I. INTRODUCTION

Carbon taxation has been the topic of academic and political discussions for quite some time.¹ With the exception of some Northern European countries, far too few states or nations have adopted taxation

in amounts likely to impact climate change mitigation positively. However, simply writing off a potential governmentally imposed price on carbon as not feasible is not warranted. First, in a world where we need urgent action from all angles, a carbon tax could prove to be one of several inroads on climate change. There is no one “silver bullet” in this area. Second, since the mere phrasing of the issue as one of “taxation” nearly always elicits negativity in the United States, something as simple as reframing the issue in ways palatable to a broader political spectrum could garner more support. Third, as a younger and more environmentally conscious generation comes into voting age and power, opinions about carbon pricing are shifting.

This Essay will briefly examine how a carbon tax could be imposed, the tax amounts now required after years of inaction, and how carbon tax revenue could be distributed equitably. The latter enjoys support among voters. Carbon taxation could thus still be a two-fold success: while it could help mitigate or pay for climate change, it could also help redistribute income to the people who need it the most. This redistribution could boost the global economy as exceptionally high profits have concentrated wealth in the oil and gas industry while people around the world are suffering from the damage from climate change caused by the wealthiest nations on earth.

II. CARBON TAXATION EXPLAINED

A carbon tax is a fee imposed on the price of fossil fuels and everything produced and distributed by using these fuels in proportion

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Such a tax may also be known as a “price,” “fee,” or other things which may make it more politically and popularly acceptable.

Some experts consider a tax to be the core policy for reducing and eventually eliminating the use of fossil fuels. A carbon tax provides a way for carbon fuel extractors, distributors, and users to pay for the climate damage caused when CO₂ is released into the atmosphere. Thus, “if set high enough, it becomes a powerful monetary disincentive that motivates switches to clean energy across the economy, simply by making it more economically rewarding to move to non-carbon fuels and energy efficiency.” In other words, it becomes one of several possible market-based mechanisms.

Currently, the prices we pay for fossil fuels do not reflect the true cost of climate change. A realistic carbon tax would not only help internalize currently unaccounted-for externalities, but also send a signal to private and institutional users that we need to urgently speed up our energy transition. Prices for gasoline in the United States, for example, are misleadingly low. Consumers, companies, and governments will continue to use more fossil fuels than they would if fossil fuel prices included the full costs of their use.

Instead of adding a tax to products or services at the point of final sale, as is the case with sales taxes, a simplified program could be used in which the price for carbon would be levied upstream at the tanker ports, pipeline terminals, and coal mine heads where fossil fuels first enter the economy or the nation. A carbon tax would be a one-time charge. For example, electric generators would pay the mandated carbon tax to their coal or natural gas suppliers, who would then forward the payment to the government. This approach would maximize accuracy while incentivizing and minimizing paperwork and

7. See id.
8. Id.
9. See BOYCE, supra note 5, at 29.
12. See id. at 53; What’s a Carbon Tax?, supra note 6.
13. See BOYCE, supra note 5, at 53.
leakage.\textsuperscript{14} In the United States, only about 1,200–1,500 fossil fuel energy producers would pay carbon taxes.\textsuperscript{15} In contrast, an end-of-pipe system would require emission monitoring and pricing enforcement at millions of sites throughout the economy in the United States and elsewhere.\textsuperscript{16}

\textbf{A. Legal Mandates}

Sovereign nations can, of course, implement national taxation rules as they see fit. In addition to a regular carbon tax, nations could adopt taxes on “excess profits” in the oil or coal industry. Democrats in the US Senate and House of Representatives introduced legislation during the spring of 2022 that would tax large oil companies for windfall profits and give the proceeds to consumers as a rebate.\textsuperscript{17} In June 2022, US Senate Finance Committee chair Ron Wyden (D-Or.) also floated the idea of a twenty-one percent surtax on oil production to, among other things, blunt inflation.\textsuperscript{18} This “tax would be in addition to any regular income tax due.”\textsuperscript{19} Profits over ten percent would be considered excessive.\textsuperscript{20} Companies with more than US$1 billion in annual revenue would be taxed.\textsuperscript{21} President Biden has supported such a tax, stating that it could help prevent companies from profiteering on the current war against Ukraine.\textsuperscript{22} The European Union recently adopted such a windfall tax on oil corporations, although said policy


\textsuperscript{16} See Metcalf & Weisbach, supra note 15, at 523.


\textsuperscript{20} See id.

\textsuperscript{21} See id.

\textsuperscript{22} See id.
almost immediately caused Exxon Mobil Corporation to announce that it is suing the Union to force it to give up this tax.23

At the international level, the Paris Agreement does not directly call for nations to adopt carbon taxes. Instead, it establishes provisions for enhanced cooperation among nations on climate change mitigation, including market-based approaches such as carbon pricing.24 These provisions are found in Articles 6.2, 6.4, and 6.5, but are very indirectly worded.25 However, some calculations have shown that cooperation through Article 6 could reduce the cost of implementing nationally determined contributions (“NDCs”) by as much as half,26 so a national taxation scheme is worth examining for many reasons.

In addition to the Paris Agreement, an international treaty could be adopted similar to the OECD/G20 Inclusive Framework on Base Erosion Project (“BEPS”).27 That agreement allows nations suffering financial injury caused by an inability to levy taxes on products in their territories, but sold by companies headquartered elsewhere.28 This situation has become common in today’s globalized and often online market.29 Similarly, a multilateral tax agreement on at least “excessive profits” on oil and gas, also as regular sales taxes on fossil fuels, could be adopted. This would help nations already suffering from loss and damage due to climate change bear such costs.30 Again, it would also serve important market-based signaling and further energy transition purposes.

25. See id.; see also Paris Agreement to the United Nations Framework Convention on Climate Change art. 6, Dec. 12, 2015, T.I.A.S. No. 16-1104.
28. See id. at 8, 14-15.
29. See id. at 13.
30. See Arun Advani et al., What is the Case for Carbon Taxes in Developing Countries?, INST. FOR FISCAL STUD. (Nov. 4, 2021), https://ifs.org.uk/articles/what-case-carbon-taxes-developing-countries [https://perma.cc/EFU4-YMN4].
However, as is frequently the case with treaty development, slow progress may be expected in the context of the development of any international carbon taxation treaty. However, it is noteworthy that the OECD/G20 Inclusive Framework on BEPS was negotiated and drafted in little over six years. This is not long in the treaty development world.

B. Existing Programs

Currently, twenty-seven countries and regions have operationalized a carbon tax either in the form of direct taxation or as a cap-and-trade system, which also places a price on carbon. Furthermore, sixty-four carbon pricing initiatives are in force across the globe on various regional, national, and subnational levels. Taken together, however, these initiatives covered only twenty-one and a half percent of global greenhouse gas emissions in 2021. More work is clearly needed.

The largest and most famous pricing system is arguably the EU ETS, a “cap-and-trade” system covering emissions from factories, power plants, and other installations in thirty countries (all EU countries plus Iceland, Liechtenstein, and Norway). In turn, this covers around forty percent of the European Union’s GHGs. In North America, California and a few other US states have also enacted some versions of cap-and-trade. In Canada’s new federal scheme, ninety percent of the carbon tax’s revenue will be returned to residents and...
thus not take the form of a business-to-business revenue shifting scheme.\textsuperscript{40}

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\textbf{C. Amounts and Revenue Distribution}
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Currently, carbon tax rates vary significantly among the different systems in use, from around US\$0.30 per ton in Ukraine to nearly US\$75 per ton in the European Union.\textsuperscript{41} Sweden’s program goes the furthest. There, companies pay approximately US\$200 per ton of carbon emissions.\textsuperscript{42} While carbon prices tend to be higher in Europe, most carbon pricing systems outside the continent charge less than US\$20 per ton of carbon, with many charging less than US\$5.\textsuperscript{43} Worse, many countries go so far as to subsidize fossil fuels through policies that are tantamount to a negative carbon price.\textsuperscript{44} For example, an International Monetary Fund study reported that as of 2015, direct fossil-fuel subsidies amounted to US\$333 billion a year worldwide.\textsuperscript{45} This is equivalent to subsidies of about US\$10 per metric ton CO\textsubscript{2}—roughly five times higher than the world’s average global carbon price of US\$2 per metric ton CO\textsubscript{2}.\textsuperscript{46} In other words, the average carbon government “price” in the world today is minus US\$8.\textsuperscript{47}

Calculations of an appropriate tax vary, but economists agree that an effective tax will have to be much higher than what is currently the case. For example,

Setting the global average price of carbon per ton[\ldots] significantly higher at $100 or more is necessary right away to incentivize net zero emissions by 2050, according to a \ldots poll of climate economists \ldots That is significantly higher than where most

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\item \textsuperscript{40} Stefano Carattini et al., \textit{How to Win Public Support for a Global Carbon Tax}, 565 NATURE 289, 291 (2019).
\item \textsuperscript{42} Id.
\item \textsuperscript{43} Id.
\item \textsuperscript{44} \textit{Fossil Fuels Consumption Subsidaries 2022}, IEA (Feb. 2023), https://www.iea.org/reports/fossil-fuels-consumption-subsidies-2022 [https://perma.cc/A89L-ZFPR].
\item \textsuperscript{45} BOYCE, supra note 5, at 34.
\item \textsuperscript{46} Id.
\item \textsuperscript{47} Id.
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countries who set the price currently have it, including among high carbon emitters.48

This price is also higher than the US$75 per ton by the end of this decade recommended by the International Monetary Fund.49 The High-Level Commission on Carbon Prices has also estimated that carbon prices of at least US$50–100 per metric ton CO2 by 2030 are required to cost-effectively reduce emissions in line with the temperature goals of the Paris Agreement.50

A carbon tax can help generate equality at the national or even global levels. The primary way that a carbon tax could do so is to take the funds it raises and redistribute them to lower-income communities. This redistribution can be an effective tool in reducing poverty.51 If not carefully implemented, a carbon tax would be regressive and thus exacerbate inequality because low-income households spend a greater share of their income on carbon-intensive goods.52 Instead, “devoting [a] carbon tax revenue to fund a carbon dividend [to be paid out to low-income people] makes the policy progressive.”53 Thus, what may initially be a regressive tax can, if correctly designed, become a progressive tax. Contemplating how carbon tax policies affect already existing inequalities on the basis of race, ethnicity, age, and urban-rural status is also important.

III. GLOBAL ENVIRONMENTAL JUSTICE

The revenues from a carbon tax could be used in a progressive way that generates immediate net benefits for low-income groups,54 which could be done both nationally and globally. It is an important oversight that global policy analysis has not incorporated progressive

49. Id.
50. SANTIKARN et al., supra note 26, at 7.
53. Id.
54. See Budolfson et al., Climate Action With Revenue Recycling Has Benefits for Poverty, Inequality and Well-Being, 11 NATURE CLIMATE CHANGE 1111, 1115 (2021).
revenue recycling models. Instead, research has often presumed that climate action must harm the current poor, where the opposite is actually the case. For example, examining the impact of the equal per capita refund on all income groups in the United States, China, and India—chosen to represent countries at all levels of wealth—shows that more than half of the population (namely those in the lower income groups) benefits in the short term, especially those in the bottom quintile. In India, for example, the lowest forty percent of the population would never experience any loss from a carbon tax. This monetary distribution has a positive effect on alleviating poverty in not only rich, but also poor countries.

At the international level, taxes could even be redistributed from developed to developing nations, many of which already suffer from loss and damage due to climate change caused by the historical emissions by wealthy nations. This could help create a true version of a “universal basic income” (“UBI”), although shifting tax revenues from one nation to others would, to be sure, be politically difficult in most developed nations. Only very few nations have, somewhat similarly, volunteered to pay damages (“reparations”) for past climate change actions. For example, Denmark became the first United Nations Member to agree to such payments. The small nation will direct approximately US$13 million to assist vulnerable nations that have already suffered loss and damage because of climate change. This amount is not much, given the scale of the surfacing damage and attribution science. Much more will be needed from an equitable standpoint. However, in the United States, routing carbon tax revenue to other nations is likely to be politically unfeasible despite our status as the world’s historically greatest greenhouse gas emitter. But as

55. See id.
56. See id.
57. See id.
58. Id.
59. See id.
62. Id.
mentioned, even if the tax revenue generated remains within individual nations, it will still serve a valuable market-based function in the energy transition we need.

IV. POLITICAL RESISTANCE AND SUPPORT

In the United States, people are wary of policies with visible costs, even if they want the more abstract benefits of such policies.63 Of course, most people are concerned about prices in general, including, as became very visible in 2022, the rapidly increasing price of fuel. This is not only an American phenomenon: in France, the government was forced to scrap plans in 2018 to boost a surcharge on fuel following a months-long revolt by “yellow vest” protesters.64

In the climate context, people “want both cheap and clean.”65 But even suggesting direct taxation can be a huge political liability.66 Taxes are simply not very popularly acceptable in the United States. Thus, American politicians “care about political viability first, and economic optimality later (if ever).”67 “Only a few jurisdictions, such as many of the Nordic countries, enjoy overwhelming political support for ambitious climate policy and thus can tolerate the high visible costs it can entail. (Even there, the costs are less visible because regulation gets used for the most expensive policies.)”68

However, the political climate may finally be changing for the better in the context of climate change and the action needed to curb it. A December 2020 poll showed that sixty-six percent of registered voters would support making fossil fuel companies pay a carbon tax.69 The respondents favored using the revenue to reduce other taxes (such as the federal income tax) by an equal amount; i.e., making it a revenue-neutral carbon tax.70 “As consumers become more engaged [in societal

65. CULLENDARD & VICTOR, supra note 63, at 35.
66. See id.
67. Id.
68. Id. at 36.
70. See id.
issues], they expect the same of businesses. In fact, a majority (65%) of respondents expect CEOs to do more to make progress on societal issues, including reducing carbon emissions, tackling air pollution, and making business supply chains more sustainable.”71 Thus, corporations may see pressure from both governments and customers to price carbon differently than what is currently the case.

Other research similarly shows that as long as any carbon tax revenues are used for renewable energy research and development, a majority of the American population supports it. For example, if a tax’s revenue was returned to people with an income tax rebate, fifty-six percent of voters would support it, while only twenty-eight percent would oppose it.72 If the revenue was used for renewable energy research and development, as many as sixty percent of Americans would support it, while only thirty-seven percent would oppose it.73 It is clear that Americans are not in favor of paying higher taxes in general, but if they can visualize tangible effects, the result might be different.

Overall, climate change remains a political issue.74 Seventy-eight percent of Democrats consider it to be a top priority, while Republicans do not.75 It is also a regional one, with people in coastal states believing that climate change is anthropogenic while people in the South, Mideast, and Prairie states still do not believe so to the same extent.76

As the balance of power in Congress remains slim, it is important to frame the issue of carbon taxation and climate change action in general in terms upon which conservatives may also agree. For example, instead of using the divisive phrase “climate change,” the issue is also one of “clean air and water.” Similarly, a carbon tax would form part of a market-based solution with money not remaining in government coffers. Conservatives prefer such solutions. Although it may seem trite, even the word “tax” itself could be substituted with other more palatable phrases such as “climate fees,” “renewable energy

73. Id.
75. Id.
76. See id.
surcharges,” “public benefit funds,” or “social benefit charges.” It is important to avoid creating a language barrier that may instantly turn off an audience.

V. CONCLUSION

There is no way around it: paying taxes hurts. Rising prices and inflation hurt. But carbon pricing can be designed so that it hurts the poorest people and nations the least. These are among the stakeholders who also stand to suffer the worst consequences of climate change. Taxes are a form of revenue shifting that happens in many other contexts. When it comes to what is arguably the worst problem faced by modern society, it seems especially apt to more seriously consider and support a tax that can contribute to the energy transition away from fossil fuels that we know we have to complete within, now, very few years.

The time window for halting potentially catastrophic climate change is closing on us dangerously quickly. We know that we do not have the luxury of continuing to debate whether one potential solution is better than the other. What we need to do first is to curb today’s out-of-control climate change. Many steps can be taken to do so. Adopting carbon pricing is one of them. Once we have gotten climate change under control – and it is important to remain positive that we can still do so – we can revert to discussing the viability of, for example, carbon and other taxes. For now, we have to take action in this and related areas.

77. RABE, supra note 72, at 237.