Ch. 5: But What if Maximizing Profits Destroys the Planet?

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1. Introduction

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We are now in a period in which significant climatic effects of greenhouse gas (GHG) emissions caused by human activity are clearly upon us. According to the most recent IPCC Report, the global average surface temperature in the years 2011-2020 was 1.09°C higher than it was from 1850-1900 (IPCC 2023, p. 4). It is estimated that human activity is responsible for virtually all of this increase. In addition, 2024 was the hottest year on record, with global average surface temperatures 1.47°C warmer than 1850-1900 (NASA 2025). Given that experts have long advocated that we aim to limit warming to 1.5°C above pre-industrial levels (IPCC 2018a), it is clear that we have very little time remaining if we are to have any chance of avoiding warming exceeding that goal.²

The damaging effects of the warming that we are already experiencing are significant, and the potential effects of failing to keep warming within reasonable limits in the future are severe. We have already seen a significant increase in extreme heat waves across the globe. The World Health Organization estimates that in the years 2017-2021 there were 85% more heat-related deaths among people over 65 years of age than there were from 2000-2004 (World Health Organization 2024). In addition, there have been increases in food and water insecurity as a result of warming, in particular in poorer regions near the equator (IPCC 2023, p. 6; Li 2023;

¹ Specifically, it is estimated that greenhouse gas emissions caused between 1 and 2°C of warming. The fact that there has been only 1.09°C of net warming is explained by the fact that human aerosol use has likely caused up to 0.8°C of earling, along with the fact that netwell factors may have caused up to 0.3°C of either warming or earling.

^{0.8°}C of cooling, along with the fact that natural factors may have caused up to 0.3°C of either warming or cooling (IPCC 2023, p. 4).

For more than half of 2024, average temperatures actually exceeded 1.5°C above the 1850-1900 baseline (NASA).

World Bank Group 2022), as well as significant displacement of people from the most affected regions (IPCC 2023, p. 6).

The long-term effects of the additional warming that will occur in the absence of dramatic reductions in emissions over the next few decades will include not only further increases in heat-related deaths, food and water insecurity, and displacement, but also sea level rise that will threaten low-lying coastal regions (IPCC 2023, pp. 13-18) and small island states, increased rates of a range of diseases in many affected regions (IPCC 2023, pp. 14-15), and significant biodiversity loss in land, freshwater, and ocean ecosystems (IPCC 2023, p. 15).³ Importantly, the magnitude of these and other damaging effects will be worse the more warming occurs (IPCC 2023, p. 14). The 1.5°C or 2°C targets that are often referred to, then, do not represent thresholds of any deep significance.⁴ Instead, they merely provide us with potentially achievable mitigation aims that, if met, could limit the damage that warming will bring about to reasonably tolerable levels. This means that even if we do not meet the goal of limiting warming to 1.5°C or 2°C, things will be much worse if warming reaches 3°C than if it is limited to 2.5°C, much worse at 4°C than at 3°C, and so on.

Despite the need for dramatic reductions in emissions trajectories in order to meet mitigation targets, in recent years total emissions have continued to rise. In 2023 (the most recent year for which there is currently complete data), global emissions set a new record high (United Nations Environment Program 2024, p. xii), after the previous record was set in 2022 (United Nations Environment Program 2023, pp. xvi-xvii). Emissions pathways that are estimated to

³ This list is only a small sample of the potentially devastating effects that warming may bring about in the coming decades.

⁴ This is not to deny that there may be certain very important thresholds with respect to warming. There may, for example, be thresholds above which specific large-scale ice-melting events would occur. Because the occurrence of one of these events could trigger massive harms, keeping warming below these thresholds is especially important.

have a greater than 50% chance of limiting warming to 1.5°C involve "deep, rapid, and, in most cases, immediate GHG emissions reductions" (IPCC 2023, p. 20). These pathways require a roughly 48% reduction in emissions relative to 2019 levels by 2030, and net-zero emissions by 2050 (IPCC 2023, pp. 20-21). Pathways that are estimated to have a greater than 67% chance of limiting warming to 2°C require a roughly 51% reduction in emissions relative to 2019 levels by 2040, and net-zero emissions by roughly 2070 (IPCC 2023, pp. 20-21).

Whether we succeed in limiting warming to tolerable levels will depend on a variety of factors. The policies adopted by nation-states are, of course, extremely important, and have been the focus of most of the organized efforts to respond to the climate threat. And, at least in the aggregate, the choices of individuals and non-business organizations with respect to emitting activity will also matter a great deal. Business activity and business decision-making, however, deserve particular attention in our thinking about what must be done with respect to emissions trajectories.⁵

Business activity plays a role in the generation of virtually all anthropogenic emissions. Because of this, the prospects for limiting warming to acceptable levels will depend, to a significant extent, on the choices of business decision-makers.⁶ And because many business decision-makers believe that their central obligation is to aim to maximize profits, it is important to reflect on the relationship between the pursuit of (maximal) profits and the prospects for limiting climate change to tolerable levels in a world characterized by present conditions.

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⁵ For discussion of the nature and grounds of corporations' climate-related obligations, see Hormio (2017); Schwenkenbecher (2018); Collins (2020); Berkey & Orts (2021).

⁶ These prospects are likely to depend, in particular, on the choices that are made by high-level executives of the firms that contribute the most to aggregate emissions, especially fossil fuel firms. As Richard Heede (2014) notes, 90 organizational entities, which he calls the "carbon majors," have both contributed to a significant percentage of the emissions that have already occurred, and control the bulk of the known fossil fuel reserves remaining, most of which must not be burned if we are to limit warming to either 1.5°C or 2°C.

In the remainder of this chapter, I will examine this relationship, focusing in particular on the kinds of arguments that might be made for thinking that there is not a deep conflict between the goal of profit maximization and the goal of an adequate response to the climate threat. I will offer some reasons for doubting that these arguments succeed, and suggest that business decision-makers will at least often not be able to make choices that *both* maximize their firms' expected profitability and contribute (perhaps significantly) more to reducing emissions and putting us on a path toward meeting mitigation targets—they will have to choose between these options. If this is correct, then whether we manage to avoid severe warming, and all of the damaging effects that it would generate, will likely depend, at least to a significant extent, on business decision-makers rejecting the profit maximizing aim over the next few decades.

2. Profit Maximization Principles: Arguments and Implications

In order to assess whether business decision-makers following a principle of aiming at profit maximization is compatible with limiting warming to tolerable levels, it is important to begin by examining the distinct arguments that have been offered in defense of the profit maximization principle, and the central theoretical implications of accepting each of these arguments. There are two central arguments that have been offered in defense of the profit maximization principle, which are often treated as compatible or even complementary. Importantly, however, these arguments actually support distinct and incompatible principles, despite the fact that both can plausibly be labeled 'profit maximizing' principles.

The first type of argument that has been made in support of a profit maximization principle typically begins with the claim that the shareholders of a firm are its owners. It is then claimed that because shareholders own the firm and its resources, managers have fiduciary duties

to shareholders, which are grounded in shareholders' property rights, contractual rights, or both.⁷ These fiduciary duties, in turn, are thought to require that managers aim to maximize returns for shareholders, which is done by aiming to maximize the profits of the firm. We can refer to this as the *Property Rights Argument* for profit maximization.

The second type of argument for profit maximization relies on neoclassical economic theory. A central assumption of this line of argument, and of neoclassical theory more generally, is that we have reason to want business activity to produce as much social welfare as possible, where social welfare is understood in terms of the satisfaction of market agents' preferences. The argument begins by noting that if we assume the idealized conditions of neoclassical models, then universal adherence to the profit maximizing principle will result in maximal social welfare. It is then claimed that this implication of neoclassical models, in combination with the claim that markets in the actual world function in a way that is close enough to approximating the idealized markets of those models, supports the view that managers adopting and complying with the profit maximization principle in the actual world will better promote social welfare than would their adoption of and compliance with any alternative principle or set of principles. The conclusion, then, is that even though markets in the actual world are not characterized by the conditions of perfect competition, the profit maximizing principle is nonetheless the best

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⁷ The most well-known argument of this kind is made by Milton Friedman (1970). The central issues raised by this argument have been widely discussed. For an argument that relies on the claim that shareholders have contractual rights that ground managers' fiduciary duties, see Goodpaster (1991). For an argument that grounds a fiduciary duty that managers owe to shareholders in vulnerability rather than property or contractual rights, see Marcoux (2003). For an argument that managers are obligated to maximize shareholder welfare, and that doing this may sometimes conflict with maximizing profits, see Hart & Zingales (2017). For criticism of the view that the shareholders of a firm are its owners, see Strudler (2017). For criticism of the property rights and contractual arguments in support of managerial fiduciary duties to shareholders, as well as Marcoux's view, see von Kriegstein (2015).

⁸ These conditions include at least the following: Markets are characterized by perfect competition, meaning that there are many sellers of homogenous products and no barriers to entry; all market actors are rational maximizers of their own preference satisfaction; there are no transaction costs or negative externalities; all market actors have complete information, so that there are no information asymmetries.

principle for managers to adopt. We can call this the *Social Welfare Argument* for profit maximization.

In order to see why these two arguments support distinct and incompatible "profit maximization" principles, we can begin by noting that they rely on considerations that play fundamental roles within competing moral theories. Specifically, while the Social Welfare Argument grounds the profit maximization principle in the broadly consequentialist consideration of aggregate social welfare, the Property Rights Argument grounds it in broadly deontological considerations, namely the rights of shareholders. ¹⁰ Importantly, rights are typically understood as constraining what can permissibly be done in pursuit of the best overall consequences. ¹¹ Because of this, the Property Rights Argument should be understood as implying that managers would be obligated to aim to maximize profits for shareholders even if it were known that general adoption of the profit maximization principle would not maximize social welfare. At the same time, the Social Welfare Argument should be understood as denying that shareholders have any rights that imply that managers are obligated to aim to maximize their returns, and that take priority over considerations of aggregate social welfare.

One way that proponents of profit maximization might argue that the two arguments are not fundamentally incompatible is to claim that shareholders' property rights are themselves ultimately justified by considerations of aggregate social welfare. They might claim, for

⁹ Versions of this argument are endorsed by John Boatright (1994) and Michael Jensen (2002). For criticism of the argument, see Jones & Felps (2013a), and for an alternative approach to maximizing social welfare, see Jones & Felps (2013b).

¹⁰ For an overview of consequentialism, see Sinnott-Armstrong (2023). For an overview of deontological ethics, see Alexander & Moore (2024).

¹¹ Importantly, it is moral rights rather than legal rights that are relevant here. For example, those who think that my right to bodily integrity explains why it would be wrong for you to take a kidney from me without my consent, even if you could save a life by doing so, do not typically think that my having the right to bodily integrity depends on the law making it illegal to take organs from people without their consent. Instead, they generally think that the law should be structured so as to protect the independent moral right to bodily integrity.

example, that there is a single underlying justification for both the profit maximization principle itself, and for shareholders' property rights, which is "rule-consequentialist" in form. 12

According to rule-consequentialism, we should adopt and follow the set of rules that is such that adopting and following that set of rules would have better consequences than adopting and following any alternative set of rules. Defenders of profit maximization might claim that just as the Social Welfare Argument gives us reason to think that managers adopting and following the profit maximization principle would be best in terms of promoting aggregate social welfare, there is also reason to think that adopting policies that grant shareholders strong property rights in firms and their resources, and requiring that managers respect those property rights when making business decisions, would better promote aggregate social welfare than any alternative set of policies and practices.

This line of argument, however, cannot fully succeed in making the two arguments compatible. In order to see why, it is important to clarify precisely how the neoclassical models that motivate the Social Welfare Argument require that profit maximization is understood, and compare this with the understanding of profit maximization that is implied by the view that the shareholders of a firm have property rights in the firm and its resources that must be respected.

Neoclassical models assume that the appropriate aim of economic activity is to maximize social welfare over an indefinite time-span. The Social Welfare Argument, then, has a maximally long-term orientation. This means that when proponents of the argument endorse profit maximization as the appropriate aim of managerial decision-making, what they are endorsing is the view that each manager is obligated to aim to maximize the profits of her firm *in the long*

¹² For an overview of rule-consequentialism, see Hooker (2023).

run. This is because it is universal long-run profit maximizing by all firms that, in conditions of perfect competition, will generate maximal long-run social welfare.

The Property Rights Argument, on the other hand, cannot have the same maximally long-term orientation. In fact, it cannot have an especially long-term orientation at all. This is because respecting the property rights of present owners of any particular piece of property cannot require taking into account the prospective interests of future owners of that same property. The Property Rights Argument, then, does not imply that each manager of a firm is obligated to aim to maximize the long-run profits of her firm. Instead, it implies, roughly, that managers are obligated to aim to maximize the returns that will accrue to *present shareholders* over the period of their share ownership.

To see more clearly why this is the case, it is helpful to consider what respecting property rights would require in a case that is in certain respects simpler than cases involving a large number of co-owners (which is how the Property Rights Argument implies we should think of the shareholders of a firm). Imagine, then, that you own a house, and that you hire me to make a range of decisions about it on your behalf, including decisions about essential maintenance, optional renovations, etc. You provide me with access to your bank account so that I can pay the firms that I hire to perform work on the house. You inform me that you intend to live there for roughly ten years, at which point you will sell the property. You also tell me that your primary goal is to generate the highest return possible when you sell it – that is, you want the difference between what I choose to spend on maintenance, renovations, and other expenses over which I will have decision-making authority, and the price that you will eventually be able to sell the house for, to be as large as possible.

Since the house is your property, respecting your property right would surely require that I comply with your wishes, and aim to generate the largest possible return *for you*. Importantly, this might involve doing things that will be quite bad for the long-term value of the house, and for those who will be its *future owners*.

Imagine, for example, that in the year before you are planning to sell the house, I discover that much of the plumbing and the insulation are not up to code, and must be replaced before inspections by potential buyers can take place. I can either order high quality but expensive pipes to replace the old ones, or somewhat cheaper ones that are likely to cause problems for future owners and require expensive repairs. Despite the fact that there is a significant difference between the expected functionality and durability of these pipes, for a period shortly after installation inspectors cannot tell the difference between them, and so choosing the cheaper ones will have no impact on the price that you will be able to get for the house.

Even more significantly, imagine that I can either order high quality and safe insulation, or somewhat cheaper insulation that, while legal, is widely believed by experts to be carcinogenic. I know that very few prospective buyers are informed about the differences between types of insulation or about the dangers of the cheaper type, and that even most inspectors will not be aware of the risks, and so will not flag the cheaper insulation as dangerous. Because of this, choosing the cheaper option will, again, not negatively affect the price that you will be able to get for the house.

With regard to these choices, respecting your property right, and aiming to maximize your return on the house, would require me to act in a way that would reduce the long-term value

of the house, and therefore be detrimental to the interests of future owners. ¹³ Respecting property rights requires prioritizing the interests of present owners over the interests of others (including future owners, who don't yet have any property right to be respected), even when what is at stake for others is much greater. And recognizing this fact about what respecting property rights requires allows us to see that general compliance with the version of the profit maximization principle that the Property Rights Argument supports would not produce maximal social welfare in the long run. Instead, it would systematically support choices like my ordering the cheaper pipes, and sticking a future owner of the house with a large and avoidable repair bill.

An analog of the Social Welfare Argument, applied to my choices regarding your house, would imply that rather than aiming to maximize the return that you, as the current owner, will enjoy, I should instead do what will maximize the long-term value of the house, which would, in effect, require taking into consideration the interests of future owners who do not yet have any property rights to be respected. This would require that I order the more expensive pipes and insulation, perhaps at significant cost to you, the current owner of the property. On this view, your property rights do not entitle you to maximal returns – instead, I, as the decision maker, must prioritize the long-run value of the property, because general adherence to a principle of aiming to maximize the long-run value of property over which one has decision-making authority will tend to promote maximal long-term social welfare.

The structure of the decisions that managers often face is similar to the structure of my decisions regarding your house. The choices that will maximize returns for *present shareholders*,

¹³ Some will be inclined to think that it would be wrong for me to choose the cheaper but likely carcinogenic insulation (or to choose the cheaper and poorer quality pipes), despite the fact that the house is your property. One way to defend this view would be to argue that property rights are sometimes outweighed by competing moral considerations, such as protecting others from deadly risks (or large and avoidable expenses). And if we accept that your property right in your house can be outweighed by such considerations, then presumably we will also accept that even if shareholders have property rights in firms and their resources, these property rights are also sometimes outweighed by competing considerations.

who have property rights in the firm and its resources (if anyone does), will very often not be the same as the choices that will maximize a firm's long-term profits. For example, a business strategy that will predictably generate extremely large profits over the next 10-20 years might also be very likely to lead the firm to go bankrupt shortly after, while an alternative strategy will predictably generate very limited returns over the next 50 years, but have an excellent chance of yielding consistently strong profits for hundreds of years after that. The Property Rights

Argument clearly implies that a manager faced with this kind of choice should choose the first strategy, while the Social Welfare Argument clearly implies that she should choose the second.

More generally, any overlap between what the Property Rights Argument implies that managers should do and what the Social Welfare Argument implies that they should do will be merely coincidental. In addition, there are reasons to think that in at least many (if not most) cases, the implications of the two distinct "profit maximizing" principles will be quite different.

3. Profit Maximization and the Climate

In order to assess whether profit maximization is compatible with an adequate response to the climate threat, we must consider both the principle implied by the Property Rights

Argument (i.e. maximizing returns for present shareholders), and the principle implied by the Social Welfare Argument (i.e. maximizing the long-term value of the firm). While the Social Welfare Argument offers the more plausible basis for thinking that a profit maximization principle and an adequate business response to the climate crisis could be compatible, there are strong reasons to doubt that general compliance with either profit maximizing principle is compatible with limiting warming to the levels recommended by experts.

It is fairly easy to see why managers aiming to maximize returns for present shareholders is very likely to result in a continuation of high emissions and a failure to keep warming within acceptable limits. First, and most importantly, firms in the fossil fuel business, and in particular the largest and most powerful of these firms, would produce higher returns for their present shareholders by extracting as much profit out of the fossil fuel reserves that they currently control as possible over the next few decades than they would by adopting any alternative business strategy. 14 There are many reasons that contribute to making this the case. One such reason is that these firms have significant competitive advantages over potential competitors in the fossil fuel space due to industry-specific expertise and infrastructure that they have developed over a long period of time, and lack these advantages with respect to, for example, clean energy production. In addition, they have the ability to influence policy-making in ways that are favorable to their interests, and in particular their interests in maintaining these competitive advantages, via established lobbying practices and relationships. 15 The combination of these two reasons alone strongly suggests that these firms could not produce higher returns for present shareholders by, for example, aiming to quickly transition the bulk of their business into the clean energy space, or by adopting any other non-fossil fuel focused business strategy.

The efforts of firms working directly in the fossil-fuel space to maximize returns for present shareholders would also have significant effects on what other firms would have to do in order to maximize profits for *their* present shareholders. For example, insofar as fossil fuel firms

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¹⁴ There is reason to think that this is precisely what fossil fuel firms are currently aiming to do. In 2019, it was reported that major oil companies, including ExxonMobil and Shell, were projected to increase their oil production by 35% between 2018 and 2030 (Watts, Ambrose, & Vaughn 2019). And recent reports suggest that these firms are shifting even more heavily toward a focus on fossil fuel production and away from investing in clean energy (Elliott 2024). This is striking because fossil fuel firms have always contributed only a small portion of global investment in clean energy – as of 2023 they contributed 1% of total clean energy investment (International Energy Agency 2023). ¹⁵ It is important to recognize that profit maximizing principles will sometimes require that managers spend firm resources on lobbying efforts that aim to shape policy and the competitive environment in ways that will be favorable to their firms' profitability.

succeed in making fossil fuel-based energy cheaper than clean energy, the majority of other firms will need to continue to rely on fossil fuel-based energy if they are to maximize returns for present shareholders (Berkey & Orts 2021). 16 And because energy use constitutes a significant expense for many firms, the effects of widespread adherence to the Property Rights Argument's profit maximizing principle in conditions in which fossil fuel-based energy is the cheapest available will be substantial. The more general point here is that fossil fuel firms' profit maximizing choices will unavoidably have significant effects on which business decisions will be profit maximizing for other firms. This gives us further reason to think that general adherence to the principle that requires aiming to maximize returns for present shareholders is incompatible with limiting warming to acceptable levels.

It is less obvious that the long-term profit maximization requirement implied by the Social Welfare Argument is incompatible with an adequate response by firms to the climate crisis. One reason that we might initially think that the long-term profit maximization principle must be consistent with a strong response to the climate threat is that the more warming we allow to occur, the greater the net economic losses for the world will be, and one component feature of these losses will be less total profit for firms than could have been realized in a world with less warming. In order to see why this does not show that the long-term profit maximization principle is compatible with limiting warming to acceptable levels, it is essential to recognize the key features of climate change that make it the world's biggest and most difficult collective action problem.

¹⁶ There may be a small percentage of firms with a customer base that includes enough people who are motivated by environmental concerns that spending more money on clean energy sources for their operations is necessary in order to maximize returns for present shareholders, because failing to do so would result in the loss of many customers taking their business elsewhere. Importantly, however, this will not be the case for most firms.

Before examining this, however, it is worth noting just how severe the economic damage of climate change is likely to be, even if we manage to limit warming to what many think is an acceptable level. One study, for example, suggests that emissions trajectories consistent with limiting warming to 1.5°C would save 1.5-2% of gross world product by 2050, and 3.5% by 2100, in comparison with trajectories consistent with limiting warming to 2°C (Burke, Davis, & Diffenbaugh 2018). Even if we apply a 3% discount rate, this amounts to \$8.1-\$11.6 trillion in greater economic damage by 2050 on the 2°C trajectory as compared with the 1.5°C trajectory, and \$38.5 trillion by 2021 (IPCC 2018a, p. 256). To Some of the effects that would likely occur on the 2°C trajectories in comparison with the 1.5°C trajectories, and that will either contribute to causing the greater economic damage, or constitute part of that damage, include greater susceptibility to poverty for hundreds of millions of people (IPCC 2018b, p. 9), increased water scarcity for roughly 8% of the global population, significant reductions in crop yields, especially in Sub-Saharan Africa, Southeast Asia, and Central and South America, and greater exposure to severe drought for roughly 60.5-84.1 million people (IPCC 2018a, 2018b).

There is no question, then, that long-term social welfare, and the long-term profitability of firms in the aggregate, would be better served by limiting warming to 1.5°C or less than by failing to achieve that goal. It is important, however, that the conclusion of the Social Welfare Argument is that each manager is obligated to aim to maximize the long-term profits *of her firm*. And the fact that limiting warming to less than 1.5°C would be best for long-term profitability in the aggregate is no guarantee that each individual manager aiming to maximize the profits of her

¹⁷ In addition, most ethicists and some prominent economists reject applying discount rates that are more than minimal (e.g. 0.1%, representing the small chance of human extinction at any particular point in history) because they think that there is no ethically acceptable reason to treat the interests of future people as mattering less than the equivalent interests of present people (Cowen & Parfit 1992; Stern 2008, pp. 12-17). If we accept this view, then the estimates of how much greater the economic damage is likely to be on the 2°C trajectories than on the 1.5°C trajectories will be even higher.

particular firm would generate the outcome that is best in terms of the long-term profitability of firms in the aggregate.

In order to see why this is the case, we can again begin by thinking about firms in the fossil fuel industry. It is likely reasonable for the managers of at least some of these firms to believe that there is virtually no chance that they will ever be able to be significantly profitable by transitioning into the clean energy field. This may be because they are already too far behind the industry leaders, or because they do not have the ability to recruit the employees that they would need to transition successfully, or for some combination of these and other reasons. Because they have no realistic path to long-term profitability in a world in which energy production is dominated by clean sources, the choices that would maximize their long-term profitability are likely to be very similar to the choices that would maximize their short-tomedium term profitability. This is because there is good reason to think that these firms simply cannot survive the transition to a world powered by clean energy. If we assume that the world will eventually transition to being powered at least mostly by clean energy, then the way for a manager of one of these firms to maximize its long-term profits would seem to be to extract as much profit out of fossil fuel production as possible over the next few decades, with the expectation that the firm will at some point go out of business.

Even if the managers of a firm do not have reason to think that it cannot survive a transition to a world powered by clean energy, however, adhering to the long-term profit maximizing principle will still typically require avoiding any short-term costs that would be involved in pursuing emissions reductions. This is due to the structure of climate change as a collective action problem. Despite the fact that the managers of most firms have reason to prefer, from the perspective of their firms' own long-term profitability, that warming is limited to 1.5°C

or less, they do not have long-term profit maximizing reasons to cut any of their own firms' emissions that contribute to generating profits. ¹⁸ This is because it is only aggregate emissions that will, in the long run, negatively affect any particular firm's profitability. The firm's own emissions will, by themselves, have at most a negligible effect on its long-term profitability, which will always be outweighed by even a small amount of profit that can be generated by continuing to emit. Climate change has the structure of a collective action problem for managers aiming at maximizing the long-term profits of their firms, then, because if each individual manager does what will maximize the profits of her own firm, then all (or at least nearly all) firms will earn less profit in the long run than they would have if each individual manager constrained their pursuit of maximal profits.

The most commonly endorsed solution to collective action problems of this kind is the adoption of a general policy that, either via coercion or via changes to the incentive structure that each member of the relevant group faces, makes it rational for each member to act in ways that will not, in the aggregate, bring about the collectively destructive outcome. In the case of climate change, the most commonly endorsed policy of this kind is a carbon tax, which would impose a cost on emissions so as to incentivize decision-makers to limit their emissions, and would ideally result in emissions being produced only when their production is socially beneficial on net.

While the implementation of a carbon tax would surely be helpful in terms of reducing emissions, there is good reason to think that the managers of at least some firms would be violating even the long-term profit maximizing principle by supporting it. For example, the managers of fossil fuel firms that are unlikely to survive in a world that has transitioned to clean

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¹⁸ They do, of course, have profit-maximizing reasons to reduce emissions by, for example, increasing energy efficiency, which will reduce operating costs. Energy efficiency measures alone, however, are far from sufficient to reduce emissions enough to make even the 2°C target achievable, let alone the 1.5°C target (International Energy Agency 2018, p. 77).

energy would very likely reduce their firms' long-term profitability by supporting a carbon tax, or indeed any policy that would change the incentive structures related to emissions in similar ways. In addition, since at least some of these firms are extremely wealthy and able to influence policy-making via lobbying, their managers not only have long-term profit maximizing reasons to oppose effective solutions to the collective action problem, but also have enough power to potentially prevent a solution from being adopted. And this means that if the long-term profit maximizing principle is the correct principle for managers to follow, then all managers doing what they are obligated to do could leave us unable to avoid severe climate change. In other words, general compliance with even the long-term profit maximizing principle supported by the Social Welfare Argument could destroy the planet.

4. Conclusion

I have offered some reasons to think that profit maximization in a world threatened by severe climate change will leave us unable to adequately respond to that threat. If I am right, this gives us strong reasons to doubt that the profit maximizing principle, in either the form supported by the Property Rights Argument, or that supported by the Social Welfare Argument, can be the right principle for managerial decision-making.

If avoiding severe climate change requires at least some deviations from profit maximization by managers, then it is important to think carefully about precisely when such deviation is morally required, and the principle or principles that might be able to explain these requirements, while also being more generally plausible as an alternative to the profit maximization principle. Climate change presents distinctive and unusually difficult challenges for business ethics, and while I have offered reasons to think that profit maximization cannot be

defended in the face of these challenges, it is not clear that the prominent existing alternative approaches in business ethics can meet them either. The climate threat, then, may require rethinking much of what has been taken for granted in business ethics more generally, in addition to rejecting profit maximization.

References

- Alexander, Larry & Michael Moore (2024), "Deontological Ethics," *Stanford Encyclopedia of Philosophy*, eds. E. N. Zalta & U. Nodelman: https://plato.stanford.edu/entries/ethics-deontological/.
- Berkey, Brian & Eric W. Orts (2021), "The Climate Imperative for Business," *California Management Review (Insight)*, https://cmr.berkeley.edu/2021/04/climate-imperative/.
- Boatright, John R. (1994), "Fiduciary Duties and the Shareholder-Management Relation: Or, What's So Special About Shareholders?," *Business Ethics Quarterly* 4 (4): 393-407.
- Burke, Marshall, W. Matthew Alampay Davis, & Noah S. Diffenbaugh (2018), "Large Potential Reduction in Economic Damages Under UN Mitigation Targets," *Nature* 557 (7706): 549-553.
- Collins, Stephanie (2020), "Corporations' Duties in a Changing Climate," in *Climate Justice and Non-State Actors: Corporations, Regions, Cities, and Individuals*, eds. J. Moss & L. Umbers (New York: Routledge).
- Cowen, Tyler & Derek Parfit (1992), "Against the Social Discount Rate," in *Justice Across the Generations: Philosophy, Politics, and Society, Sixth Series*, eds. P. Laslett & J. Fishkin (New Haven: Yale University Press).
- Elliott, Rebecca F. (2024), "Why Oil Companies are Walking Back from Green Energy," *New York Times*, https://www.nytimes.com/2024/11/18/business/energy-environment/cop-oil-gas-green-energy.html.
- Friedman, Milton (1970), "The Social Responsibility of Business is to Increase Its Profits," *New York Times Magazine*.
- Goodpaster, Kenneth (1991), "Business Ethics and Stakeholder Analysis," *Business Ethics Quarterly* 1 (1): 53-73.
- Hart, Oliver & Luigi Zingales (2017), "Companies Should Maximize Shareholder Welfare Not Market Value," *Journal of Law, Finance, and Accounting* 2: 247-274.

- Heede, Richard (2014), "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers," *Climatic Change* 122 (1-2): 229-241.
- Hooker, Brad (2023), "Rule Consequentialism," *Stanford Encyclopedia of Philosophy*, eds. E. N. Zalta & U. Nodelman: https://plato.stanford.edu/entries/consequentialism-rule/.
- Hormio, Säde (2017), "Can Corporations Have (Moral) Responsibility Regarding Climate Change Mitigation," *Ethics, Policy & Environment* 20 (3): 314-332.
- International Energy Agency (2018), "Perspectives for the Energy Transition: The Role of Energy Efficiency," Paris.
- International Energy Agency (2023), "The Oil and Gas Industry in Net-Zero Transitions," Paris, https://www.iea.org/reports/the-oil-and-gas-industry-in-net-zero-transitions/executive-summary.
- IPCC (2018a), "Impacts of 1.5°C Global Warming on Natural and Human Systems," in *Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty*, eds. V. Masson-Delmotte et. al (Cambridge: Cambridge University Press).
- IPCC (2018b), "Summary for Policymakers," in Global Warming of 1.5 ℃: An IPCC Special Report on the Impacts of Global Warming of 1.5 ℃ above Pre-Industrial Levels and Related Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty, eds. V. Masson-Delmotte et. al (Cambridge: Cambridge University Press).
- IPCC (2023), "Summary for Policymakers," in Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II, and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, eds. H. Lee & J. Romero (Geneva).
- Jensen, Michael C. (2002), "Value Maximization, Stakeholder Theory, and the Corporate Objective Function," *Business Ethics Quarterly* 12 (2): 235-256.
- Jones, Thomas M. & Will Felps (2013a), "Shareholder Wealth Maximization and Social Welfare: A Utilitarian Critique," *Business Ethics Quarterly* 23 (2): 207-238.
- Jones, Thomas M. & Will Felps (2013b), "Stakeholder Happiness Enhancement: A Neo-Utilitarian Objective for the Modern Coroporation," *Business Ethics Quarterly* 23 (3): 349-379.

- Li, Lifeng (2023), "Water Scarcity, the Climate Crisis and Global Food Security: A Call for Collaborative Action," *UN Chronicle*, https://www.un.org/en/un-chronicle/water-scarcity-climate-crisis-and-global-food-security-call-collaborative-action.
- Marcoux, Alexei (2003), "A Fiduciary Argument Against Stakeholder Theory," *Business Ethics Quarterly* 13 (1): 1-24.
- NASA (2025), "Temperatures Rising: NASA Confirms 2024 Warmest Year on Record," https://www.nasa.gov/news-release/temperatures-rising-nasa-confirms-2024-warmest-year-on-record/.
- Schwenkenbecher, Anne (2018), "Why Business Firms Have Moral Obligations to Mitigate Climate Change," in *Disciplining the Undisciplined? Perspectives from Business, Society and Politics on Responsible Citizenship, Corporate Social Responsibility and Sustainability*, eds. M. Brueckner, R. Spencer, & M. Paull (Cham: Springer).
- Sinnott-Armstrong, Walter (2023), "Consequentialism," *Stanford Encyclopedia of Philosophy*, eds. E. N. Zalta & U. Nodelman: https://plato.stanford.edu/entries/consequentialism/.
- Stern, Nicholas (2008), "The Economics of Climate Change," *American Economic Review* 98 (2): 1-37.
- Strudler, Alan (2017), "What to Do with Corporate Wealth," *Journal of Political Philosophy* 25 (1): 108-126.
- United Nations Environment Program (2023), "Emissions Gap Report 2023: Broken Record Temperatures Hit New Highs, Yet World Fails to Cut Emissions (Again)" (Nairobi), https://doi.org/10.59117/20.500.11822/43922.
- United Nations Environment Program (2024), "Emissions Gap Report 2024: No More Hot Air...Please! With A Massive Gap Between Rhetoric and Reality, Countries Draft New Climate Commitments" (Nairobi), https://doi.org/10.59117/20.500.11822/46404.
- von Kriegstein, Hasko (2015), "Shareholder Primacy and Deontology," *Business and Society Review* 120 (3): 465-490.
- Watts, Jonathan, Jilliam Ambrose, & Adam Vaughn (2019), "Oil Firms to Pour Extra 7M Barrels Per Day Into Markets, Data Shows," *Guardian*, https://www.theguardian.com/environment/2019/oct/10/oil-firms-barrels-markets.
- World Health Organization (2024), "Heat and Health," https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health.
- World Bank Group (2022), "What You Need to Know about Food Security and Climate Change," https://www.worldbank.org/en/news/feature/2022/10/17/what-you-need-to-know-about-food-security-and-climate-change.