The Chicago School's Coasean Incoherence

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In *Rethinking Domination in the Age of the Externality*, Alyssa Battistoni traces the concept of the "externality" across the past century: from welfare economist Arthur Pigou's "external economies" to Ronald Coase's "social cost."[2] She describes the Coasean project as one of removing the problem of domination from the harm of externalities. It does this by stripping the externality of Pigou's moral judgment: the assumption that pollution is bad. To Pigou, harms caused by pollution were left uncompensated, which necessitated non-market, government intervention. In the *Problem of Social Costs*, Coase struck right at the heart of welfare economics: how was Pigou, or the government, to know how much people value pollution, or their health? Indeed, people observably choose to live near factories rather than move away.

What interests me about this cleansing transformation of the externality is that Coase had proven himself very capable of acknowledging the existence of domination in other aspects of the economy—indeed in the hierarchical nature of the large corporation. He observed that when an employee moves from one department to another "he does not go because of a change in relative prices, but because he is ordered to do so."[3] Importantly, in Coase's original framing these relationships of power were fundamentally different and *apart* from market relations, though influenced by them.[4]

My response to her article explores the ways Battistoni's argument interacts with Coase's *other* paper to have a major influence on the law and economics movement: *The Nature of the Firm*. This article was published in 1937, 23 years before *The Problem of Social Cost*. I ask what we can learn by connecting Battistoni's account of domination in externalities to Coase's earlier work on the corporation. By doing so, I hope to expand upon Battistoni's accounts of the role of both *intent* and *responsibility* in society. I argue, not uniquely, that corporations (or more precisely, the people that lead them and profit from them) have far more responsibility for the climate crisis than the rest of us. Battistoni discusses the many ways our choices are truncated as consumers, and our intentions are perverted. She argues that it is for this reason that we must focus on systems rather than individuals as a force for change. I would like to focus our attention on the particular system comprised of multinational corporations and the *laws* that enable their destruction of our world.

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[1] Associate Professor, Boston University School of Law. I am grateful for the opportunity to comment on Alyssa Battistoni's wonderful article. The piece exposed me to new writers and opened up new ways to read familiar ones.

[2] Alyssa Battistoni, *Revisiting Domination in the Age of the Externality;* A. C. PIGOU, THE ECONOMICS OF WELFARE (London: Macmillan, 1920); R. H. Coase, *The Problem of Social Cost* 3 J. L. ECON. 1 (1960).

[3] R. H. Coase, *The Nature of the Firm* ECONOMICA 386, 387 (1937).

[4] Sanjukta Paul, *Antitrust as Allocator of Coordination Rights*, 67 U.C.L.A. L. Rev. 4 (2020) ("Managerial hierarchies, and the separation of work from ownership, were thus basic to Coase's account.").

Tracing the divergent academic interpretations of Coase and where their influence lands can highlight the law's inconsistent conception of just what a corporation is or should be. In antitrust law, the descendants of Coase highlighted the importance of firms for consumer welfare, as measured by keeping prices low. This interpretation enabled consolidation under the umbrella of a single firm while simultaneously prohibiting other forms of coordination, including through co-ops and unions.[5] But in corporate law, Chicago-style scholars took the position that Coase was wrong: The allocation of resources inside of a firm was ultimately directed by markets with or without the legal fiction of the firm boundaries.[6] This position was first useful in arguing against the corporate social responsibility campaigns of the late 1960s and early 1970s. [7] Eventually, the anti-Coasean firm helped solidify the legal norm of shareholder primacy.

I argue that these synchronous moves put all *moral responsibility* on the consumer, the constituent with the least amount of power, deflecting it from both the corporate manager and the institutional investor. Indeed, the law and economics movement helped to argue for limiting the choices and political power of shareholders over corporations, just as they insisted that profit maximizing was *for the shareholders*.[8] This move was to deny the power of the manager and the corporation. The ways in which the Chicago School interpreted this first Coase paper—and its clear acknowledgement of domination—can shed light on Battistoni's dilemma about moral choices mediated by markets. I argue for resurrecting pre-neoliberal legal conceptions of the corporation as a moral entity and a locus for political change in our fight against the climate crisis.

Nature of the Firm

While it was published in 1937, Ronald Coase undertook most of the research and thought behind *The Nature of the Firm* in a 1931 tour of American corporations. As a twenty-year old, he left England to visit the University of Chicago, which he used as a jumping off point to explore large midwestern manufactures.[9] He was interested in the relationships between General Motors and its suppliers. How did automobile companies decide whether to contract for a certain part or instead produce it in-house? In Coase's telling, part of the genesis for his "make or buy?" question was his early identification as a socialist—a remarkable footnote for someone who grew up to be one of the grandfathers of law and economics.[10] Lenin's plan to run Russia as "one big factory" had made an impression on Coase, as had the ongoing debate among European economists whether a centrally planned economy was even theoretically possible.[11]

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[5] Paul, *Antitrust as Allocator, supra*.
[6] Jensen & Meckling, *supra* ("Viewed this way, it makes little or no sense to try to distinguish those things that are 'inside' the firm (or any other organization) from those things that are 'outside' of it.").
[7] Milton Friedman, *The Social Responsibility of Business is to Increase Its Profits*, N.Y. TIMES (Sept. 13, 1970).
[8] Sarah C. Haan, *Civil Rights and Shareholder Activism: SEC v. Medical Committee for Human Rights*, 76 WASH. & LEE L. REV. 1167 (2019), *citing, e.g.,* Henry G. Manne, *The Myth of Corporate Responsibility or Will the Real Ralph Nader Please Stand Up*, 26 BUS. LAW. 533, 539 (1970).
[9] Often by just showing up and asking to chat. R.H. Coase, *Nature of the Firm: Origin*, J. L. ECON. ORG. (1988); *see also* LEIGH PHILLIPS & MICHAL ROZWORKSI, PEOPLES REPUBLIC OF WALMART 49 (2019).
[10] Coase, *Nature of the Firm: Origin*, *supra*; Paul, *Antitrust as Allocator*, *supra* (using "make or buy" terminology).
[11] Coase, *Nature of the Firm: Origin*, *supra;* Coase, *Nature of the Firm*, *supra*, *citing* E. F. M. Durbin, *Economic Calculus in a Planned Economy*, 46 ECON. J. 676 (1936).

Coase was not the only economist at the time interested in the ways a corporation was *not* a market. His article opens with the quoted observation that the economy was composed of "islands of *conscious power* in this ocean of unconscious cooperation."[12] Scholars were documenting just how much the corporation had grown and changed over the past century, and Coase's inquiry was an "attempt to accommodate economics to the rise of the vertically integrated firm."[13] Coase argued that using the market mechanism itself had costs, and that there were situations in which bringing a certain production process within the limits of the firm would result in cost savings. This is where Coase's conception of "transaction costs" first appears. His prime example points to the efficiency gains of the employer-employee relationship over a contractual one.

To Coase, the leadership of the firm, who he called the *entrepreneur,* played a special role in the economy. The managers' *act of directing resources* reaped efficiency gains over using the price mechanism. Coase defines "entrepreneur" as "the person or persons who, in a competitive system, *take the place of the-price mechanism* in the direction of resources."[14] The firms' limits were defined by managerial skill, or "decreasing returns to management." At some point the firm became too big for the manager to efficiently control production through top-down command, and it became cheaper to outsource a function to the market. Although Coase wrote *The Nature of the Firm* contemporaneously with now-classic accounts of the relationship between corporations and shareholders, he ignored the existence of finance entirely.[15] In Coase's world the concept of *entrepreneur* seemingly merges the investor and corporate manager into a single entity.[16]

While initially ignored, *The Nature of the Firm* was re-discovered by the Chicago School in the late 1950s.[17] The Coasean corporation was used as a starting point to build new legal theories of antitrust that quickly grew to become today's mainstream neoliberal framing utilized by the courts. This reasoning led to the law looking more favorably on corporate consolidation. Academics argued that large firms led to productive efficiencies that redounded to the consumer, the most important constituent in the eyes of the new Chicago antitrust theory.[18] Simultaneously, however, a different group of law and economics scholars argued *against* the Coasean framing in

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[12] Coase, *Nature of the Firm*, *supra*, *citing* D. H. ROBERTSON, CONTROL OF INDUSTRY (1932). The quote famously continues "…like lumps of butter coagulating in a pail of buttermilk."
[13] BARRY LYNN, END OF THE LINE 136 (2005).
[14] Coase, *Nature of the Firm* ("We can best approach the question of what constitutes a firm in practice by considering the legal relationship normally called that of "master and servant" or "employer and employee.").
[15] *Cf.* ADOLF BERLE & GARDINER MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY (1932).
[16] In contrast, Gardiner Means recognized that as the corporation grew in size, so did its shareholder base. He worried that this dispersed shareholder class could not supervise these managers of corporations entrusted with their investment. Means argued that not only the "separation of labor from control" identified by Coase, but also the separation of ownership from control enabled the expansion of firm size. The corporate managers gained dominion over larger areas of economic control just as they lost accountability to investors. Warren Samuels & Steven G. Medema, *Gardiner Means's Institutional and Post-Keynesian Economics*, 1 REV. POLITICAL ECON. 163 (1989), *citing* G. C. Means, "The Corporate Revolution," manuscript of submitted doctoral dissertation, Harvard University, Gardiner C. Means Papers, Series I, Franklin D. Roosevelt Library.
[17] George L. Priest, *Ronald Coase, Firms, and Markets*, 1 MAN & ECON. 143 (2014).
[18] Paul, *Antitrust as Allocator*.

corporate law.[19] They used an inverted version of Coase to argue that the firm was merely a "nexus of contracts," with nothing special about its hierarchical form or managerial structure.[20]

In the 1960s and 70s, the leadership and direction of the corporation became a center of public debate. A wave of consumer advocacy in the form of civil rights boycotts and Nader's raiders launched one attack on the corporation as a political, and potentially harmful, entity in American society. The power of organized labor also experienced a brief resurgence.[21] It was at this time that another corporate constituency, the shareholder, began to emerge as an alternative force for social change.[22] Against these growing pressures, the "nexus of contracts" theory enabled the argument that the corporation was just as constrained by the market as everyone else, there was no managerial discretion to sway.

The idea that a firm was not an entity in its own right but simply a "nexus of contracts," was taken up by Michael Jensen and William Meckling. They put forward a model of the firm in which all parties—workers, consumers, and shareholders alike—enter into voluntary contractual relationships with the legal fiction of the firm.[23] Under this theory, shareholders contracted to gain control over the firm in exchange for taking on the risk of being left holding the bag in the event of bankruptcy. This framing evaporates the hierarchical nature of the firm—the shareholder's residual profits and control power are just part of the contractual terms. This interpretation supported the idea that corporate directors owe their fiduciary duties to shareholders rather than some fictional idea of the corporation—and enabled the "corporate raiders" and layoffs of the 1980s. At the end of the decade, legal scholar William Bratton argued that as neoclassical theorists "purged conventionally conceived power relationships from the firm, they also pushed out the conventional morality that restrains the powerful."[24]

Everything, Everywhere, Externalities

Battistoni reaches a similar a conclusion about the legacy of Coase's other famous paper, *The Problem of Social Costs.* In language resembling Bratton's, Battistoni describes the Coasean project as one of removing the problem of domination from the harm of externalities. It does this by stripping the externality of Pigou's moral judgment: the assumption that pollution is bad. To Pigou, harms caused by pollution were left uncompensated, which necessitated non-market, government intervention. In the *Problem of Social Costs*, Coase struck right at the heart of welfare economics: how was Pigou, or the government, to know how much people value pollution, or their health? Indeed, people observably chose to live near factories rather than move away.

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[19] A.A. Alchian, H. Demsetz, *Production, Information Costs, and Economic Organization*. AM. ECON. REV. LXII, no. 5, 777-795.
[20] Michael Jensen, William Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. Fin. Econ. 305, 311 (1976) ("The private corporation or firm is simply one form of *legal fiction which serves as a nexus for contracting relationships*…").
[21] JEFFERSON COWIE, STAYIN' ALIVE: THE 1970S AND THE LAST DAYS OF THE WORKING CLASS (2010).
[22] William Bratton, *The Separation of Corporate Law and Social Welfare*, 74 WASH. & LEE L. REV. 767 (2017).
[23] Jensen & Meckling, *supra*.
[24] William Bratton, *The "Nexus of Contracts" Theory of the Corporation: A Critical Appraisal*, CORNELL L. REV. 407, 455 (1989).

Battistoni dwells in particular on Coase's understanding of externalities as *mutual* costs. For Coase, the smokestack can only cause harm to health if people choose to live near it: "both parties cause the damage."[25] Like many students and scholars, she finds this framing unsatisfying and digs deep into why: Those suffering from externalities can never come to the hypothetical bargaining table as equals against those benefitting from them. It is not simply a matter of the transaction costs of organizing, she argues, but of differences in power: externalities are a form of domination.[26] In this way, those suffering environmental harms are an exploited class much like the labor class. The market acts to separate the receivers of benefits from encountering and understanding their attendant harms, relieving us of any moral duty to take responsibility for the far-away effects.[27]

Her description of the overwhelming feeling that comes with confronting the morality of consumer choice under supply chain capitalism is compelling and familiar.[28] Taking consumer responsibility "requires reevaluation of our seemingly trivial choices: what we eat; where we live; how we get around; what we wear."[29] One could hope for an alternative world, in which one could trust that their shampoo ingredients were not produced through ecologically destructive means and exploitative labor practices. It is worth asking for a system on which these mental exercises to calculate far-off impacts are not required. As a consumer, as a shareholder. It's exhausting.

While ideal, perfectly competitive, markets would theoretically work to create the tragic powerlessness that Battistoni describes, that description does not fully match the world we currently inhabit. I push back on Battistoni here in pursuit of not letting people unfairly off the hook—and potentially identifying pressure points for change. In a Coasean firm at least, the internal non-market allocation of resources is fundamentally determined by power. What the CEO/investor wants to do mostly flies, unless the employees revolt.

Where the entrepreneur's authoritarianism is crucial in Coase's firm, the Chicago school embraced the Coasean conception of the firm as efficient, but flipped Coase on his head when it came to corporate law, insisting that markets governed both inside and outside the firm, the corporation being but a legal fiction, a "nexus of contracts." Sanjukta Paul makes the point that the Chicago School turns antitrust law, through Coase, into a concern only for consumers.[30] And it *makes the assumption for us*—as we all are consumers—that we would prefer the law to encourage low prices above all else. Under law and economics legal interpretations, the various policy motivations behind old statutes fell away. While the drafters may have intended the Sherman Act to consider the benefits of small businesses, worker power, and "local control"—

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[25] Coase, *The Problem of Social Cost*, *supra*.

[26] Battistoni, *supra*. [Kapp resembles legal realist Robert Hale significantly].

[27] Battistoni, *supra*. "that markets *constitutively* detach intentions from consequences, at both the individual and collective level."

[28] *See also*, Anna Tsing, *Supply Chains and the Human Condition*, 21 RETHINKING MARXISM 148 (2009) ("Supply chains *depend* on those very factors banished from the economic; this is what makes them profitable.").

[29] [I am reminded of an episode of the Good Place]

[30] Paul, *Antitrust as Allocator*, *supra*.

these were inappropriate and inefficient considerations according to judges influenced by the Chicago school.[31]

As my own scholarship has argued, the embrace of "shareholder primacy" and efficient markets ideology has resulted in these same *disempowering* assumptions being made in corporate law.[32] Jensen and Meckling's (anti-Coasean) idea of the corporation assumes that the only thing the shareholders want is an individual firm's stock price to go up. In general, the law now imputes that assumption into firm directors' legal duties.[33] While the law formally states that directors owe duties "to a corporation and its shareholders," courts regularly boil this duty down to share-price maximization. It was for this reason that Twitter's board of directors felt that they legally had to sell the company to Elon Musk, even if perhaps they thought it would be bad for the company—whatever that is.[34]

But every so often courts interpret directors' duties to be *to the corporation* rather than shareholders. In these cases, what is best for "the corporation," is *again* measured in terms of share price. In the context of climate change, I have argued that corporate law should allow large investors to pressure corporations into decarbonizing.[35] Employing a straightforwardly Coasean analysis myself, I argued that for a market portfolio—say, the S&P 500—the harm from future climate damages outweigh the benefits from fossil production over a long-term investment horizon. I put forward a crude cost-benefit analysis to argue that avoiding future lost profits would more than justify the present costs of foregoing fossil profits. A growing number of institutions and scholars have echoed my argument. Recently, the professional association of insurance actuaries in the UK criticized pension fund under-appreciation of climate damages. The group argued that because actuarial modeling expects devastating economic losses in the latter half of this century, decarbonization should become part of a fund managers' fiduciary duty: "if we do not mitigate climate change, it will be exceptionally challenging to provide financial returns."[36]

Nevertheless, corporate scholars today insist that even if a majority of the diversified investors of a fossil-heavy firm *voted* to sacrifice profits in order to decarbonize, existing caselaw would bar firm leadership from doing what the shareholders want.[37] In this case, the court would interpret directors' duties to "the corporation" itself—*as measured* in terms of its shareprice and profits. This heads-I-win, tails-you-lose, approach to interpreting directors duties means that while

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[31] *Id.*; *See also*, Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L. J. 564 (2017).
[32] Madison Condon, *Externalities and the Common Owner*, 95 WASH. L. REV. 1 (2020); Madison Condon, *Climate Change's New Ally: Big Finance*, BOS. REV. (July 28, 2020).
[33] *See generally*, William Allen, *Our Schizophrenic Conception of the Business Organization*, 14 CARDOZO L. REV. 261 (1992).
[34] Ann Lipton, *Every Billionaire is a Policy Failure* (unpublished manuscript, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4442029.
[35] Condon, *Externalities, supra.*
[36] Trust et al., *The Emperor's New Climate Scenarios* (Inst. Fac. Actuar. & Uni. Exeter, July 2023).
[37] Marcel Kahan, Edward Rock, *Systemic Stewardship with Tradeoffs* J. CORP. L. (2023); *cf.* Jeffrey Gordon, *Systematic Stewardship: It's Up to the Shareholders*, Colum. L. Econ. Working Paper No. 666 (2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4521822 (surveying Delaware cases where directors were not held to a duty of single-firm maximization).

formally directors have a duty "to the corporation and its shareholders," in practice their duty is only to some abstract notion of a shareholder with a single, assumed, want.[38]

This is especially troubling when one pulls back the mask of institutional investors. Who are the shareholders of the big polluting corporations? It's often "us."[39] Officially, a significant amount of shareholder "control" is held in the endowments of our universities, the pension funds of public employees, and—increasingly since the 1980s—the 401k's of the professional class.[40] Each month, employers all over America take a slice out of their workers' paycheck and hand it over to an asset manager, to be held in keeping for retirement. It is an intentionally constructed system in which American workers' pay is exchanged for ExxonMobil stock, but shareholder *control* power is retained by a third party, a Vanguard or a Fidelity. When viewed in the light of climate change and externalities, this structural separation of market returns from moral duty is significant. These asset managers "control" enough corporate shares to significantly change the direction of the economy, if they wanted to.[41] But of course, in the eyes of the law, asset managers are corporations too, without wants.

The market is something that is supposed to elicit our desires, but by looking into Coase's legacy we can see how market-based arguments have been used to simply limit our choices—simultaneously removing our responsibility and power. It becomes clearer just how much trying to fight the market is an uphill battle, the price-system is stacked against you—as a consumer, worker, and shareholder.[42] Law and economics enables the position that the corporation cannot carry any social responsibility, and that when "the moral and the efficient diverge" the fault lies "with the consumers who were unwilling to pay to realize their moral preferences."[43]

Low-Bar Common Good

In Pigou's analysis, smoke pollution from a factory is assumed to be bad, requiring state intervention to make the factory pay the full costs of pollution. Battistoni recounts how Coase reframed the externality as an economic exchange between two private parties, one that only justified government intervention in the circumstance where the costs of transacting were too high to overcome. Pigou's world required the government to make a normative decision: that the social negative of the smoke pollution was worse than the social benefits provided by the factory, including jobs. Coase's critique rested on the fact that the government had no basis on which to make this call, how was the government to know how much people valued their health? We know

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[38] *See also*, Lipton, *supra*, (equating the upholding of share price primacy as "vindicating the rights of an abstract notion of shareholder").
[39] Jim Kane, *Here for a Good Time, Not a Long Time: Asset Managers at the Infrastructure Party*, 32 NEW LABOR F. 104, 107 (2023) ("It is not a stretch to say we are negotiating against ourselves and it should not be a stretch to imagine returning to a system that cuts that circuit.").
[40] Benjamin Braun, *Fueling Financialization: The Economic Consequences of Funded Pensions*, 31 NEW LABOR F. 70 (2022).
[41] Condon, *Externalities, supra*.
[42] Cf. Battistoni (pointing out that she cannot pay more for something that causes environmental harm even if she values the environment more than the market does).
[43] Robert T. Miller, *The Coasean Dissolution of Corporate Social Responsibility*, 17 CHAPMAN L. REV. 381, 410 (2014).

how people value things through observing their preferences in the market. With no market, according to Coase, you are left with making paternalistic, normative calls about the relative value of good and bad effects.

It is true. It is hard, and arguably problematic, for a judge to impute desires to large groups of people. Where to draw the line about state correction of externalities is a question Pigou never resolves. But the Chicago school does exactly that as it accuses progressive alternatives of embracing a normative, "paternalistic," version of the common good. The market-based approach assumes we as shareholders only want the stock price to go up, that we as consumers only want the price to down, and that "domination is superior to coordination" as a way of organizing the economy.[44] All of this blossomed, somehow, from Coase's *Nature of the Firm*.

My favorite part of Battistoni's paper was her clarity on the current system's burden of proof: "We do not all need to agree on a common good," she argues, "but we do need to be able to work towards the common purpose of maintaining a habitable planet."[45] One might think that not destroying the planet is a low bar. Yet it is a standard the "free-market" system is observably failing to meet. I would encourage the law to be open to the normative assumption that we would all like to get through this—investors and consumers alike.[46]

Revisiting climate change as an externality

While Battistoni endeavors in good faith to confront Coase on his own terms, as a reader I could not help get caught up in the many ways climate change is not properly characterized as an externality. The Inflation Reduction Act of 2022 is arguably the result of successful campaigns to dethrone the carbon tax as the "optimal" climate policy.[47] A new green industrial policy focuses on capital turnover and the replacement of fossil infrastructure with investment in new green investment. This Bidenomics approach, to quote Ilmi Granoff, considers climate change to be "a substitution problem, not an externalities problem."[48] Indeed, mainstream economists now write that the problem of climate change should be thought of as both externalities and "innovation failures."[49]

This thinking can only go so far—there is currently no non-emitting substitution for a cow, you really do need to simply choose to not eat real meat. And the limits to this green tech

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[44] Paul, *Antitrust*, *supra*.; *see also*, Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynski & K. Sabeel Rahman, *Building a Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L. J. 1874 (2020).
[45] Battistoni, *supra*.
[46] *Cf.* Trust et al., *supra*; Amelia Miazad, *From Zero-Sum to Net-Zero Antitrust*, U.C. Davis L. Rev. (2023).
[47] Leah C. Stokes & Matto Mildenberger, *The Trouble With Carbon Pricing*, BOS. REV. (Sept. 24, 2020).
[48] Ilmi Granoff, @theilmatic twitter.com (Apr. 12, 2023) ("…the core economic problem of decarbonization is not negative externality, but technological substitution."), https://twitter.com/theilmatic/status/1646281472687640576. On "Bidenomics," *see* Harold Meyerson, *It's Hamiltonian! It's Jeffersonian! It's Bidenomics!* AM. PROSPECT (Jul. 3, 2023).
[49] Sarah C. Armitage, Noël Bakhtian, and Adam B. Jaffe, *Innovation Market Failures and the Design of New Climate Policy Instruments* (NBER Working Paper No. 31622 August 2023).

investment solution may indeed have radical implications.[50] But, like economists, I am interested in these "innovation failures." While I retain skepticism about many climate hopes rooted in techno-optimism, I have been struck by how rapidly the window of possible technological solutions has shifted in only the past year. The "hard to abate" sectors now seem eminently more abatable—construction timelines for green hydrogen pipelines are being scheduled. Serious questions about scalability remain, but *all of a sudden* carbon capture has emerged as not only a realistic, but necessary solution.[51] Why now? It just seems suspiciously in the nick of time to me, or a bit late.

I have a clear memory of a fully electric sedan visiting my elementary school in the 1990s. I am not the only one to wonder about what happened to it, a full-length documentary is devoted to the question of *Who Killed the Electric Car?* (2006).[52] Case studies analyze the U.S. solar industry that could have been, had it not been destroyed by the wave of 1980s financialization. Max Jerneck argues that after large energy conglomerates bought up solar entrepreneurs, their disinterest in investing further in solar energy died as short-term financial profits took precedent over R&D and diversification.[53]

Pointing out these alternative futures is meant to give context to my resistance of Battistoni's emphasis on the unintentionality of externalities. She argues that climate change is not "the kind of effect we could *anticipate* until recently."[54] Here, I think acknowledging the role of the corporation is particularly useful. As someone who learned about climate change from a *Time Magazine* article in the mid-1990s, I have long been fascinated by how much we *did* anticipate the effects of burning fossil fuels. A small group of people in particular, scientist and executives at ExxonMobil, anticipated the effects with startling precision in 1977.[55] The American Petroleum Institute and the fossil companies it represented had been warned by physicists in the 1950s.[56] Before that, as early as 1856 Eunice Foote postulated that burning fossils might warm the Earth, after her experiments revealed the heat-trapping nature of carbon dioxide.[57] That her discovery was lost until 2011 says something about power as well.[58]

The concept of an externality never fit perfectly with climate change and fossil fuels. When the United States set up a permit trading system in the 1990s to confront acid rain, the idea was to force companies to "internalize" the cost of sulfur dioxide. They had to pay money to emit it, which led to two main effects. One effect was that installing pollutant-removing scrubbers at the

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[50] But I am going to unsatisfyingly table the question for the purposes of this paper.

[51] I am mostly attempting to summarize received wisdom in the mainstream press. But I also write as someone who was required to take a class devoted substantially to carbon capture technology in the mid-2000s and have watched the industry over the decades. I have been very surprised by how much costs have dropped on technologies such as Direct Air Capture.

[52] Who Killed the Electric Car? (2006)

[53] Max Jerneck, *Financialization Impedes Climate Change Mitigation: Evidence from the Early American Solar Industry*. 3 SCI. ADV. (2017).

[54] Battistoni, *supra*.

[55] G. Supran et al., *Assessing ExxonMobil's Global Warming Projections*, 379 SCIENCE (2023).

[56] Benjamin Franta, *Early Oil Industry Knowledge of CO2 and Global Warming*, 8 NATURE CLIM. CHANGE No. 12, 1024 (2018).

[57] Eunice Foote, Circumstances the Heat Affecting the Sun's Rays, AM. J. SCI. ART. 382-83 (1856).

[58] Katherine Wilkinson, *Why We Can't Forget Eunice Foote's Science Work*, TIME (Jul 17, 2019).

coal-burning plant made more economic sense. The second was that western coal was now cheaper than dirtier, east coast coal. The geographic location of "cleaner" coal deposits had been a key factor underlying the political economy of air pollution regulation for decades. The Acid Rain Trading program has largely been hailed as a success—and been repeatedly used an example for the potential of carbon trading. But when it comes to carbon dioxide and fossil fuels… they are kind of the whole thing. We are burning ancient plants made out of carbon. Carbon isn't appropriately thought of as some incidental, and unwanted, contaminant that you can filter out. This means that polluting less requires more than simply installing a filter or buying a more expensive type of fuel—it means *reinventing the entire energy system*. As Leah Stokes and others have eloquently pointed out, as a political matter this means that industry is likely to be doubly entrenched: the losers are clearly demarcated, but who the winners will be is unclear.[59]

Elaborating on her concept of domination, Battistoni writes, "Capital is not only power over others' labor… *but power over investment and hence purposive action more broadly: over what is produced and how*. It is the power not only over the production of commodities, but over the production of environmental conditions, and increasingly, over the condition of the planet itself."[60] Under the Chicago School, "transaction costs" come to make up the entire friction of externalities—but within that category is the truth that the stakes are hopelessly tilted in favor of the polluter. In the post-atomic plastic age, corporations mastered the ability to bring *entire new compounds* into being—conjure chemicals never seen before, whose qualities and effects were unknown. How should the exposed citizenry know how much to pay to stop the production of the compound no one knows anything about?

Responsibility & Intent

The first Earth Day in 1970 was the largest collective demonstration in American history.[61] When founding coordinator Denis Hayes looks back on the environmental sentiment that had been building in the 1960s, he points to the feeling of living in the atomic age:

> When I was born, Strontium-90 didn't exist. By the time I was a teenager every living creature on the planet had Strontium-90 in its bones or its shells. That is a fairly profound change and we'd done it…This was the first generation that had acquired the power of a geophysical force that could force brand new radioactive substances to be disseminated throughout the entire planet.[62]

I played a film clip of his remark to my environmental law students this spring, as litigation unfolded against 3M and other corporations for the harms of "forever chemicals."[63] Scientists

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[59] Stokes and Mildenberger, *supra*.
[60] Battistoni, *supra*.
[61] It was arguably surpassed by the George Floyd and Black Lives Matter protests, ignited in 2020 and ongoing. Larry Buchanan, Quoctrung Bui, Jugal K. Patel, *Black Lives Matter May Be the Largest Movement in U.S. History*, N.Y. TIMES (Jul. 3, 2020). The 1970 Earth Day remains the largest single-day demonstration across multiple cities.
[62] Earth Days, https://www.pbs.org/wgbh/americanexperience/films/earthdays/.
[63] Lisa Friedman, Vivian Giang, *3M Reaches $10.3 Billion Settlement in 'Forever Chemicals' Suit*, N.Y. TIMES (Jun. 22, 2023).

recently confirmed that "rainwater everywhere on Earth" is now unsafe to drink due to these pollutants.[64] These tiny man-made molecules are so slippery and pervasive they are found in the blood samples of most people.[65] They are also extremely harmful to human health, understudied, and continuing to be produced. While 3M executives may not have *initially* known about their products' harmful effects, the evidence is overwhelming that at some point they knew a lot about its toxicity, and worked to hide it.

The briefly championed corporate governance ideas of the 1970s sought to instill moral concerns into economic direction. As Sarah Haan has unearthed, Milton Friedman's infamous *New York Times Magazine* castigation of the demand for "corporate responsibility" was responding to one movement in particular: "Campaign to Make General Motors Responsible."[66] A small group of shareholders were demanding that General Motors become more "accountable" to the public. They proposed that GM undergo a "social audit," disclosing information on environmental harm and racial discrimination, and appoint new board directors that could represent the views of environmental experts and community leaders. The board candidates proposed by "Campaign GM" were intentionally not white men.[67]

As Battistoni points out, that the allocation of "external" harms has been about power the whole time has been clear to those bearing the brunt.[68] Robert Bullard "the father of environmental justice," described the siting of waste facilities near communities of color as "internal colonialism."[69] Bullard pointed out that it was not simply "market forces" that landed toxic waste sites near poor communities: people made intentional decisions to seek out those communities that would be unlikely to muster the political power to fight back.[70] Others have argued that even without evidence of intentionality, the racial power dynamics enabling the "market" harm remain.[71] Indeed, environmental justice scholars have been making this point about markets hiding morals for decades. Tseming Yang, for example, has argued that a key failing of environmental law's economic utilitarianism is its inability to see minority oppression and the exercise of power.[72]

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64 Rosie Frost, *Rainwater Everywhere on Earth Unsafe to Drink Due to 'Forever Chemicals,' Study Finds*, EURONEWS (Aug. 4, 2022), https://www.euronews.com/green/2022/08/04/rainwater-everywhere-on-earth-unsafe-to-drink-due-to-forever-chemicals-study-finds.

65 Tom Perkins, *PFAS Left Dangerous Blood Compounds in Nearly All US Study Participants*, GUARDIAN (Sept. 29, 2022).

66 Sarah Haan, *Exclusion in Corporate Law* in OXFORD HANDBOOK OF CORPORATE LAW AND GOVERNANCE*, 2nd ed.,* forthcoming*; see also*

67 Donald E. Schwartz, *Proxy Power and Social Goals—How Campaign GM Succeeded*, 45 ST. JOHN'S L. REV. 764 (1971) "(…it is not sufficient that the Board include persons who have concerned themselves with problems of black people; the Board needed a black person. The same is true of a woman, as we develop an increased consciousness of discrimination against women.").

68 Battistoni, *supra*.

69 Robert D. Bullard, *Anatomy of Environmental Racism and the Environmental Justice Movement*, in CONFRONTING ENVIRONMENTAL RACISM: VOICES FROM THE GRASSROOTS 15 (1993) 15-39.

70 *Id.*

71 Sheila Foster, *Justice from the Ground Up: Distributive Inequities, Grassroots Resistance, and the Transformative Politics of the Environmental Justice Movement*, 86 CAL. L. REV. 775 (1998).

72 Tseming Yang, *Melding Civil Rights and Environmentalism: Finding Environmental Justice's Place in Environmental Regulation*, 26 HARV. ENVT'L. L. REV. 1 (2002). ("In essence, the market dynamics perspective makes it that much easier for environmentalists, government regulators, and industry to absolve

Corporations *shape* markets, and can create them entirely. 3M was only able to bring massive amounts of forever chemicals into the world because it worked to create a corporate demand for it. The power to decide what gets invested in, and what does not, holds power to shape the entire future, and constrain future alternatives. The objects that get produced are unfairly described as emanating from collective consumption demands. As young Coase perhaps only semi-understood, corporations are a locus of *planning.*[73] But only a small number of people actually make the decisions—it is *their* version of the future that gets investment. Indeed, Iris Marion Young herself describes the acceptance of a profit-maximizing corporation as the result of a New Deal bargain between capitalists and workers. Workers were promised rising wages and the welfare state in exchange for relinquishing debate about "control over production processes, or investment priorities."[74] In this bargain, distributive issues are the sole focus, while questions about alternative decision-making processes disappear. The corporation becomes depoliticized.

Conclusion: External to What?

Returning again to the origins of the externality, we can see the late 60s and early 1970s as a pivotal era. People were waking up to the collective costs of industrialization, and pushing back against corporate power. Against this democratic wave, the writings of the Chicago School worked to separate one human person into her different roles in the economy—consumer, worker, shareholder. They used the law to solidify the *divergent* interests of these roles, even as they preached the gospel of shareholder democracy and personal choice.

If the chemical progeny of 3M is in all of our drinking water and all of our blood, it is also in the water and blood of the people who control 3M. Like climate change, forever chemicals are challenging to categorize as a simple externality, implying that could ever have been properly "internalized" through a price mechanism. As Battistoni predicts may happen if lawsuits successfully press fossil companies to pay for their climate harms, 3M the company itself may not survive the litigation. Bruno Latour diagnoses our current political moment as resulting from the collective decision of the elite not "to share the earth with the rest of the world."[75] He argues that we cannot overcome climate change until we learn to "live in the same world, … face up to the same stakes."[76] To Latour, the elite are only able to maintain this position through self-delusion. They think they can "escape from the problems of this planet by moving to Mars, or teleporting themselves into computers."[77]

And this is the final way that thinking about climate change through the market and through externalities fails to be useful. It may make perfect sense, but it does not persuade. The last time America had a mass ecological awakening an unfortunate amount of political energy was focused

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themselves from responsibility for addressing societal discrimination and social inequities in ad- dressing the causes of environmental problems.")

[73] *Cf.* [The Lucas Plan]

[74] Iris Marion Young, JUSTICE AND THE POLITICS OF DIFFERENCE 71 (1990).

[75] BRUNO LATOUR, DOWN TO EARTH (2018).

[76] *Id.* at 25.

[77] *Id.* at 30.

on population growth as the root of environmental destruction. Garrett Hardin's Tragedy of the Commons is predominantly an argument for forced population control.[78] This sentiment of *not wanting to share* distracted from other ways of seeing the problem. Fifty years later, the 0.01% wealthiest humans are responsible for more emissions than the poorest 50%.[79] As the science mounts about the *collective* nature of our existential stakes, at some point it is not worth convincing the powerful that they are on spaceship Earth with us. At some point you have to grab the steering wheel.

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[78] Andrew Follett, Birgham Daniels, Taylor Petersen, *The Tragedy of Garrett Hardin's Commons* in CAMBRIDGE HANDBOOK OF COMMONS RESEARCH INNOVATIONS (2021).
[79] Starr et al., *Income-Based U.S. Household Carbon Footprints (1990–2019) Offer New Insights On Emissions Inequality and Climate Finance*, PLOS CLIM (2023).