e.g.*, Gunjan Banerji et al., *Behind Dow 30000: A Self-Perpetuating Upward Spiral*, WALL ST. J. (Nov. 25, 2020), https://www.wsj.com/articles/dow-30000-covid-economy-market-buy-and-hold-11606238819 [https://perma.cc/JLH9-AUU4] ("Anchoring the market is the belief the Fed will always step in, especially after its bigger-than-ever effort earlier this year.").

[90] *See supra* Part III.B.

[91] Enron's handling of California electricity markets in the wake of deregulation offers an example of this attitude. While Enron had much to gain in the long term from seeing deregulation succeed and become a model for the rest of the country, it relentlessly sought short-term profits from energy trading that caused the deregulated system to collapse. *See* BETHANY MCLEAN & PETER ELKIND, THE SMARTEST GUYS IN THE ROOM: THE AMAZING RISE AND SCANDALOUS FALL OF ENRON 267 (2004) ("By any objective measure, Enron had a powerful self-interest in seeing the California experiment succeed. It had preached for years that deregulation would cause prices to go down and make life better for everyone . . . . Yet from Ken Lay on down, Enron executives simply refused to see that their best interest lay in helping the state succeed."). Firms that fail to provide adequate supplies of a necessary good in a crisis may face similar consequences.

[92] Professor Elizabeth Pollman has helpfully excavated the concept of "inchoate laws" from the scholarship of Adolf Berle, a corporate law practitioner, academic, and policymaker. *See generally* Elizabeth Pollman, *Quasi Governments and Inchoate Law: Berle's Vision of Limits on Corporate Power*, 42 SEATTLE U. L. REV. 617 (2019).

Of course, as discussed above, there are good reasons to doubt that the government will enact appropriate regulations or impose appropriate penalties. In the midst of a crisis, the government may be unwilling to distract or weaken important firms with a prosecution or civil enforcement action even if the firms have failed to meet appropriate standards. At a minimum, the government may be unwilling to press novel theories or interpretations of legal requirements out of a concern that it would frighten already unsettled investors. If the government is unwilling to do its part to enact and enforce the rules of the game, firms that are focused solely on shareholder returns will not be induced to take appropriate action.[93]

IV. RESILIENCE AS A STAKEHOLDER PROBLEM

There is a long-running debate between those who believe that corporations should be run exclusively for the benefit of shareholders and those who believe that corporations should be run with a view to the interests of a broader range of stakeholders, including suppliers, customers, employees, local communities, and creditors.[94] Though the voluminous debate has many facets, a central concern is whether issues should be addressed through external mechanisms, such as explicit contracts negotiated in the market and regulations issued by the government, or through internal mechanisms, such as the processes of corporate governance.

Some of the issues discussed above resemble a concern that corporations do not pay adequate attention to the interests of stakeholders. The contagion and undiversifiable risk problems for shareholders can be understood as stakeholder governance problems.[95] Directly considering the interests of stakeholders would lead to similar outcomes as a more careful effort to advance the true interests of shareholders with respect to contagion. An essential firm that considered the interests of suppliers and customers would make larger investments in maintaining reliable operations, and an essential firm that considered the interests of employees and the surrounding community would make larger investments in ensuring that the operations were safe. Consideration of these interests would also improve relations with the government.[96]

[93] *See infra* Part IV.

[94] For a discussion of the debate from the stakeholder governance point of view, see LYNN STOUT, THE SHAREHOLDER VALUE MYTH: HOW PUTTING SHAREHOLDERS FIRST HARMS INVESTORS, CORPORATIONS, AND THE PUBLIC (2012). For a classic statement of the shareholder primacy point of view, see FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 39 (1991).

[95] *See supra* Part III.B.

[96] *See supra* Part III.D.

In other words, properly weighting stakeholder concerns can generate outcomes that are similar to those from properly addressing shareholder concerns with contagion and government involvement.

There is a more complex relationship between long-term value problems for shareholders and stakeholder governance.[97] Hopefully, taking good care of suppliers, customers, employees, and local communities will generate profits for shareholders in the long run, even if it entails short-term costs. But equivalence depends on key assumptions. Some—like the assumption that a business that is intended to exist for a long period of time—may be plausible for large essential businesses that are important to the overall system. It is less plausible to assume that institutions like markets and the government will properly translate the effects of an essential business's decisions on stakeholders into appropriate outcomes for shareholders over the long term. As discussed above, the fact that a business is *essential* can distort regulatory and market outcomes, particularly in a crisis situation.[98] As a result, full consideration of stakeholder interests would lead to different outcomes than properly addressing shareholder concerns with long-term value.

These same issues suggest a role for the internal mechanism of corporate governance. If external mechanisms like government regulations or contracts negotiated in the market could be expected to ensure outcomes that efficiently balanced the concerns of stakeholders against shareholders, it would not be necessary to separately weigh stakeholder interests in internal deliberations.

As discussed above, traditional government solutions are likely to be inadequate to protect stakeholders.[99] Market mechanisms are also unlikely to be availing. Relative to a large essential business, individual suppliers, customers, and employees are unlikely to have sufficient

[97] For a variety of reasons, participants in corporate law debates have often sought to describe strategies that benefit stakeholders as serving the long-term interests of shareholders. *See* William T. Allen, *Our Schizophrenic Conception of the Business Corporation*, 14 CARDOZO L. REV. 261, 273 (1992) (suggesting that Delaware courts went along with this approach because it afforded "substantial room to the multi-constituency, social entity conception" of the corporation without "purporting to abandon the idea that directors ultimately owe loyalty only to stockholders and their financial interests"). This attempted alignment has been criticized. For example, across numerous works, Professor Mark Roe has sought to distinguish between corporate short-termism and inattention to effects on outside stakeholders. *See, e.g.*, Mark J. Roe et al., *The Sustainable Corporate Governance Initiative in Europe*, 38 YALE J. REG. BULL. 133, 136 (2021) ("[T]he Mafia survived for a long time because it 'shunned short-termism and took the long view,' but we wish it had not."); Mark J. Roe, *Corporate Short-Termism—In the Boardroom and in the Courtroom*, 68 BUS. LAW. 977, 1004 (2013) ("We ought not to conflate corporate bad behavior with short-termism. Bad behavior could be long-term or short-term."). But Professor Roe's sharp distinction depends in part on a pessimistic view of civil society. If the government and markets function properly, a destructive business strategy will inevitably lead to losses in the long run as regulators and enlightened consumers react.

[98] *See supra* Part I.C.

[99] *See supra* Part II.

market power to insist on contractual terms that would govern core aspects of the business. Collective action problems may prevent them from working together to overcome this problem by exerting pressure on an essential business in a coordinated fashion.[100] And important stakeholder groups may only deal with essential businesses on a short-term basis, which would limit their capacity to bargain for protections against risks that are likely only to materialize in the long run. It is fanciful to imagine workers negotiating terms of employment to include conditions addressed to a once-in-a-century pandemic event.

Important constituencies may also be unaware of critical dependencies—customers may see that their neighborhood has multiple grocery stores, each carrying multiple brands of their favorite food, and not realize the extent to which their supply of their favorite food depends on the continued operation of a small number of geographically-clustered facilities.[101]

Because of these problems, the risks to stakeholders are unlikely to be addressed absent internal corporate governance measures that cause corporate actors to give weight to the harms that their actions may cause.

V. CORPORATE GOVERNANCE SOLUTIONS

The discussion above suggests that corporate governance can play a useful role in improving the resilience of essential businesses. This Part considers the design of an appropriate intervention. Part V.A discusses potential approaches, including improved monitoring or disclosures, before settling on a liability regime. The remainder of the Part considers how a liability regime should be structured. Part V.B considers the appropriate substantive trigger for liability and suggests that it should create incentives for firms to take constructive action and promote helpful regulations. Part V.C identifies appropriate defendants who would face liability, with the goal of leveraging the machinery of corporate governance to achieve good results. Part V.D identifies the

[100] For example, suppose that a major meat processing company planned to cut costs and prices by consolidating operations, thus reducing resilience. An individual consumer would not be able to change that decision by refusing to buy the company's products because the individual consumer's personal impact on profits would be negligible. Even if a mass boycott movement formed, every individual consumer would be motivated to cheat by purchasing the cheap meat. Each individual would reason that their decision had no meaningful impact on the outcome, so there would be no reason to forgo the benefits of the desired product.

A boycott movement would already be at a serious disadvantage in the context considered here because it would be difficult for consumers to forego "essential" goods and services. As a result, it would be difficult to overcome the difficulties associated with collective action.

[101] *Cf.* Philpott, *supra* note 47 ("For consumers . . . hyperconsolidation means that the array of choices we see at the supermarket is largely an illusion . . . . Three companies—General Mills, Kellogg, and Post—peddle 83 percent of the cereal in the breakfast aisle.").

appropriate measure of damages, with the goal of setting meaningful incentives for corporate actors without drowning out all other considerations. Part V.E turns to the question of who should enforce the obligations created by the regime, before suggesting that shareholders are best positioned to act as plaintiffs.

A. Liability Regime

An intervention to make corporate actors more attentive to the risk of pandemics could take many forms. This Section considers a private solution in which shareholders look to outside monitors to police corporate behavior, a solution focused on disclosure of information relating to risk, and a government mandate to adopt public-regarding corporate governance norms. While these steps are potentially promising, a liability regime would do more to create the necessary incentives.

Investors could use outside monitors to track and control corporate behavior. For example, investors could encourage firms to take on additional unsecured debt.[102] Self-interested creditors would then bargain for governance arrangements and covenants intended to limit the risk of default.[103] But even creditors may not have adequate incentives to monitor for this type of risk. Only creditors holding debt with a distant maturity date would have reason to care about remote risks. And in a crisis, the government would act to limit the consequences to essential businesses. The government's macroeconomic policy tools could significantly diminish the force of market incentives to creditors—the Federal Reserve has a robust toolkit to ensure that commercial paper markets continue to function even in the midst of a crisis. Creditors who believe that the government will intervene to protect them ex post will not invest in controlling this type of risk ex ante.[104]

Investors and regulators could also seek to address these issues by demanding enhanced risk disclosures. But investors with a concentrated interest in a particular firm may not *want* the firm to disclose

[102] There is a rich literature on the use of debt to improve incentives for corporate decisionmakers, with early insights coming from Michael C. Jensen and William H. Meckling. For a brief summary, see JEAN TIROLE, THE THEORY OF CORPORATE FINANCE 51–53 (2006).

[103] *See, e.g.*, Anthony J. Casey & M. Todd Henderson, *The Boundaries of "Team" Production of Corporate Governance*, 38 SEATTLE U. L. REV. 365, 367, 372–73 (2015) (noting that groups including creditors "slice and dice" control in ways that protect their interests).

[104] Other forces can limit creditors' capacity to obtain and enforce covenants focused on such risks. Borrower-friendly market conditions in recent years have reduced the bargaining power of lenders, making it less likely that they will be able to insist on such a covenant. *See* Jared A. Ellias & Robert J. Stark, *Bankruptcy Hardball*, 108 CALIF. L. REV. 745, 751 & n.36 (2020). If a lender obtains such a covenant and threatens to enforce it, the corporation can respond by threatening to file for bankruptcy. Bankruptcy can be a complex and expensive process for lenders, and bankruptcy courts may seek to advance policy goals other than protecting the lender's contractual rights. *See id.* at 771–72; Casey & Henderson, *supra* note 103, at 374.

risks. They may profit from the market's ignorance.[105] Regulators do not appear eager to correct the problem.[106] And disclosure on its own would not produce better behavior unless investors responded to disclosures in ways that pressured managers. It is not obvious that this would happen in the case of essential firms. Even if they are conscious of the risks that a firm creates for other companies, shareholders would not respond by driving down that firm's stock price until it fully incorporated the value of negative externalities.

Another alternative would be to require corporations running essential businesses to adopt a public benefit corporation form. Public benefit corporations are required to identify a public purpose beyond maximizing shareholder value and to serve that purpose.[107] Some policymakers and commentators have suggested that important firms should adopt such a form. Senator Elizabeth Warren's proposed Accountable Capitalism Act would require large corporations to adopt a public benefit form modeled on state statutes.[108] And former Delaware Chief Justice Leo E. Strine, Jr. has urged that "all large companies receiving federal bailout money should be required to become a public benefit corporation."[109] The proposal has some appeal, as it would theoretically require socially-important firms to consider the public interest. To the extent that resilience requires attention to a broad range of stakeholder interests,[110] forcing corporations to adopt a public benefit form could help direct corporate attention in a helpful direction.

But the public interest would not defend itself. Existing public benefit corporation statutes authorize shareholders to sue when corporate leaders stray from their declared public purpose.[111] A public benefit corporation system without a liability regime may not improve outcomes or send a meaningful signal to corporate directors and officers.

A properly-designed liability regime might improve on these results. Unlike other mechanisms, it would crystallize the obligations of corporate actors. Behavior would be labeled wrongful not simply because it violated a bespoke covenant in a debt contract or because it

[105] *See generally* Armour et al., *supra* note 62.

[106] If anything, the trend may be in the opposite direction. For example, the SEC has pared back requirements for disclosure of material contracts. *See* FAST Act Modernization and Simplification of Regulation S–K, 84 Fed. Reg. 12674-01 (Apr. 2, 2019). Even disclosure of material contracts may not be enough; a large number of small contracts may introduce similar risks.

[107] *See* 8 Del. C. § 362.

[108] S. 3348, 115th Cong. (2018).

[109] Leo E. Strine, Jr., *Toward Fair and Sustainable Capitalism*, ROOSEVELT INST. 13 (Aug. 2020), https://rooseveltinstitute.org/publications/toward-fair-and-sustainable-capitalism/ [https://perma.cc/A4EA-LUGA].

[110] *See supra* Part IV.

[111] 8 Del. C. § 367.

caused disclosures which prompted price declines, but because it actually violated a legal duty and triggered liability.

A liability regime would also make those obligations personal. High-ranking corporate officials are not solely motivated by economic concerns: In many cases, they are motivated more by intrinsic concerns, such as their self-respect and their belief that they have done a good job.[112] A liability regime would help activate these intrinsic motivations, causing them to invest their self-worth and self-esteem in good performance.[113] By sending a signal to directors and officers about what they are *supposed* to do and by recruiting their normal instinct to do the right thing, the regime would improve behavior even if the actual risk of liability is remote.

Liability would also empower board members and officers in compliance functions to insist upon measures that improve resilience. The argument that a course of conduct is unlawful—and that someone important could be sued if it is followed—can be a powerful trump in internal arguments over budgeting or corporate planning.

Prospective lawsuits can also play an important information-forcing role. For example, successful shareholder plaintiffs in derivative suits generally must use available tools like books and records demands to obtain and present evidence.[114] This information can motivate media and regulatory scrutiny. Whether or not the lawsuits themselves are litigated all the way to a substantial damages verdict, the collateral consequence of informed scrutiny can have a useful effect.

B. Liability Triggers

A liability regime would require some specification of the legal duties of the defendants. To address the problem described above, liability might attach for (1) unapproved and inadequate (2) action or inaction (3) prior to a crisis (4) that renders an essential business unable to safely continue operations (5) during a qualifying crisis.

First, the liability regime should seek to create a constructive interface with government regulation. To do this, the regime might impose liability only for "unapproved" conduct. Under this approach, the government could create safe harbors for conduct through regulations that are specifically addressed to potential crises. Conduct complying

[112] Armour et al., *supra* note 62, at 18 & n.84, 36–37 (discussing intrinsic motivations); Lynn A. Stout, *On the Proper Motives of Corporate Directors (or, Why You Don't Want to Invite Homo Economicus to Join Your Board)*, 28 DEL. J. CORP. L. 1, 8–9 (2003) (discussing importance of internal pressures for director and officer conduct).

[113] Armour et al., *supra* note 62, at 36–37, 50; Stout, *supra* note 112, at 8–9.

[114] *See, e.g.*, South v. Baker, 62 A.3d 1, 6 & n.1, 26 (Del. Ch. 2012) (noting that a plaintiff who files derivative suit without conducting an investigation using books and records requests will generally not be an adequate representative for the shareholders).

with those regulations would be shielded from liability unless the corporate actor has private knowledge that the regulation is "inadequate."

For example, if the government determines that a six-foot spacing between workers on a line at a factory would be a sufficient precaution in a pandemic, it would be reasonable for corporate actors to proceed with six feet of spacing—*unless* they had some private information unknown to the government tending to show that a greater space was required.

This type of regime would create an incentive for corporate actors to encourage robust government regulation. Companies would have an incentive to proactively encourage agencies to issue regulations that would crystallize their obligations and create safe harbors. And an exception for private information would have an information-eliciting effect. Companies would have an incentive to blow the whistle and share otherwise-private information bearing on their risk profiles.[115] More generally, the approach would encourage companies to proactively identify areas where government intervention would be useful, and to encourage the government to take action.[116]

Second, the liability regime should apply regardless of whether corporate actors took a step in the wrong direction or failed to take a step in the right direction.[117] An affirmative decision—such as a decision to consolidate operations at a single plant instead of operating multiple facilities—is easy to identify as a point of failure. Neglecting to consider the risk of a crisis or its potential operational impacts might be harder. But neglect can be equally damaging.

[115] While this system would encourage corporations to use their political muscle to elicit new regulations from the government, corporations would not be encouraged to lobby for additional enforcement resources. As a result, a system of private enforcement would still be desirable. *See infra* Part V.E.

[116] Of course, a politically-connected firm might behave opportunistically and encourage regulators to adopt rules that are not useful, but that are difficult for competitors to comply with. But this strategy is already available to politically-connected firms; it is not a consequence of this proposed regime. The strategy is also limited by the need to persuade regulators to adopt the desired rule, and by the risk that focusing a regulator on a problem will lead to a rule that the instigating firm does not like.

[117] *Cf.* Stone ex rel. AmSouth Bancorporation v. Ritter, 911 A.2d 362, 369 (Del. 2006) ("A failure to act in good faith may be shown . . . where the fiduciary intentionally fails to act in the face of a known duty to act, demonstrating a conscious disregard for his duties."); In re Walt Disney Co. Deriv. Litig., 907 A.2d 693, 748 (Del. Ch. 2005) ("in instances where directors have not exercised business judgment, that is, in the event of director inaction, the protections of the business judgment rule do not apply"); Aronson v. Lewis, 473 A.2d 805, 813 (Del. 1984), *overruled in part on other grounds by* Brehm v. Eisner, 746 A.2d 244 (Del. 2000) (business judgment protection "has no role where directors have either abdicated their functions, or absent a conscious decision, failed to act"). To ensure that the liability regime functions effectively, courts should be willing to police inaction to a greater degree than they have under existing corporate law doctrine. Regulators can also issue guidance alerting corporate officers to their obligations, so that any inaction represents an intentional failure.

Third, the liability regime should focus on decisions made prior to a crisis. In the midst of a crisis, corporate actors running essential businesses are likely to be dealing with serious challenges that impact the business's survival and its capacity to serve its social role. A liability regime should not distract from or distort those decisions. It should instead seek to create incentives for appropriate preparation before the crisis.

Fourth, liability should be triggered by a firm's inability to maintain safe operation during a crisis. Waiting until a crisis would have some downsides—an alternative would be to permit suits that would force companies to take precautions even before a crisis strikes—but seems advisable to avoid a wave of lawsuits dealing with hypothetical concerns and untested proposals.[118] However, it should not be possible to avoid liability simply by maintaining operations. *Safe* operations that do not depend on exemptions from ordinary health and welfare regulation are the desired outcome.

Fifth, only *qualifying* crises should be considered. There is substantial room for debate about which crises should qualify. A reasonable approach would be to require preparations for events that meet a probability threshold: Firms might be expected to withstand a once-in-a-century event without disruption to the operation of an essential business but excused from dealing with a more extreme scenario. An excessively lenient approach that excused corporate actors from liability for failures in more common crises—for example, forgiving them even if their decisions cause failures in a once-in-a-decade hurricane or blizzard—would defeat much of the purpose of the regime. But an excessively stringent approach that tried to require preparation for purely speculative disasters would provide few benefits.

The liability regime might also be tailored to specific kinds of crises. Many of the arguments advanced above depend on the unique nature of pandemics. An earthquake might have serious consequences for the operations of an essential business and thus have serious knock-on consequences for the economy and society. But it does not pose the same type of threat as a pandemic, where an essential business may be allowed to operate unsafely notwithstanding a lockdown policy, thus spreading infections to others.[119] A regime that focused exclusively on

[118] To avoid the problems associated with lawsuits *during* a crisis, the regime might include a lengthy statute of limitations or provide that the limitations period does not run while the crisis is ongoing. Courts could guard against early filings by imposing stringent standards for particularity in pleadings—forcing a lengthy period of fact-finding by potential plaintiffs—and for adequacy of plaintiffs—avoiding a race to the courthouse by ill-equipped opportunists. If those measures are insufficient, the regime could prevent filings until the crisis had passed or give officials the power to stay litigation.

[119] *Cf.* Armour & Gordon, *supra* note 11.

the next pandemic would thus be justifiable, though expanding the scope to other disasters would have benefits.

The most natural extension would be cybersecurity and environmental crises where an essential business might spread harm by continuing to operate yet be required to continue to operate to avoid other serious social and economic consequences. But all crises that could damage an essential business's operations would be reasonable candidates.

C. Defendants

The selection of defendants would be a critical aspect of the liability regime. To address the problems discussed above, the regime might target corporations that meet a size threshold and run essential businesses. Targeting directors and officers at those firms would be an efficient approach and would leverage the machinery of corporate governance to achieve the desired results.

The concerns raised above should drive the selection of firms to be targeted by the liability regime. The size of the targeted firms is a key consideration. While local or even regional businesses can be essential to the daily lives of citizens, they are unlikely to have the capacity to distort governmental regulations or to enjoy adequate market power to cause major disruptions. The regime might target firms with annual revenues in excess of some threshold, such as one billion dollars, or with operations or sales distributed over some geographic range.

The choice of firm type may also be relevant. The proposals here would fit most naturally with domestic public corporations. From a practical perspective, it would be difficult to maintain a high degree of disclosure from and oversight into private firms without broad changes.[120] Admittedly, limiting the regime to domestic public corporations would create meaningful lacunae in important areas—for example, many firms in the meat processing or food distribution space are privately held or owned by foreign companies.[121] Internal corporate governance reforms may not be an adequate tool for addressing problems at such firms, but they could support a broader external solution. If directors at Tyson Foods, Inc., a publicly held corporation, feel that their obligation to ensure resilient operations puts them at a disadvantage,

[120] Such disclosures may be desirable for other reasons. *See, e.g.*, Ann M. Lipton, *Not Everything Is About Investors: The Case for Mandatory Stakeholder Disclosure*, 37 YALE J. REG. 499, 561–72 (2020) (proposing a disclosure regime addressing a broad range of stakeholder interests, which would apply to large companies regardless of whether they are private or public). Other modifications to the liability regime would be necessary, as investors in private companies may be unwilling to bring necessary suits. *See infra* Part V.E.

[121] For example, JBS USA Holdings, Inc. is owned by JBS S.A., a Brazilian firm; Cargill is privately held; and Smithfield Foods, Inc. is owned by WH Group, a Chinese firm.

they can use their considerable political muscle to obtain external regulations that would bind and improve operations at Smithfield, JBS, or Cargill.

The regime should also be targeted at firms running "essential" businesses. The term is not self-defining. Unlike systemically important financial institutions, which are identified and extensively monitored by regulators, nonfinancial firms are not always easy to identify as essential in advance.

But the concern is easy to overstate. There is a core concept of a business that supplies a product or service that is so valuable to society that the harm of shutting it down in a crisis will predictably exceed the harm of allowing it to operate. The COVID-19 crisis has provided a stress test in which essential businesses were identified. While definitions varied from jurisdiction to jurisdiction,[122] the basic considerations are not difficult to identify: firms that supply food, medical supplies, or logistics solutions should recognize the important role that they play in the lives of end users.

Other areas of law and governmental guidance could also be leveraged by firms attempting to assess whether they are subject to the regime. For example, the Committee on Foreign Investment in the United States reviews transactions in which foreigners acquire functional control over a substantial interest in American businesses to ensure that the deals do not raise national security concerns.[123] Experience with the process has given lawyers a real sense of which businesses will raise this type of concern.[124] Firms can study this experience to determine whether their business lines implicate strategic concerns and infer whether they are likely to be essential in a crisis.

Antitrust thinking on market structure could also be relevant. In a market with a limited set of suppliers, each supplier may be essential. A disruption at one supplier would have an impact on available supplies. But the point should not be taken too far. For example, small

[122] *See supra* notes 16 to 22 and accompanying text.

[123] The statutory regime is established by section 721 of the Defense Production Act of 1950, 50 U.S.C. App. 2170, as amended by the Foreign Investment and National Security Act of 2007.

[124] For example, although the Committee on Foreign Investment in the United States ultimately cleared the transaction, it subjected a Chinese takeover of Smithfield Foods to unusually heavy scrutiny, taking the full 75 days permitted by statute. *See* Francis J. Aquila et al., *Sullivan & Cromwell Discusses Shuanghui International's CFIUS Clearance for its Purchase of Smithfield Foods*, CLS BLUE SKY BLOG (Sept. 20, 2013), https://clsbluesky.law.columbia.edu/2013/09/20/sullivan-cromwell-discusses-shuanghui-internationals-cfius-clearance-for-its-purchase-of-smithfield-foods/ [https://perma.cc/4L43-YFE3]. The unusual care taken in reviewing the transaction reflected governmental recognition that it implicated serious national security interests, even though Smithfield was in the food industry and not energy or technology.

firms that take an identical set of precautions could all suffer a disruption simultaneously and could collectively have an impact on available supplies.[125]

Any lingering uncertainty could either be eliminated or leveraged by government entities. A relevant agency like the Department of Homeland Security might be given authority to describe essential businesses through rulemaking or to designate businesses as essential through adjudications, eliminating doubts. Alternatively, firms could be expected to designate themselves as essential in advance of crises, with only essential firms having access to relevant subsidies to prepare for a crisis or getting support when a crisis strikes. This would give firms an appropriate incentive to designate themselves as essential, notwithstanding the potential for liability.

Once the firms are identified, it would be necessary to decide who at the firms would bear the liability. There are two natural solutions, with corporate governance playing different roles in each. The firms themselves could be held liable. Because shareholders would ultimately bear the risk of liability, the ordinary machinery of corporate governance ought to cause their agents on the board of directors to address the risk. But as demonstrated in the context of external regulations, it is not clear that this mechanism is up to the task—it may be difficult for shareholders to hold directors and officers accountable, and shareholders themselves may prefer to leave certain problems unaddressed.[126]

An alternative would be to make directors and officers personally liable.[127] The machinery of corporate governance makes directors and officers responsible for decisions that are critical to corporate resilience and risk management. If they have adequate personal incentives to ensure that the corporation can meet important needs in a crisis, they will use their authority to prepare their companies.

D. Quantum of Damages

The quantum of damages should be selected to balance two competing sets of goals. The damages must not be so high as to drown out all other considerations or to tempt opportunistic behavior by plaintiffs' attorneys, but they must be sufficient to create meaningful ex ante incentives to undertake appropriate preparations.

[125] *See supra* note 54 and accompanying text.

[126] *See supra* note 121 and accompanying text.

[127] *See* Armour & Gordon, *supra* note 11, at 65–66. The proposal is also consistent with more general efforts to make high ranking corporate officials responsible for wrongdoing at the companies they oversee. *See, e.g.*, Lund & Sarin, *supra* note 59, at 46–51. As discussed below, under certain conditions, it may be appropriate to allow directors and officers to obtain insurance covering the liability. *See infra* Part V.D.

Resilience is an important objective, but it is not the only objective that corporations should pursue. If damages are set at a level that would be totally ruinous for directors and officers, they will be unable or unwilling to focus on any issue other than resilience—if they agree to serve as directors or officers at all. This suggests that some limits would be in order.

An upper limit on damages would also serve a screening function. Unlimited liability would encourage for-profit plaintiffs' law firms to bring marginal cases on behalf of minor plaintiffs. But if damages are capped, cases are more likely to be brought by those who genuinely seek to improve incentives for corporate actors. If a subsidy were necessary, a relatively modest provision for attorneys' fees, covered either by the defendants or by the corporation itself, should be adequate.

That said, the damages must be sufficient to create a real incentive for directors and officers to take appropriate precautions, even if those precautions do not maximize share prices in the short term. One approach would be to set damages based on a certain number of years of compensation.[128] For example, directors and officers might be liable up to five years of compensation, including the value of both salary and options.

Individual defendants would be likely to find the prospect of returning compensation to be an adequate incentive. But that would only be true if they actually bore the risk. Firms should be barred from indemnifying officers and directors from liability or settlements.[129] Director and officer insurance for liability might be defensible, but if and only if insurers have the capacity to engage in meaningful monitoring of firm-specific risks and translate those risks into tailored premiums.[130] If insurers are unable or unwilling to play that role, insurance against

[128] Armour & Gordon, *supra* note 11, at 69–70. *See also* Dodd-Frank Wall Street Reform and Consumer Protection Act § 954, 15 U.S.C. § 78j-4(b) (2010) (requiring public companies to adopt "claw back" policies that recover executive compensation made on the basis of erroneous and noncompliant financial statements in the three years before the date of filing).

[129] *Cf.* 8 Del. C. § 102(b)(7) (preventing Delaware corporations from waiving director and officer liability for acts including breaches of the duty of loyalty, bad faith action, intentional misconduct, and knowing violations of law); §§ 145(a)–(b) (preventing a Delaware corporation from indemnifying directors and officers unless they acted in good faith, in a manner reasonably believed to be consistent with the corporation's best interests, and in a manner reasonably believed to be lawful). Delaware courts have described *Caremark* violations as violations of the fundamental duty of loyalty. Stone ex rel. AmSouth Bancorporation v. Ritter, 911 A.2d 362, 370 (Del. 2006). As a result, liability cannot be waived. 8 Del. C. § 102(b)(7).

[130] There is evidence that directors' and officers' liability insurers do not play this role. *See generally* Tom Baker & Sean J. Griffith, *The Missing Monitor in Corporate Governance: The Directors' and Officers' Liability Insurer*, 95 GEO. L.J. 1795 (2007) (reporting empirical findings that insurers do not monitor while a policy is in force).

liability would defeat the purpose of the regime and would have to be curtailed.[131]

Of course, directors and officers at high-risk firms might respond to the liability regime by demanding and receiving increased compensation. But this in itself would serve a valuable signaling function: if a company cannot attract or retain qualified candidates without paying sums that are out of line with comparable firms, it would indicate to the market and regulators that there are problems at the company.[132]

E. Plaintiffs

A final design question concerns the best enforcer of the liability regime. A centralized regime placing control in government hands would improve efficiency and reduce the likelihood of meritless strike suits but would introduce a moral hazard concern. To reduce the potential for moral hazard and improve ex ante incentives for corporate directors, the regime could delegate enforcement authority to a third party. While the regime could rely on *qui tam* relators enforcing a broad range of legal rules, shareholders would be a natural candidate.

A system that vested enforcement authority exclusively in the hands of a single federal regulator would reduce the number of investigators, decision-makers, and litigators, reducing frictional costs. It would also reduce the likelihood of meritless strike suits being brought purely to coerce small settlement payouts. Government litigators' pay does not depend on bringing in such settlements. While government lawyers might be tempted to grandstand, it is unlikely that they will receive accolades unless they obtain substantial settlements, which in turn would depend on being prepared to prove wrongdoing.[133]

But under-enforcement would be a serious risk, particularly in the context of a pandemic.[134] The government is likely to be distracted and

[131] Armour & Gordon, *supra* note 11, at 70.

[132] Both executive compensation and investor attention on executive compensation seem to have increased in wake of the COVID-19 pandemic. *E.g.*, Theo Francis & Kristin Broughton, *CEO Pay Surged in a Year of Upheaval and Leadership Challenges*, WALL ST. J. (Apr. 11, 2021), https://www.wsj.com/articles/covid-19-brought-the-economy-to-its-knees-but-ceo-pay-surged-11618142400 [https://perma.cc/8A7T-PK8Z] (noting both increases in compensation and apparent trend of shareholders voting against such packages); Julian Hamud, *Executive Compensation in the Context of the COVID-19 Pandemic*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Feb. 18, 2021), https://corpgov.law.harvard.edu/2021/02/18/executive-compensation-in-the-context-of-the-covid-19-pandemic/ [https://perma.cc/X32X-G8VS] ("[I]ssuers would do well to consider that the pandemic has made executive pay a more salient issue for many investors.").

[133] *Cf.* Coffee, *supra* note 58, at 7–9 (providing skeptical account of agency motivations, but acknowledging that they are incentivized to achieve meaningful victories and show increasing caseloads and recoveries).

[134] *Id.* (noting that agencies face resource constraints and incentive problems); Min, *supra* note 11, at 906–08 (suggesting that government agencies are not reliable enough to serve as effective enforcers).

have limited resources, and it may be subject to concerted lobbying by powerful companies or industry groups. In the midst of a crisis or a fragile recovery, the government would also face a tradeoff between bringing a meritorious claim and keeping companies focused on providing essential goods and services. Because governments would predictably refuse to exact penalties ex post, the regime would do little to improve incentives ex ante.

To avoid these problems and improve ex ante incentives, the regime could delegate the enforcement decision to private parties that would not attempt to trade off recoveries against other interests.[135] By increasing the likelihood that misbehavior would eventually prompt a lawsuit—even if the government would consider a suit destructive ex post—the mechanism would improve ex ante incentives.[136]

There are three basic possibilities. First, the regime could empower various constituencies to enforce enhanced legal duties that are owed to them. Workers could be granted private rights of action to enforce new workplace health and safety standards. More fancifully, purchasers and consumers could be granted private rights of action to respond if important corporations fail to safely maintain reasonable supplies.

There are two basic drawbacks to this approach. It would be difficult for such plaintiffs to prove that they were damaged. Employees can of course claim that they were sickened at work, but they would find it difficult to prove by a preponderance of evidence, particularly if the positivity rate of the surrounding community is high.[137] The regime might simply dispense with causation of injury as an element of recovery. But even if this could be done without creating constitutional problems,[138] it would raise the question of why these plaintiffs were selected. This set of plaintiffs would also be a poor fit for the defendants and damages identified above. Hundreds of employees would not be able to extract meaningful compensation from an action that recovered a few years of director salary. Workers' compensation schemes would provide a more reasonable path to addressing their injuries.[139]

[135] *See* Armour & Gordon, *supra* note 11, at 62, 73–74. Of course, the government could decide to grant immunity after the fact. But legislative inertia would make such immunity far from guaranteed, and targeting liability at directors and officers instead of companies would eliminate the "too big to fail" considerations that often motivate government solicitude for major companies.

[136] This approach is part of a broader class of mechanisms that improve ex ante incentives by using a third party to heighten risks. *See, e.g.*, Aneil Kovvali, *Power Games*, 112 MICH. L. REV. FIRST IMPRESSIONS 73, 80–81 & n.20 (2014); Robert Cooter & Ariel Porat, *Anti-Insurance*, 31 J. LEGAL STUD. 203 (2002).

[137] Hemel & Rodriguez, *supra* note 4.

[138] *Cf.* Spokeo, Inc. v. Robins, 136 S. Ct. 1540, 1547 (2016) (noting that to maintain a suit in federal court, a plaintiff must show an "injury in fact . . . that is fairly traceable to the challenged conduct of the defendant").

[139] Workers' compensation schemes may need to be revised to provide adequate coverage in a

Second, the regime could empower various constituencies to act as *qui tam* relators, creating incentives for them to enforce legal duties that are ultimately owed to the public. This might help reduce the conceptual concerns with selecting this set of enforcers—the enforcers would not need to show that they personally had been injured because they would simply be bringing an action on behalf of the public at large. But some measure of government involvement would likely be required to safeguard the public's interest, which would in turn raise the specter of the government abandoning meritorious claims in a crisis and creating moral hazard problems.[140] It also is not clear that the damages would be adequate to incentivize *qui tam* relators to vigorously investigate and litigate potential claims.

Third, the regime could empower shareholders to enforce these duties.[141] Because institutional investors have economic reasons to care about the overall incentive structure for defendants, and not simply their economic recovery in a given case, limited damages would not be an impediment to successful operation of the liability regime.[142] The selection of shareholders as plaintiffs would also reinforce the idea that the duties involved are closely related to the duties that directors and officers already owe to major corporations.[143] And it would also reflect

pandemic. *See* Dylan Moore, Comment, *Striking a New Grand Bargain: Workers' Compensation as a Pandemic Social Safety Net*, 2021 U. CHI. LEGAL F. 499, 514–518. Still, modifications to workers' compensation would be a more direct route to protecting workers than affording them the right to sue corporate directors.

[140] For example, private parties can attempt to bring a *qui tam* action under the False Claims Act. But the act includes safeguards to ensure that the government has an opportunity to investigate, to take control of the litigation, and to settle or dismiss it. *See* 31 U.S.C. § 3730.

[141] The cleanest approach would grant these powers to shareholders themselves, to enforce through direct lawsuits. An alternative would be to grant the formal power to the corporation, while empowering shareholders to bring derivative lawsuits in the name of the corporation. Derivative lawsuits are normally subject to procedural requirements such as demand upon the board that the corporation pursue redress. *See, e.g.*, Fed. R. Civ. P. 23.1; Del. Ch. Ct. R. 23.1; R. FRANKLIN BALOTTI & JESSE A. FINKELSTEIN, DELAWARE LAW OF CORPORATIONS & BUSINESS ORGANIZATIONS § 13.12 (4th ed. 2021). In typical derivative cases, the demand requirement has the salutary effect of protecting the board's authority: a derivative lawsuit is an asset belonging to the corporation, often addressing a breach of a duty to the corporation, and should be managed like other corporate assets. But it may be a poor fit for this liability regime, which is intended to improve directors' ex ante incentives to focus on resilience.

[142] *Cf.* Elliott J. Weiss & John S. Beckerman, *Let the Money Do the Monitoring: How Institutional Investors Can Reduce Agency Costs in Securities Class Actions*, 104 YALE L.J. 2053, 2122–23 (1995) (noting that institutional investors would make ideal lead plaintiffs in securities class actions because their financial interests are best served by an effective system that polices corporate behavior at appropriate cost). Congress incorporated the suggestion in the Private Securities Litigation Reform Act, Pub. L. No. 104-67, 109 Stat. 737 (1995) (codified in scattered sections of U.S.C.), by adopting a presumption that the moving plaintiff with the largest financial interest in the outcome should be the lead plaintiff. 15 U.S.C. §§ 77z-1(a)(3)(B)(iii), 78u-4(a)(3)(B)(iii). This presumption was intended to encourage institutional investors to serve as lead plaintiffs. R. Chris Heck, Comment, *Conflict and Aggregation: Appointing Institutional Investors as Sole Lead Plaintiffs Under the PSLRA*, 66 U. CHI. L. REV. 1199, 1203–07 (1999).

[143] *See supra* notes 82 to 93 and accompanying text (describing *Caremark* obligations).

the fact that some of the economic externalities created by corporate inattention to pandemic risks are only fully internalized by diversified shareholders.[144]

At the same time, this approach would not foreclose an understanding that there is a public dimension to these problems. For example, Delaware's public benefit corporation statute calls for benefit corporations to declare a public purpose beyond making money for shareholders—but only empowers shareholders with adequate shares in the company to enforce that commitment.[145] In effect, shareholders would be acting as the agents of the broader society by ensuring that corporations running essential businesses are run with adequate attention to their important social role in a crisis.

CONCLUSION

This is a relatively modest proposal, tinkering at the margins of corporate law instead of fundamentally reshaping it. But it is consistent with a rethinking of the relationship between business and government. In the wake of COVID-19, we are—or at least, we ought to be—entering a period of robust government action in which the state assumes greater responsibility for ensuring the safe and resilient production and delivery of goods and services to its citizens. If corporations are set up to work with the social consensus, they can generate enormous value for their shareholders and stakeholders, justifying the trust placed in them by society. If they are set up to fight and undermine the social consensus, they will reduce the effectiveness of government regulation and damage their own standing. A liability scheme would be one useful step toward properly orienting corporations.

[144] *See supra* Part III.B.

[145] *See* 8 Del. C. § 367 (providing that actions to enforce the obligations of the public benefit statute can only be brought by plaintiffs holding at least 2 percent of outstanding shares, or, in the case of companies listed on a national securities exchange, the lesser of 2 percent or $2,000,000 of outstanding shares).