

REFORMING THE FEDERAL GOVERNMENT'S CARBON TAX PLAN

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As a cornerstone of its climate policy, the federal government implemented a national carbon tax in 2019. On April 1, the carbon tax is expected to rise from \$65 per tonne of emissions to \$80, with further increases planned until it reaches \$170 per tonne by 2030.

It is widely acknowledged that carbon taxes are the most efficient way to reduce greenhouse gas (GHG) emissions and address climate change.¹ However, the design of such taxes is critical, and the tax must meet certain conditions to deliver cost-effective emissions reduction.² Currently, the federal government's carbon tax plan contains serious design flaws that will unnecessarily harm Canada's economy.³

This essay argues for reforming the federal government's carbon tax plan to mitigate its negative economic impacts. Rejecting the carbon tax plan entirely would likely result in more costly and less flexible policies in the future—such as more regulatory measures or subsidies, which would not be in Canada's best interest.

Absence of corresponding GHG-related regulations and mandates

First, for a carbon tax to be efficient, it must replace existing GHG-related regulations or mandates (McKittrick, 2016). In Canada, however, the federal government has simply layered the carbon tax atop various regulations, subsidies, and sector-specific mandates including GHG caps on the oil and gas industry, EV mandates, and marine tanker bans. To enhance the cost-effectiveness of the carbon tax, the government should repeal existing GHG-related policies since they undermine the economic logic of the carbon tax.

Revenue neutrality

To further minimize the economic harm of a carbon tax, it should be “revenue neutral,” meaning that government should return all carbon tax revenues to taxpayers rather than use the revenue to fund government expenditures.

Currently, the federal government allocates 90 percent of carbon tax revenue to taxpayers through rebates to households, while the remaining 10 percent funds climate-related subsidies to businesses, municipalities, and other grant recipients.

Economic literature suggests that recycling carbon tax revenue through rebates to households is less economically efficient than adjusting tax rates (Murphy, 2019). In an ideal scenario, to design a revenue-neutral carbon tax, the government would reduce broad-based tax rates on corporate and personal income (McKittrick, 2016).

However, due to Canada's federal system and the variation in the implementation of the federal carbon tax across provinces⁴ and territories, it might be too complex for the federal government to use carbon tax revenues to reduce marginal tax rates in provinces without a federal carbon tax plan. In that case, the federal government should return all carbon tax revenue (not just 90 percent) to households through lump-sum rebates.⁵

Optimal carbon tax rate

The price of carbon is set according to the “social cost of carbon” (SCC), which is a monetary value of the global damage expected from an additional tonne of CO₂ emissions for a given year.⁶ There are various estimates of the SCC.

The federal government updated the Canadian SCC estimate in December 2022, introducing five-fold increases in the estimate of the cost per tonne of Canada's emissions. However, these high estimates are based on flawed/unrealistic assumptions about climate sensitivity, agricultural productivity impacts and mortality

costs from climate warming (McKittrick, 2023). Therefore, the government should revisit the revised SCC to establish a reasonable carbon price.

In addition, any carbon tax will impair economic activity especially when the tax is applied alongside existing taxes such as income, corporate, and sales taxes (McKittrick, 2016). Therefore, an optimal carbon tax should correspond to the social cost of carbon deflated by the Marginal Cost of Public Funds (MCPF), which gauges the excess economic burden of taxes (McKittrick, 2019).

According to Dahlby and Ferede (2022), in 2021, the MCPF was 2.86 for federal personal income tax (PIT) and 2.02 for federal corporate income tax (CIT). Assuming a conservative estimate of 2.0 for the overall national MCPF, the optimal carbon tax should be approximately half of the estimated social cost of carbon.

Coverage

To ensure efficiency with respect to the volume of emission reductions achieved, the carbon tax should apply to the widest possible base of economic activity (Murphy, 2019). This means taxing all potential GHG emissions from various fuel types and users at a consistent rate, regardless of origin or method of generation (Parry, 2012).

Currently, the national carbon tax lacks even coverage for two reasons. First, Quebec is exempt from the federal tax because of its tradable emissions permits system, but the settlement price for those permits is much lower than the federal carbon price (Globe and Mail Editorial Board, 2023). Second, in response to political pressure, the federal government recently exempted heating oil, primarily used in the Atlantic provinces, from the carbon tax for three years (Major, 2023).

To address the first issue, the federal government could create a uniformity rule, for instance mandating that the national carbon price will be equal to the minimum price currently in place in any jurisdiction deemed to have an acceptable carbon-pricing system, according to federal guidelines. This will prevent jurisdictions within Canada from gaining unfair advantages in domestic trade. To address the second issue, the government should avoid creating tax carve-outs for political reasons. If the government believes the underlying theory that the carbon price reflects a genuine social cost, then there is no case for exempting certain fuels and not others. The government can address concerns about impacts on low-income households through the revenue-recycling mechanism.

Mitigation of competitiveness concerns and preventing carbon leakage

The carbon tax threatens the competitiveness of some Canadian industries, especially those with high emission intensity and significant exposure to international trade.⁷ Carbon border adjustment mechanisms (CBAMs)—tariffs on carbon-intensive imports—have been proposed to address this. This option would need to be assessed carefully to determine if Canada would yield net benefits.

Conclusion

According to current scientific understanding, GHG emissions are a negative externality of production and consumption (Nordhaus, 2014). Governments have different options to address this negative externality, including command and control regulations, subsidies, tax credits, or market-based mechanisms like a carbon tax.

Of all the options, it is widely acknowledged that a carbon tax allows the most flexibility and cost-effectiveness in the pursuit of society's climate goals. The federal government has an opportunity to fix the shortcomings of its carbon tax plan and mitigate some of its associated economic costs.

Repealing the carbon tax while attempting to achieve the equivalent CO₂ emissions reductions will require the implementation of more costly measures such as regulations, subsidies, and tax breaks, which may be less visible than a carbon tax but are more economically costly. Such policies would not serve the best interests of Canadians.