

**The Carbon Dilemma: Rampant Corporate Polluters and Unambitious Climate Mitigation
Strategy**

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Between the increase in the frequency and severity of extreme weather events, continued environmental degradation and biodiversity loss, and the growing threat of a climate refugee crisis, it is becoming increasingly more apparent that drastic reductions in carbon emissions are essential to the positive prognosis of species life and the planet (Cordero et al., 2020). The University of Chicago News's podcast episode with Michael Greenstone, Director of the Energy Policy Institute of the University of Chicago and Co-founder of the Climate Vault (CV) nonprofit organization, sheds a light on the ferocity of the climate problem and the exigency to incentivize carbon emission reductions with the help of economics and a new market manipulation strategy. The interview features Greenstone's CV cap-and-trade compliance model that is designed to "outbid polluters for the right to pollute" and "revolutioniz[e] the field of environmental economics to combat climate change." The CV carbon mitigation model, while making an effort to propel U.S. domestic markets and investments in a more climate-conscious direction, ultimately poses to do little to actually reduce carbon emissions, only effectively changing the name of the perpetrator of the permitted or "vaulted" emissions. The CV approach to a global climate change problem conforms to the neoclassical economic theory of supply, demand, and the price mechanism and, practically, is not ambitious enough to rise to the climate occasion in that it depends on technocratic solutions to capture carbon and magically alleviate the climate burden, tries to attribute quantified, numeric values to an entirely qualified experience, "leverages existing offset markets" within a fossil-fuel-reliant structure proving to truly not be

revolutionary climate action, and relies on the honesty and integrity of large polluting corporations that have historically cut-corners and manipulated their reported emissions data.

Neoclassical economics is a dominant economic theory “that focuses on supply and demand as the driving forces behind the production, pricing, and consumption of goods and services” (Kenton, 2021). Models of supply and demand illustrate the opportunity cost, ideal rate of return, supply ceilings, and finite amount of market potential under the conditions of a “perfectly competitive market,” which we know to not be the case with the CV due to the cost barrier to entry that assumes all participants have the disposable income to invest hundreds and thousands of dollars in carbon permit allowances to effectively “remove them from circulation.” The CV model ultimately utilizes the “market signal” created by these vaulted carbon permits in which potential customers seek to trade innovative proposals for carbon removal in exchange for a number of the CV permits. The goal of this model is to employ the profit opportunity of the stored emission permits to incentivize investments in carbon capturing technologies; however, the new carbon permit holder is to sell their carbon emission permission “back into the cap and trade market that we purchased it from” leaving one to wonder why we must continually play a game with supply, demand, and product pricing in order to advocate for the survivability of the planet and life on earth as we know it.

The Climate Vault carbon cap-and-confiscate model is highly ineffective without the carbon capture technology that is years from being a viable carbon mitigation option and is not a very promising solution to a larger climate emissions crisis: “[b]anking on them to pick up the slack amounts to a big gamble. It’s not clear these techniques are scalable or that the countries and companies behind net-zero pledges have thought through what *trying* to scale them would

mean” (Aronoff, 2020). It is with the ego and the popularization of the theory of the consumer and the firm that a conviction that humans can navigate their way out of any crisis with the help of technological advancement and the widespread perception of abundance of clean and ready-to-use natural resources contributes to a culture of entitlement and overconsumption (Aronoff, 2020). Greenstone and team have constructed an elaborate structure and plan for carbon emissions, but a key element of their plan for drastic carbon reductions relies on technology that is not yet developed to “save the day” so to speak. In this case especially, it would appear the ideal technocratic solution is not being developed at the rate of the climate crisis, environmental degradation, and the overexploitation of resources.

The UChicago News podcast interview alludes to the existence of a “social cost of carbon” (SCC) or a numeric, dollar value estimate of future damage as a result of the emission of just one ton of carbon dioxide into the atmosphere. The SCC is designed to compete with the profit-driven nature of American society by targeting the wallets of large corporate polluters. Greenstone and the Climate Vault team, after reportedly evaluating the bigger-picture impacts of the atmospheric release of carbon dioxide, allocate a price of \$50 U.S. dollars to every ton of CO_2 emitted into the atmosphere. And because the SCC is evaluating all of the potential future impacts of ton by ton carbon emission, it ultimately seeks to quantify an utterly qualitative and highly varied life outcome which will never accurately represent the human experience within an economic marketplace, this will be to the detriment of the American people. While this SCC metric aims to uncover the *true* cost of carbon consumption, it is nearly impossible to assign a nationwide uniform cost to carbon in a world where there are intangible social, cultural, political, economic, and environmental considerations to be evaluated and prioritized. This effort to

attribute a price to the health of species life and the planet illustrates a great limitation of economics and economic theory. The mathematical models and equations produced under perfect market conditions do not translate to real people, a real planet, real vulnerability, and a market that is not inherently perfectly competitive.

Additionally, the CV carbon compliance model “leverages existing offset markets” within a framework of fossil-fuel reliance. The Greenstone and team nonprofit project does not feature any proposal to transition to renewable sources of energy and invest in green infrastructure that would drastically reduce carbon emissions over time. The cap-and-trade is designed to work within the current economic models adhering to established and climate-threatening market mechanisms in which greed and self-interest govern above all else, and therefore, is not entirely revolutionary in climate action work. Nevertheless, that is all to say that economic theories that are purely concerned with profit maximization, corporate welfare, and the health of their markets will never adequately address the greater climate crisis and any social and environmental justice needs that will work to repair American racial and wealth inequalities (Baker, 2021). The positive prognosis of people and the planet is tied to the pursuit of global climate justice (Stephens, 2020) and efforts to “minimize social and economic costs for those least able to bear them” (Market Based Solutions, 2020). Behaviors learned from a history of neoclassical economic thought and contemporary consumer-firm relations make for a very isolated and individualistic society; however, there is value in looking beyond the bounds of economic structures and towards communities in which social welfare and species and planet health are held in highest regard.

The merit of the Climate Vault carbon reduction proposal lies in the fact that it is not entirely revolutionary to energy markets and the status quo; the proposal is applicable to the here and now. The CV model for capping and confiscating carbon permits across the greater United States is one that could be implemented in the short-term which is not something that could be said about carbon reduction plans that may be considered more aggressive. Yet, Greenstone and team have produced what appears to be another slap-on-the-wrist climate policy in which big corporate polluters are not properly held accountable for their polluting behavior. These failed climate policies are common in scenarios in which the cost associated with the punishment of wrong doing is less than the cost associated with converting technologies and entire systems to be in compliance with new environmental standards. And in line with their need to constantly be cutting-corners and maximizing profit, large fossil-fuel enterprises are notorious for breaking the rules at the expense of people and planet well-being. For example, the BP Deepwater Horizon oil spill of 2010 is an example of how negligence and a refusal to invest in adequate environmental protective measures on the oil rig regarding an unanticipated surge of natural gas, the sealing of the well, and the use of less-resilient nitrogen-based concrete curing to cut down on construction costs and accelerate the oil extraction process resulted in the disturbance of the planet's equilibrium and the devastation of an ocean ecosystem (Pallardy, 2021). In the case of the CV cap-and-trade framework, it is vulnerable to the manipulation of the top industry carbon emitters and a potential disregard for carbon permits, choosing to release carbon dioxide into the atmosphere as they please, because after all, what is the worst thing that could happen to them because of it?

Professor Michael Greenstone and the Climate Vault team have constructed a carbon cap-and-trade compliance model that hopes to assert bargaining power over polluting enterprises and give average American consumers a stake in the fight against large bouts of carbon emissions and the greater climate crisis. The nonprofit will likely drive increases in environmentally and socially conscious investments, and hopefully, raise awareness to the effect large corporate enterprises have on our collective ability to mitigate further destruction to the earth. On the contrary, the Greenstone carbon mitigation strategy is flawed in that it is constructed around the development of technologies that may not live up to their climate relief undertaking, discounts the true social and environmental impact of carbon consumption by trying to associate numeric values to the human experience, perpetuates “business as usual” by not pressuring transitions away from a reliance on fossil-fuel energy sources, and puts unearned trust in corporate polluters to truly adhere to emissions reductions despite a lack of accountability to do so. The CV project adheres to neoclassical economic theories that model systems under ideal conditions that are not representative of real-world conditions in which emotions and vulnerabilities are present and cause human behavior to not always be perfectly rational and predictable.

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