Taxes: An Economic Incentive to Reduce Carbon Emissions

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**Abstract**

Air pollution and the climate change it causes is devastating for many people. To curb climate change, a federal carbon tax should be implemented. This could be done through either a cap-and-trade policy or a federal minimum flat-tax. A cap-and-trade policy would work by setting a maximum limit to emissions through the distribution of emission permits that can be traded to allow the market to decide the best way to lower emissions. The federal minimum flat tax would slowly force every company to emit less and allow various states to increase the pace.

Global warming has caused many issues around the globe. One such issue is the intensification of tropical storms as seen when Trenberth, K. E., Cheng, L., Jacobs, P., Zhang, Y., & Fasullo, J. (2018) discussed the impact of global warming on hurricane Harvey. Even under the assumption that global warming only impacts tropical storms, the problem is still a great one as many of the most populous and economically active regions are coastal (Marbaix, P., Nicholls, R. J., 2007). Given the tremendous risk global warming and its impacts pose, few decisive actions have been taken to curtail it. One important step that ought to be taken immediately is the implementation of a federal carbon tax which would add a direct monetary cost to pollution.

**Cap-and-trade**

A cap-and-trade tax system is a system where companies require permits to emit CO2 and the lower emitting companies can sell their permits to high emitters (Taschini, L., Dietz, S., & Hicks, N., 2013). This system naturally would have a maximum set by the number of permits distributed and the number of permits available would gradually shrink to encourage a reduction in pollution. This system has been shown to work in other nations like Britain and are already being implemented by some states (Plumer & Popovich, 2019). In this version of the federal carbon tax, the federal maximum would be set at 7000 million metric tons of CO­2 and would decrease by 100 million metric ton every year until emissions reach 0 or the law is repealed. The limit is set at 7000 million metric tons of CO2 because that limit is just above the current emissions 6677.8 million metric tons which allows companies approximately 4 years to begin reducing their emissions (“Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks”, 2020). A fine set at double the highest rate a company is selling their permit that year would be in place to discourage any company from ignoring the system.

**Flat tax**

A different system that can be used to tackle this problem is a flat-rate tax. This is simply a tax that impacts everyone equally (Hall, A., 2017). Taxes like this are not just a pipe dream, as similar systems have been shown to work in other nations such as Canada (Plumer & Popovich, 2019). In this version of the proposed solution, the tax would be set at a very conservative $15 per metric ton of CO2 emitted. It would be set that low simply because it would be a minimum that states would have to follow. The system would allow states to choose to tax at a higher rate if they so choose. This would allow states who deem it necessary to lower carbon emissions in their state to do so relative ease as only the state’s officials will know what the state needs while also forcing other states at least do their part to help reduce air pollution due to the federal minimum. Should the states choose to raise the tax above the minimum, they would be allowed to use the additional tax raised however they please. This would act as an incentive to spur states to act, if not in the benefit of others, for their own benefit. The tax would also rise at a rate of $5 per year adjusted for inflation. This would be an integral part of the tax as it would keep the tax relevant and maintain the pressure necessary to lower carbon emissions.

Of the two potential solutions, I believe the flat tax would be the better option. This is because it would be cheaper to implement due to its relative simplicity. The cap-and-trade model would require additional resources to keep a tab on a whole new market based on the trade of carbon permits and to prevent fraud in said market, while the simple flat tax solution would only be adding an additional tax that is aimed at companies.

Opponents of carbon taxes in general would argue it might raise costs for consumers (Austin, J., 2017). They are completely correct; however, 70% of the money generated by the tax would be distributed as a monthly dividend to low- and middle- income households depending on their income. The remainder of the tax money would be invested into infrastructure to protect those at the greatest risk of climate change.

The infrastructure investments will be sorely needed if nothing is done to curtail the carbon emissions and subsequent global warming it causes. Major changes like this tax are necessary to combat not only intensifying tropical storms, but global warming and climate change in general. Swift decisive action is required now; and to do so, find and contact your local congressperson at <https://www.house.gov/representatives/find-your-representative> and tell them you support the implementation of a carbon tax (“Find Your Representative”).

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